PRODUCT CATALOGUE

GRIP

Innovative and solution driven tool changer technology

GET YOUR GRIP ON.

"Our creativity is your added value."

"My responsibility is to create a cooperative and constructive working environment which allows my team to be at its creative best." Hasan Canti

The GRIP Team

We are always at your service

Sustainability

Grip goes green

We have one planet. It is our duty to become more efficient, conserve energy, and reduce our CO_2 Footprint. To be more conscious and sustainable in our choices.

Social Responsibility

Be socially responsible in our thinking and actions. Improve the lives of those less fortunate and donate to charities and organizations.

TABLE OF CONTENT

Manual tool changers

Automatic tool changers

Feeding through

Gripping

Accessories

MANUAL TOOL CHANGERS

One connection – 1000 possibilities

- Lightweight, robust, accurate, fast, efficient, intuitive
- Made of high-strength aluminium or steel
- Connection interface according to ISO 9409–1
- Simple, fast and intuitive operation
- Cost-effective
- Quickly accessible

Innovative, precise, modern, intuitive and fast - these are the main characteristics of the Tool-Changer from the German manufacturer GRIP GmbH. Standardize the interface for your industrial robot or cobot - connect and disconnect any tool in seconds.

SHW Connector

The SHW end of arm tool changer consists of a cylindrical bolt which locks the upper and lower assembly together. A centering disc can be installed on both the upper assembly (robot side) and lower assembly (tool side) of the robot and ensures that the end of arm tools are correctly aligned with the robot arm.

SHW–P Connector

The SHW-P Connector is an evolution of the SHW Connector. The SHW-P Connector has integrated pneumatic feed–throughs which allow it to be used in wider variety of applications. The new SHW-P tool changer is 100% compatible with the standard SHW Connector.

MGW Connector

The MGW is our universal tool changer for almost every application and we have made it even better! The new system is of higher quality and offers more safety and accuracy. The innovations are a response to the current requirements of our customers. A centering disc can be installed on both the upper assembly (robot side) and lower assembly (tool side) of the robot and ensures that the tools are correctly aligned with the robot arm.

SWS Connector

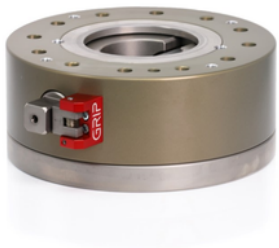
The SWS Connector is our tool changer for applications with increased force and torque loads. The semi-cylindrical bolt accurately joins the upper and lower assembly without play. A centering disc can be installed on both the upper assembly (robot side) and lower assembly (tool side) of the robot and ensures that the tools are correctly aligned with the robot arm.

SWA Connector

The SWA Connector has a very low-profile tool changer for applications with limited space. The transverse screw clamps the upper and lower assembly of the SWA with two wedge–shaped locking flanges, creating a form-fit without any play.

Base Connector SHW160 & SWS200

They allow quick and easy removal of the entire robot arm. he robot arm is bolted to the quick connect system, which in turn is bolted to the table or cell. This manual connection system allows companies to use the same robot in multiple different cells without having to unscrew the robot each time. A simple lever allows the robot to be released from its current position and moved to a new position. The whole process takes only a few seconds. This allows companies to use the robots they have more flexibly and optimise the use of their resources.



SHW CONNECTOR

The SHW Connector is a manual end of arm tool changer with an optimized locking mechanism. The tool changer consists of a cylindrical bolt which locks the upper and lower assembly together. A centering disc can be installed on both the upper assembly (robot side) and lower assembly (tool side) of the robot and ensures that the tools are correctly aligned with the robot arm.

SHW Connector Advantages:

- Interface according to DIN EN ISO 9409–1
- High repeatability < 0.02 mm
- Durable – over 5000 application changes with no loss in accuracy
- Withstands high loads with low dead weight
- Toolless due to integrated operating lever
- Improved operating lever with pure folding movement
- Intuitive operation: can be released and closed with one hand
- Lightweight made of high-strength aluminum, anodized
- Integrated mounting surface for energy feed-through
- Locking pin secures the hand lever against unintentional release

SIZES

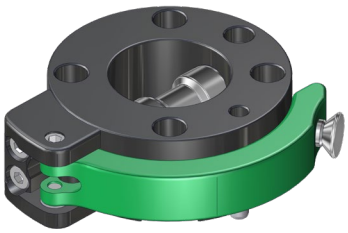
SHW050
SHW063
SHW080
SHW100
SHW125
SHW160

G-SHW050

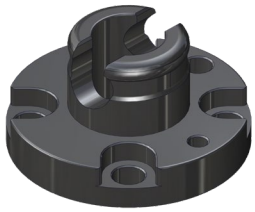
Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Interface according to DIN EN ISO 9409-1



1

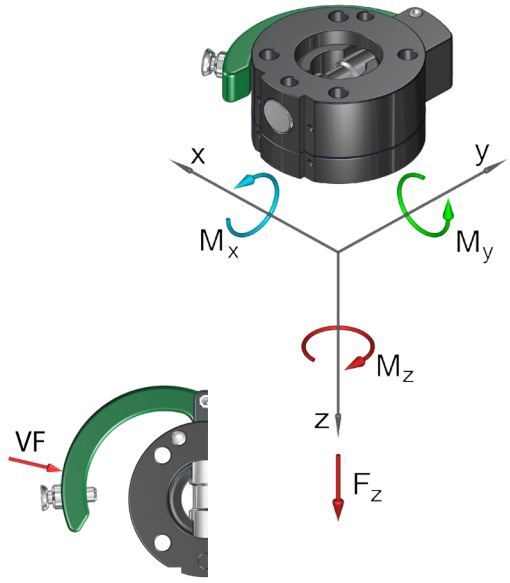


2

Technical specifications		SHW050
Basic material		Al. anod.
External diameter x height [mm]		50 x 32
Pitch circle diameter [mm]		40
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		540
Compression -Fz [kN]		48
Torsion Mz [Nm]		54
Bending Mx, My [Nm]		50
Mass [kg]	upper assembly	0,13
	lower assembly	0,05
Recommended load [kg]		8* / 12**
Locking force VF [N]		4 - 50
Locking stroke VH [mm]		0 - 0,8
Operating temperature range [°C]		-30 to +120

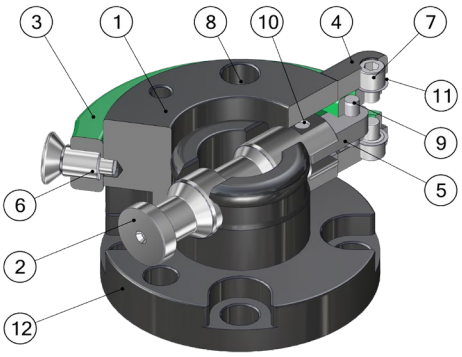
* This guideline applies to the following assumptions:
Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

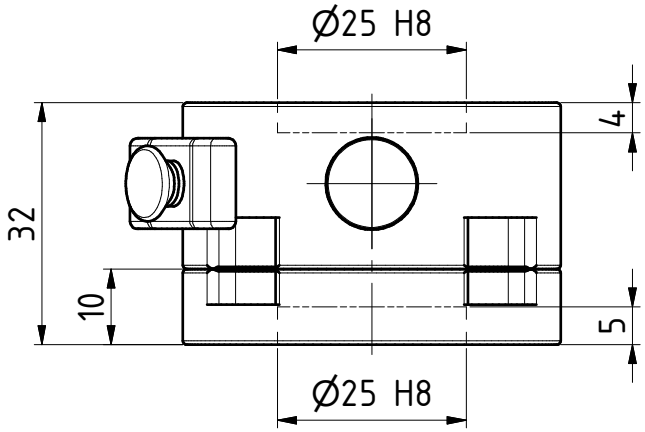
** This guideline applies to the following assumptions:
Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety

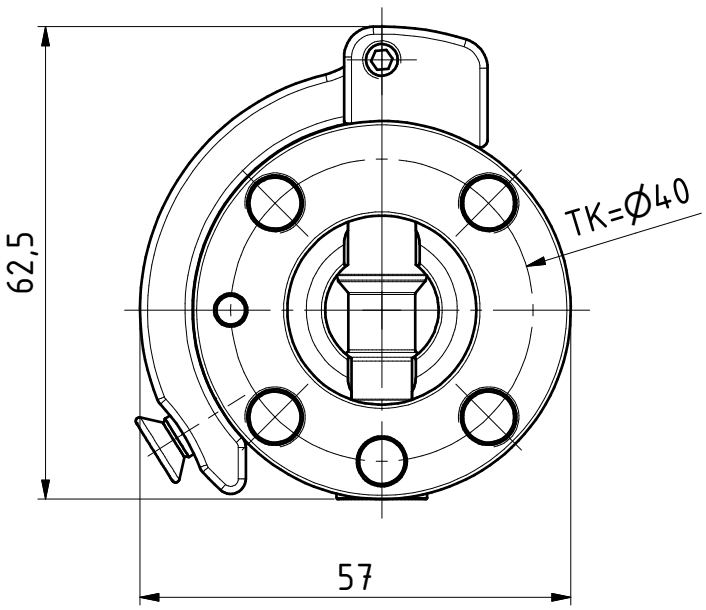


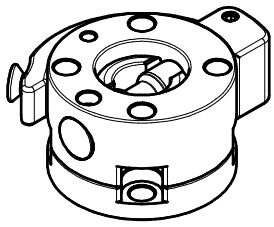
Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø50, drilled acc. to ISO…	
G-SHW050-2O	upper assembly, Al, anodized
G-SHW050-2U	lower assembly, Al, anodized



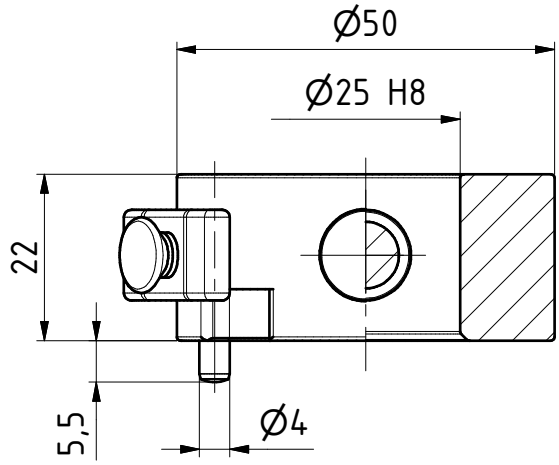




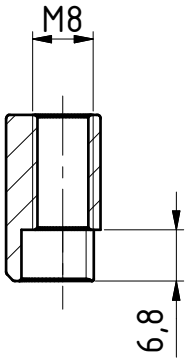


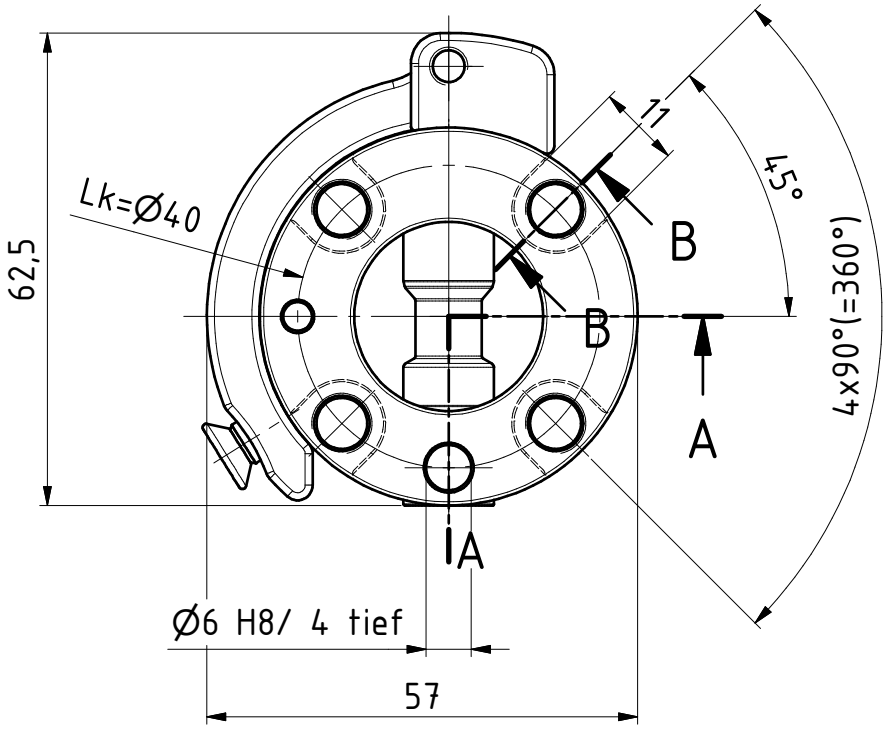
Datum 27.08.2021	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW050-2Z			

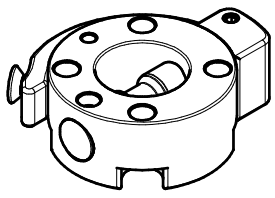
A-A



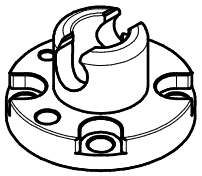
B-B



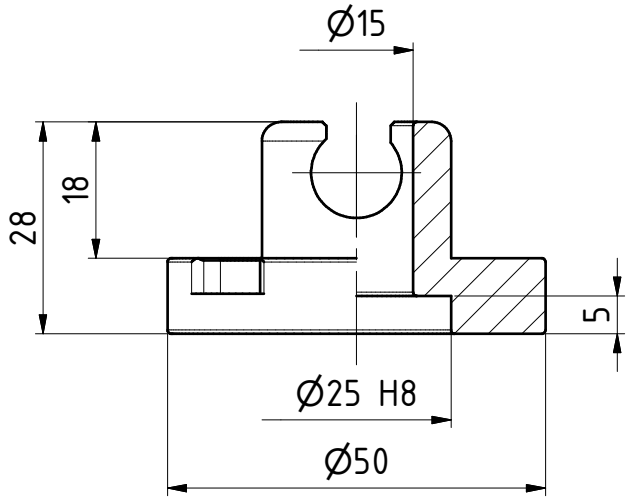


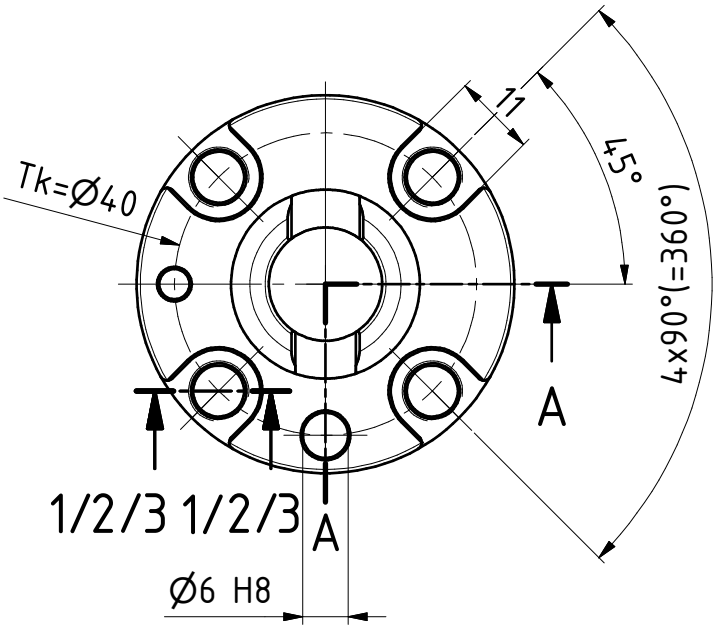


Datum 27.08.2021	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW050-20			

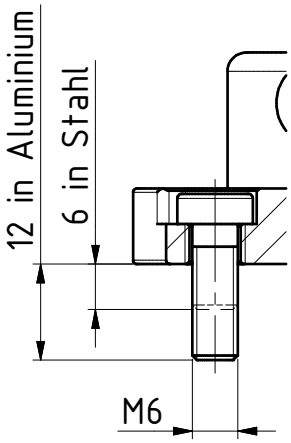


A-A

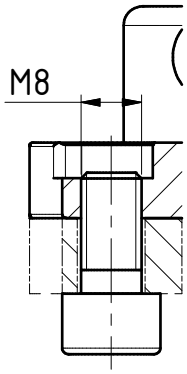




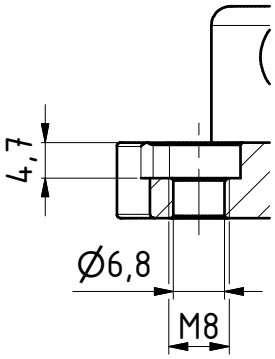
1



2



3

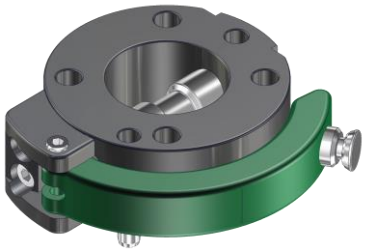


Datum 27.08.2021	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW050-2U			

G-SHW063

Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).
Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Optional connection of a power coupling **SEK** for electrical and pneum. ducts
Interface according to DIN EN ISO 9409-1



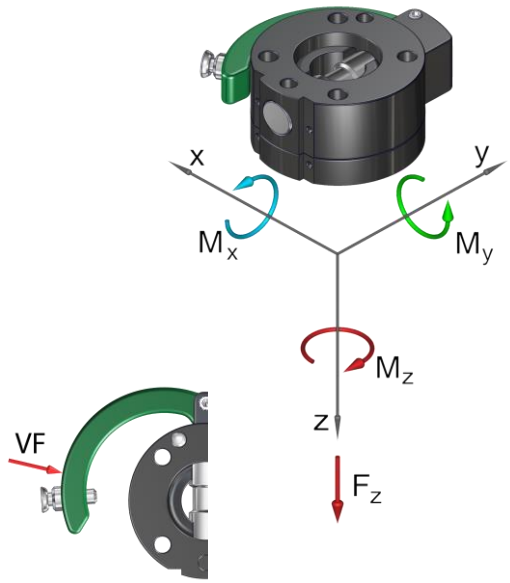
1

2

Technical specifications		SHW063
Basic material		Al. anod.
External diameter x height [mm]		63 x 38
Pitch circle diameter [mm]		50
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		700
Compression -Fz [kN]		80
Torsion Mz [Nm]		80
Bending Mx, My [Nm]		70
Mass [kg]	upper assembly	0,25
	lower assembly	0,1
Recommended load [kg]		18* / 24**
Locking force VF [N]		4 - 50
Locking stroke VH [mm]		0 - 1
Operating temperature range [°C]		-30 to +120

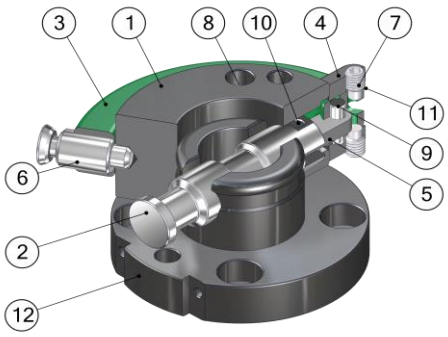
* This guideline applies to the following assumptions: Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

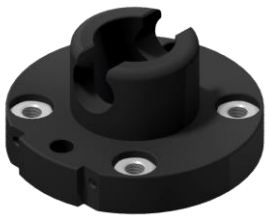
** This guideline applies to the following assumptions: Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety



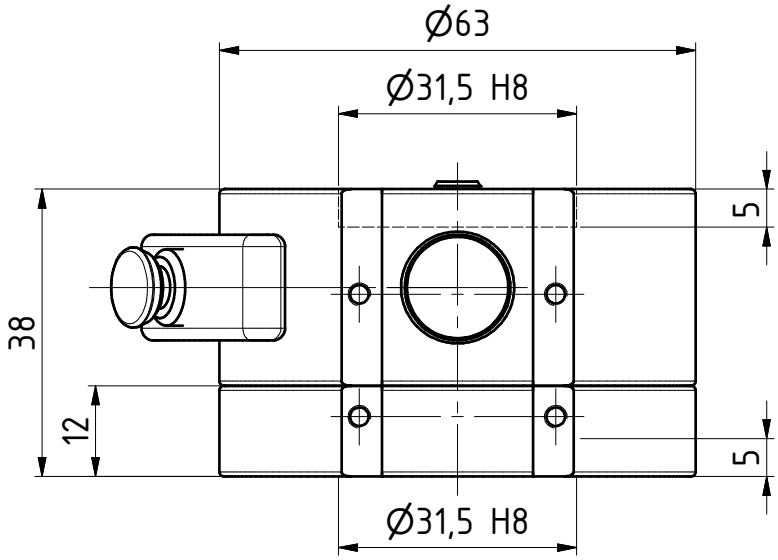
Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

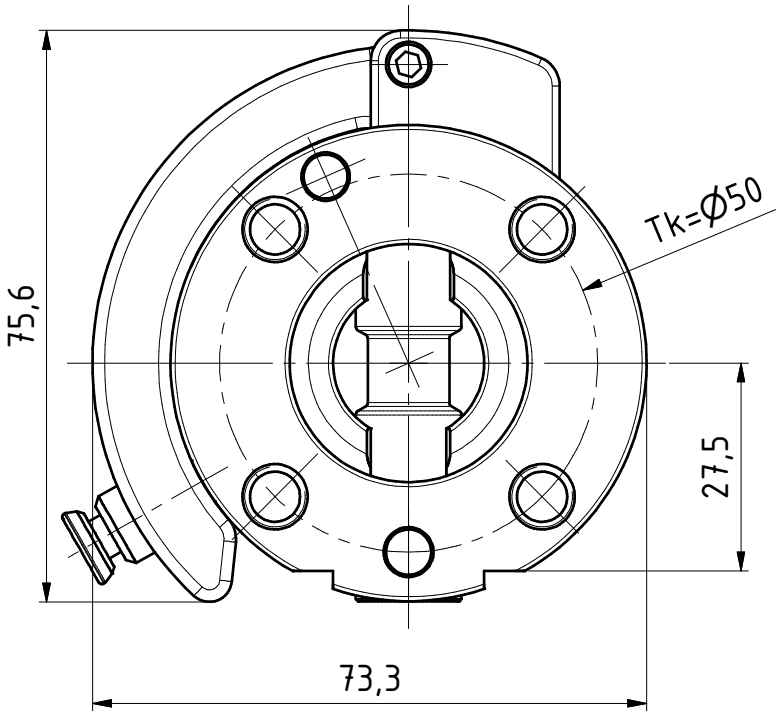
Thrust lever change system Ø63, drilled acc. to ISO…	
G-SHW063-2OE	upper assembly, E-Mount, Al, anodized
G-SHW063-2UE	lower assembly, E-Mount, Al, anodized
G-SHW063-2UE-30MK1	lower assembly, E-Mount, Al, anodized, M6 thread

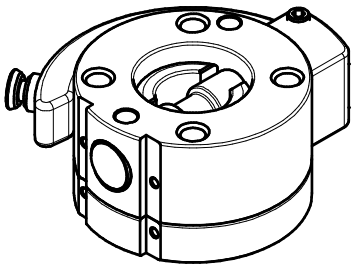




G-SHW063-2UE-30MK1

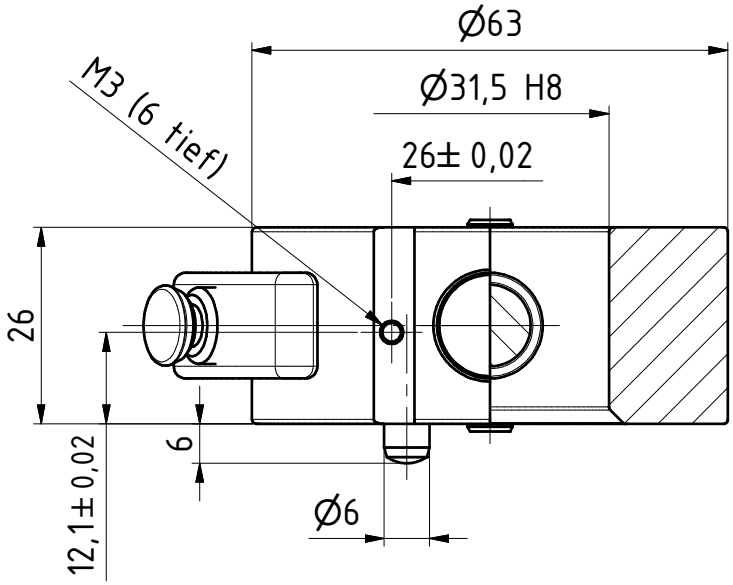




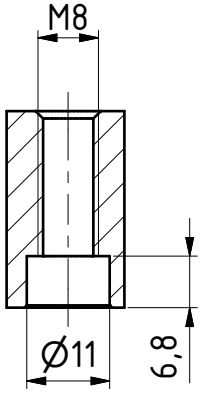


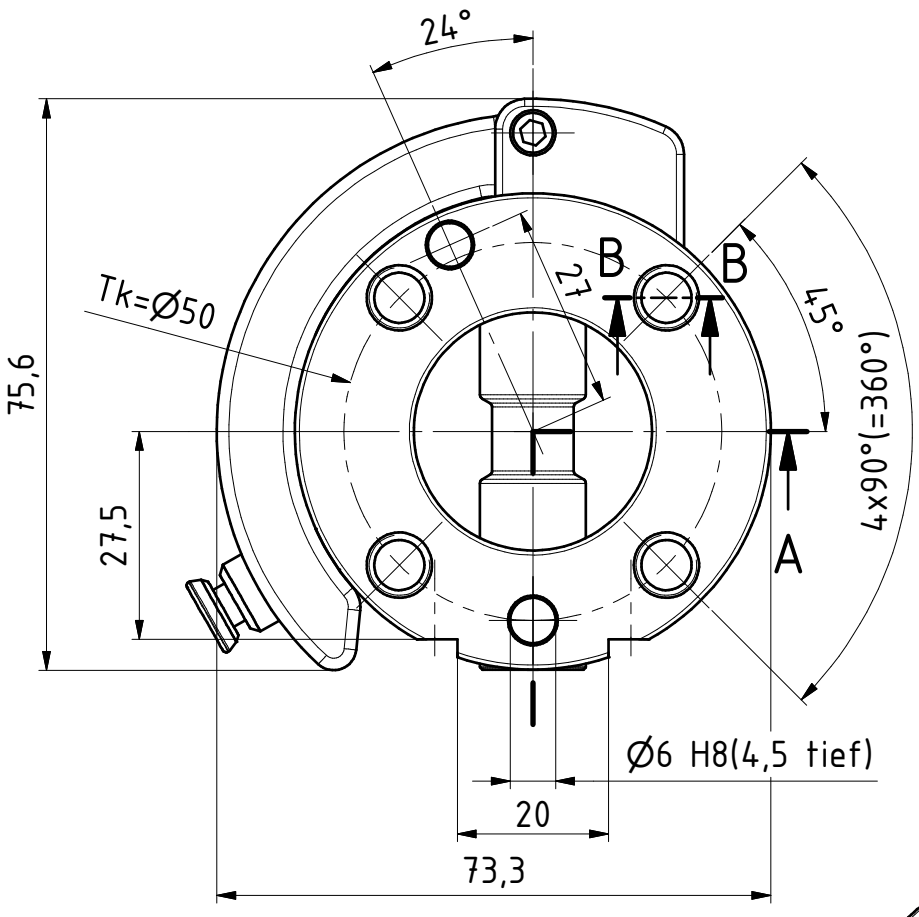
Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW063-2ZE			

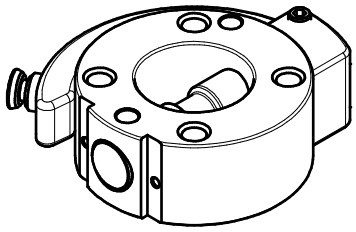
A–A



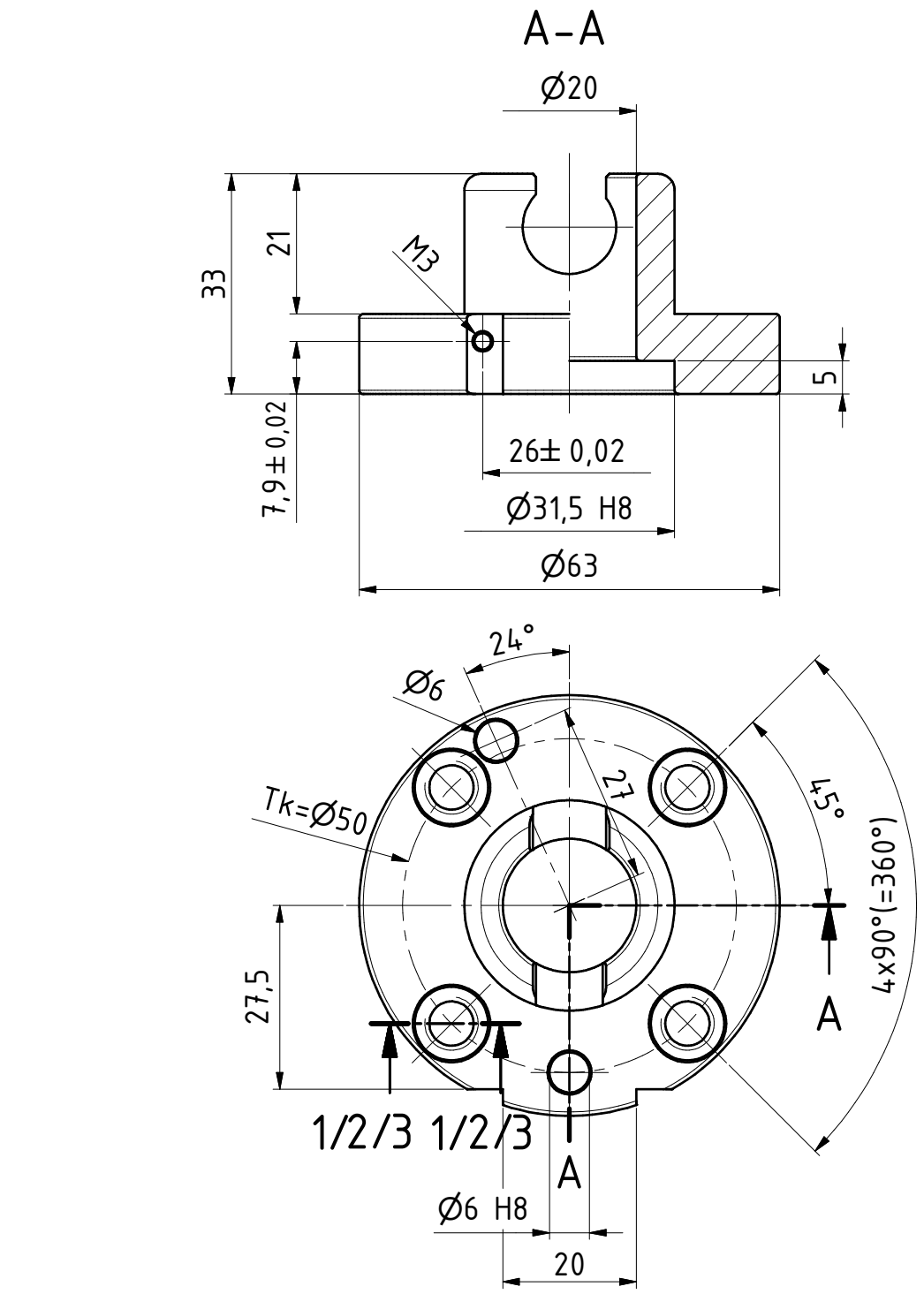
B–B

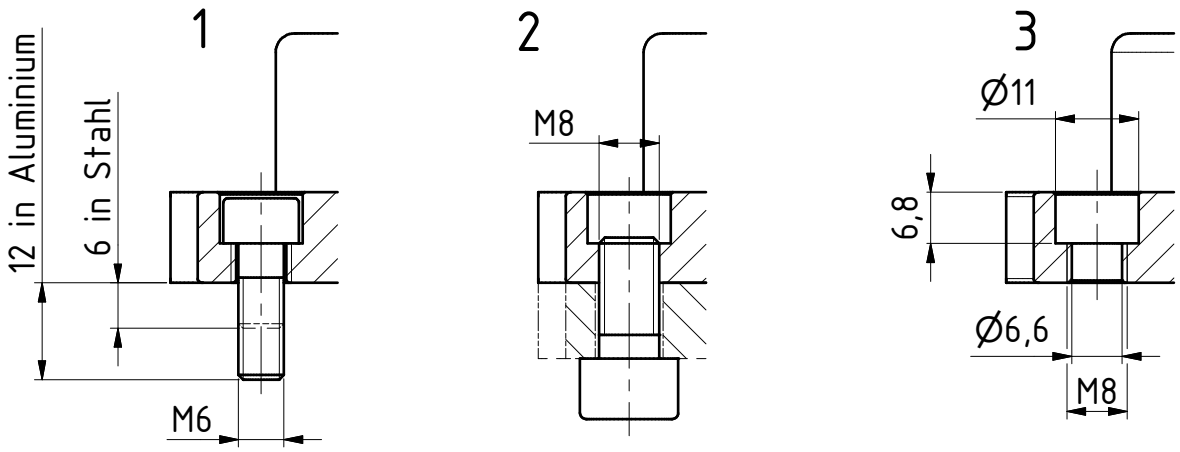






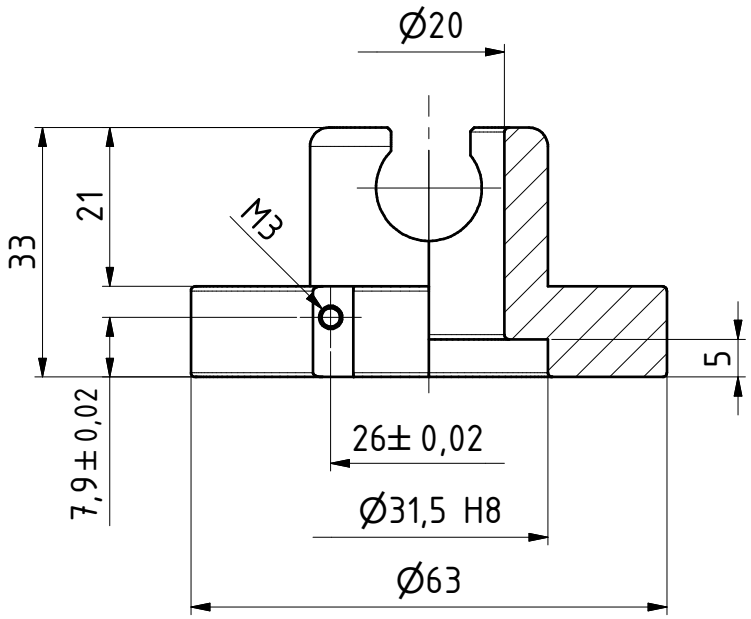
Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW063-20E			

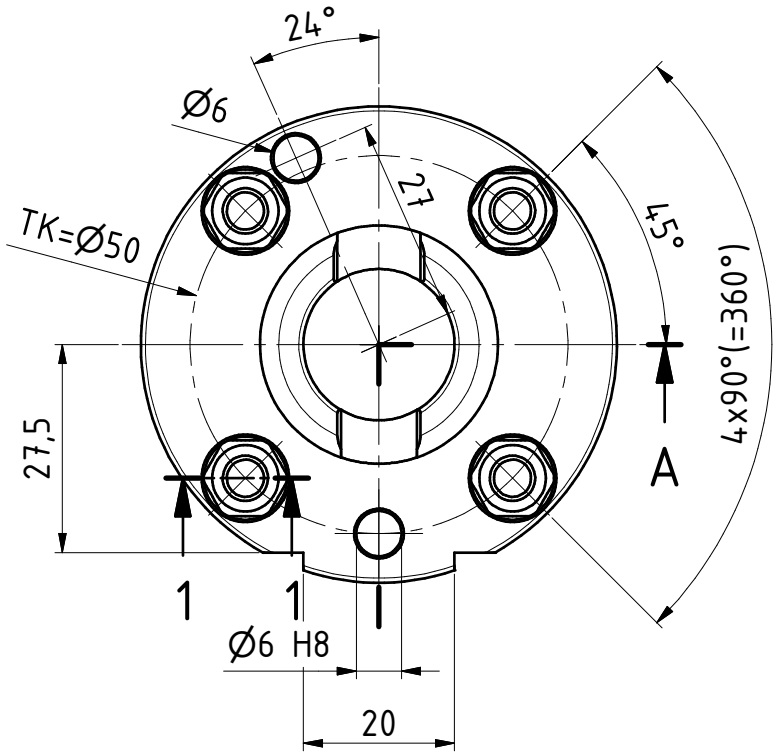


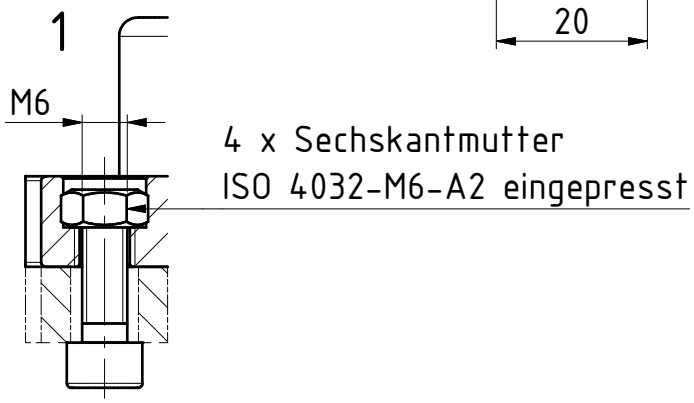


Datum 27.08.2021	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW063-2UE			

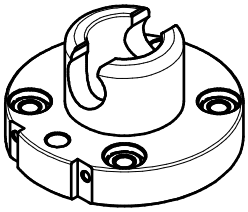
A-A







4 x Sechskantmutter
ISO 4032-M6-A2 eingepresst

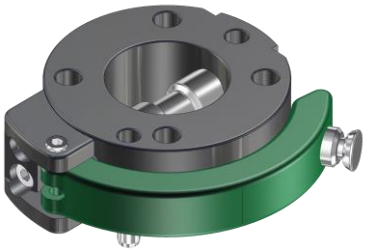


Datum 15.09.2022	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW063-2UE-30MK1			

G-SHW080

Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).
Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Optional connection of a power coupling **SEK** for electrical and pneum. ducts
Interface according to DIN EN ISO 9409-1



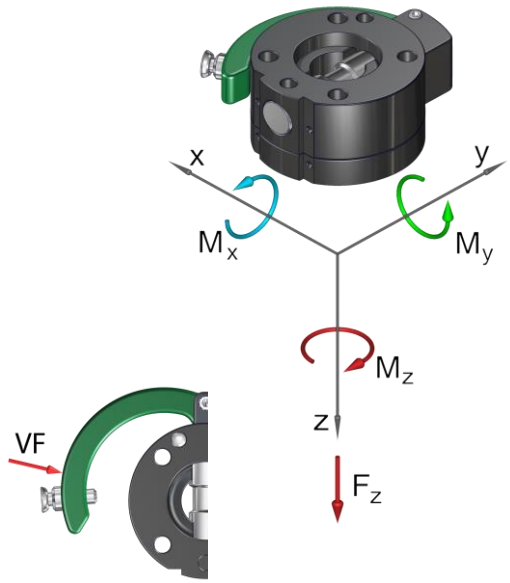
1

2

Technical specifications		SHW080
Basic material		Al. anod.
External diameter x height [mm]		80 x 45
Pitch circle diameter [mm]		63
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		800
Compression -Fz [kN]		160
Torsion Mz [Nm]		100
Bending Mx, My [Nm]		100
Mass [kg]	upper assembly	0,41
	lower assembly	0,2
Recommended load [kg]		20* / 28**
Locking force VF [N]		5 - 60
Locking stroke VH [mm]		0 - 1
Operating temperature range [°C]		-30 to +120

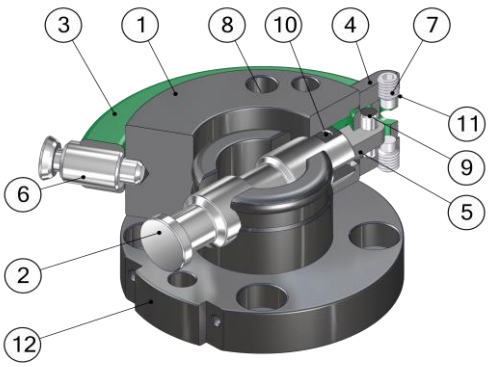
* This guideline applies to the following assumptions: Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

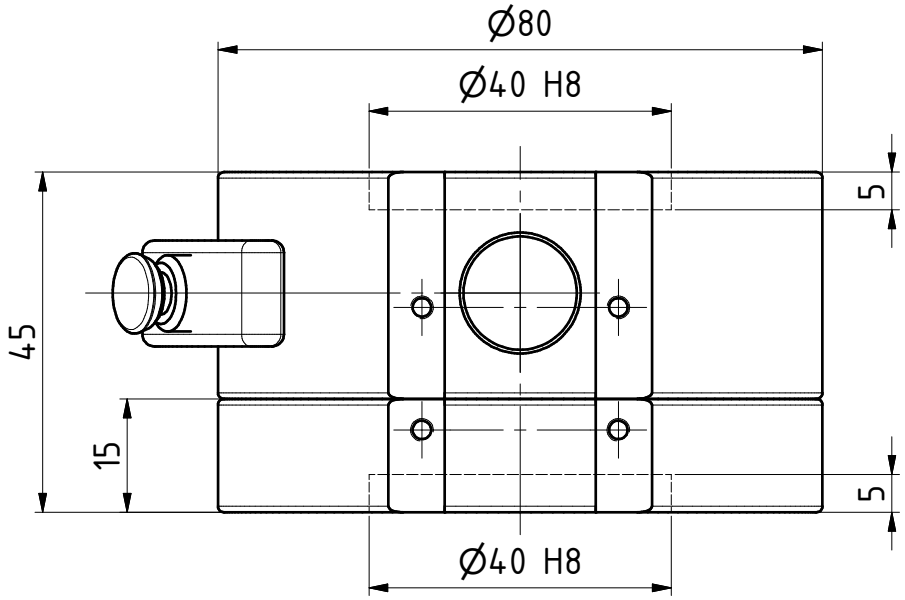
** This guideline applies to the following assumptions: Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety

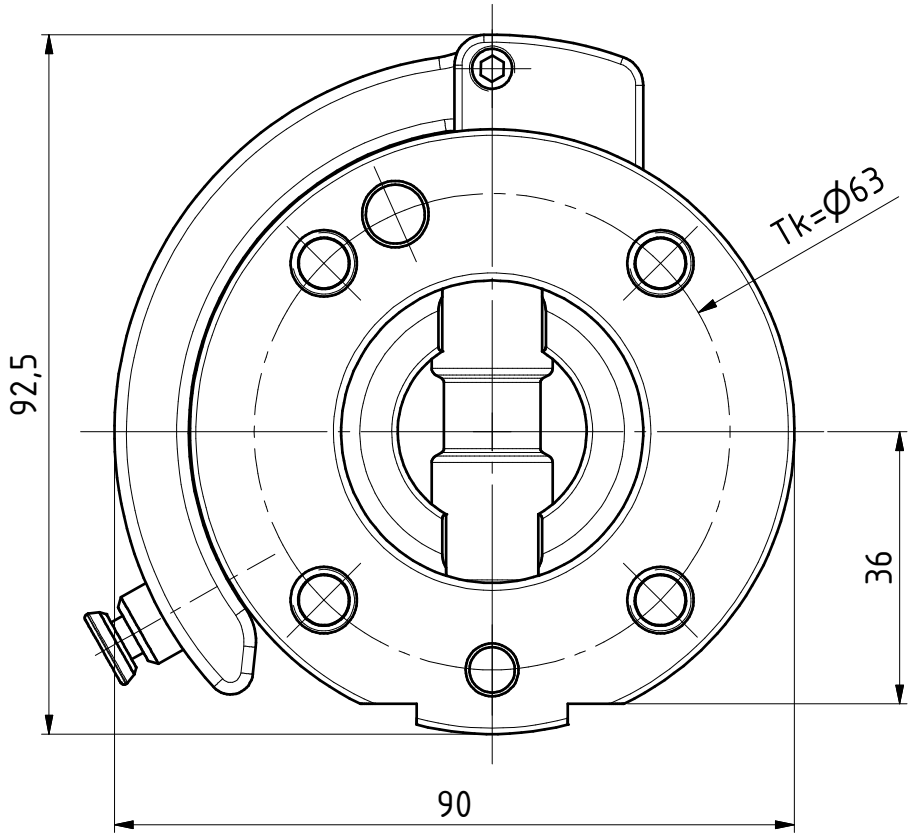


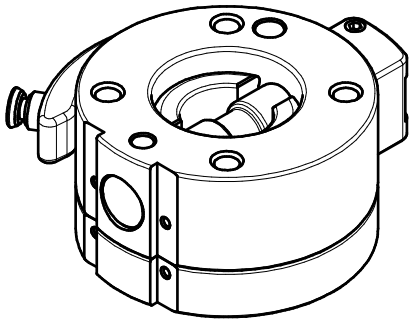
Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø80, drilled acc. to ISO…	
G-SHW080-2OE	upper assembly, E-Mount, Al, anodized
G-SHW080-2UE	lower assembly, E-Mount, Al, anodized



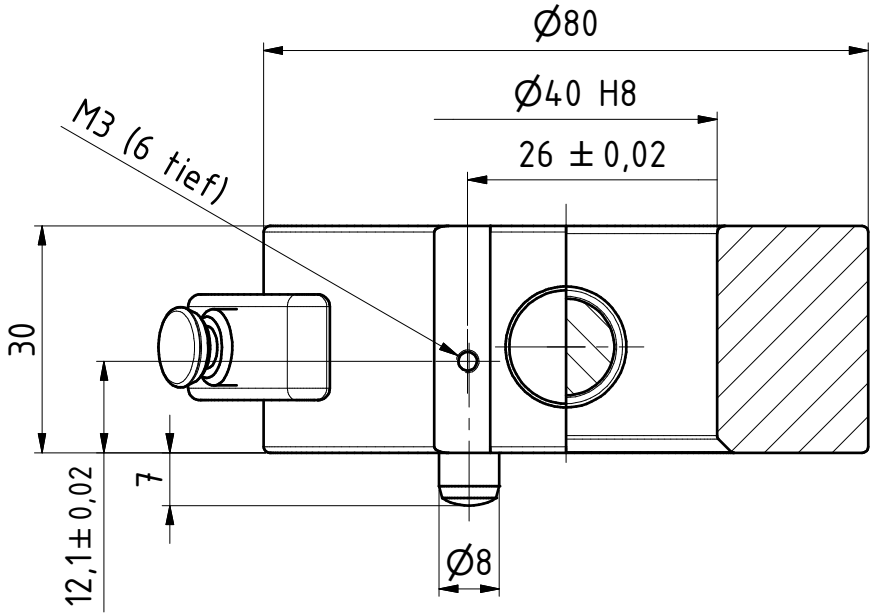




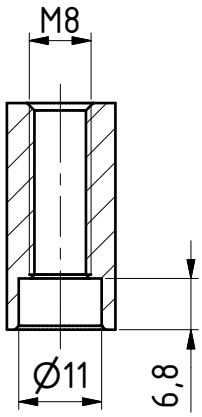


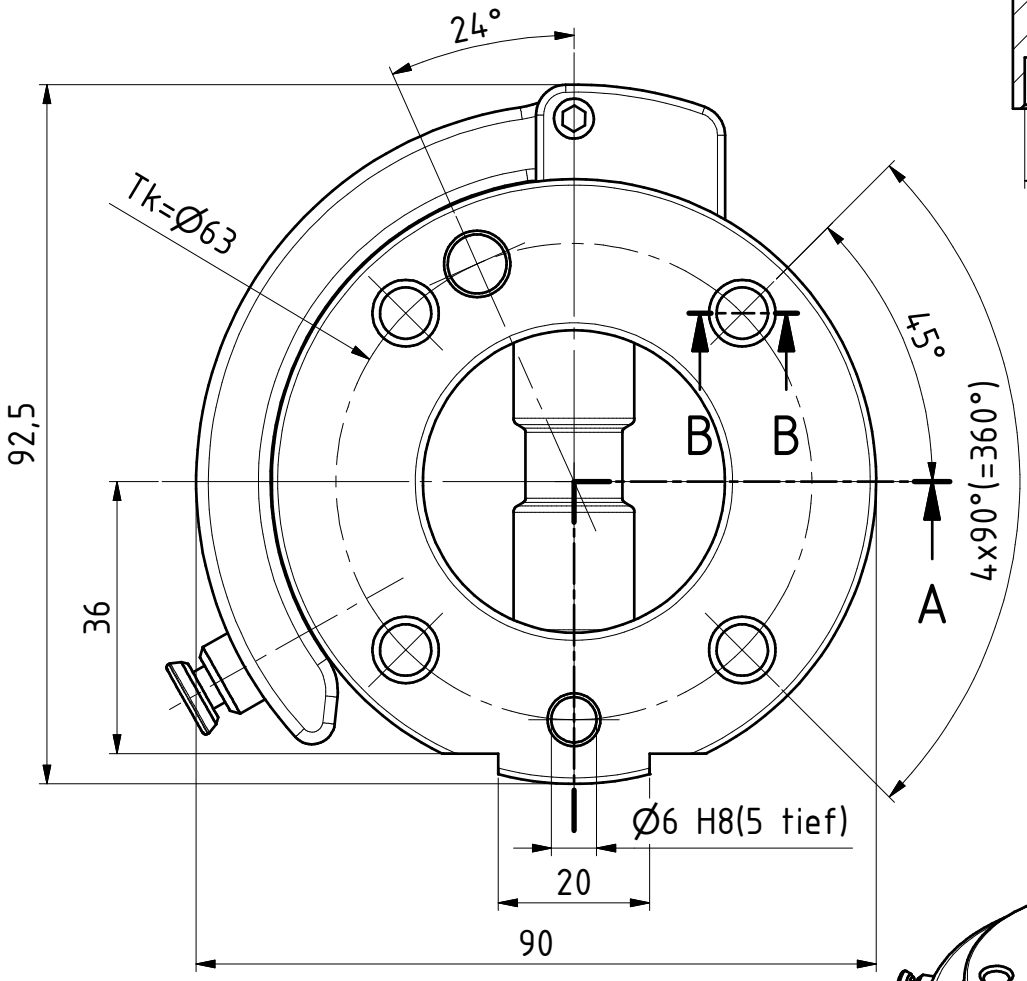
Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW080-2ZE			

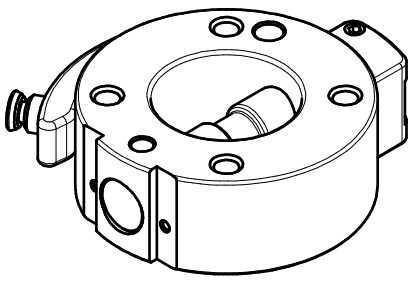
A-A



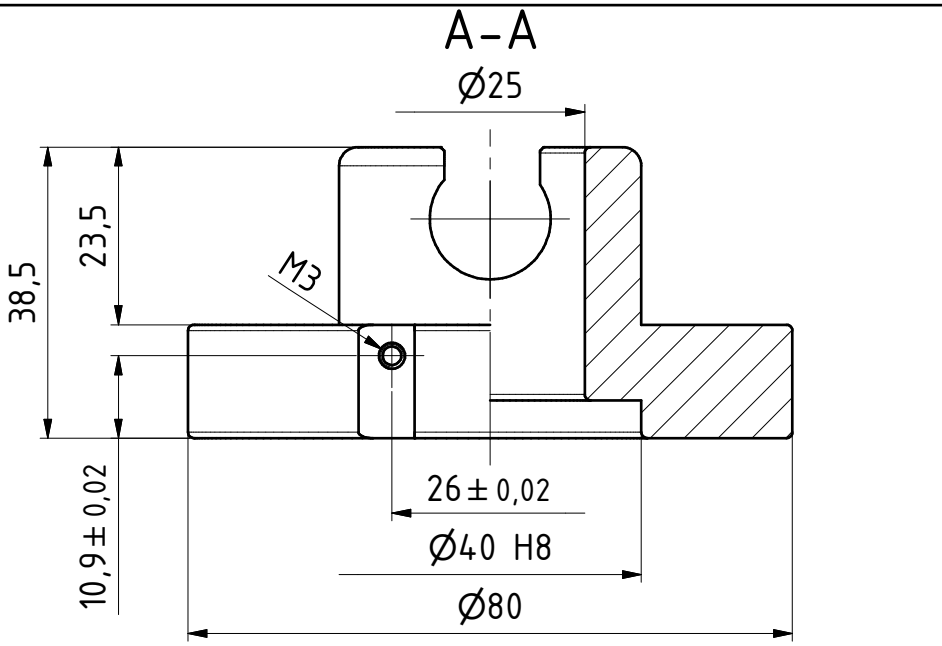
B-B

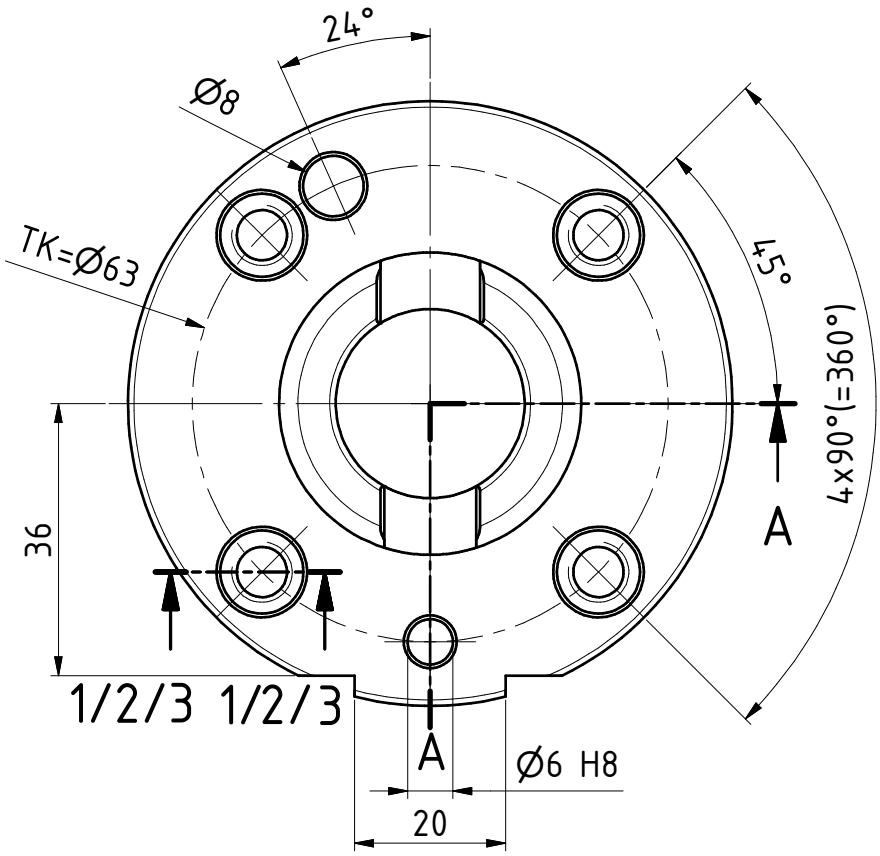


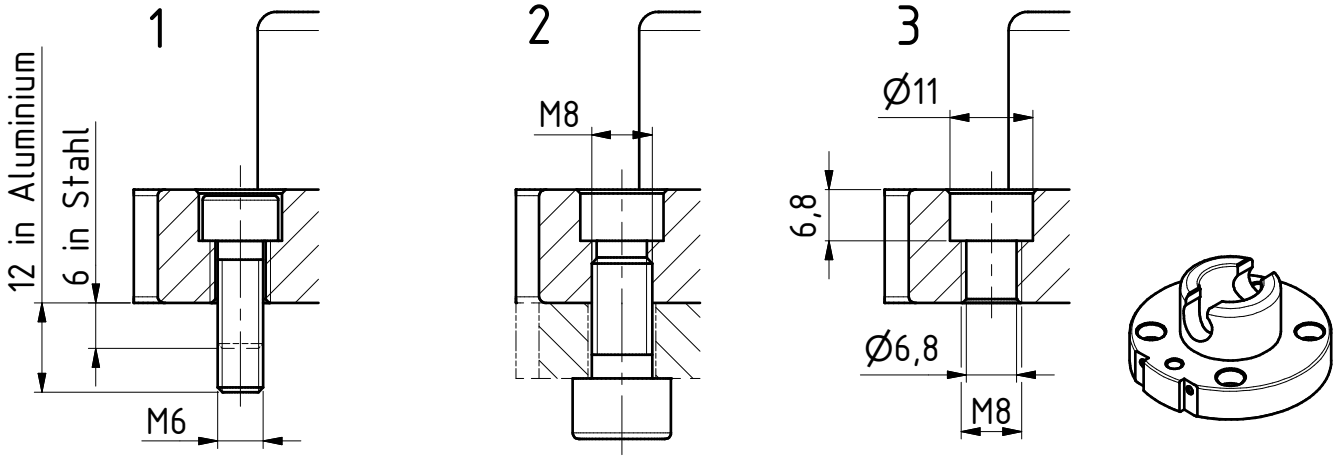




Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW080-2OE			







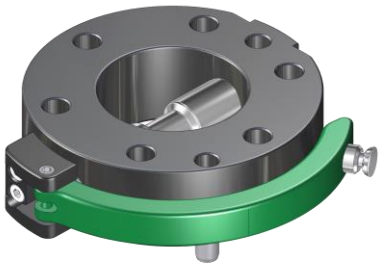
Datum 01.09.2021	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW080-2UE			

G-SHW100

Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Optional connection of a power coupling **SEK** for electrical and pneum. ducts
Interface according to DIN EN ISO 9409-1



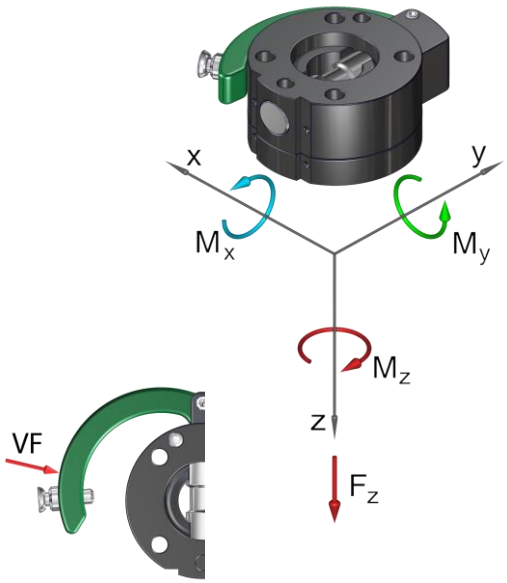
1

2

Technical specifications		SHW100
Basic material		Al. anod.
External diameter x height [mm]		100 x 47
Pitch circle diameter [mm]		80
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		1.000
Compression -Fz [kN]		219
Torsion Mz [Nm]		140
Bending Mx, My [Nm]		130
Mass [kg]	upper assembly	0,74
	lower assembly	0,35
Recommended load [kg]		25* / 34**
Locking force VF [N]		6 - 70
Locking stroke VH [mm]		0 - 1
Operating temperature range [°C]		-30 to +120

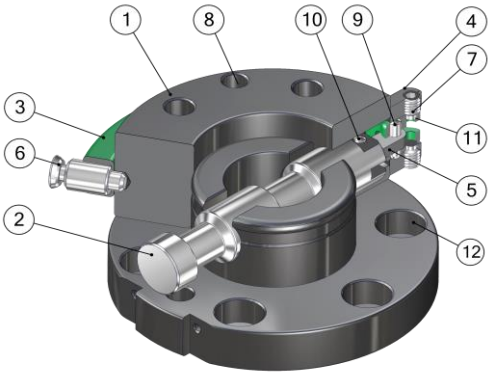
* This guideline applies to the following assumptions:
Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

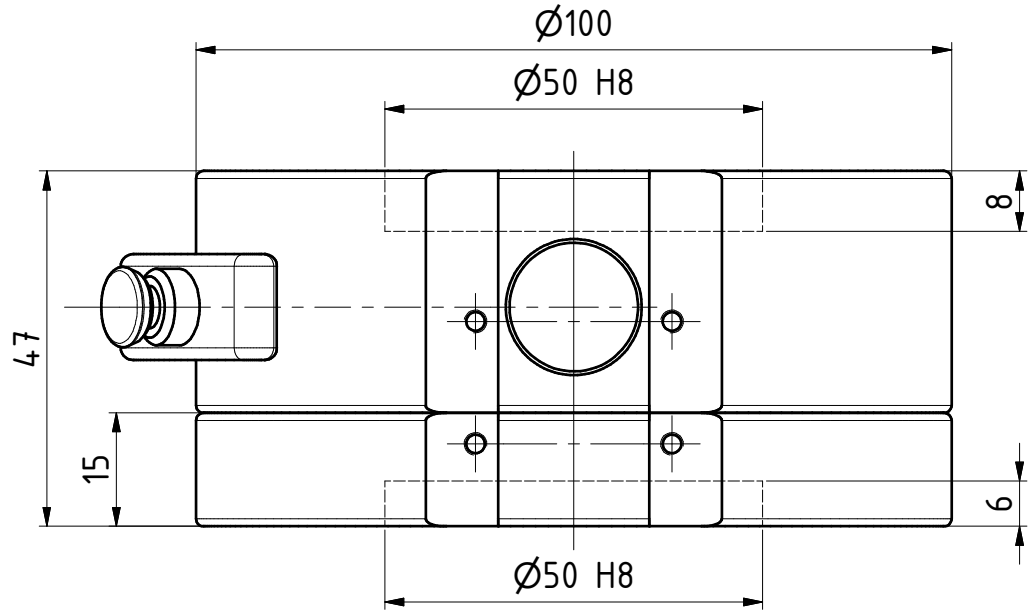
** This guideline applies to the following assumptions:
Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety

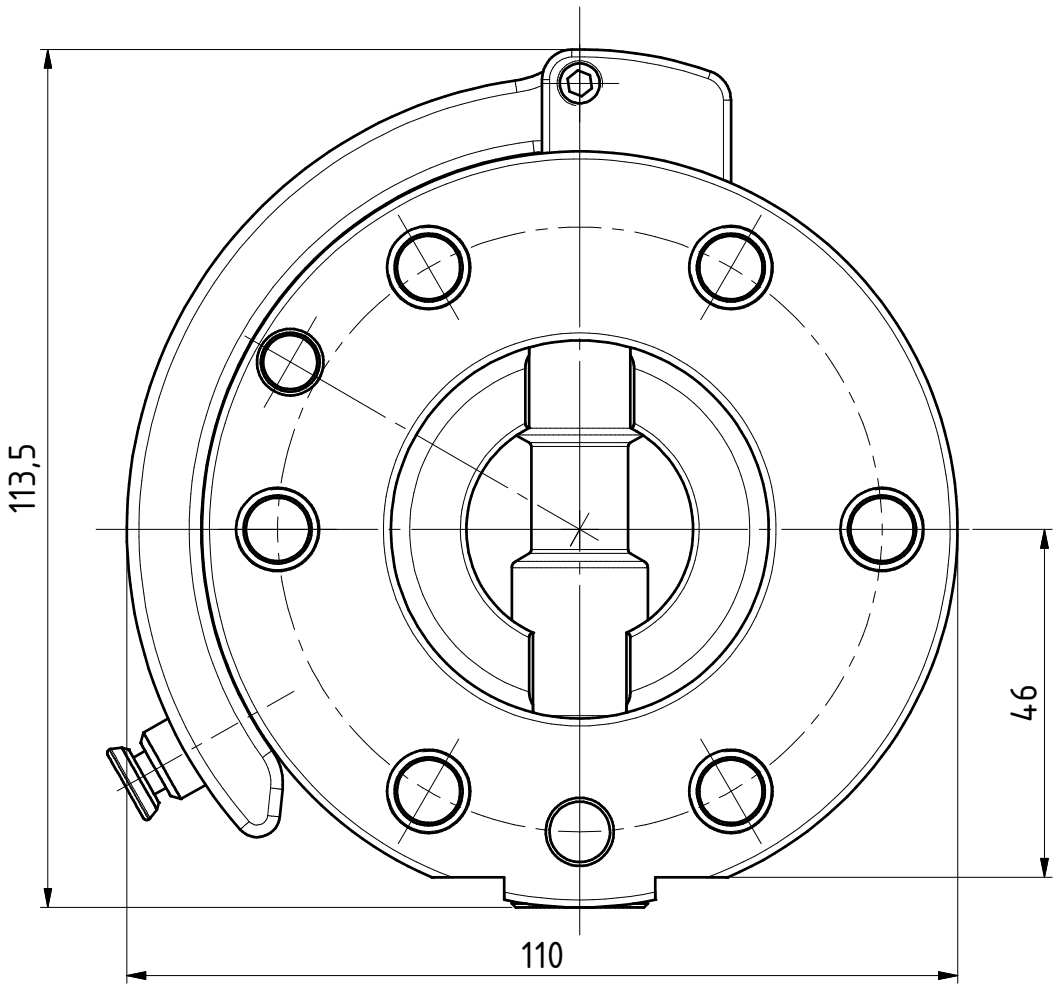


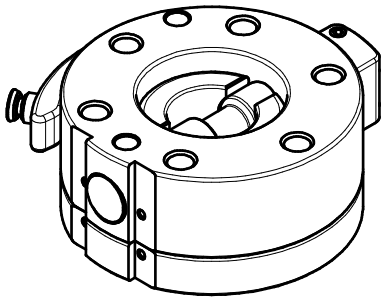
Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø100, drilled acc. to ISO…	
G-SHW100-2OE	upper assembly, E-Mount, Al, anodized
G-SHW100-2UE	lower assembly, E-Mount, Al, anodized



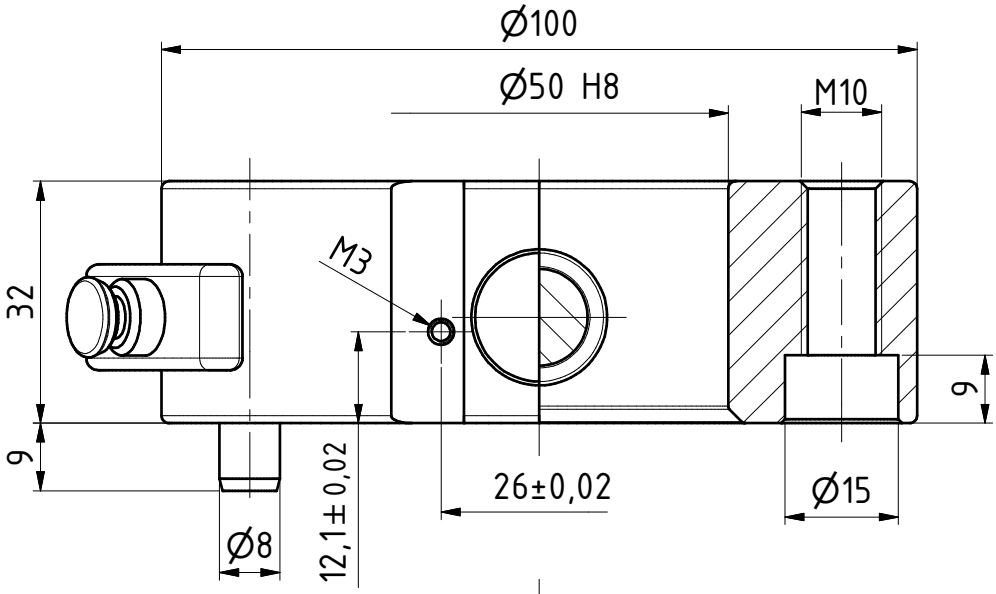


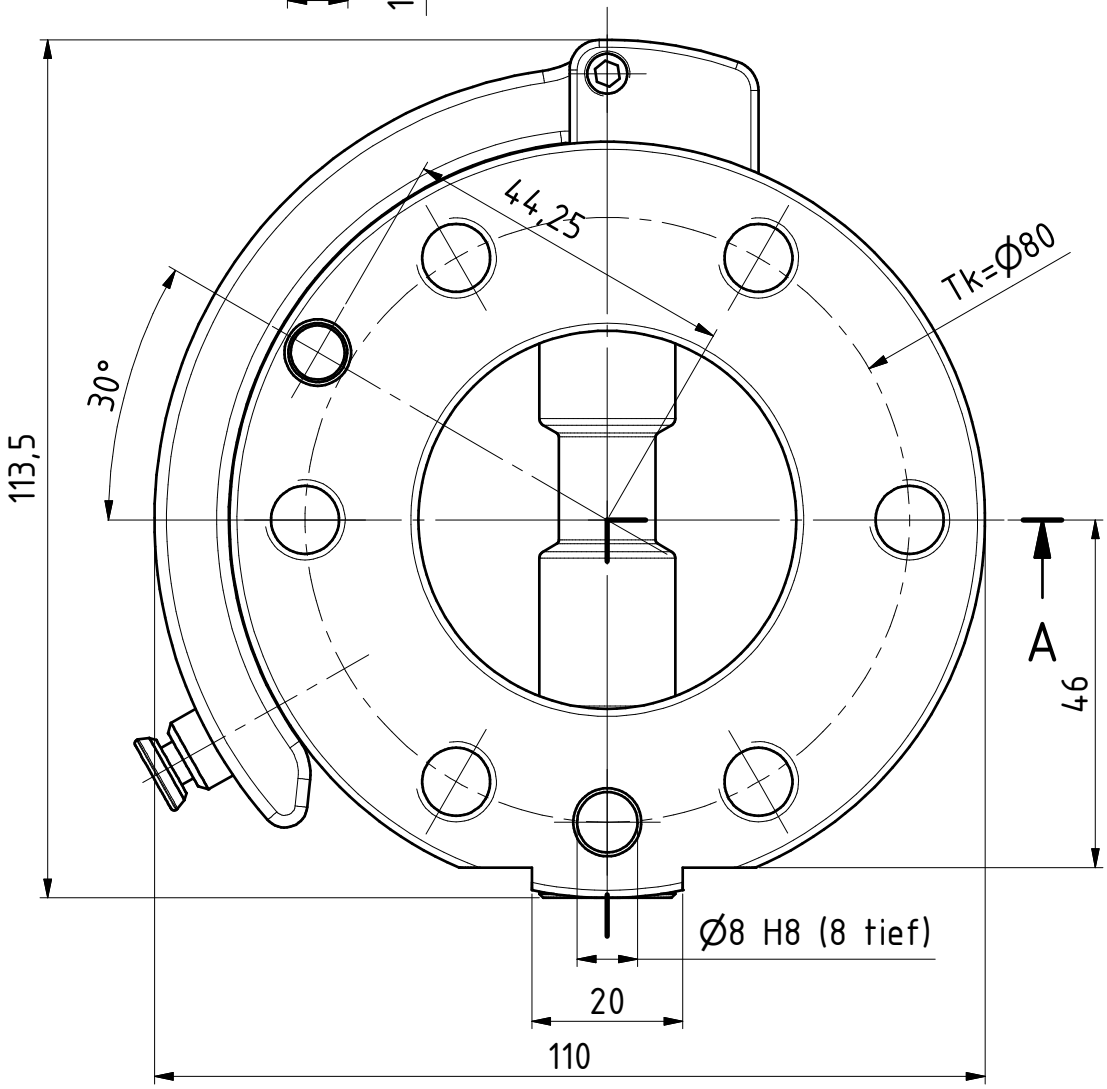


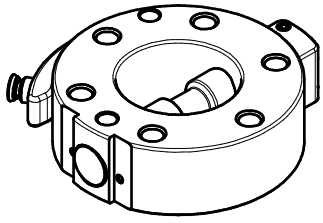


Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW100-2ZE			

A-A

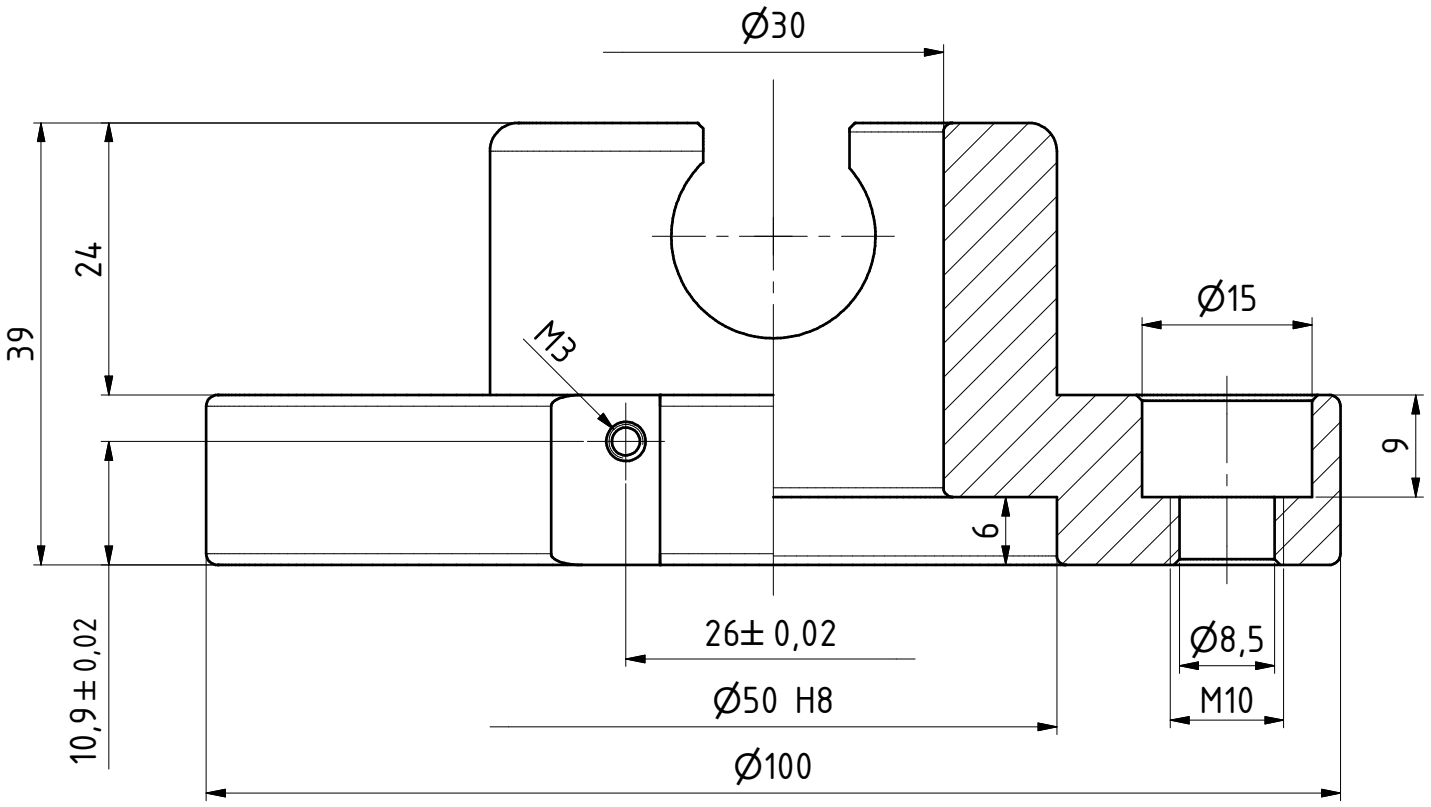


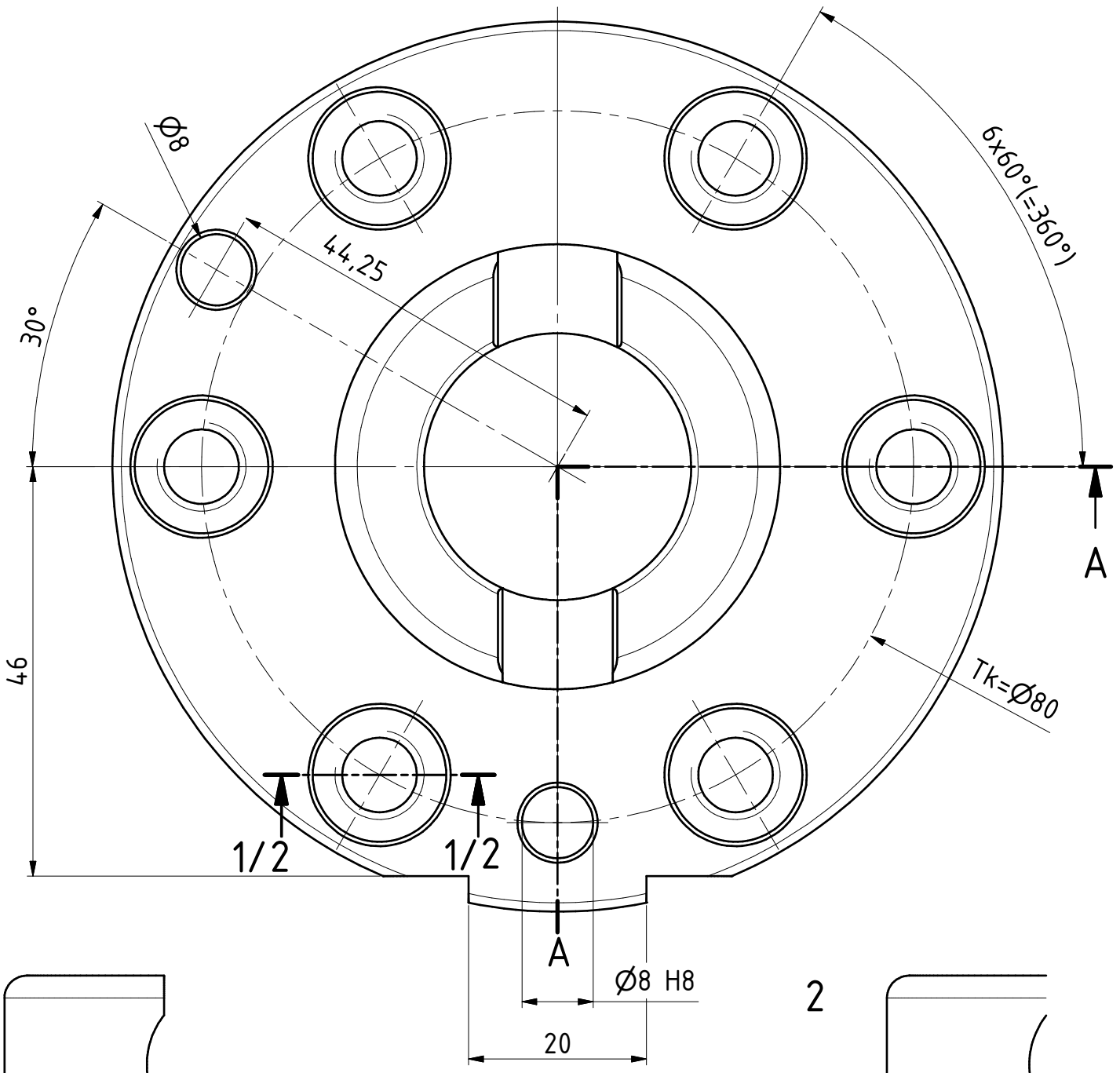




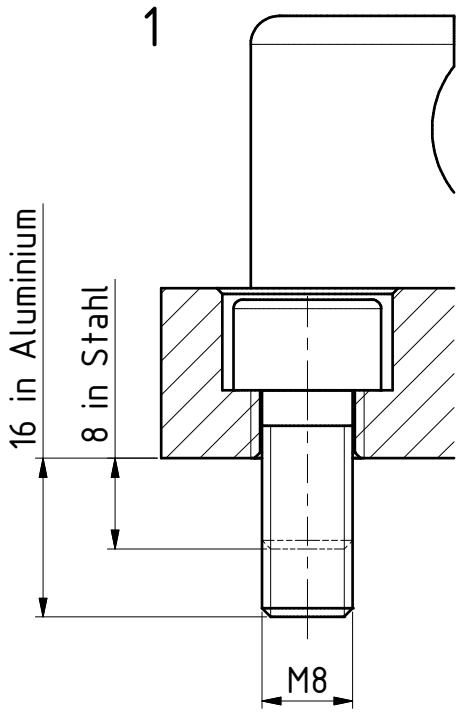
Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW100-20E			

A–A

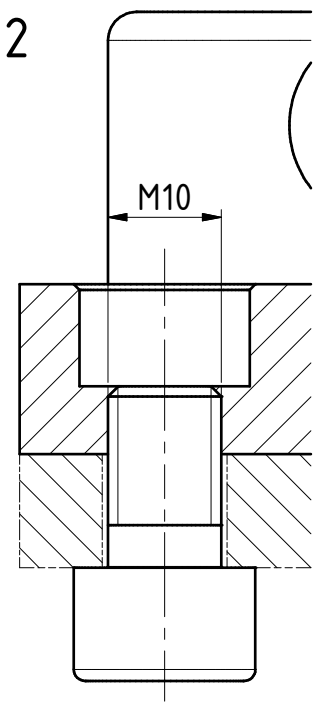


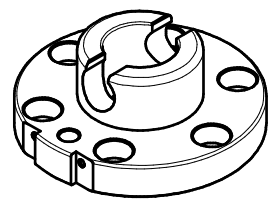


1



2





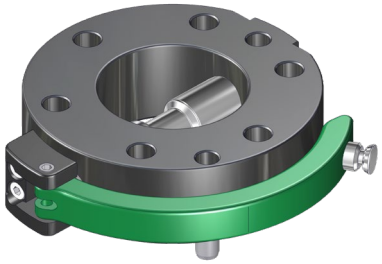
Datum 03.09.2021	Maßstab 1,5:1		
Zeichnungsnummer G-SHW100-2UE			GRIP GmbH Handhabungstechnik

G-SHW125

Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Optional connection of a power coupling **SEK** for electrical and pneum. ducts
Interface according to DIN EN ISO 9409-1



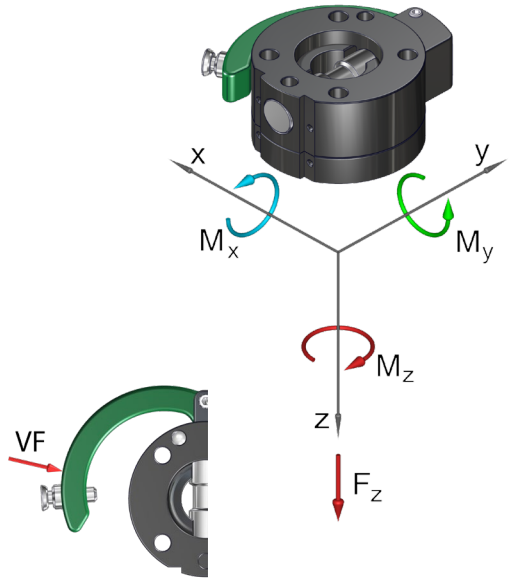
1

2

Technical specifications		SHW125
Basic material		Al. anod.
External diameter x height [mm]		125 x 50
Pitch circle diameter [mm]		100
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		1.200
Compression -Fz [kN]		377
Torsion Mz [Nm]		180
Bending Mx, My [Nm]		180
Mass [kg]	upper assembly	1,3
	lower assembly	0,55
Recommended load [kg]		40* / 55**
Locking force VF [N]		8 - 80
Locking stroke VH [mm]		0 - 1
Operating temperature range [°C]		-30 to +120

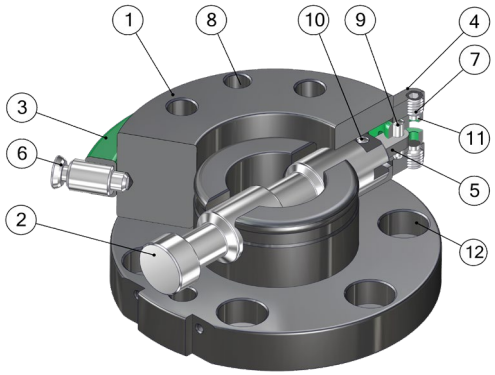
* This guideline applies to the following assumptions:
Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

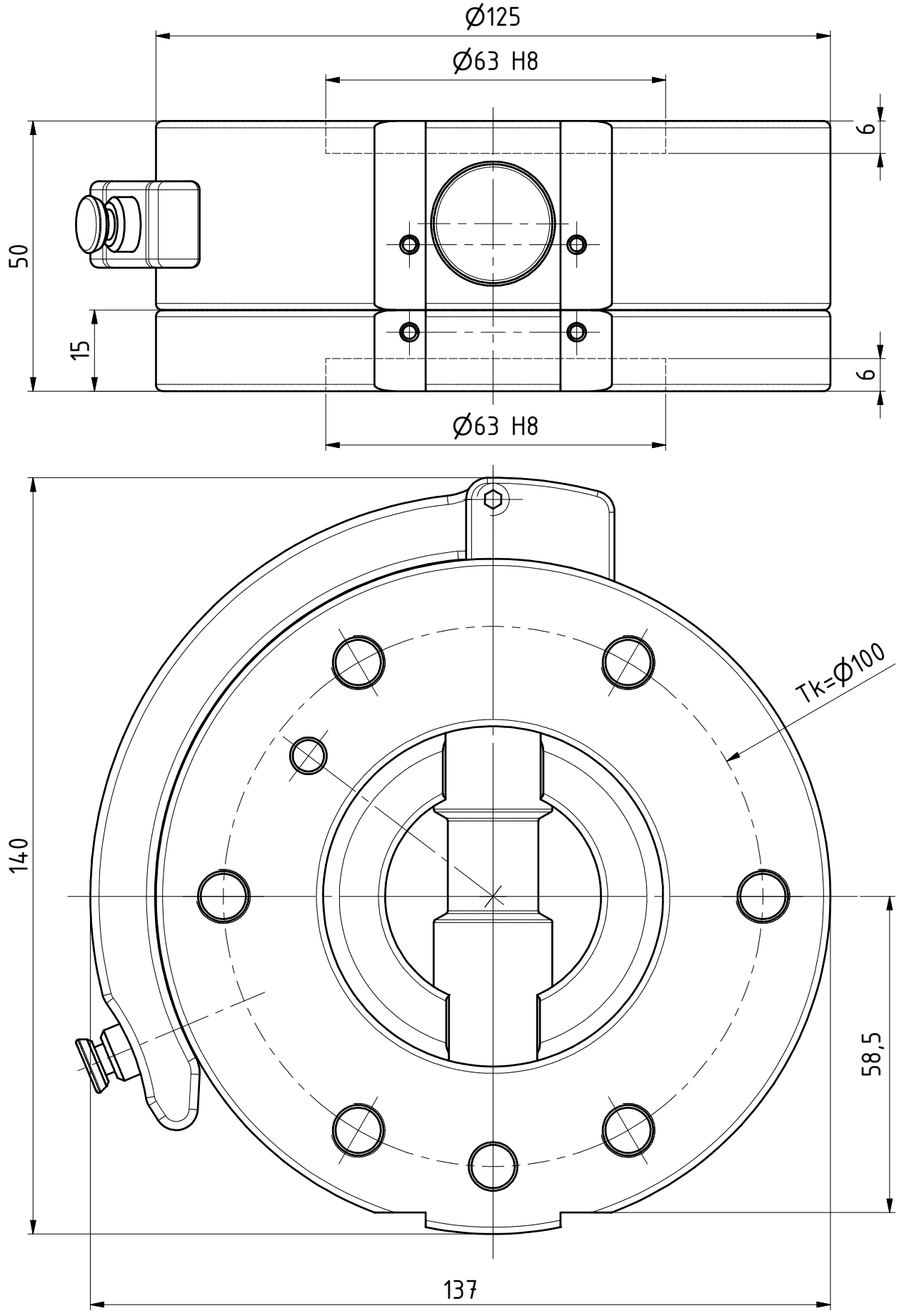
** This guideline applies to the following assumptions:
Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety



Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

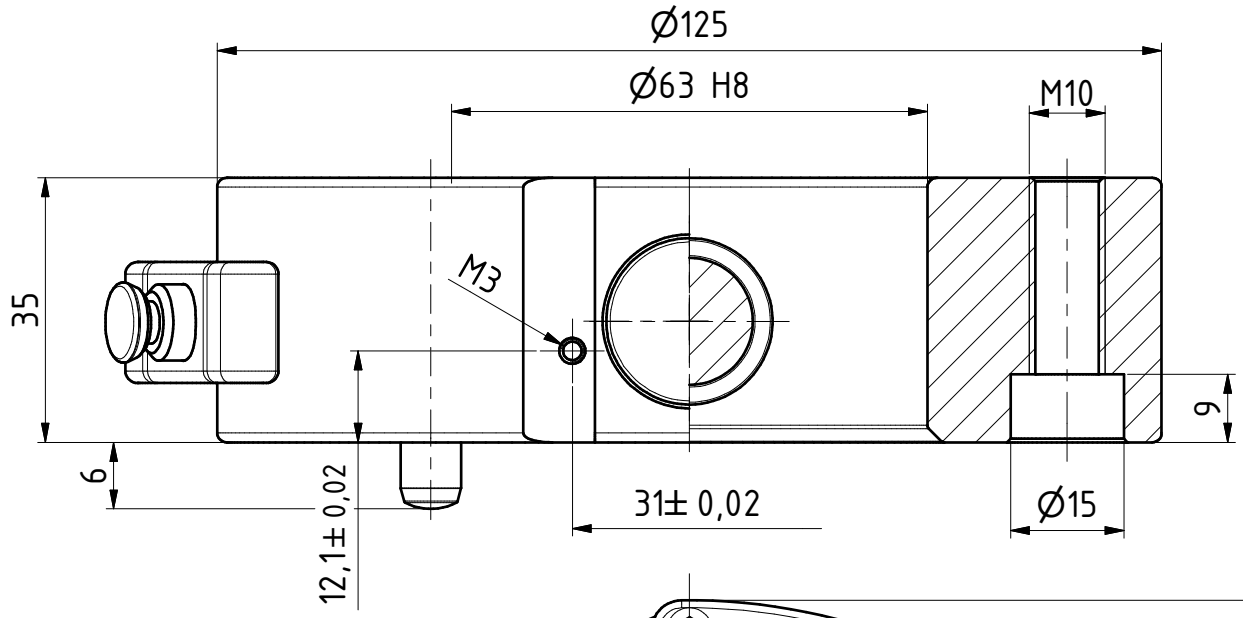
Thrust lever change system Ø125, drilled acc. to ISO…	
G-SHW125-2OE	upper assembly, E-Mount, Al, anodized
G-SHW125-2UE	lower assembly, E-Mount, Al, anodized

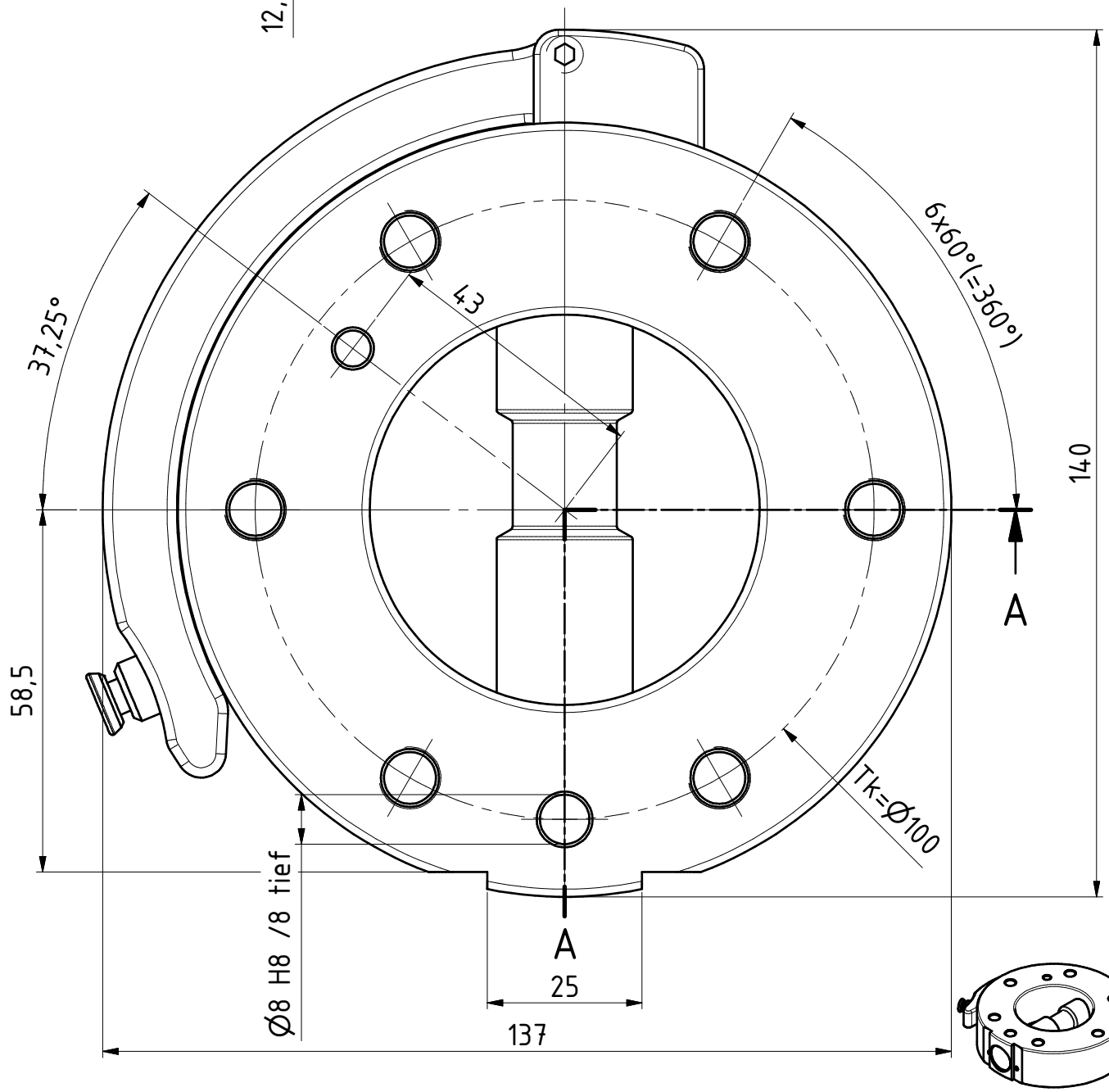


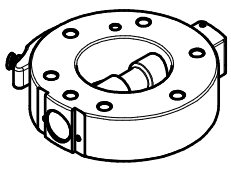


Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW125-2ZE			

A–A

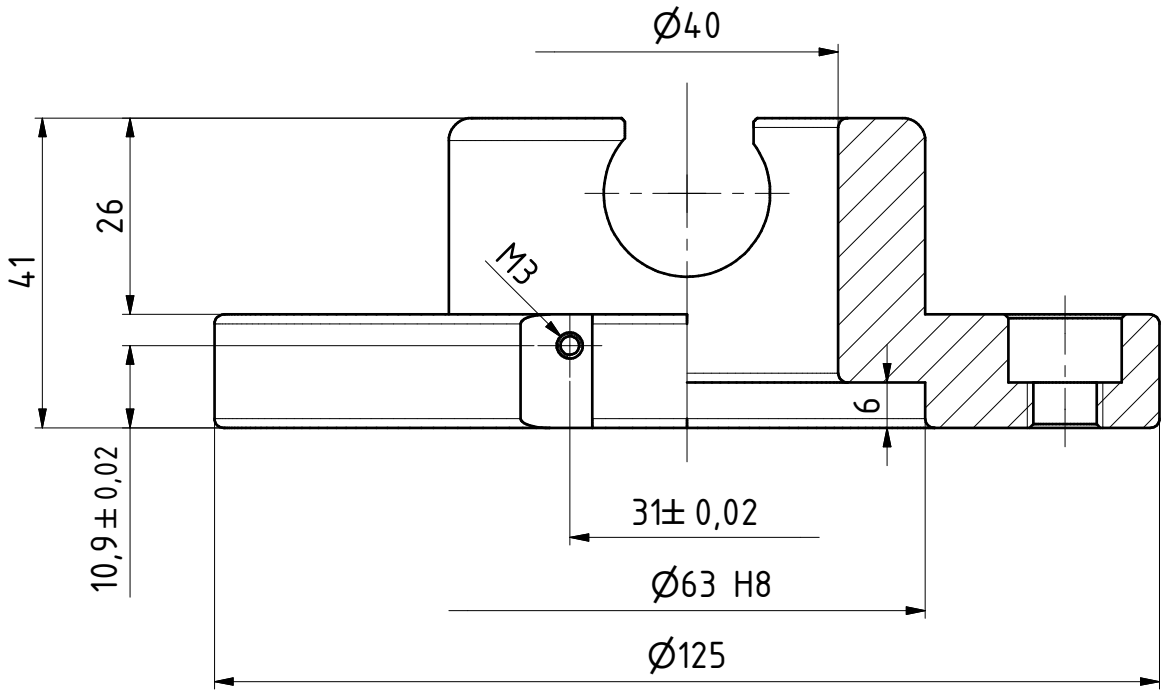


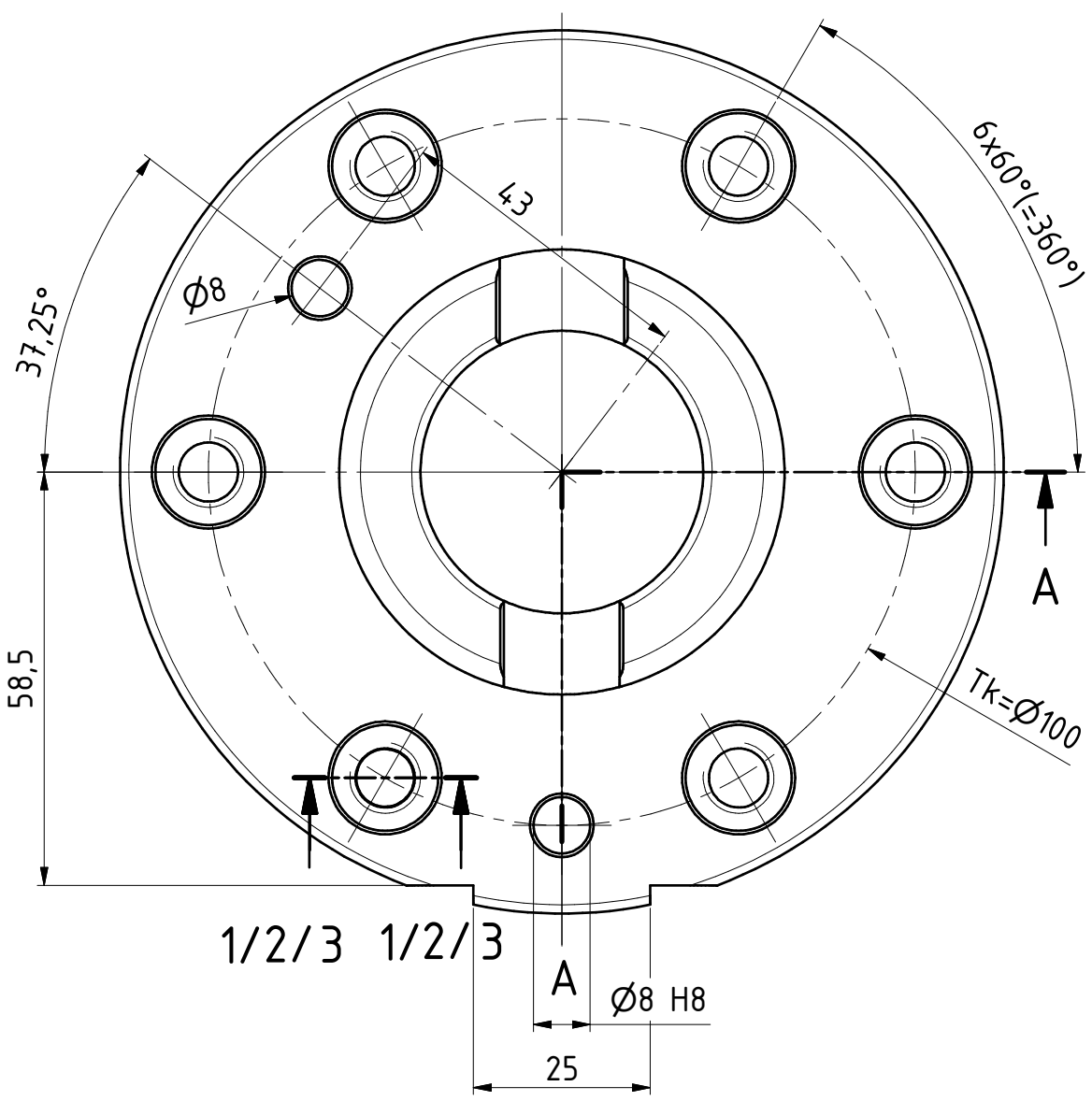


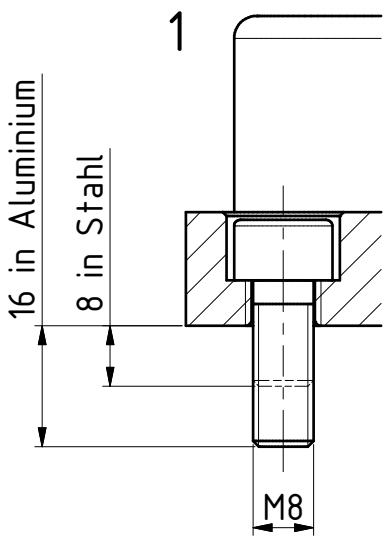


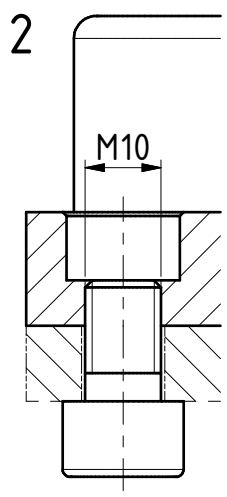
Datum 03.09.2021	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW125-20E			

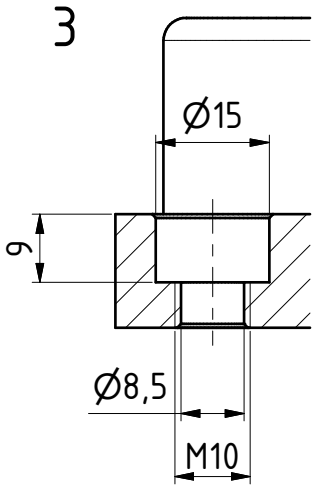
A–A

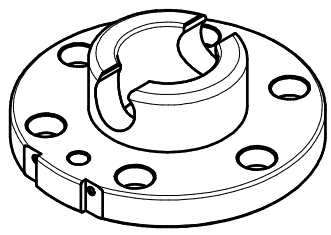












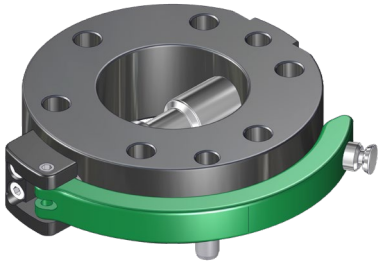
Datum 03.09.2021	Maßstab 1:1		
Zeichnungsnummer G-SHW125-2UE			GRIP GmbH Handhabungstechnik

G-SHW160

Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Optional connection of a power coupling **SEK** for electrical and pneum. ducts
Interface according to DIN EN ISO 9409-1



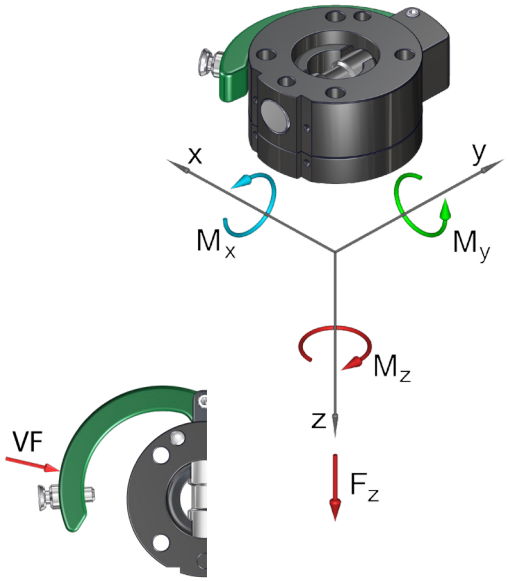
1

2

Technical specifications		SHW160
Basic material		Al. anod.
External diameter x height [mm]		160 x 70
Pitch circle diameter [mm]		125
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		2.000
Compression -Fz [kN]		626
Torsion Mz [Nm]		300
Bending Mx, My [Nm]		320
Mass [kg]	upper assembly	2,8
	lower assembly	1,2
Recommended load [kg]		52* / 68**
Locking force VF [N]		10 - 100
Locking stroke VH [mm]		0 - 1
Operating temperature range [°C]		-30 to +120

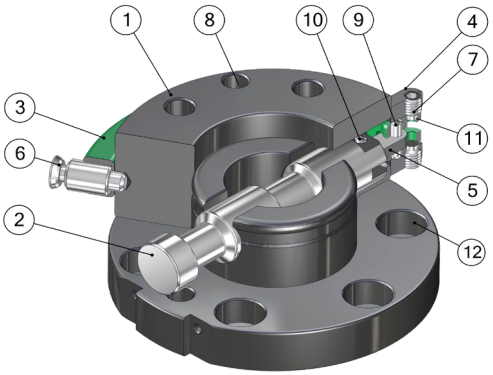
* This guideline applies to the following assumptions:
Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

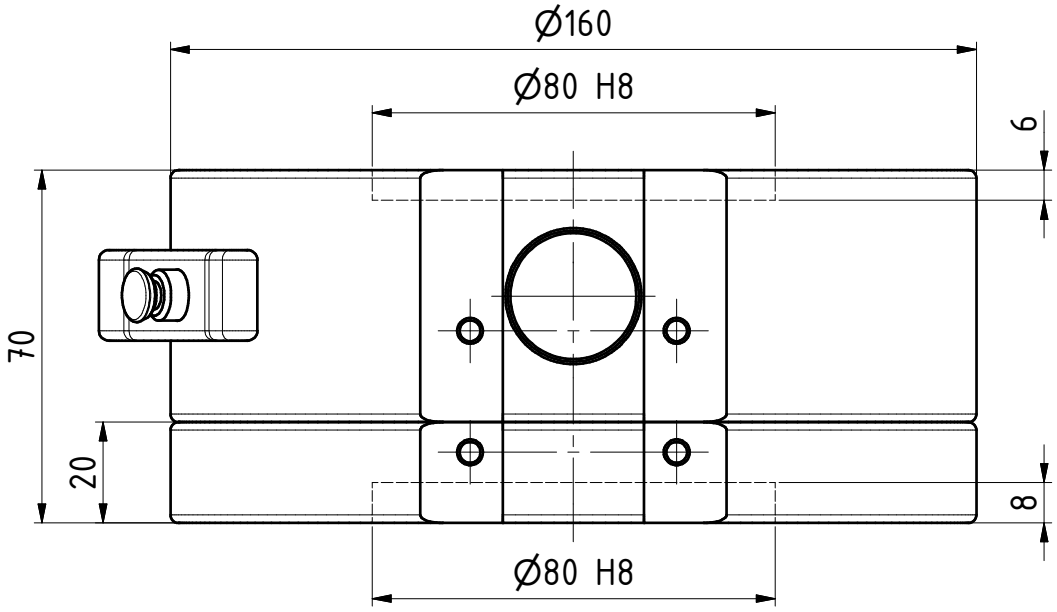
** This guideline applies to the following assumptions:
Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety

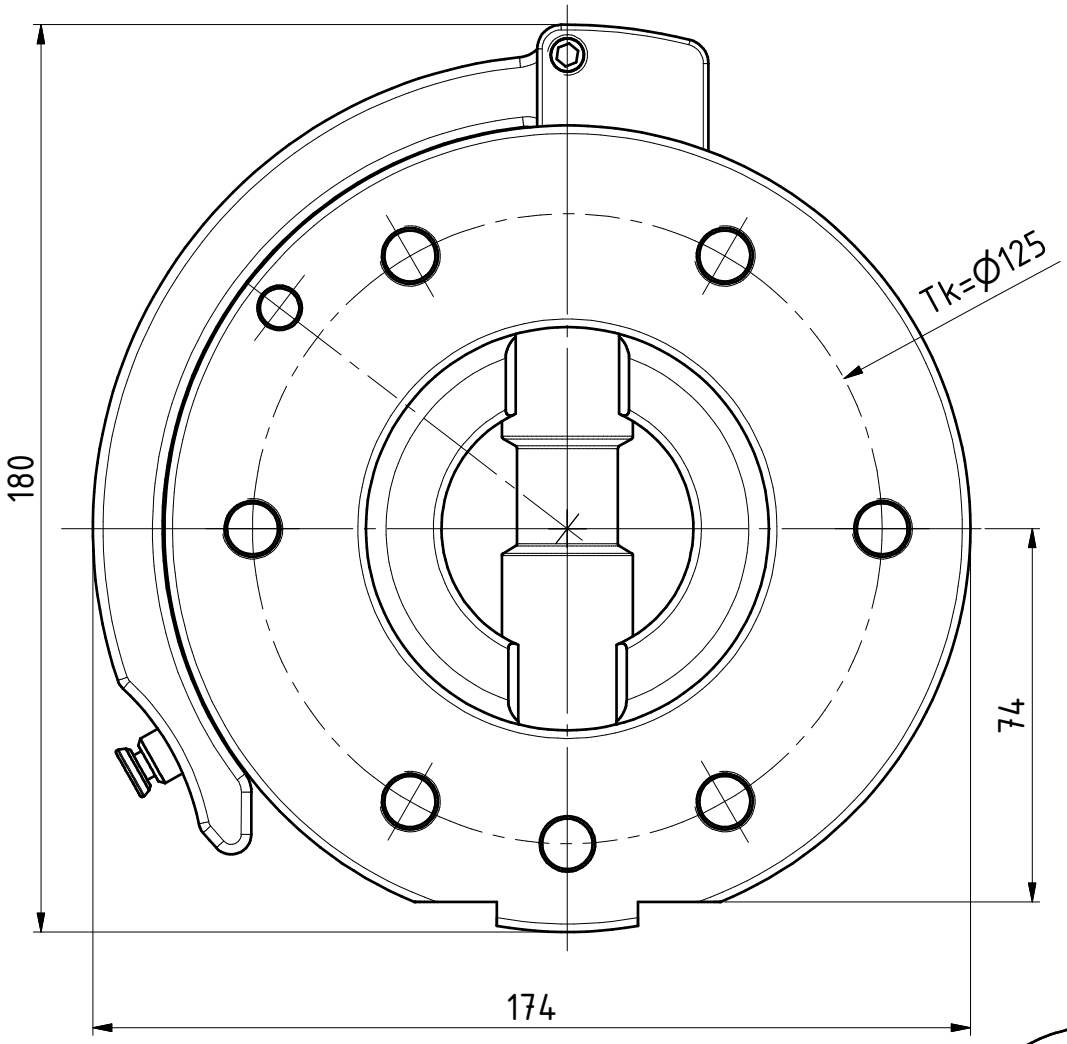


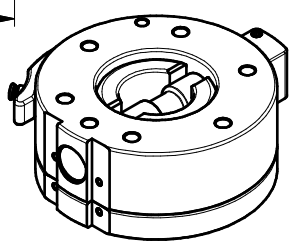
Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø160, drilled acc. to ISO…	
G-SHW160-2OE	upper assembly, E-Mount, Al, anodized
G-SHW160-2UE	lower assembly, E-Mount, Al, anodized



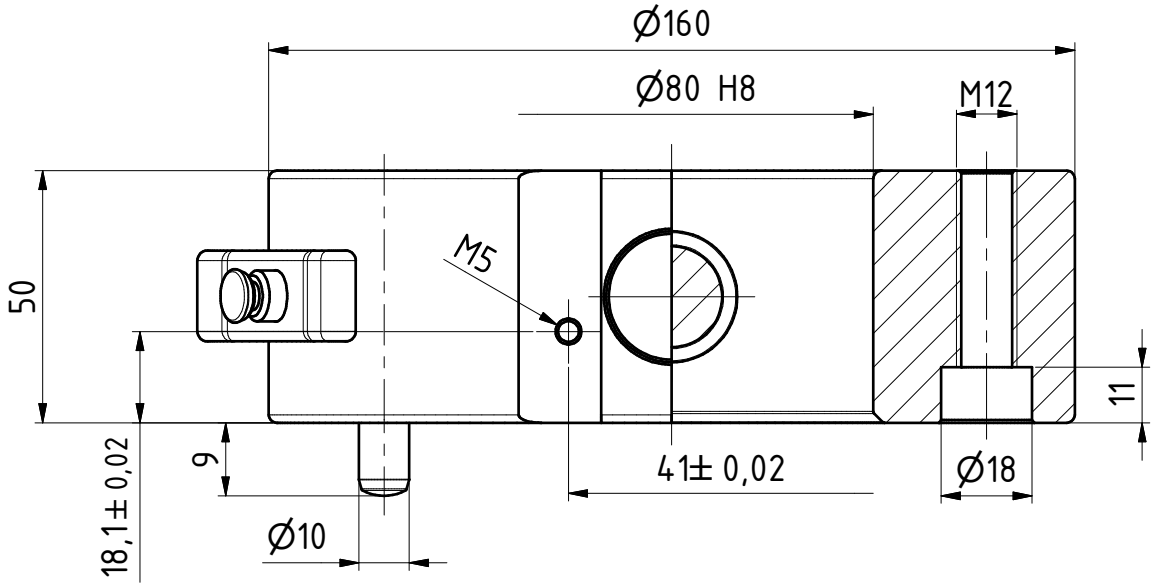


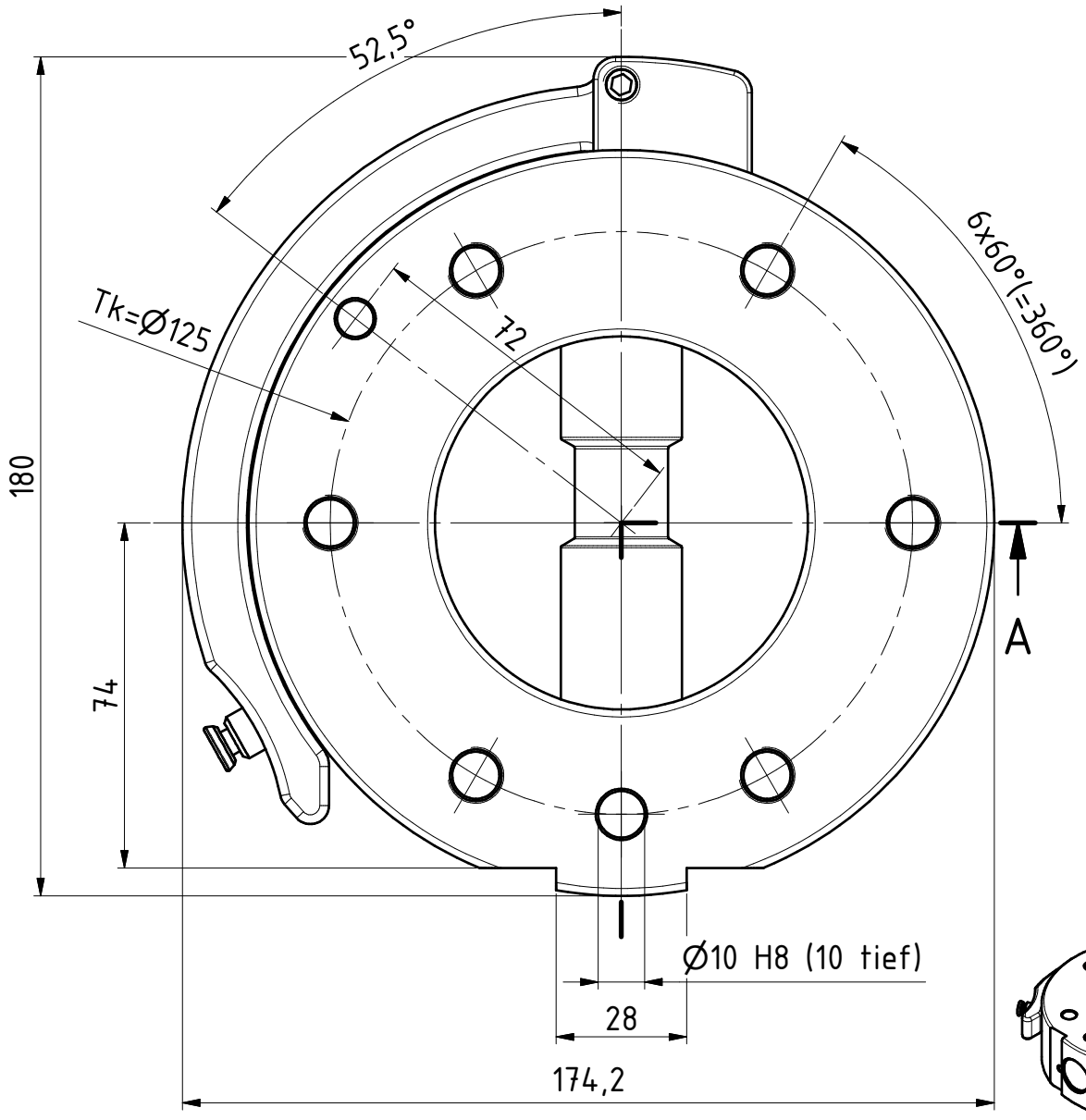


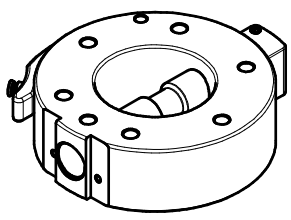


Datum 11.11.2016	Maßstab 1:1.5		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW160-2ZE			

A-A

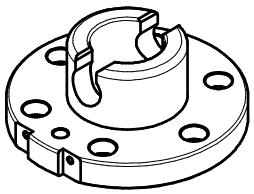


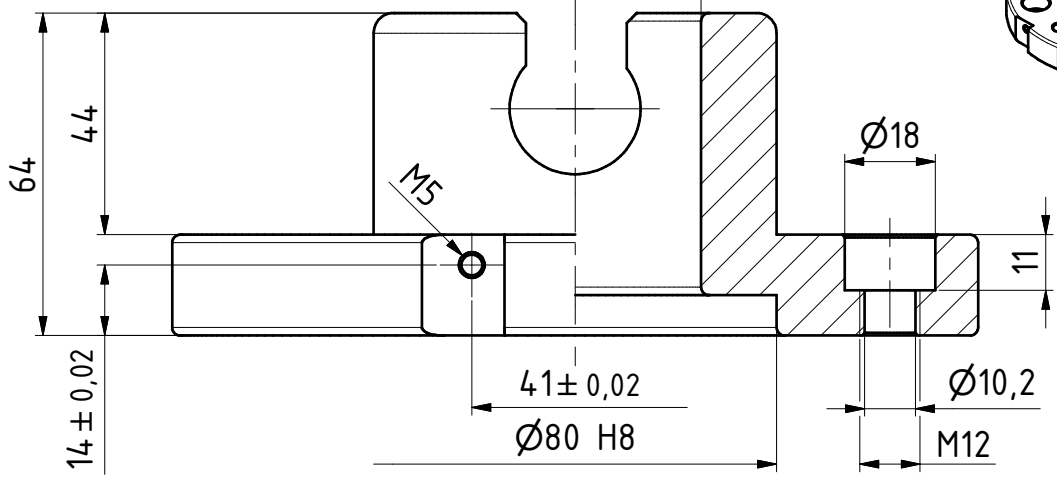


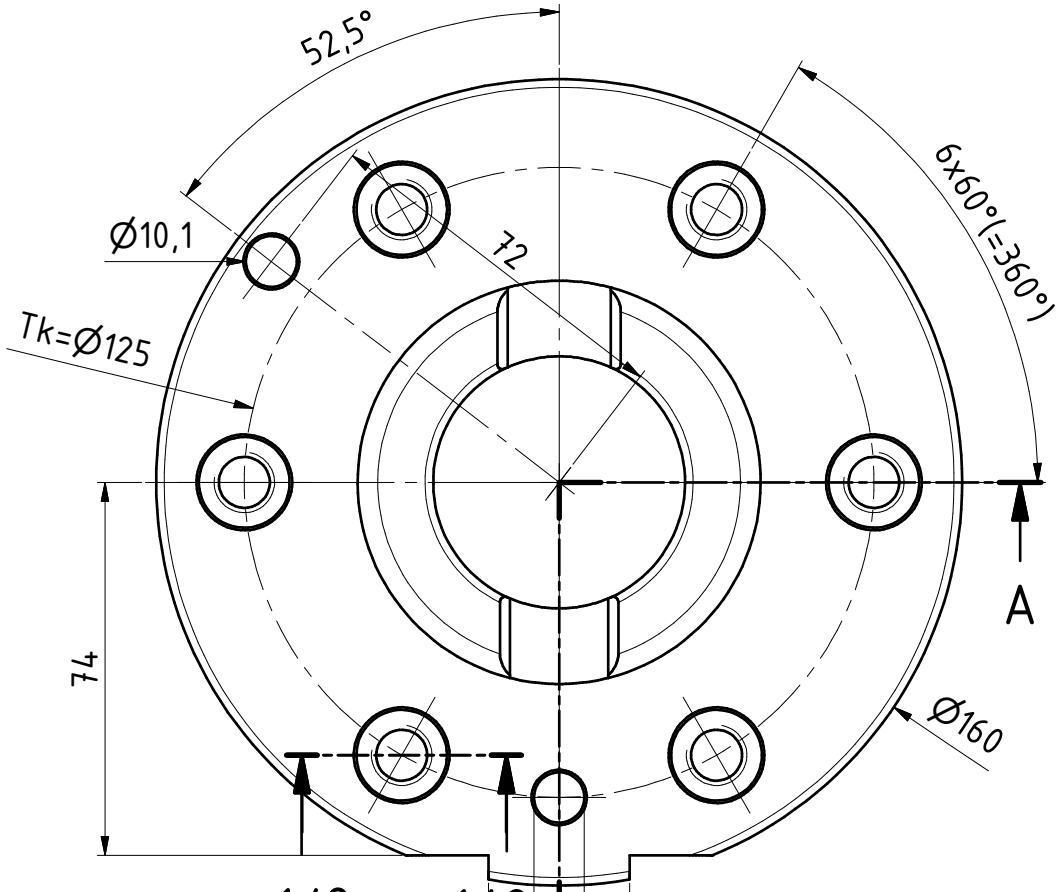


Datum 11.11.2016	Maßstab 1:1.5		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW160-20E			

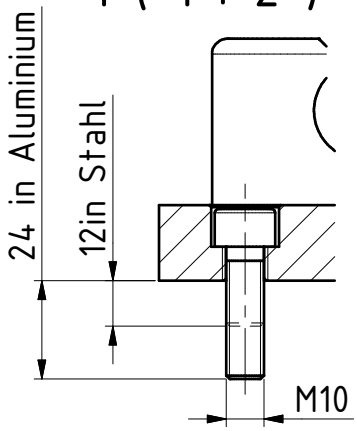
A–A



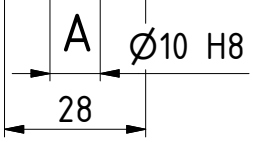




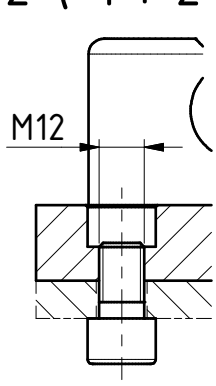
1 (1 : 2)



1/2 1/2



2 (1 : 2)



Datum 03.09.2021	Maßstab 1:1,5		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW160-2UE			

SHW-P CONNECTOR

The SHW Connector is a manual end of arm tool changer with integrated air feed-throughs and an optimized locking mechanism. The tool changer consists of a cylindrical bolt which locks the upper and lower assembly together. A centering disc can be installed on both the upper assembly (robot side) and lower assembly (tool side) of the robot and ensures that the tools are correctly aligned with the robot arm.

SHW-P Connector Advantages:

- Integrated pneumatic feed-throughs
- Interface according to DIN EN ISO 9409-1
- High repeatability < 0.02 mm
- Durable - over 5000 application changes with no loss in accuracy
- Withstands high loads with low dead weight
- Toolless due to integrated operating lever
- Improved operating lever with pure folding movement
- Intuitive operation: can be released and closed with one hand
- Lightweight made of high-strength aluminum, anodized
- Integrated mounting surface for energy feed-through
- Locking pin secures the hand lever against unintentional release

SIZES

SHW063-P
SHW080-P
SHW100-P
SHW125 -P
SHW160-P

G-SHW063-P

Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).
Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Optional connection of an energy feed-through **SEK** for electrical and pneumatic ducts
With 6 integrated pneumatic ducts
Interface according to DIN EN ISO 9409-1

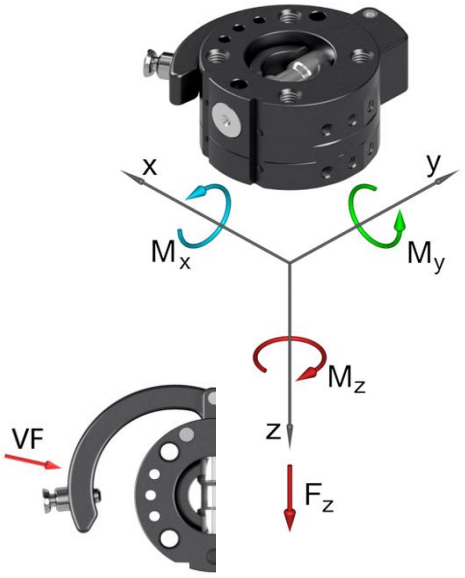
1

2

Technical specifications		SHW063-P
Basic material		Al. anod.
External diameter x height [mm]		63 x 38
Pitch circle diameter [mm]		50
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		700
Compression -Fz [kN]		80
Torsion Mz [Nm]		80
Bending Mx, My [Nm]		70
Mass [kg]	upper assembly	0,25
	lower assembly	0,1
Recommended load [kg]		18* / 24**
Locking force VF [N]		4 - 50
Locking stroke VH [mm]		0 - 1
Pneumatic ducts	connection	3 x M5 a. 3 x D=4
	max. pressure p [bar]	-1 to 8
Operating temperature range [°C]		-30 to +120

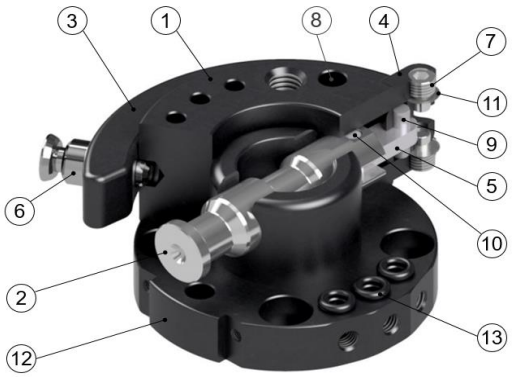
* This guideline applies to the following assumptions:
Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

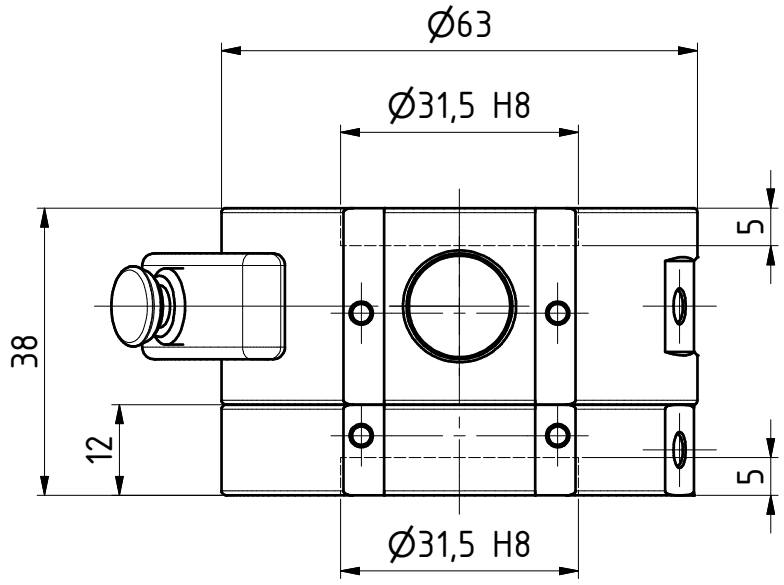
** This guideline applies to the following assumptions:
Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety

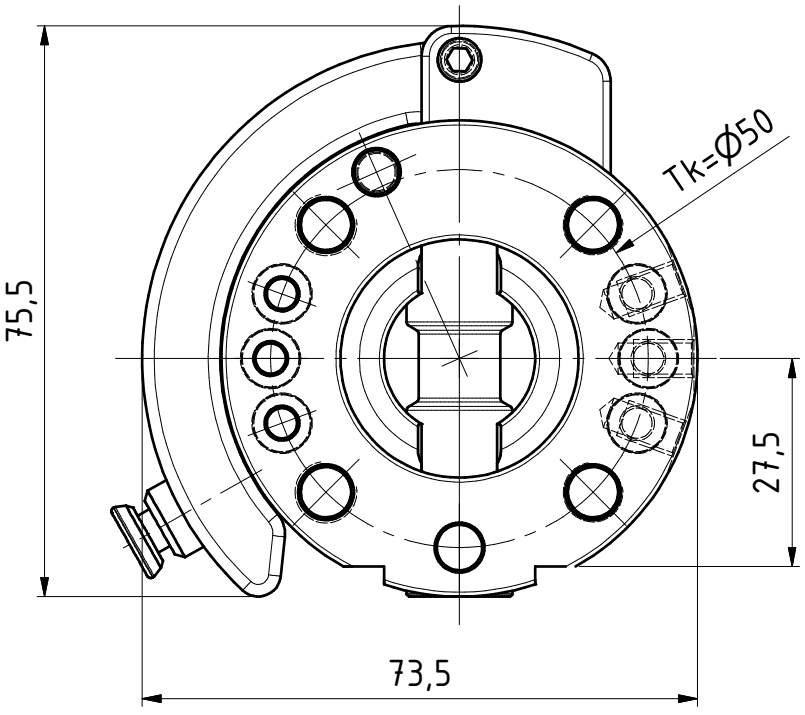


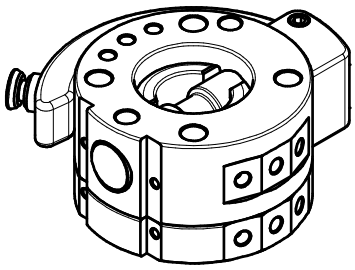
Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly
13	O-ring

SHW063 Connector, drilled acc. to ISO…	
G-SHW063-2OEP	upper assembly, E-Mount, 6 pneum. ducts, Al, anodized
G-SHW063-2UEP	lower assembly, E-Mount, 6 pneum. ducts, Al, anodized

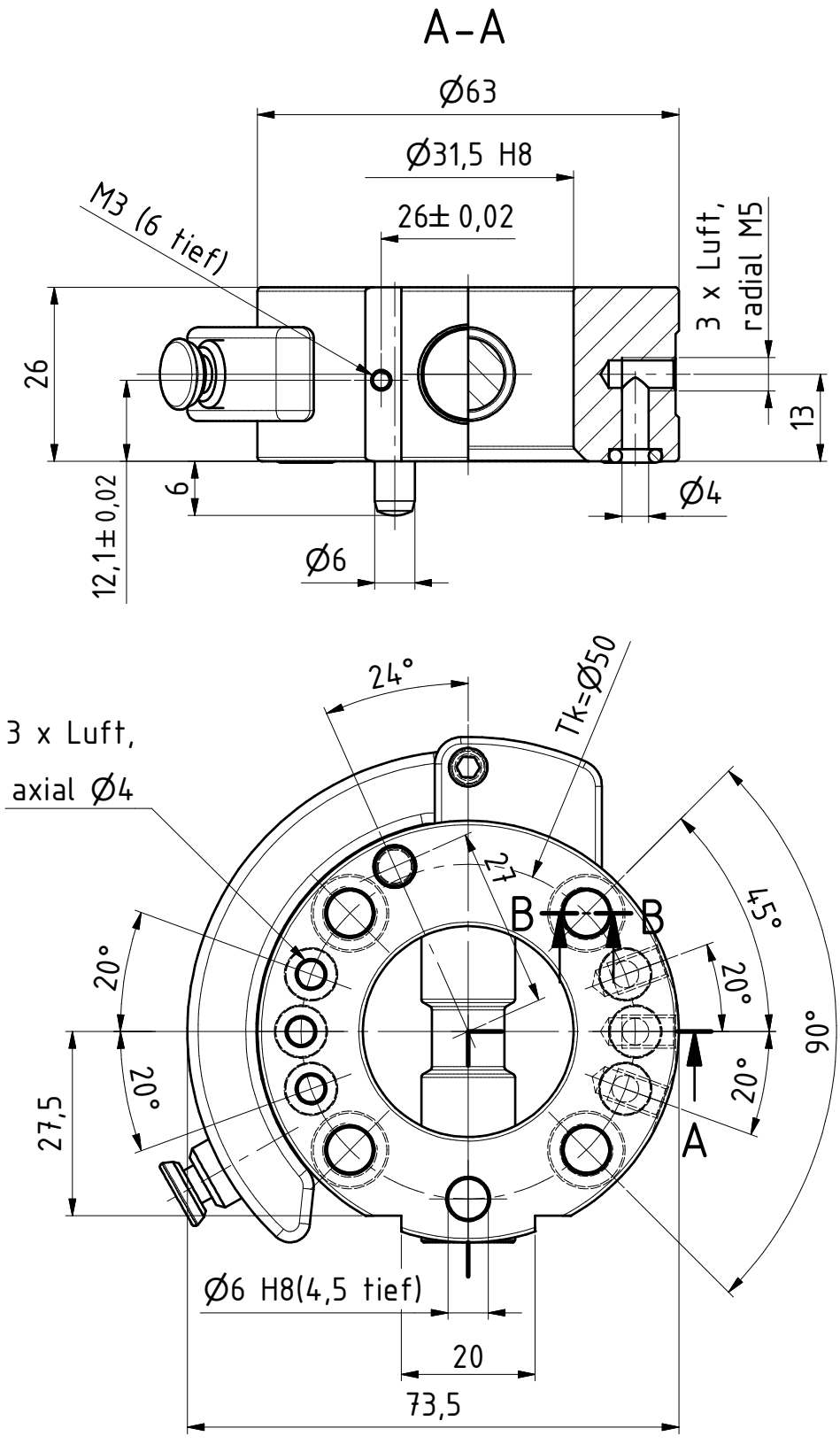


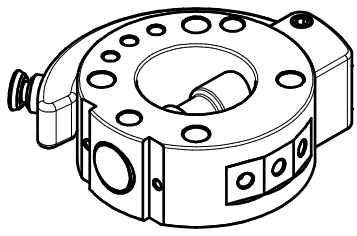






Datum 30.06.2023	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW063-2ZEP			



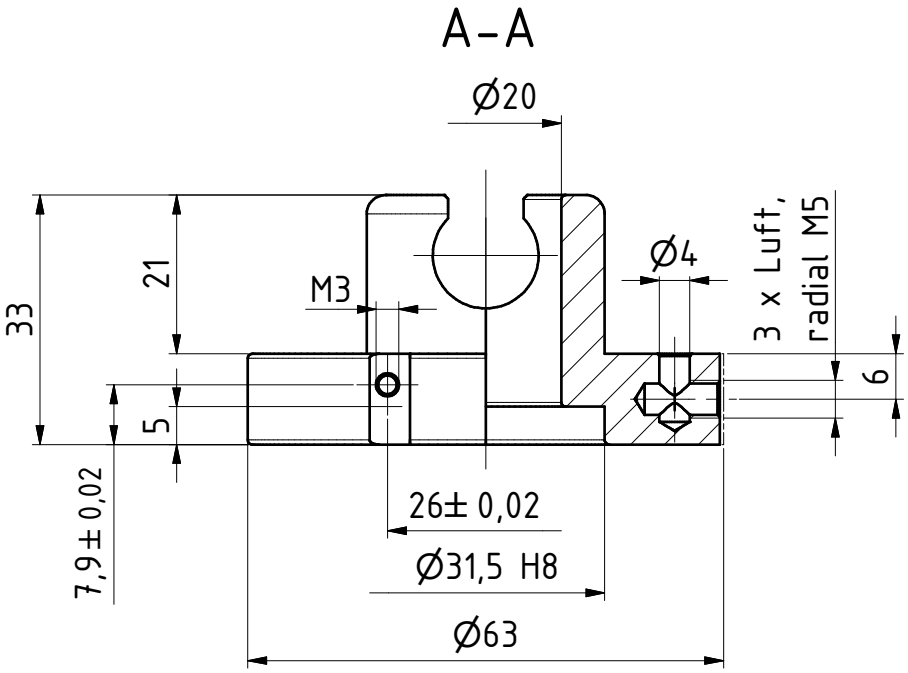


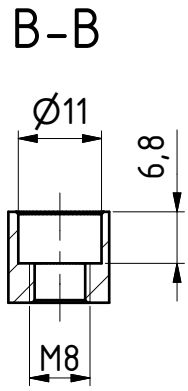
Datum	Maßstab	
30.06.2023	1:1	

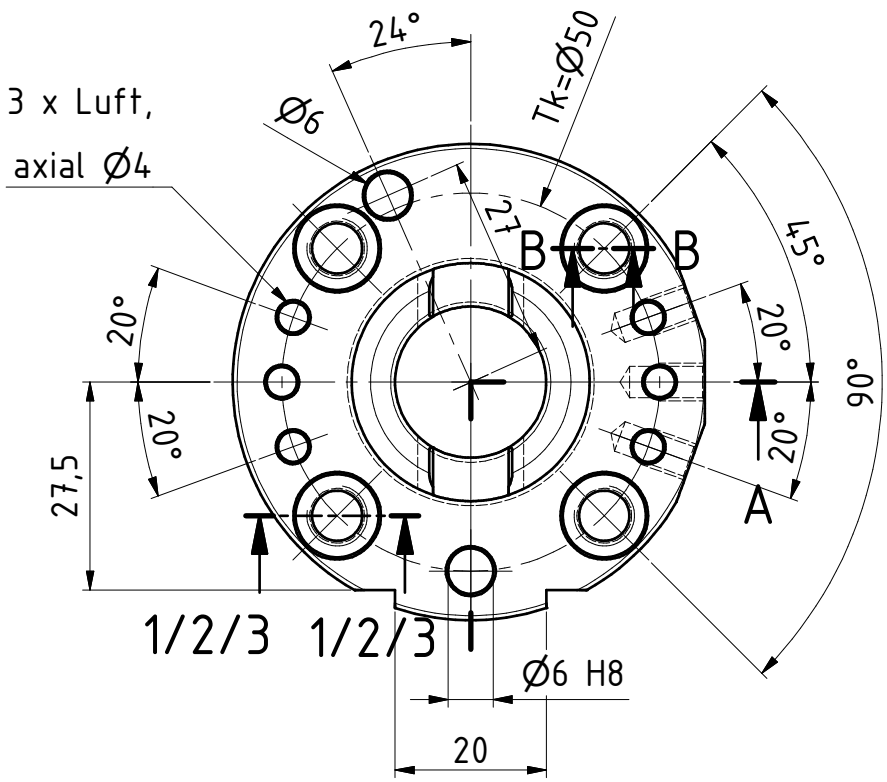
Zeichnungsnummer

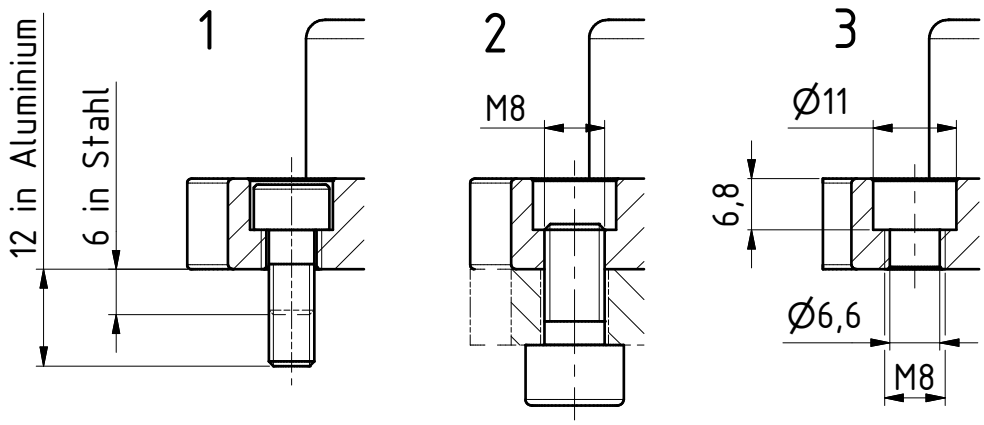
G-SHW063-20EP

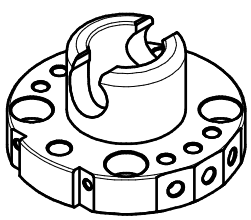
GRIP GmbH Handhabungstechnik











Datum 30.06.2023	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW063-2UEP			

G-SHW080-P

Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).
Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Optional connection of an energy feed-through **SEK** for electrical and pneumatic ducts
With 6 integrated pneumatic ducts
Interface according to DIN EN ISO 9409-1

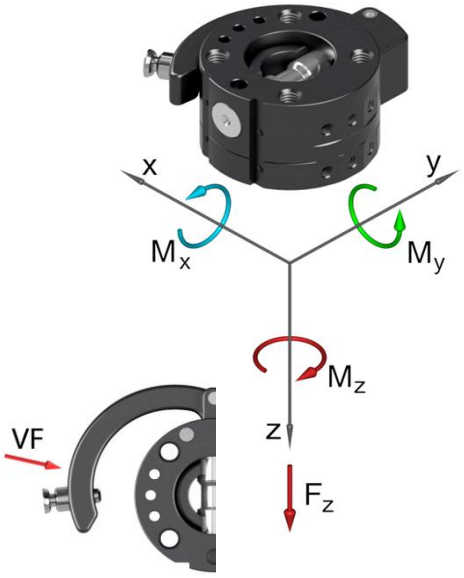
1

2

Technical specifications		SHW080-P
Basic material		Al. anod.
External diameter x height [mm]		80 x 45
Pitch circle diameter [mm]		63
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		800
Compression -Fz [kN]		160
Torsion Mz [Nm]		100
Bending Mx, My [Nm]		100
Mass [kg]	upper assembly	0,41
	lower assembly	0,2
Recommended load [kg]		20* / 28**
Locking force VF [N]		5 - 60
Locking stroke VH [mm]		0 - 1
Pneumatic ducts	connection	3 x G1/8 a. 3 x D=6
	max. pressure p [bar]	-1 to 8
Operating temperature range [°C]		-30 to +120

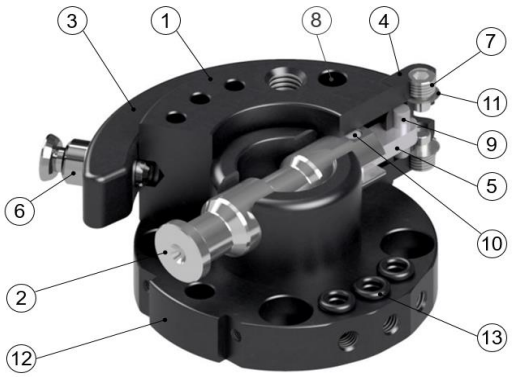
* This guideline applies to the following assumptions:
Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

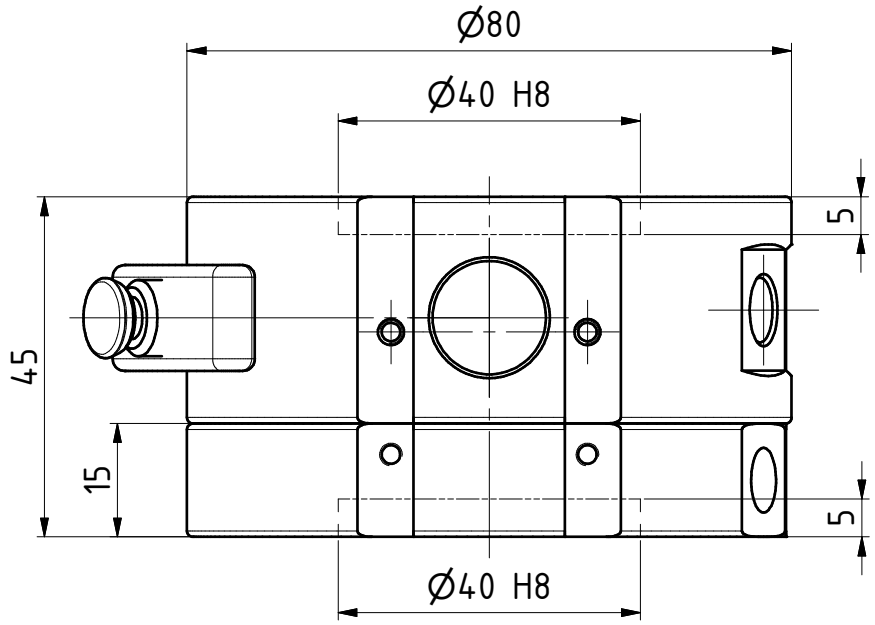
** This guideline applies to the following assumptions:
Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety

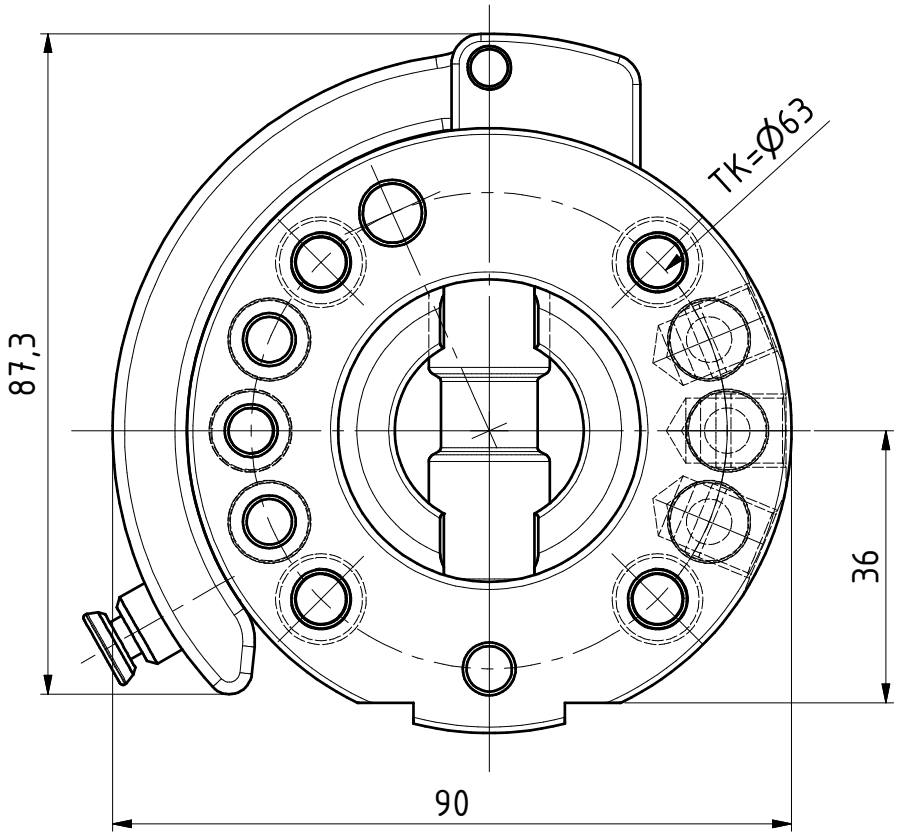


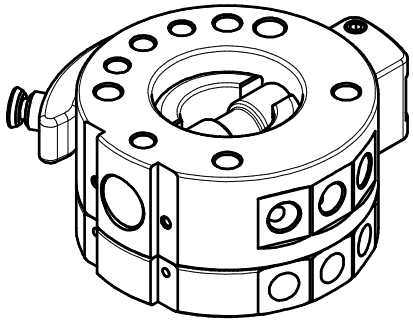
Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly
13	O-ring

SHW080 Connector, drilled acc. to ISO…	
G-SHW080-2OEP	upper assembly, E-Mount, 6 pneum. ducts, Al, anodized
G-SHW080-2UEP	lower assembly, E-Mount, 6 pneum. ducts, Al, anodized



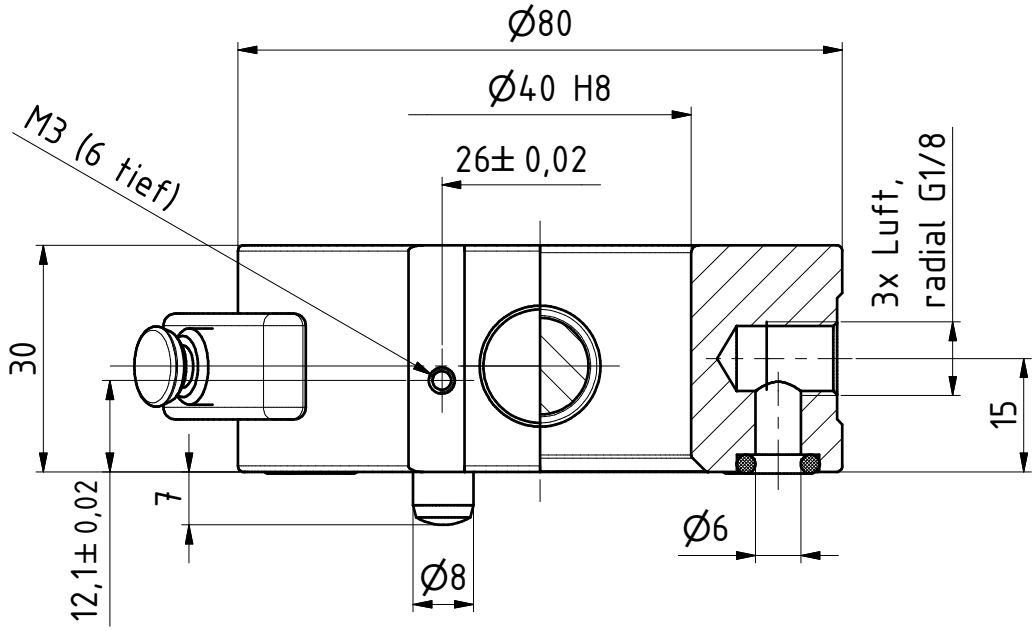




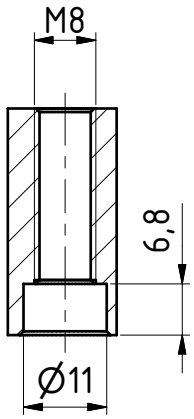


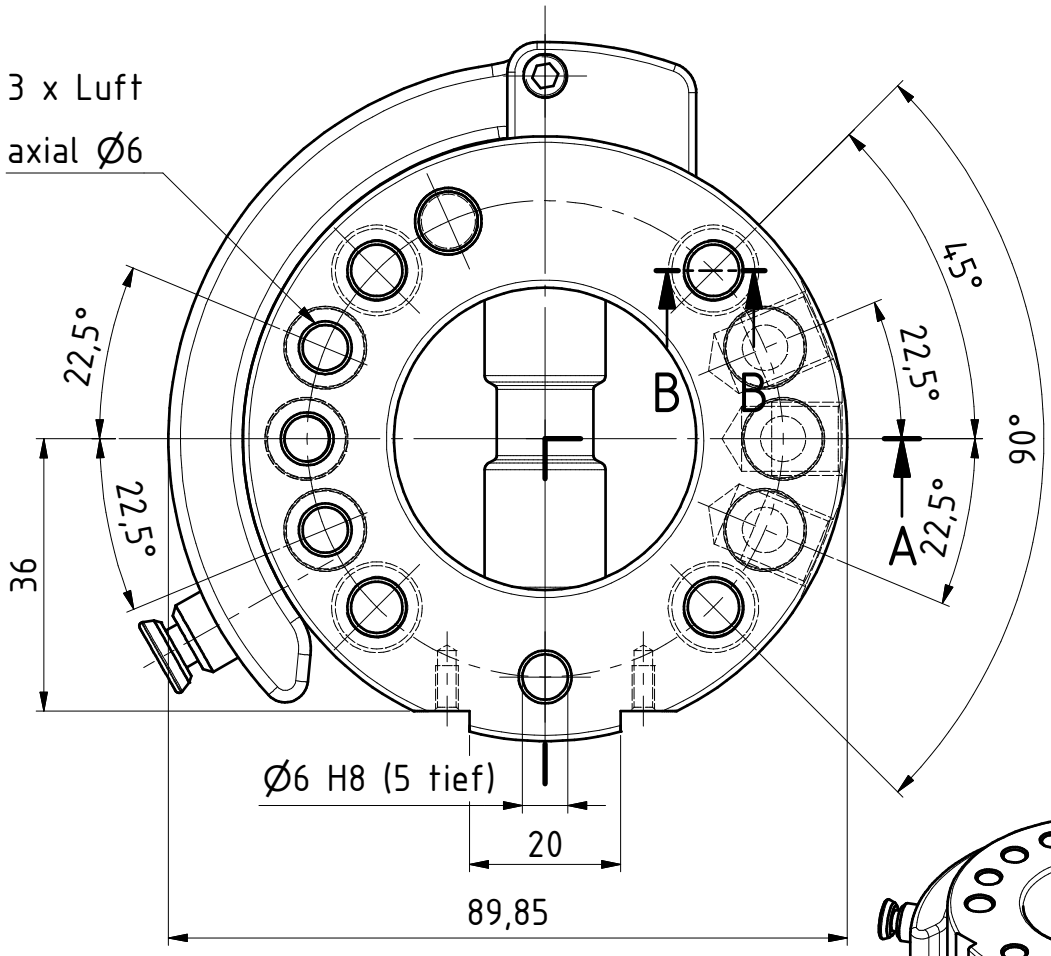
Datum 30.06.2023	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW080-2ZEP			

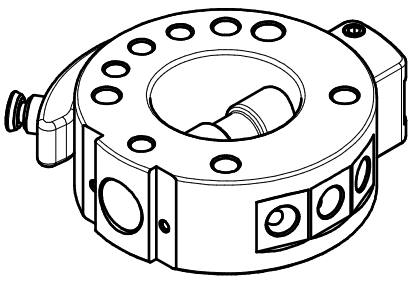
A–A



B–B







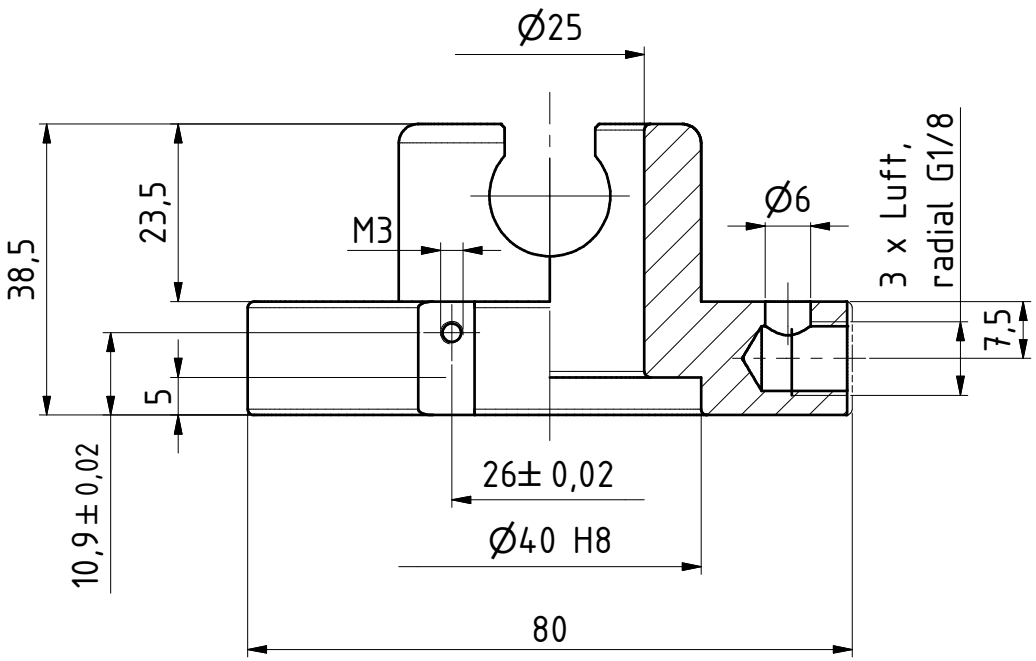
Datum	Maßstab	
30.06.2023	1:1	

Zeichnungsnummer

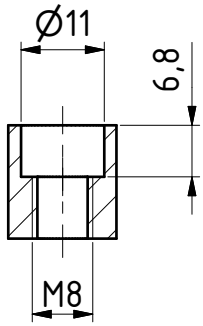
G-SHW080-2OEP

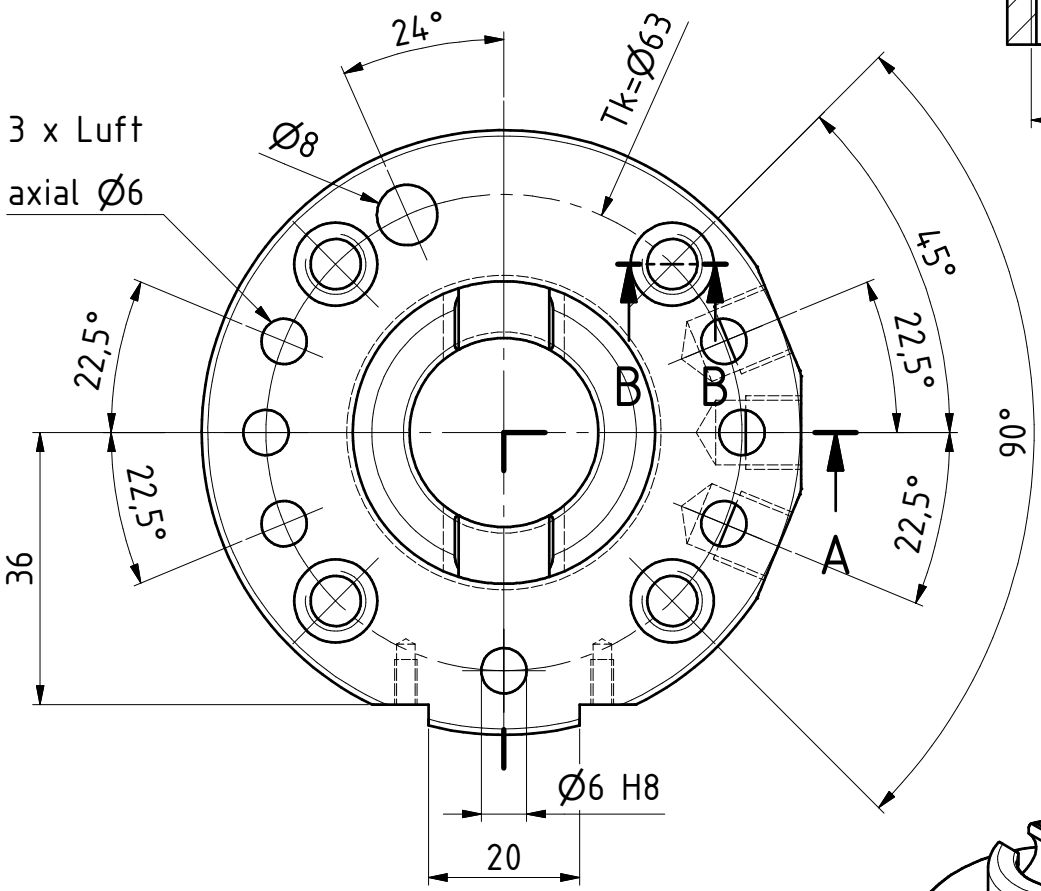
GRIP GmbH Handhabungstechnik

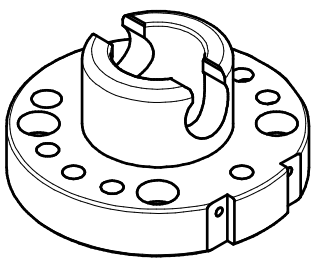
A-A



B-B







Datum	Maßstab	
30.06.2023	1:1	

Zeichnungsnummer

G-SHW080-2UEP

GRIP GmbH Handhabungstechnik

G-SHW100-P

Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Optional connection of an energy feed-through **SEK** for electrical and pneumatic ducts
With 6 integrated pneumatic ducts
Interface according to DIN EN ISO 9409-1

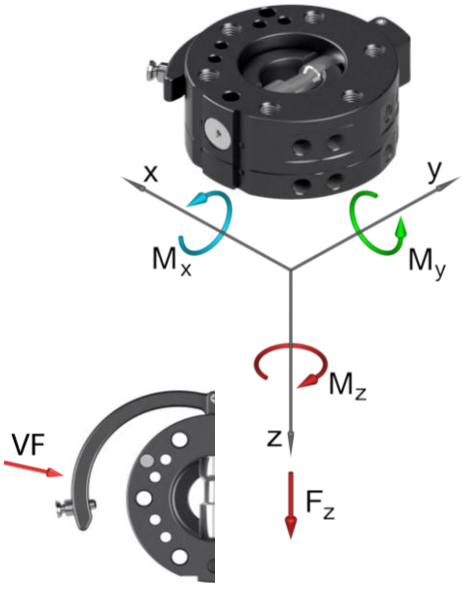
1

2

Technical specifications		SHW100-P
Basic material		Al. anod.
External diameter x height [mm]		100 x 47
Pitch circle diameter [mm]		80
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		1.000
Compression -Fz [kN]		219
Torsion Mz [Nm]		140
Bending Mx, My [Nm]		130
Mass [kg]	upper assembly	0,74
	lower assembly	0,35
Recommended load [kg]		25* / 34**
Locking force VF [N]		6 - 70
Locking stroke VH [mm]		0 - 1
Pneumatic ducts	connection	4 x G1/8 a. 4 x D=6
	max. pressure p [bar]	-1 to 8
Operating temperature range [°C]		-30 to +120

* This guideline applies to the following assumptions:
Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

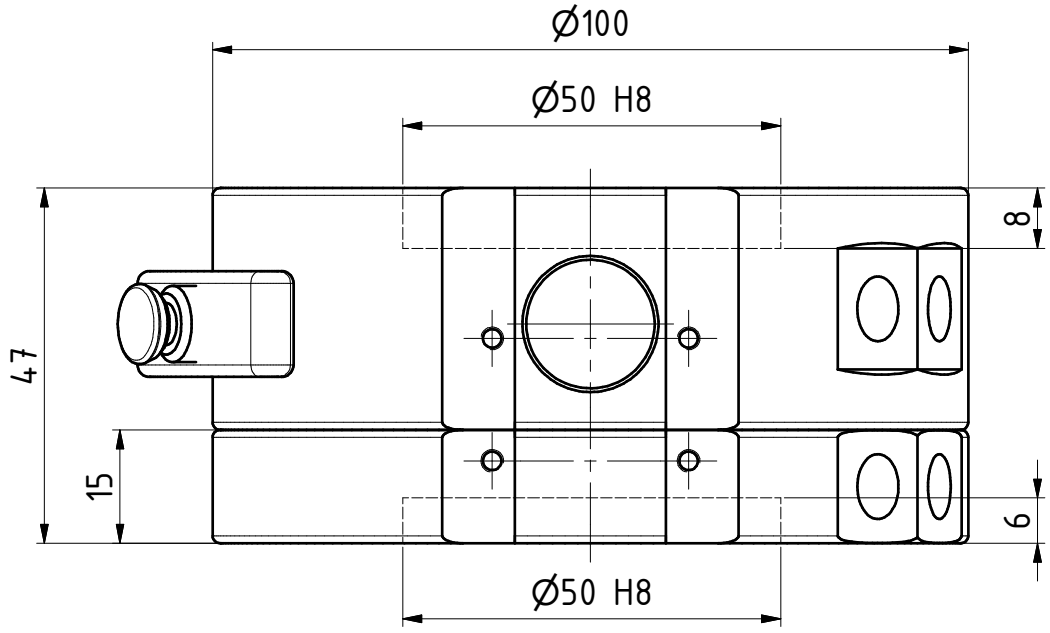
** This guideline applies to the following assumptions:
Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety

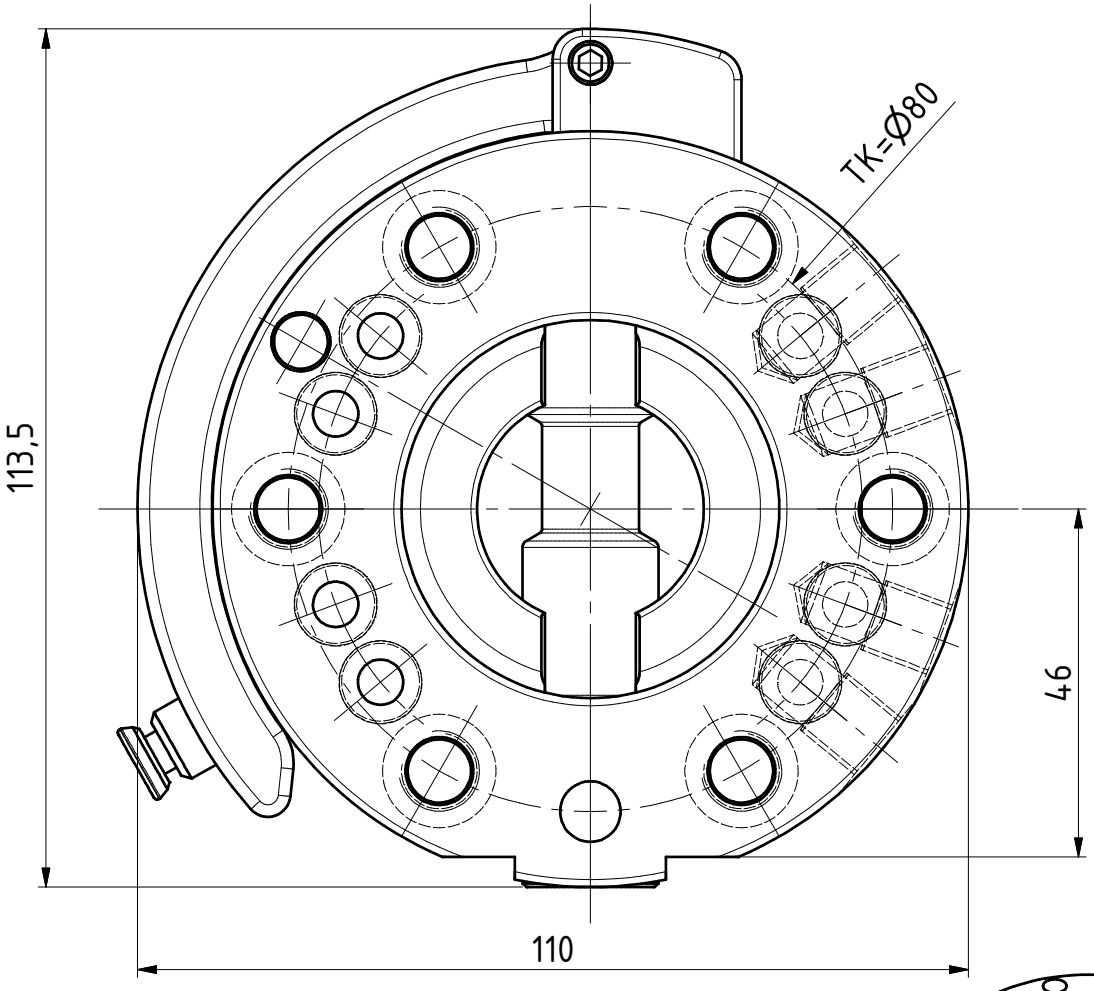


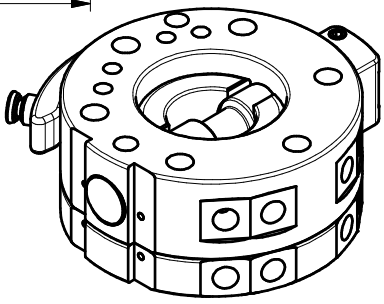
Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly
13	O-ring

SHW100 Connector, drilled acc. to ISO…	
G-SHW100-2OEP	upper assembly, E-Mount, 8 pneum. ducts, Al, anodized
G-SHW100-2UEP	lower assembly, E-Mount, 8 pneum. ducts, Al, anodized

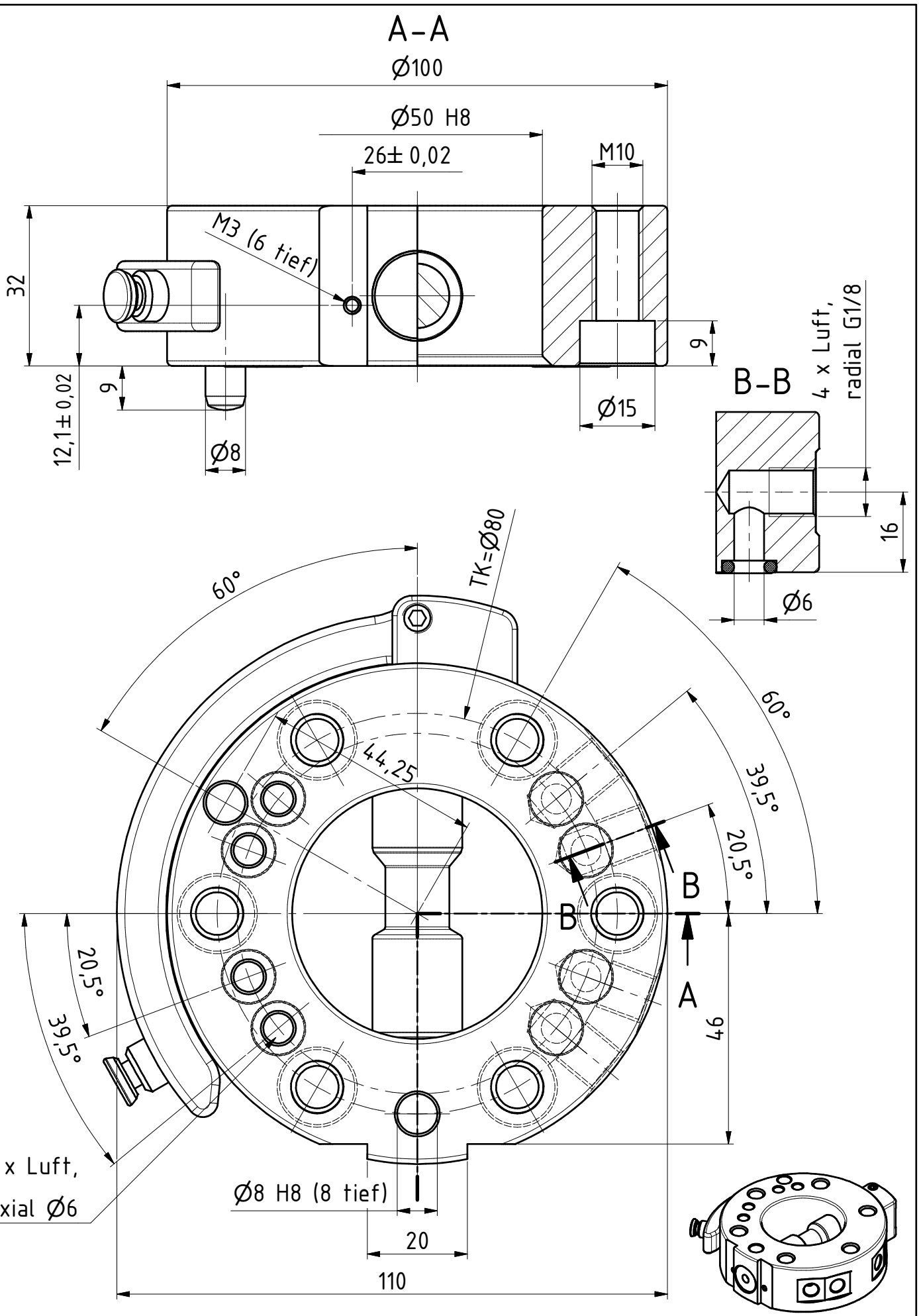
Rev. 1.01





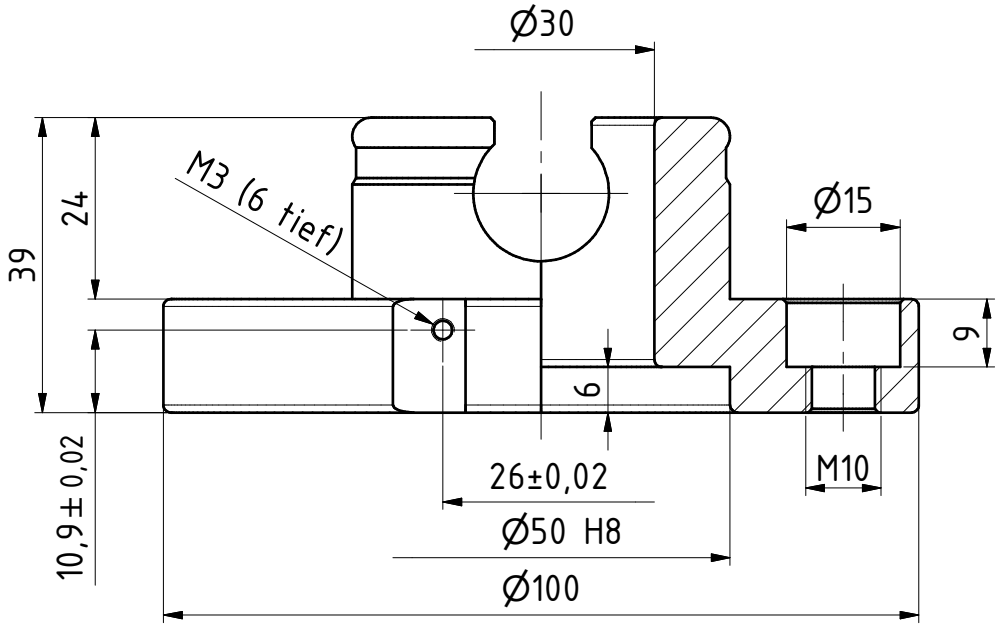


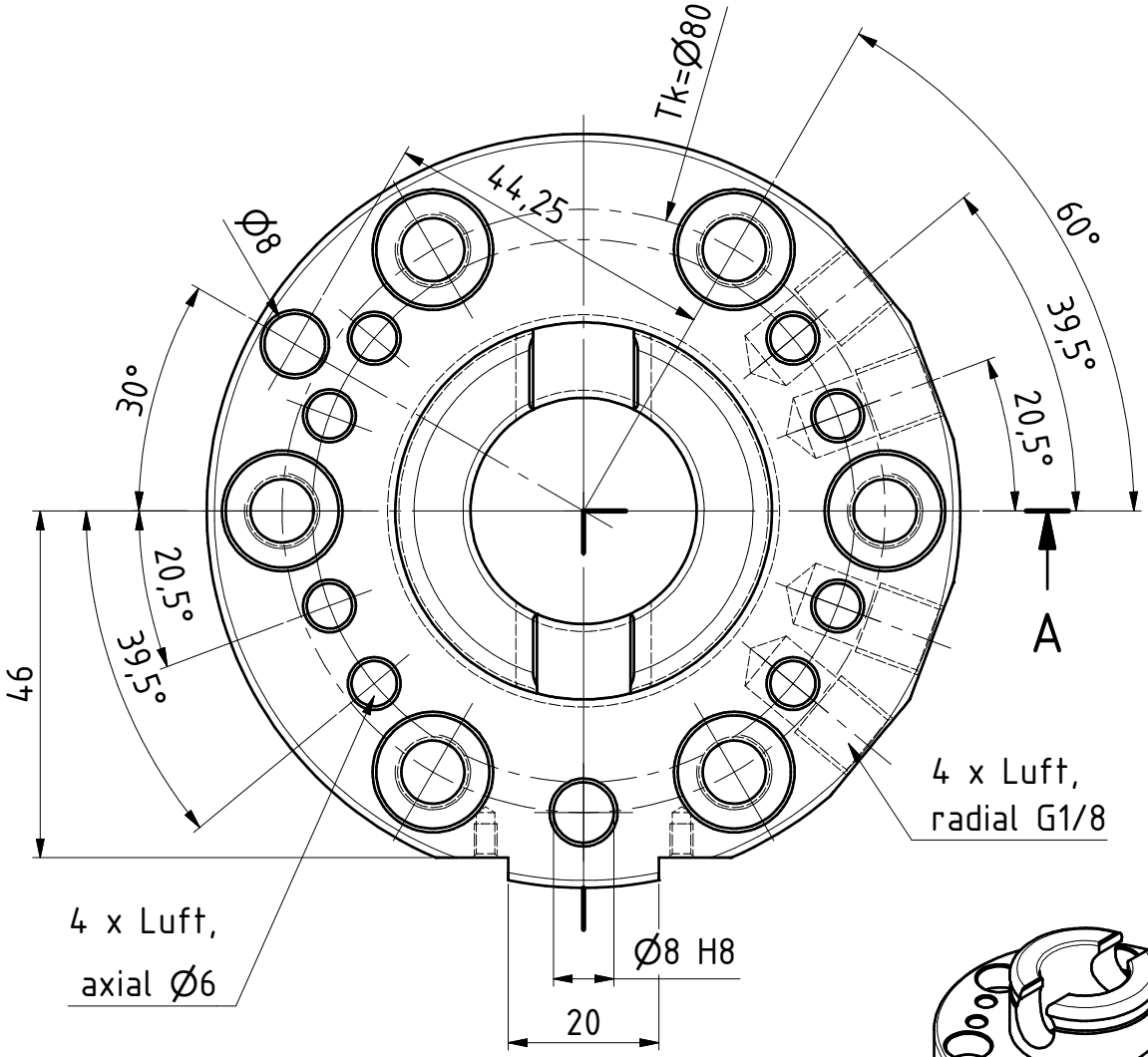
Datum 30.06.2023	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW100-2ZEP			

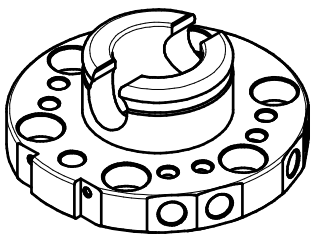


Datum 30.06.2023	Maßstab 1:1		
Zeichnungsnummer G-SHW100-20EP			GRIP GmbH Handhabungstechnik

A–A







Datum	Maßstab	
30.06.2023	1:1	

Zeichnungsnummer

G-SHW100-2UEP

GRIP GmbH Handhabungstechnik

G-SHW125-P

Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).
Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Optional connection of an energy feed-through **SEK** for electrical and pneumatic ducts
With 12 integrated pneumatic ducts
Interface according to DIN EN ISO 9409-1

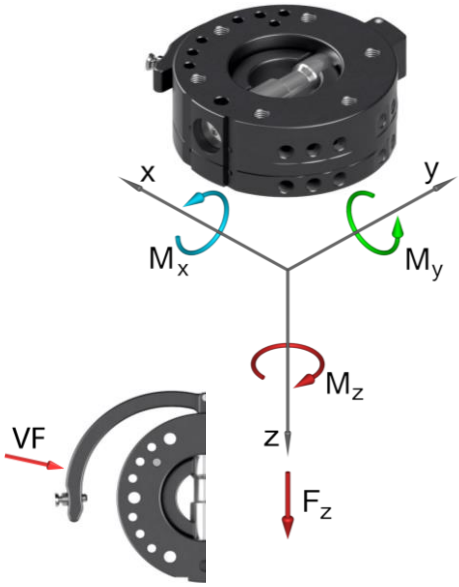
1

2

Technical specifications		SHW125-P
Basic material		Al. anod.
External diameter x height [mm]		125 x 50
Pitch circle diameter [mm]		100
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		1.200
Compression -Fz [kN]		377
Torsion Mz [Nm]		180
Bending Mx, My [Nm]		180
Mass [kg]	upper assembly	1,3
	lower assembly	0,55
Recommended load [kg]		40* / 55**
Locking force VF [N]		8 - 80
Locking stroke VH [mm]		0 - 1
Pneumatic ducts	connection	6 x G1/8 a. 6 x D=6
	max. pressure p [bar]	-1 to 8
Operating temperature range [°C]		-30 to +120

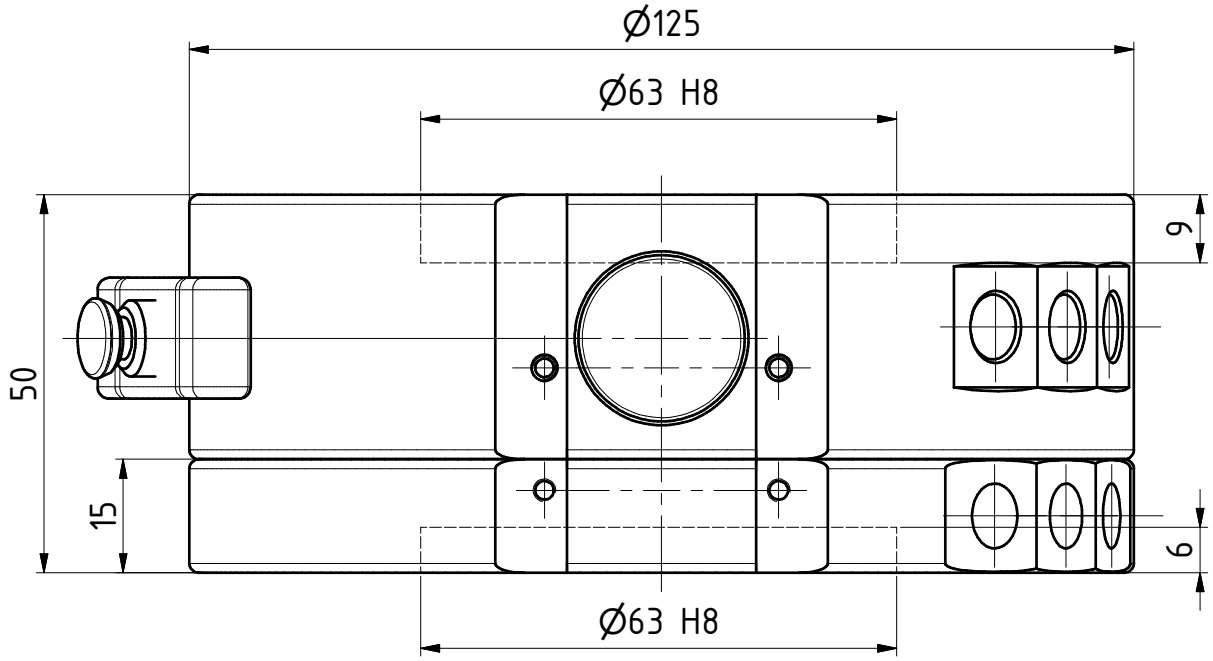
* This guideline applies to the following assumptions:
Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

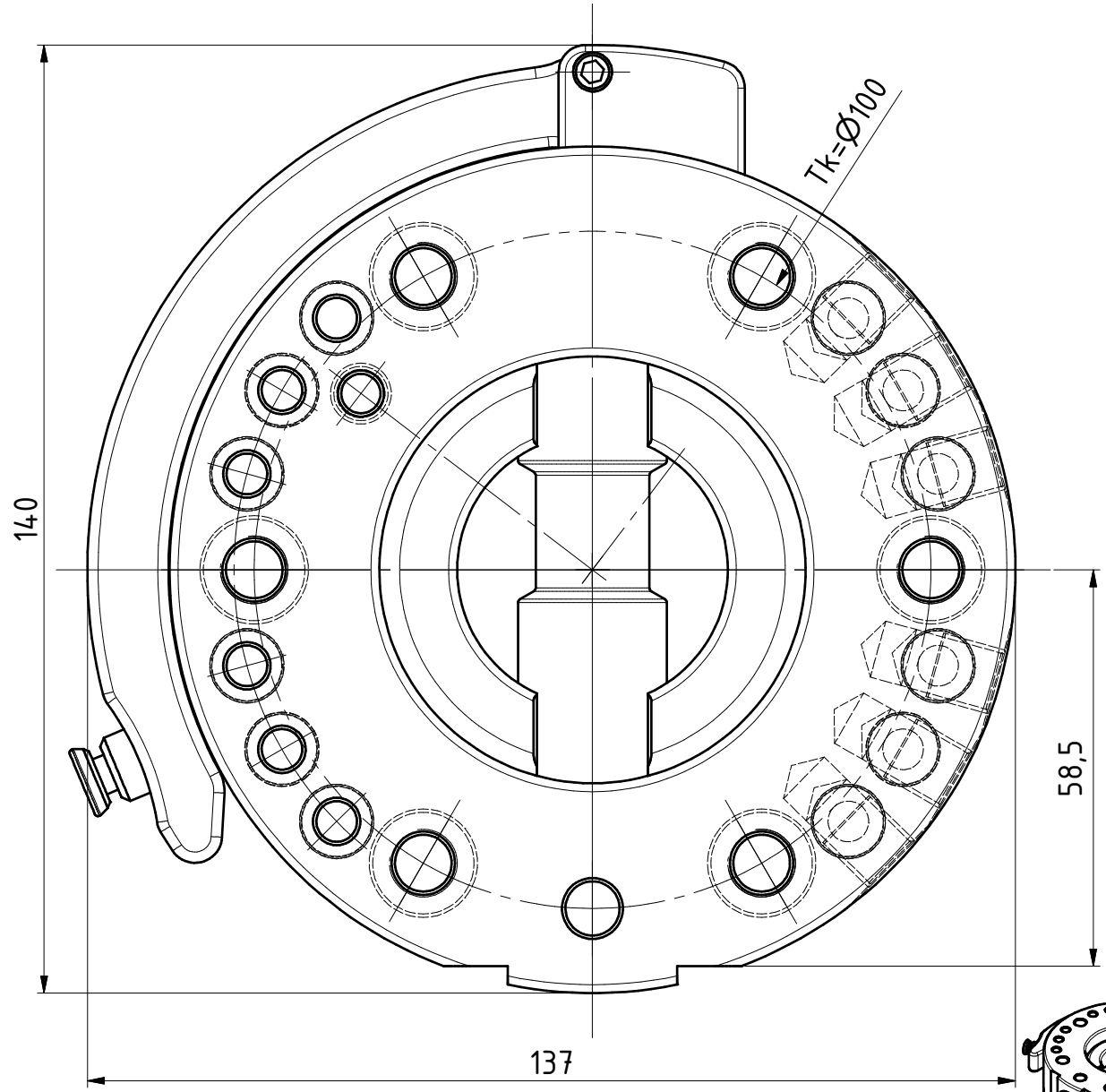
** This guideline applies to the following assumptions:
Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety

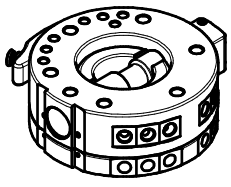


Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly
13	O-ring

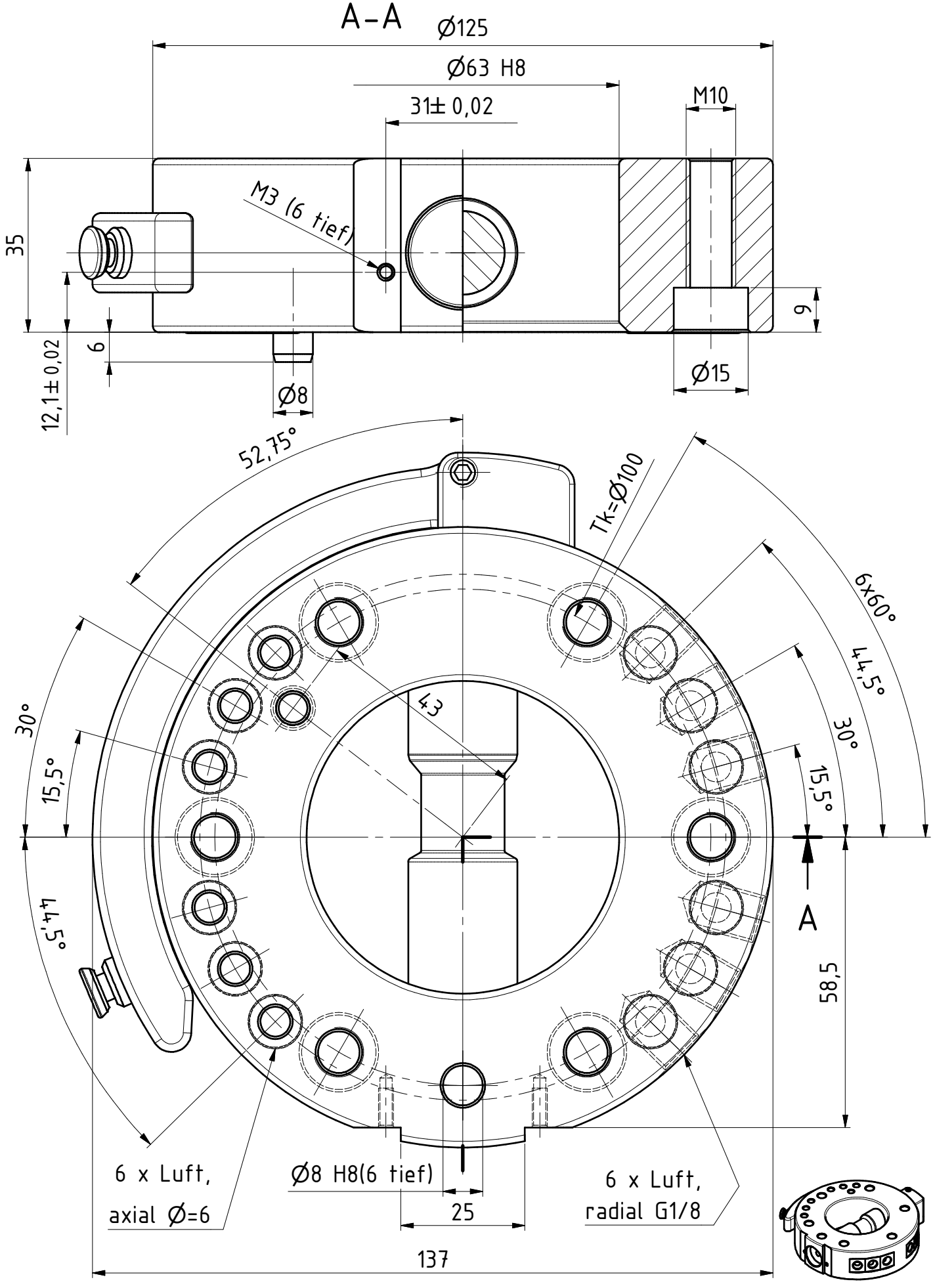
SHW125 Connector, drilled acc. to ISO…	
G-SHW125-2OEP	upper assembly, E-Mount, 12 pneum. ducts, Al, anodized
G-SHW125-2UEP	lower assembly, E-Mount, 12 pneum. ducts, Al, anodized



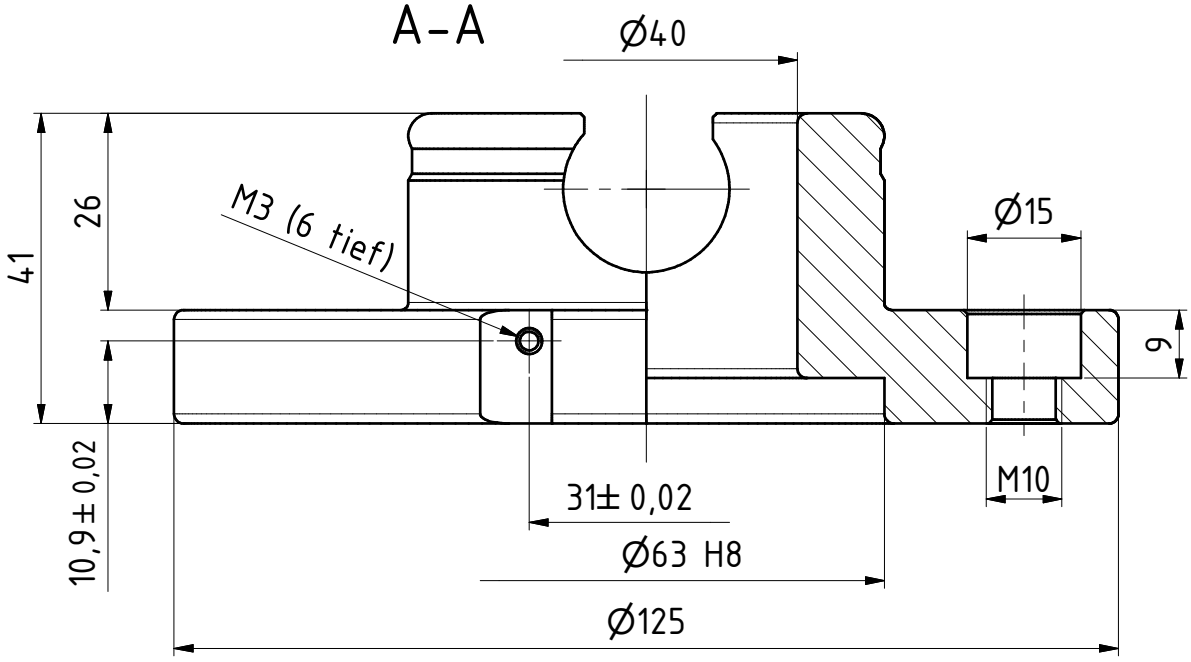


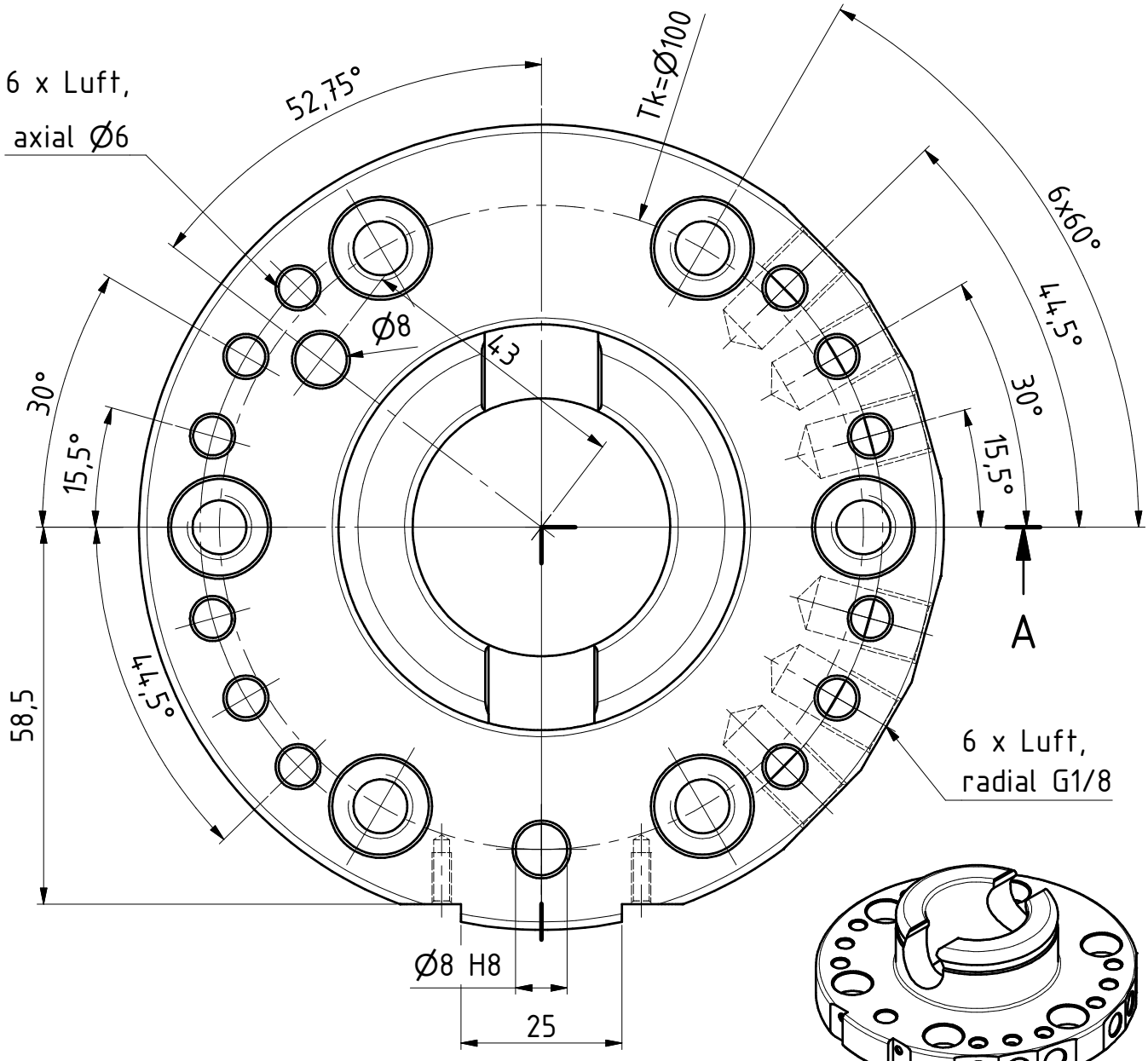


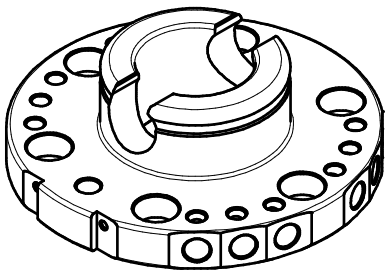
Datum 30.06.2023	Maßstab 1:1.5		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW125-2ZEP			



Datum 30.06.2023	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW125-20EP			







Datum 30.06.2023	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW125-2UEP			

G-SHW160-P

Technical specifications

Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:
Withstands high loads with low dead weight
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Optional connection of an energy feed-through **SEK** for electrical and pneumatic ducts
With 12 integrated pneumatic ducts
Interface according to DIN EN ISO 9409-1

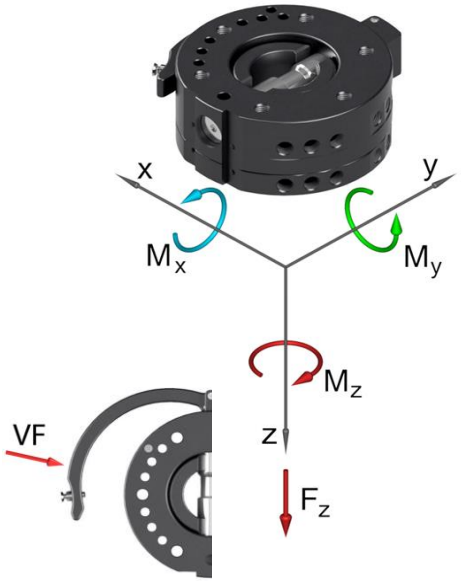
1

2

Technical specifications		SHW160-P
Basic material		Al. anod.
External diameter x height [mm]		160 x 70
Pitch circle diameter [mm]		125
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		2.000
Compression -Fz [kN]		626
Torsion Mz [Nm]		300
Bending Mx, My [Nm]		320
Mass [kg]	upper assembly	2,8
	lower assembly	1,2
Recommended load [kg]		52* / 68**
Locking force VF [N]		10 - 100
Locking stroke VH [mm]		0 - 1
Pneumatic ducts	connection	6 x G1/4 a. 6 x D=8
	max. pressure p [bar]	-1 to 8
Operating temperature range [°C]		-30 to +120

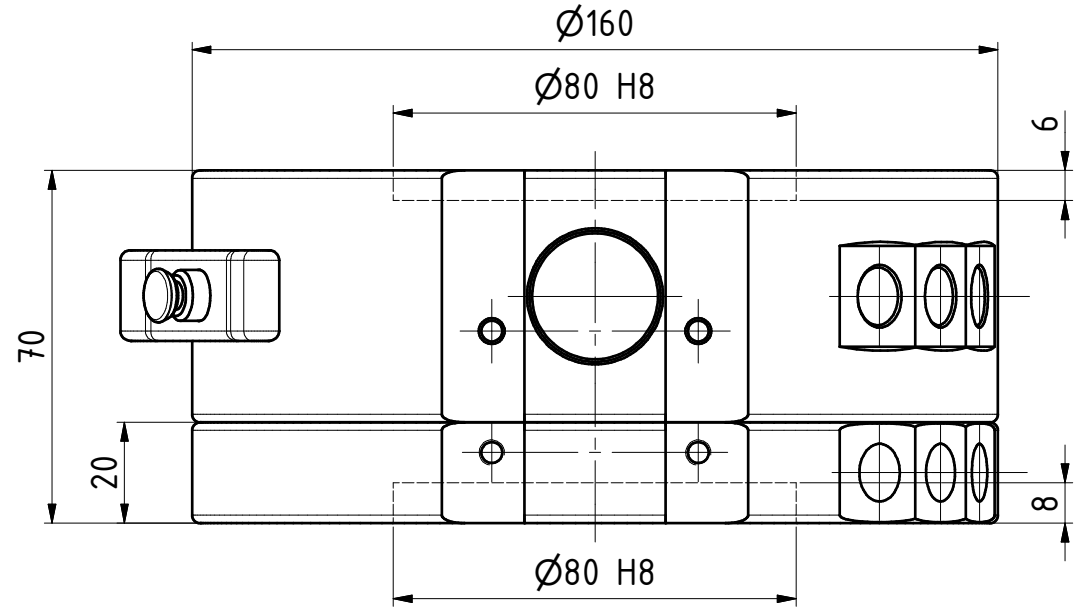
* This guideline applies to the following assumptions:
Acceleration: **10 m/s²**, gravity distance: **100 mm**, double safety

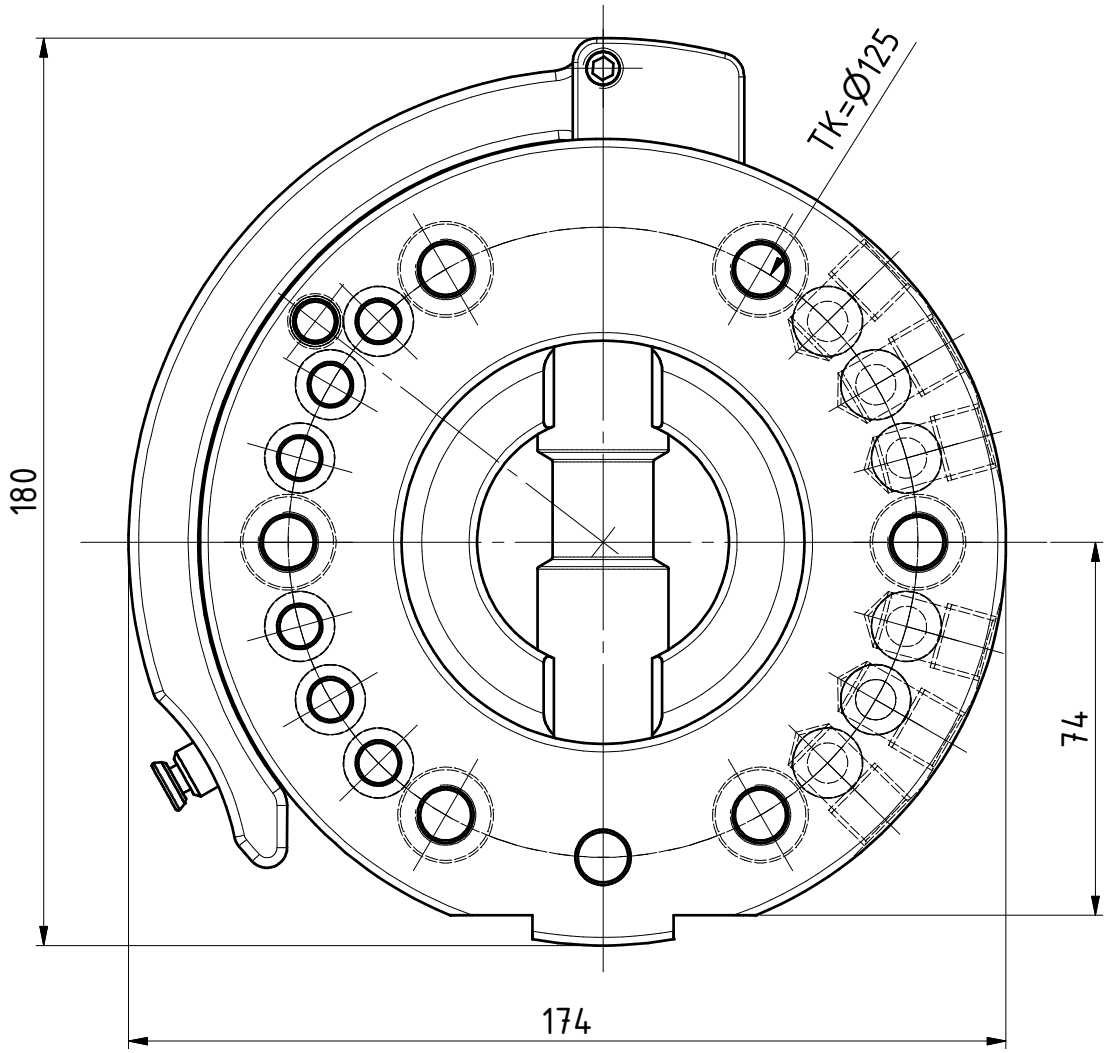
** This guideline applies to the following assumptions:
Acceleration: **5 m/s²**, gravity distance: **100 mm**, double safety

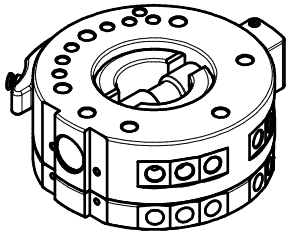


Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly
13	O-ring

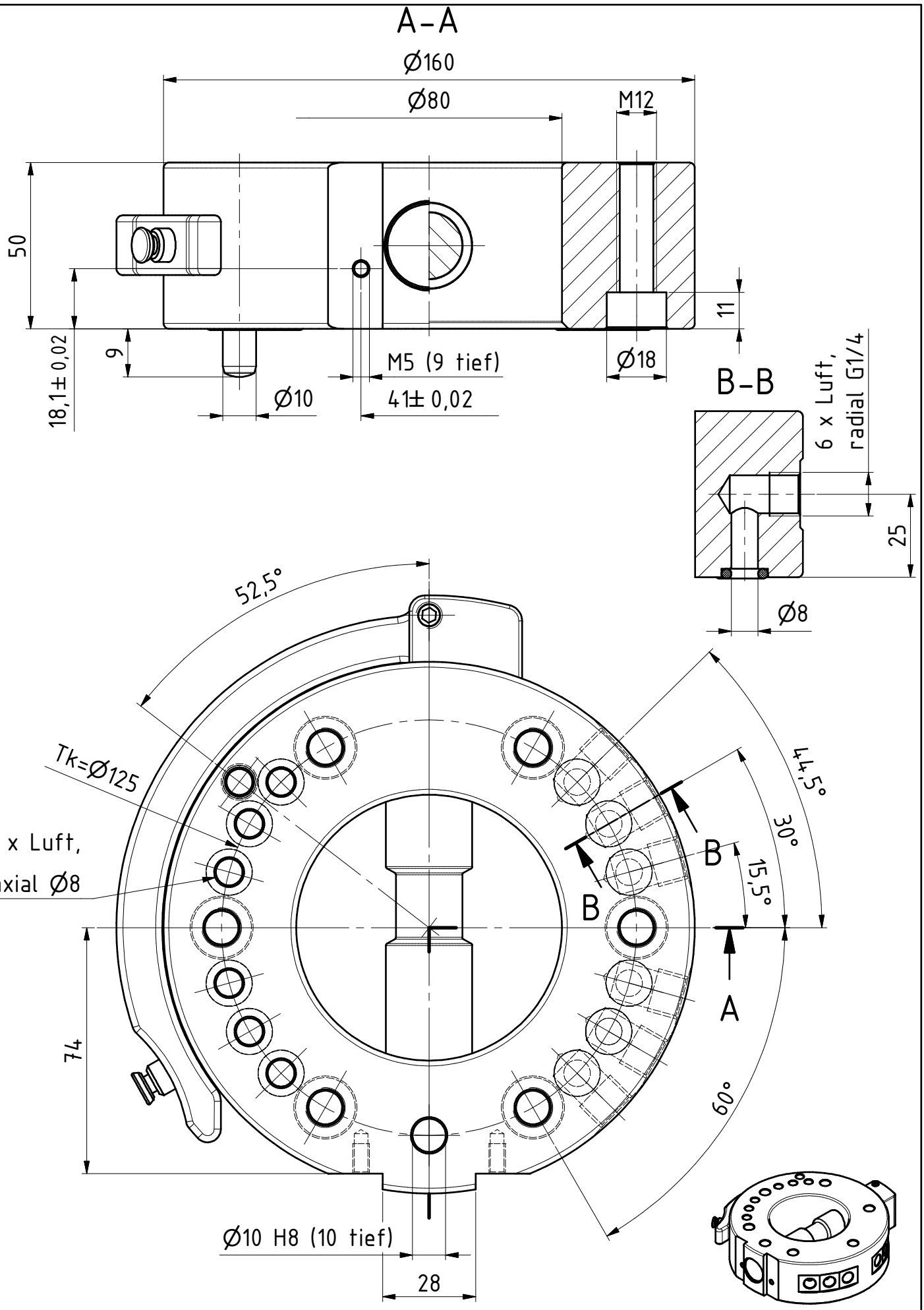
SHW160 Connector, drilled acc. to ISO…	
G-SHW160-2OEP	upper assembly, E-Mount, 12 pneum. ducts, Al, anodized
G-SHW160-2UEP	lower assembly, E-Mount, 12 pneum. ducts, Al, anodized



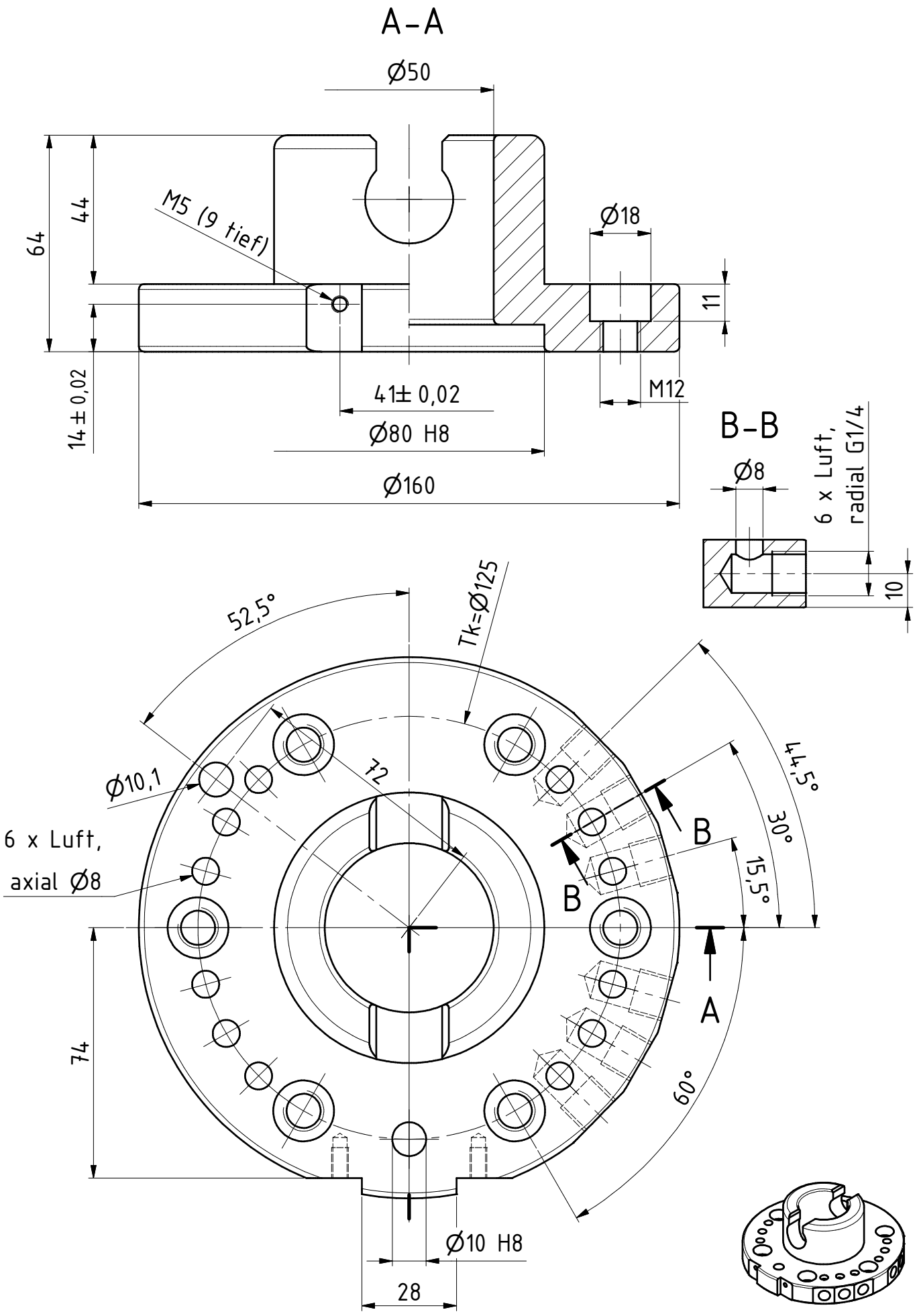




Datum 30.06.2023	Maßstab 1:1.5		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SHW160-2ZEP			



Datum 30.06.2023	Maßstab 1:1,5		
Zeichnungsnummer G-SHW160-20EP			GRIP GmbH Handhabungstechnik



Datum 30.06.2023	Maßstab 1:1,5		
Zeichnungsnummer G-SHW160-2UEP			GRIP GmbH Handhabungstechnik

MGW CONNECTOR

The MGW end of arm tool changer is our universal tool changer for multiple applications and we have made it even better! The new system is of higher quality and offers more safety and accuracy. The innovations are a response to the current requirements of our customers. A centering disc can be installed on both the upper assembly (robot side) and lower assembly (tool side) of the robot and ensures that the tools are correctly aligned with the robot arm.

MGW Connector Advantages:

- Interface according to DIN EN ISO 9409–1
- Durable - over 5000/10.000 application changes with no loss in accuracy
- Withstands high loads
- No tool required due to integrated operating lever
- Intuitive operation
- Can be released and closed with one hand
- Protection against unintentional opening for dynamic applications
- Spring-loaded locking pin secures hand lever against self-releasing
- Lightweight made of high-strength aluminum, anodized
- Optional mounting surface for energy feed-through

*Cycles dependent upon the MGW material.

By turning the semi cylindrical bolt by 180°, the upper assembly and lower assembly are secured together. When locking, the lower assembly is pulled up by the lever action. A centering disc can be installed on both the upper assembly (robot side) and lower assembly (tool side) of the robot and ensures that the tools are correctly aligned with the robot arm.

MGW Connectors can be modified to meet your needs. Please inquire about special applications.

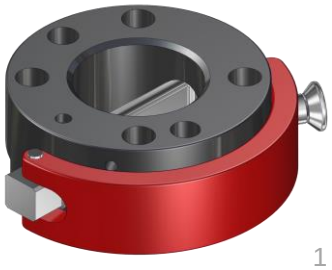
SIZES

MGW050
MGW063
MGW080
MGW100
MGW125
MGW160

G-MGW050

Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Withstands high loads with low dead weight
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Resilient locking pin secures hand lever against independent releasing
Holds up to 5,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface acc. to DIN EN ISO 9409-1

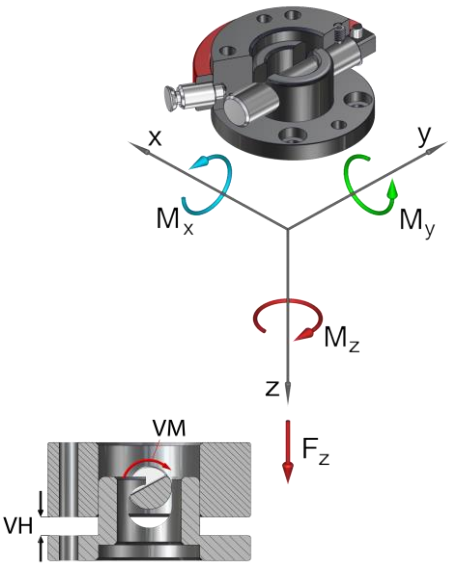


1

2

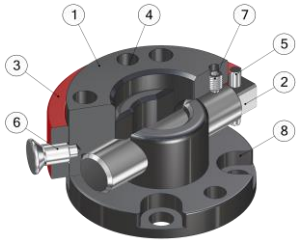
Technical specifications		MGW050		
Basic material		Al. anod.	VA	St, nitrated
External diameter x Height [mm]		50 x 30		
Pitch circle diameter [mm]		40		
Repeat accuracy +/- [mm]		0,02		
Tension Fz [N]		700	1.100	1.320
Compression -Fz [kN]		48	72	96
Torsion Mz [Nm]		40	60	78
Bending Mx, My [Nm]		50	70	80
Mass [kg]	upper assembly	0,14	0,28	
	lower assembly	0,05	0,13	
Recommended load [kg] *		10	14	16
Locking torque VM [Nm]		1 - 4	2 - 6	
Locking stroke VH [mm]		0 - 5		
Operating temperature range [°C]		-30 to +120		

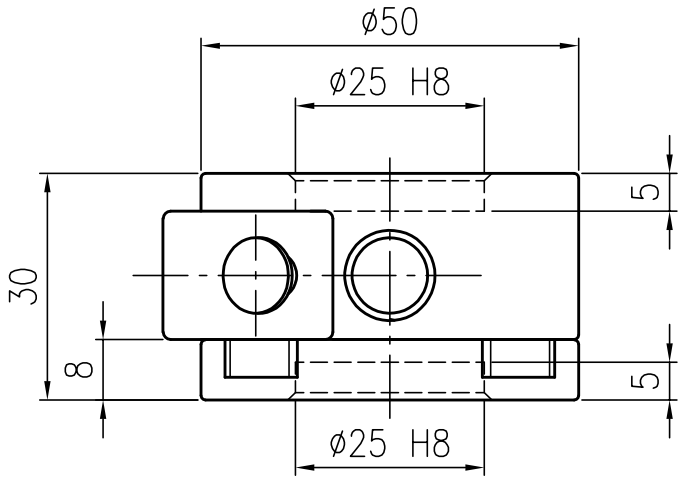
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety

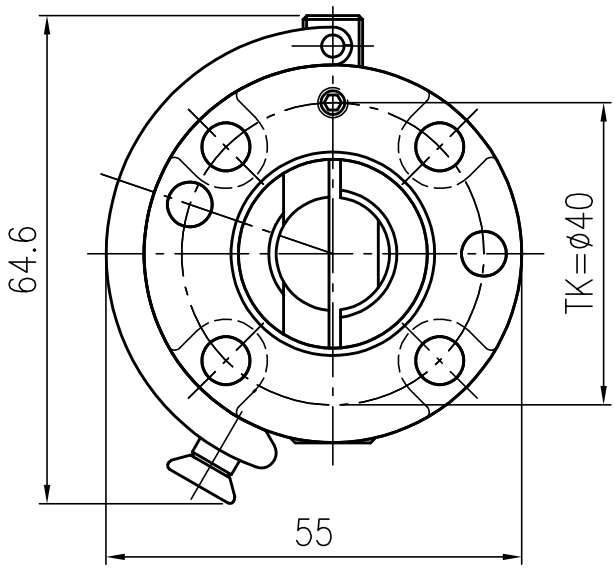


Manual gripper change system Ø50, drilled acc. to ISO…	
G-MGW050-2O	upper assembly, Al, anodized
G-MGW050-2O-N	upper assembly, steel, nitrated
G-MGW050-2O-V	upper assembly, VA
G-MGW050-2U	lower assembly, Al, anodized
G-MGW050-2U-N	lower assembly, steel, nitrated
G-MGW050-2U-V	lower assembly, VA
Replacement semi-cylindrical bolt…	
EG-MGW050-HB	for MGW050
EG-MGW050-HB-VA	for MGW050, out off VA
Replacement hand lever	
EG-MGW050-HH	for MGW050

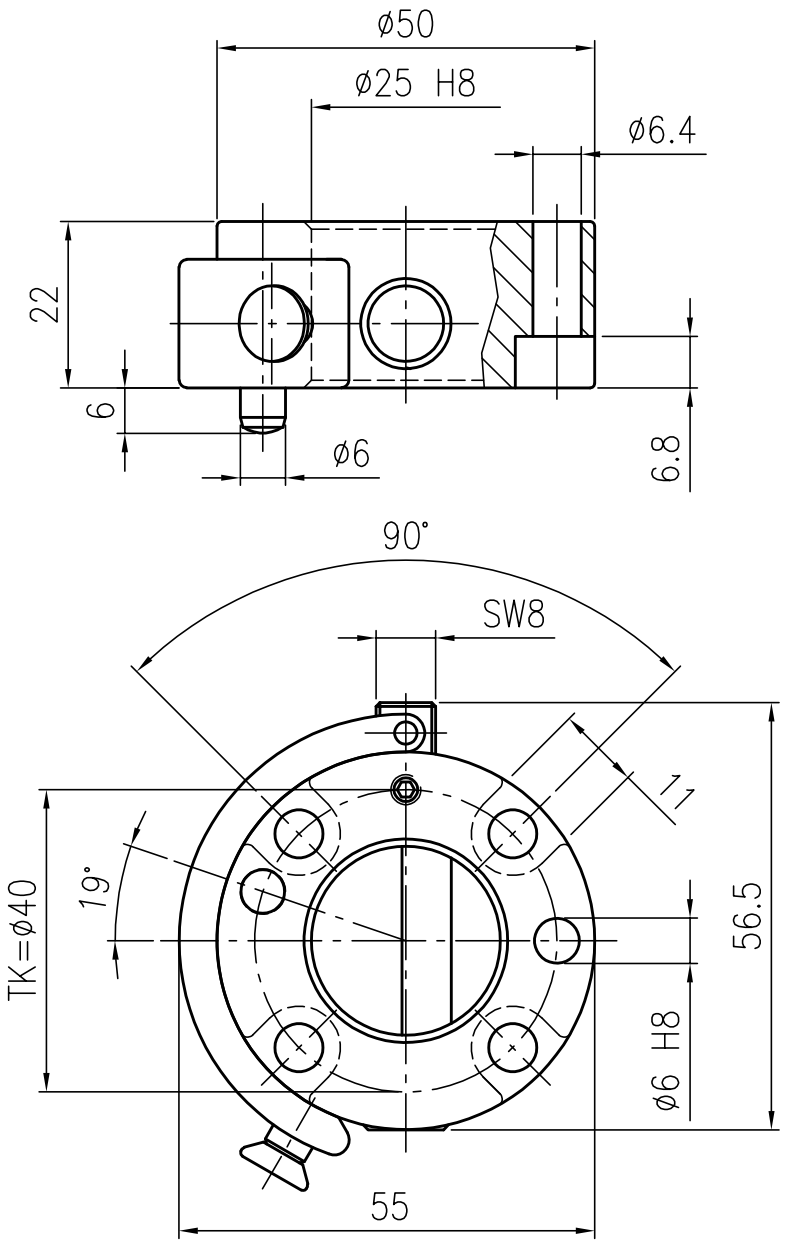
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly







Datum 08.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MGW050-2Z		GRIP GmbH Handhabungstechnik



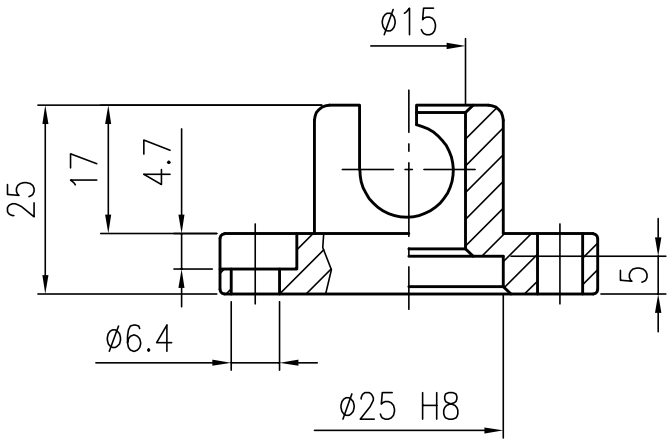
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW050-20
Stahl	G-MGW050-20-S
St. nitriert	G-MGW050-20-N
VA	G-MGW050-20-V

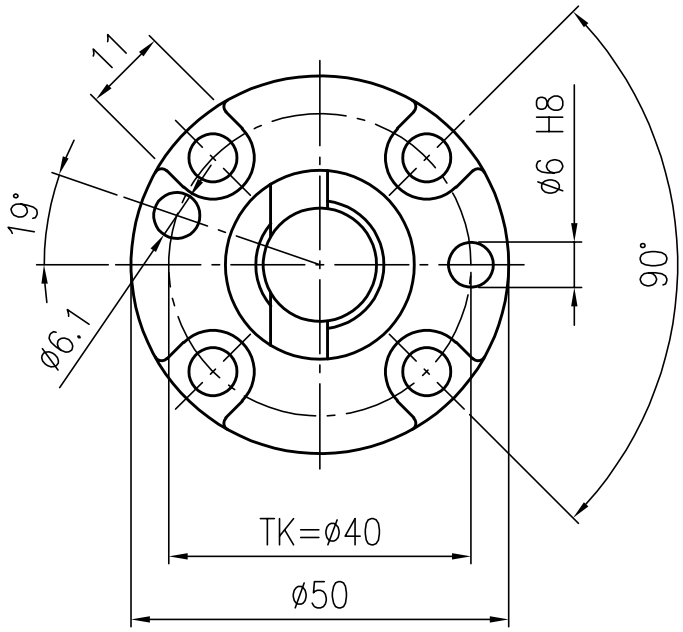
Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

G-MGW050-20

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-MGW050-2U
Stahl	G-MGW050-2U-S
St. nitriert	G-MGW050-2U-N
VA	G-MGW050-2U-V

Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

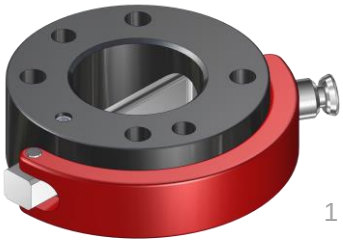
G-MGW050-2U

GRIP GmbH Handhabungstechnik

G-MGW063

Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Withstands high loads with low dead weight
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Resilient locking pin secures hand lever against independent releasing
Holds up to 5,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface acc. to DIN EN ISO 9409-1
Optional connection of a Multi energy coupling **MEK**

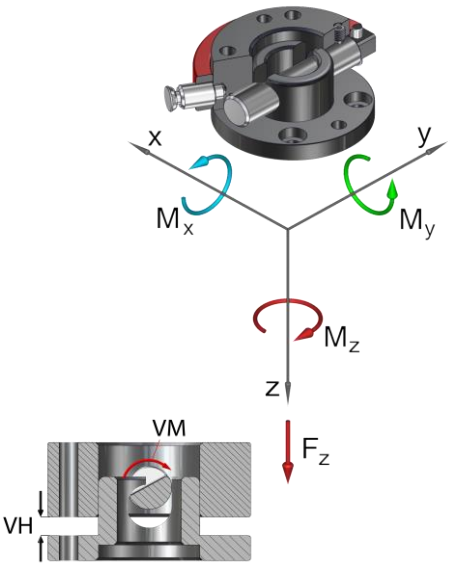


1

2

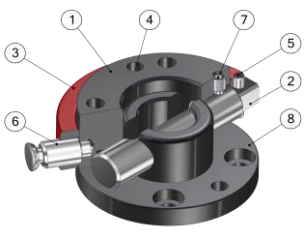
Technical specifications		MGW063		
Basic material		Al. anod.	VA	St, nitrated
External diameter x Height [mm]		63 x 32		
Pitch circle diameter [mm]		50		
Repeat accuracy +/- [mm]		0,02		
Tension Fz [N]		900	1.500	1.800
Compression -Fz [kN]		89	134	178
Torsion Mz [Nm]		60	80	105
Bending Mx, My [Nm]		70	100	115
Mass [kg]	upper assembly	0,26	0,48	
	lower assembly	0,08	0,23	
Recommended load [kg] *		16	20	22
Locking torque VM [Nm]		1,5 - 5	3 - 8	
Locking stroke VH [mm]		0 - 6		
Operating temperature range [°C]		-30 to +120		

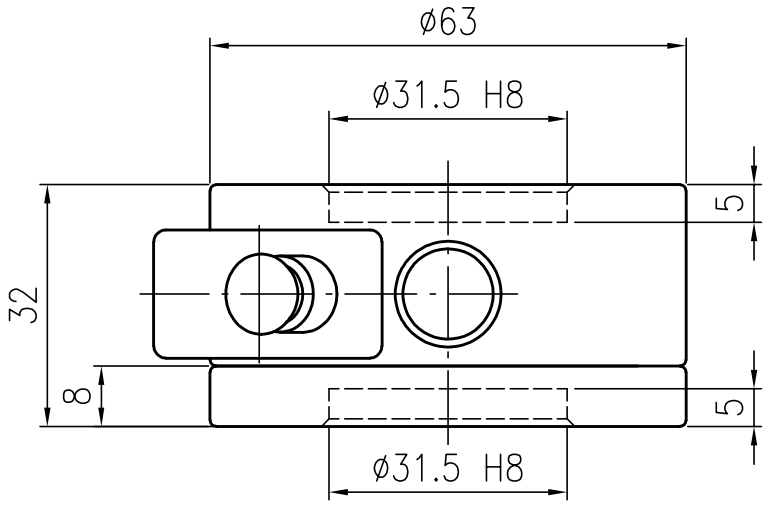
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety

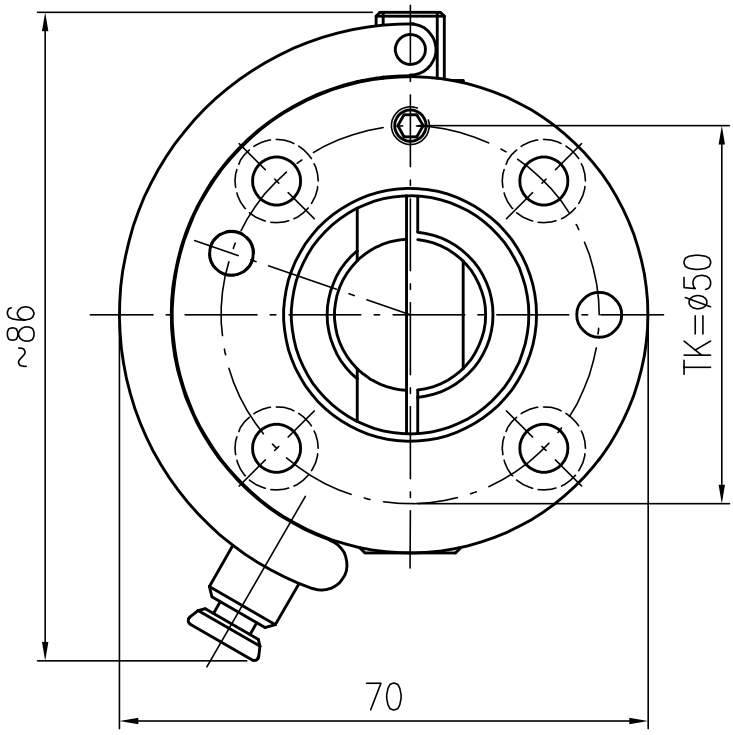


Manual gripper change system Ø63, drilled acc. to ISO…	
G-MGW063-2O	upper assembly, Al, anodized
G-MGW063-2OE	upper assembly, E-Mount, Al, anodized
G-MGW063-2OEN	upper assembly, E-Mount, steel, nitrated
G-MGW063-2O-N	upper assembly, steel, nitrated
G-MGW063-2O-V	upper assembly, VA
G-MGW063-2U	lower assembly, Al, anodized
G-MGW063-2UE	lower assembly, E-Mount, Al, anodized
G-MGW063-2UEN	lower assembly, E-Mount, steel, nitrated
G-MGW063-2U-N	lower assembly, steel, nitrated
G-MGW063-2U-V	lower assembly, VA
Replacement semi-cylindrical bolt…	
EG-MGW063-HB	for MGW063
EG-MGW063-HB-VA	for MGW063, out off VA
Replacement hand lever	
EG-MGW063-HH	for MGW063

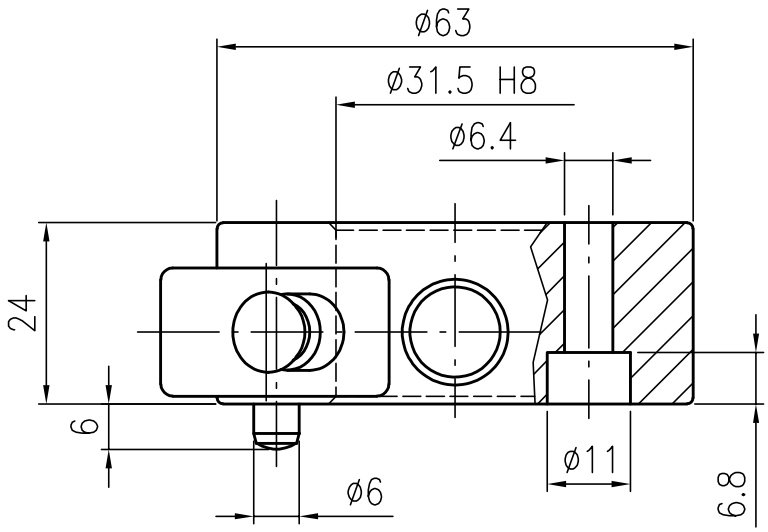
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly

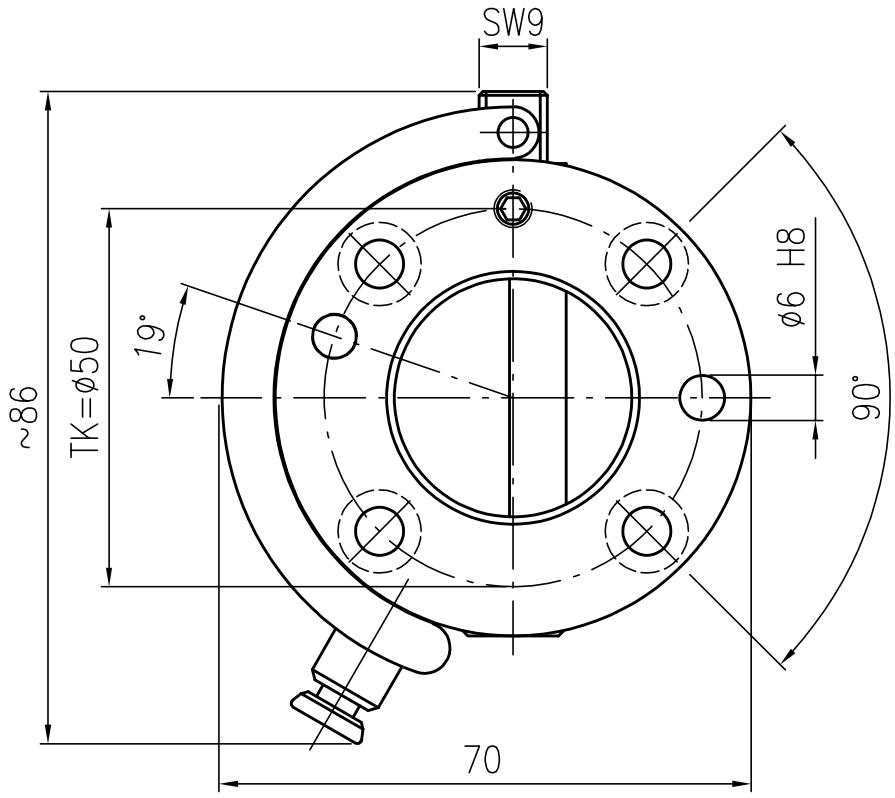






Datum 08.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MGW063-2Z		GRIP GmbH Handhabungstechnik





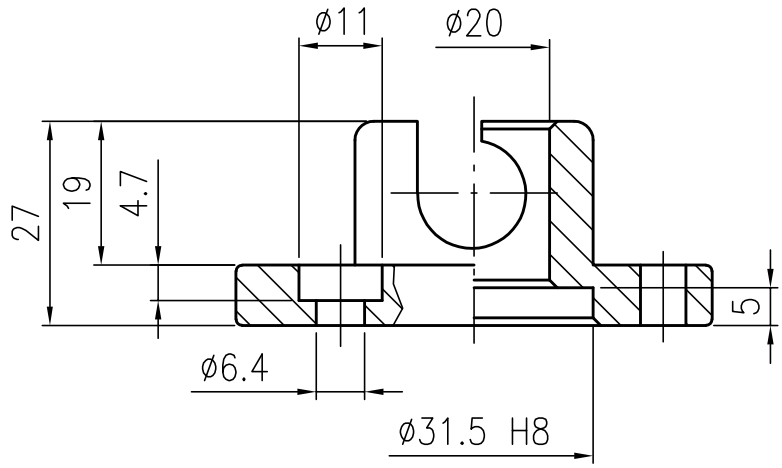
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW063-20
Stahl	G-MGW063-20-S
St. nitriert	G-MGW063-20-N
VA	G-MGW063-20-V

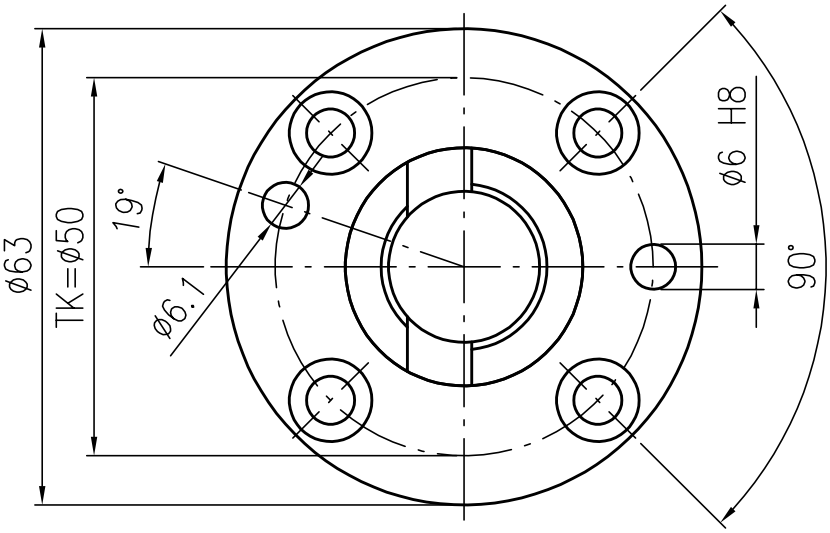
Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

G-MGW063-20

GRIP GmbH Handhabungstechnik





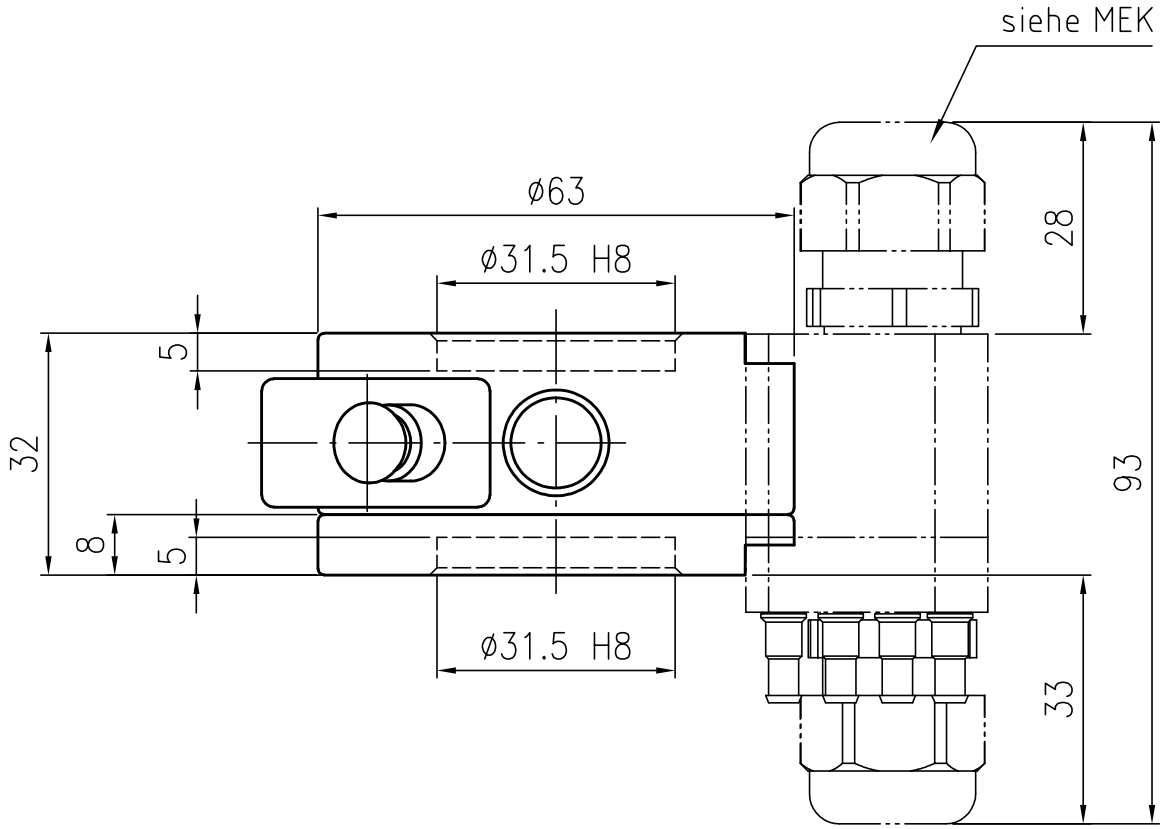
Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-MGW063-2U
Stahl	G-MGW063-2U-S
St. nitriert	G-MGW063-2U-N
VA	G-MGW063-2U-V

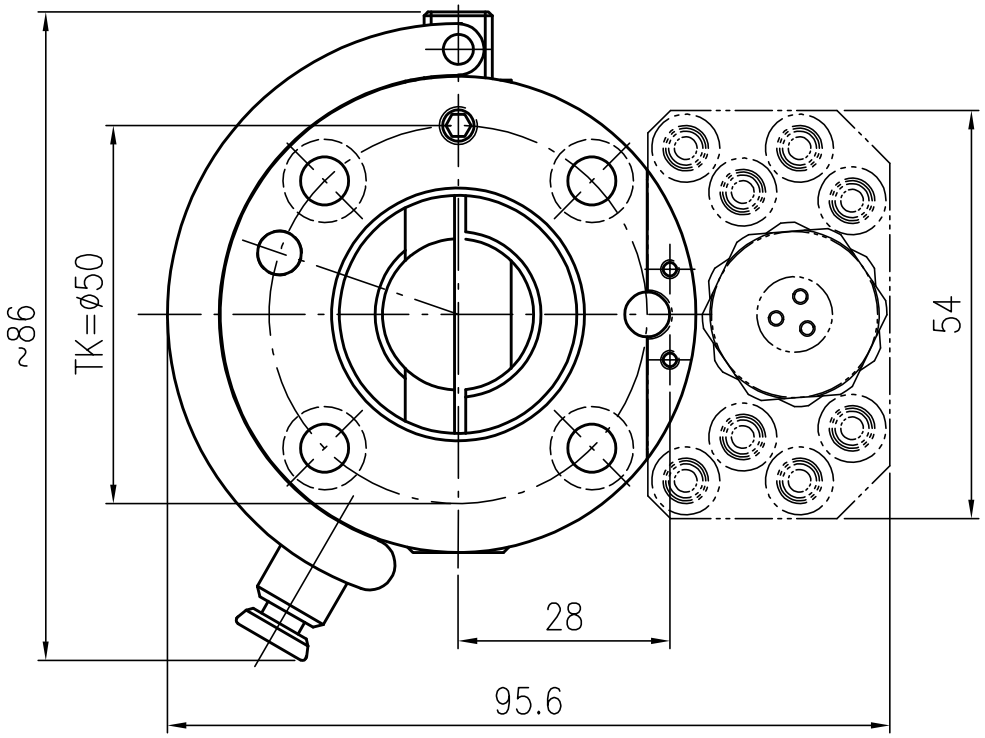
Datum	Maßstab	
08.11.2016	1:1	

Zeichnungsnummer

G-MGW063-2U

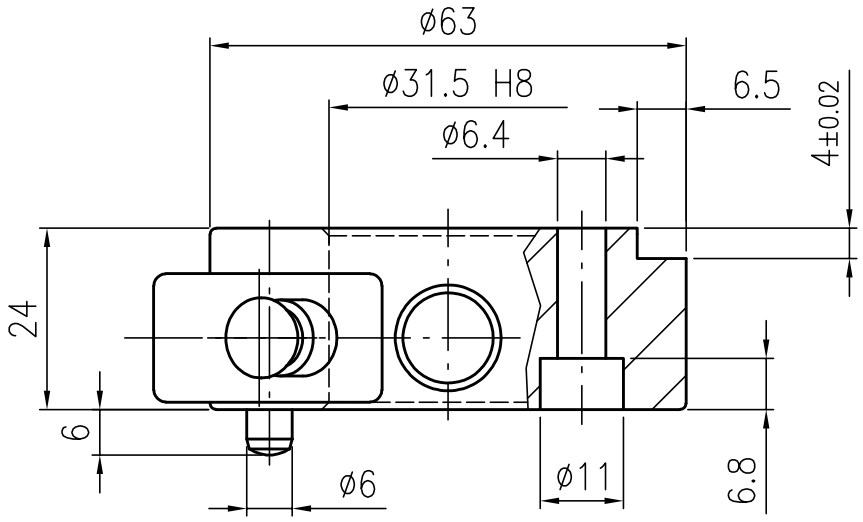
GRIP GmbH Handhabungstechnik

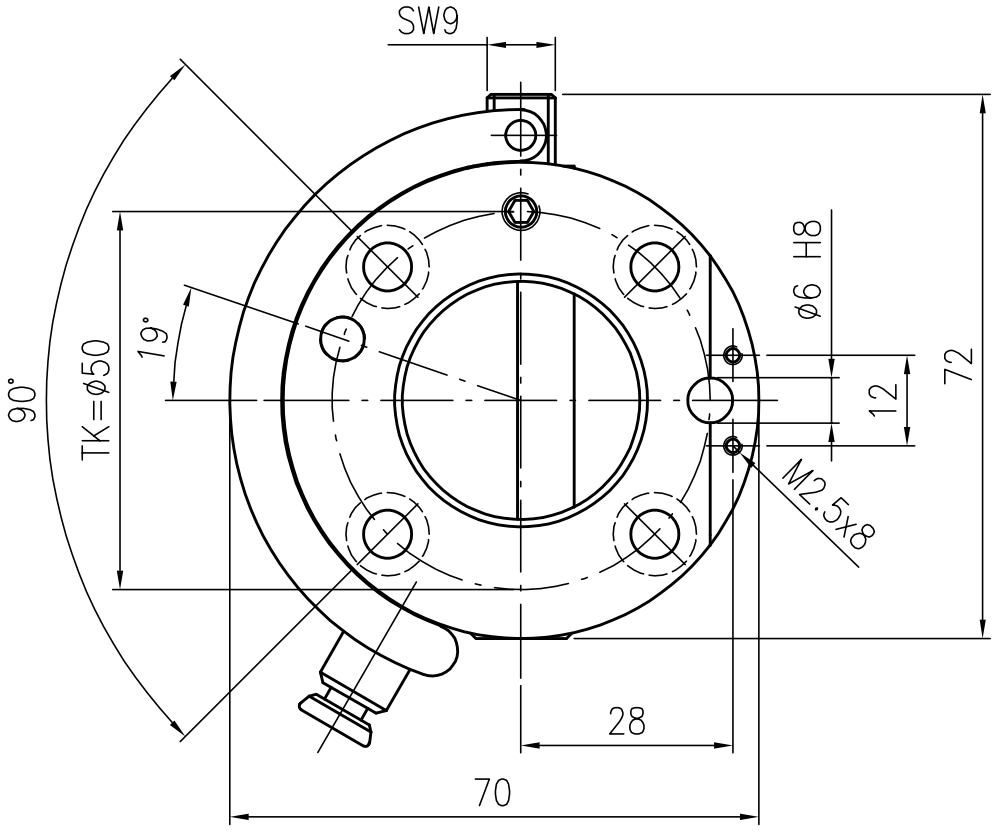




Datum	08.11.2016	Maßstab	1:1	
Zeichnungsnummer				
G-MGW063-2ZE				

GRIP GmbH Handhabungstechnik





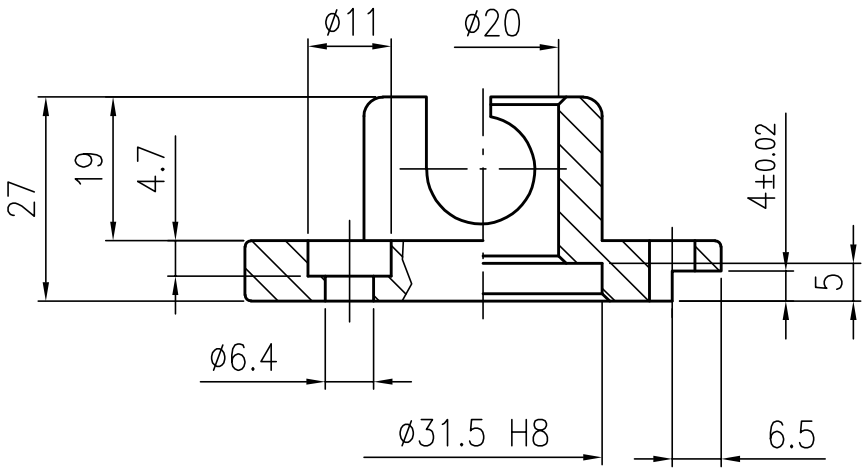
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW063-2OE
Stahl	G-MGW063-2OES
St. nitriert	G-MGW063-2OEN

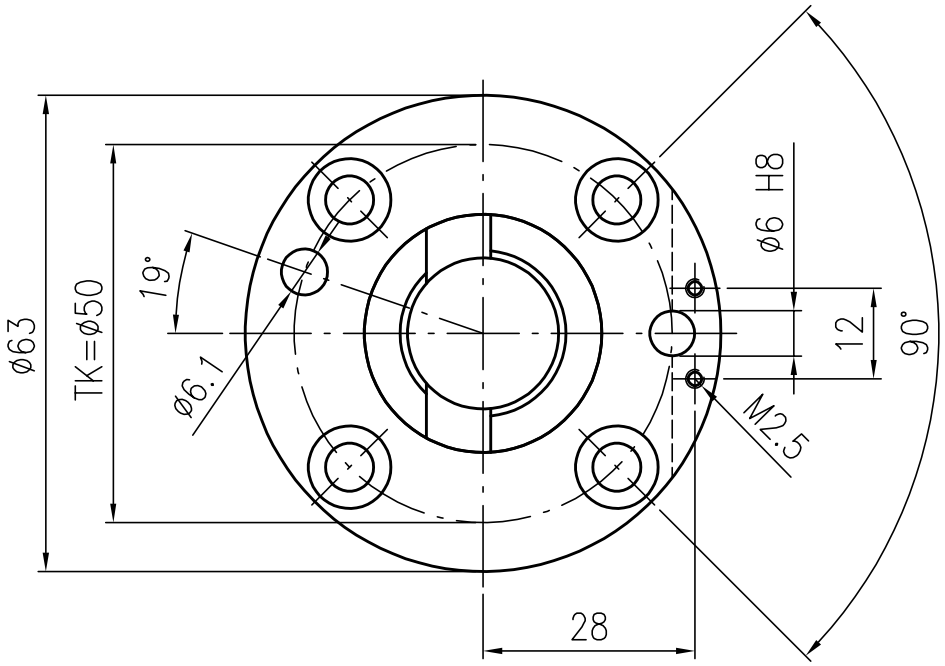
Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

G-MGW063-2OE

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-MGW063-2UE
Stahl	G-MGW063-2UES
St. nitriert	G-MGW063-2UEN

Datum	Maßstab	
08.11.2016	1:1	

Zeichnungsnummer

G-MGW063-2UE

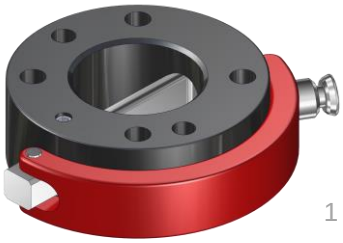
GRIP GmbH Handhabungstechnik

G-MGW080

Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

Advantages:
Withstands high loads with low dead weight
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Resilient locking pin secures hand lever against independent releasing
Holds up to 5,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface acc. to DIN EN ISO 9409-1
Optional connection of a Multi energy coupling **MEK**

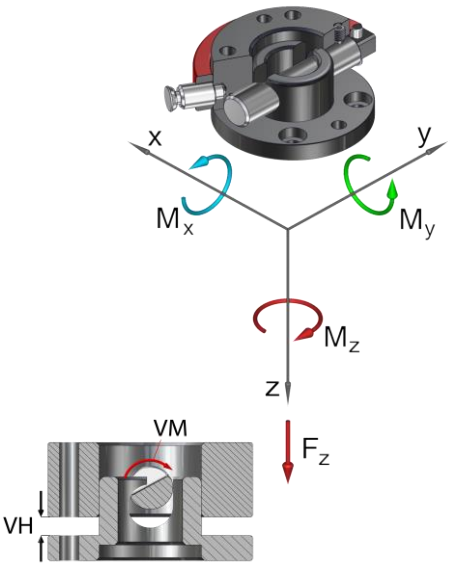


1

2

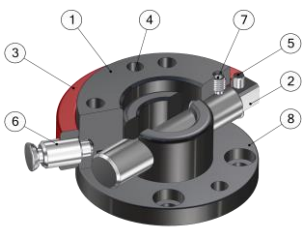
Technical specifications		MGW080	
Basic material		Al. anod.	St, nitrated
External diameter x Height [mm]		80 x 37	
Pitch circle diameter [mm]		63	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.000	3.000
Compression -Fz [kN]		157	313
Torsion Mz [Nm]		80	120
Bending Mx, My [Nm]		100	160
Mass [kg]	upper assembly	0,45	0,92
	lower assembly	0,15	0,5
Recommended load [kg] *		20	28
Locking torque VM [Nm]		1,5 - 6	3 - 9
Locking stroke VH [mm]		0 - 8	
Operating temperature range [°C]		-30 to +120	

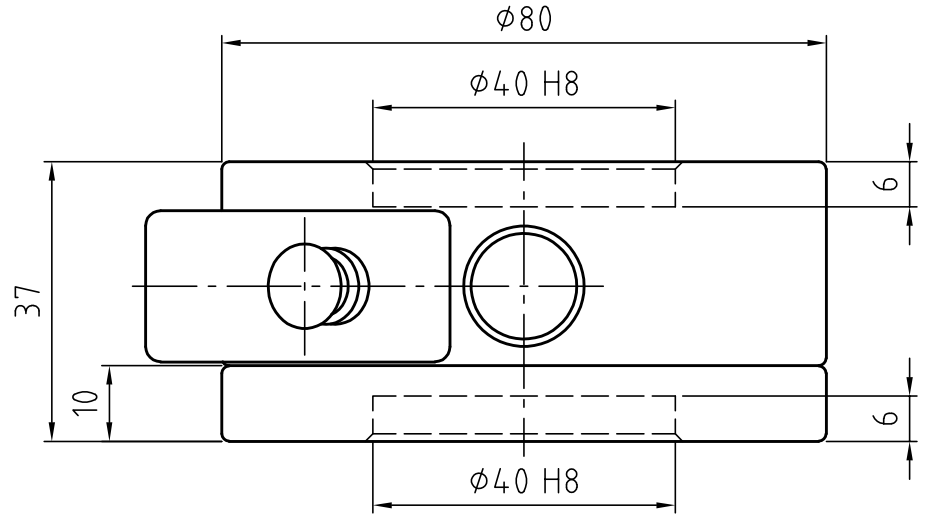
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety

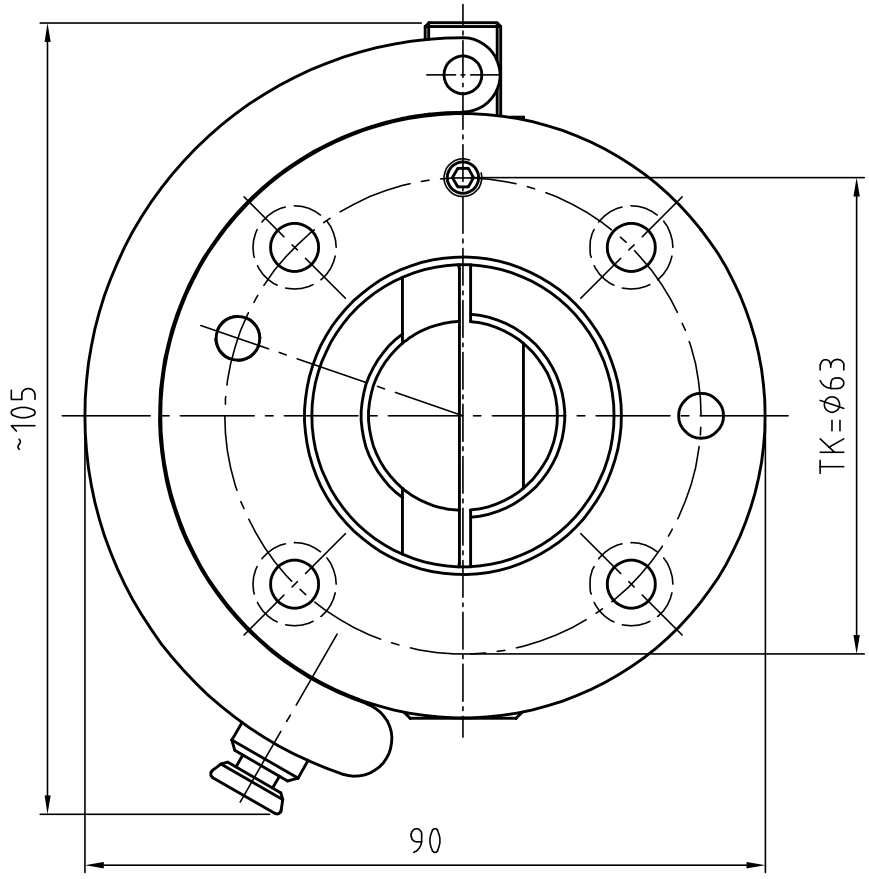


Manual gripper change system Ø80, drilled acc. to ISO…	
G-MGW080-2O	upper assembly, Al, anodized
G-MGW080-2OE	upper assembly, E-Mount, Al, anodized
G-MGW080-2OEN	upper assembly, E-Mount, steel, nitrated
G-MGW080-2O-N	upper assembly, steel, nitrated
G-MGW080-2U	lower assembly, Al, anodized
G-MGW080-2UE	lower assembly, E-Mount, Al, anodized
G-MGW080-2UEN	lower assembly, E-Mount, steel, nitrated
G-MGW080-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt…	
EG-MGW080-HB	for MGW080
EG-MGW080-HB-VA	for MGW080, out off VA
Replacement hand lever	
EG-MGW080-HH	for MGW080

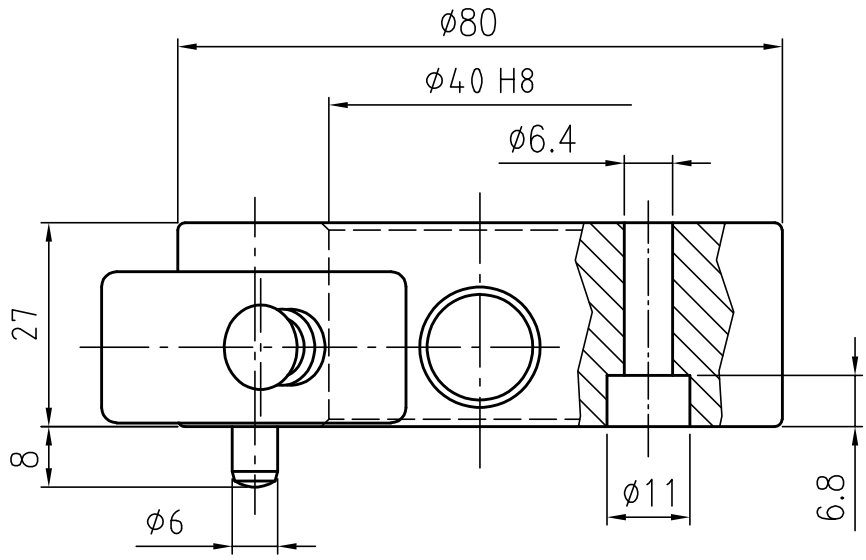
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly

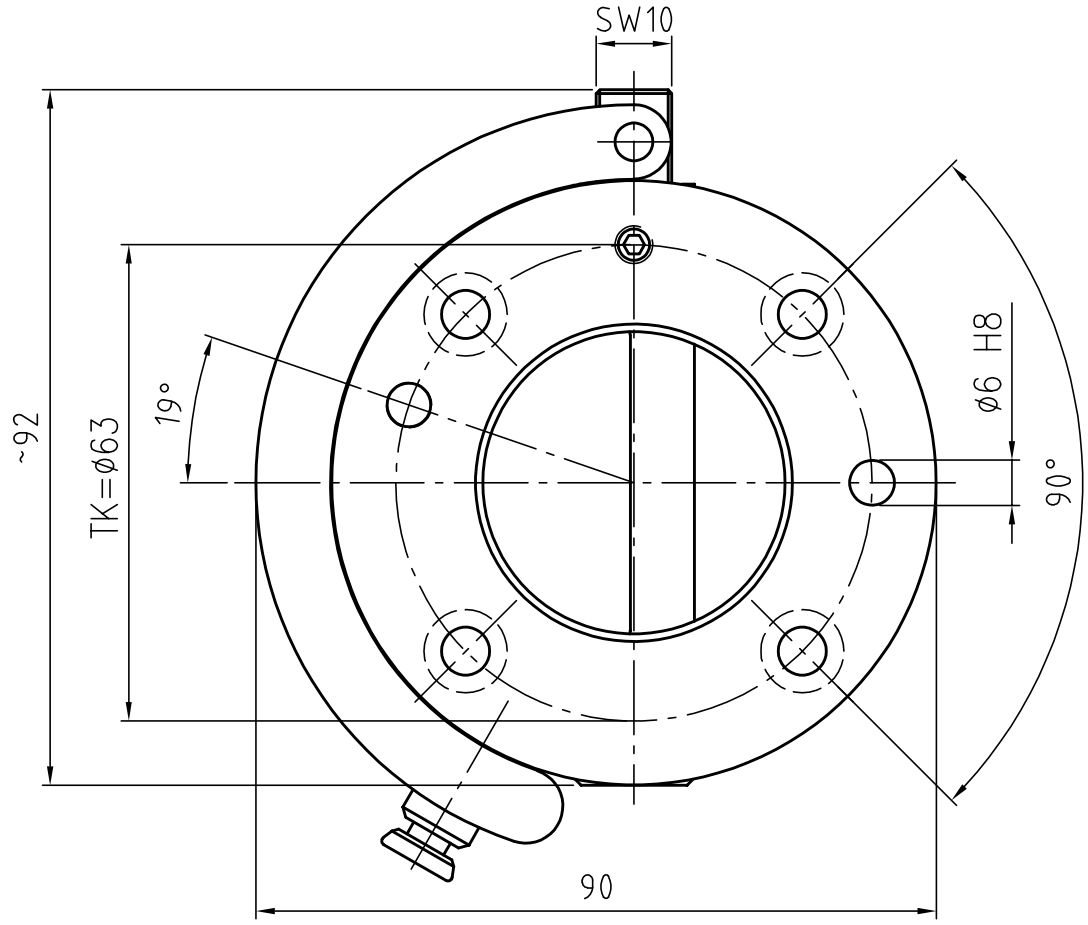






Datum 08.11.2016	Maßstab 1:1		
Zeichnungsnummer G-MGW080-2Z			GRIP GmbH Handhabungstechnik





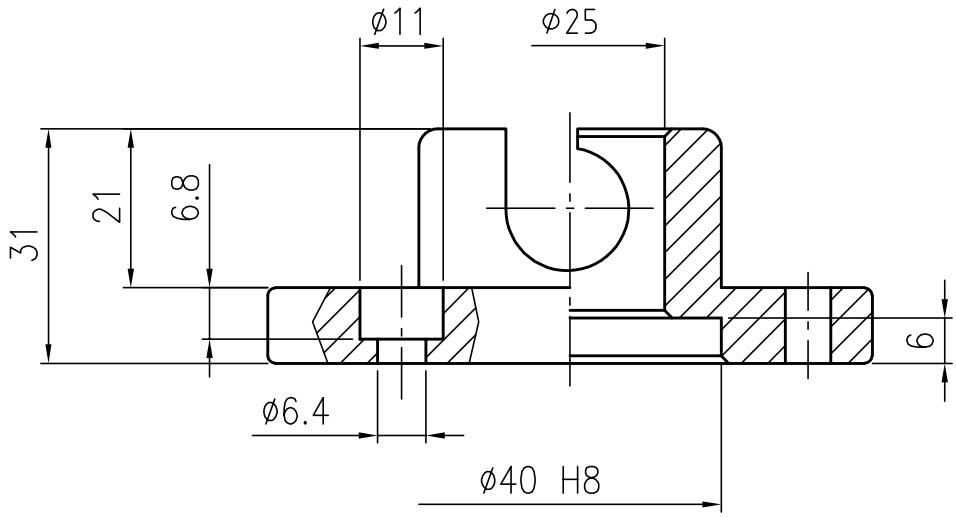
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW080-20
Stahl	G-MGW080-20-S
St. nitriert	G-MGW080-20-N

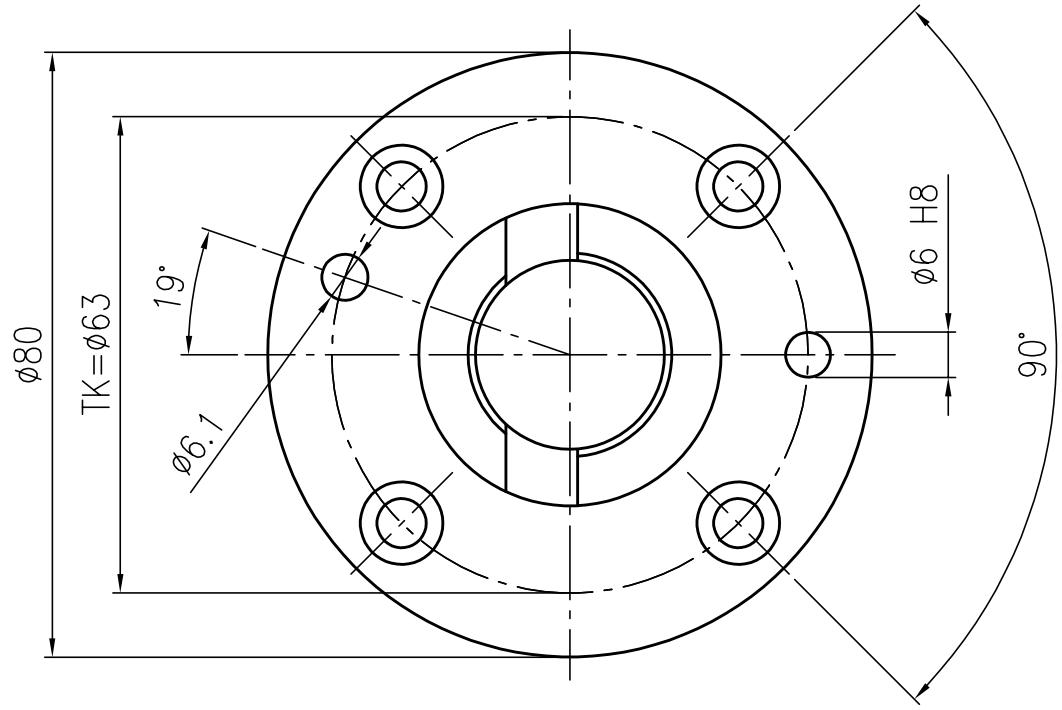
Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

G-MGW080-20

GRIP GmbH Handhabungstechnik





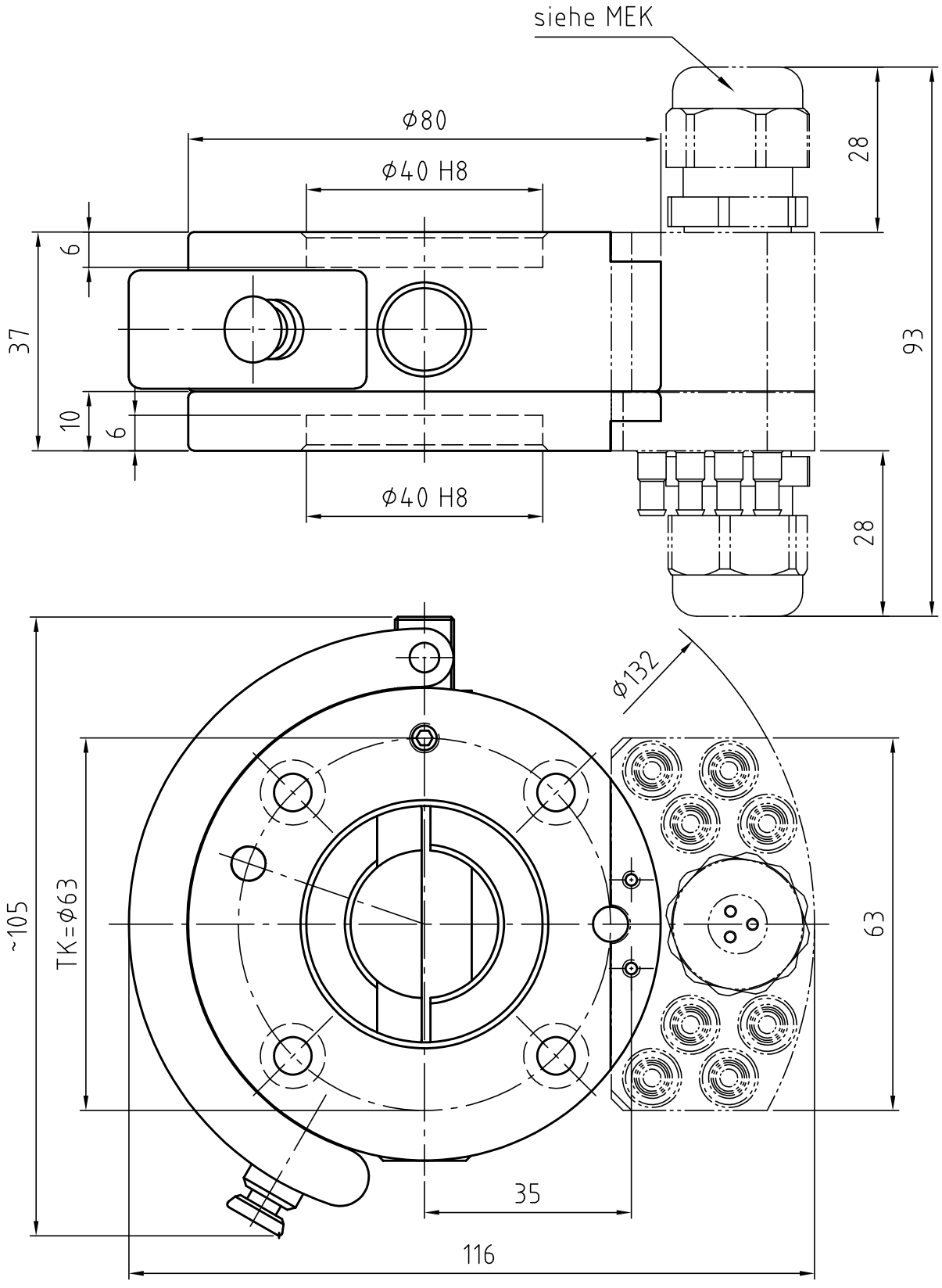
Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-MGW080-2U
Stahl	G-MGW080-2U-S
St. nitriert	G-MGW080-2U-N

Datum	Maßstab
08.11.2016	1:1

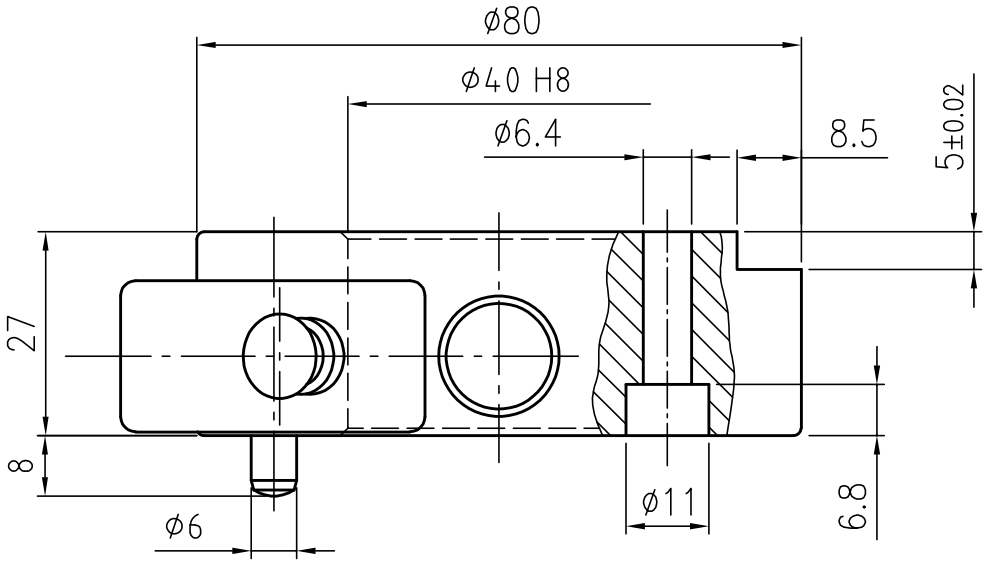
Zeichnungsnummer

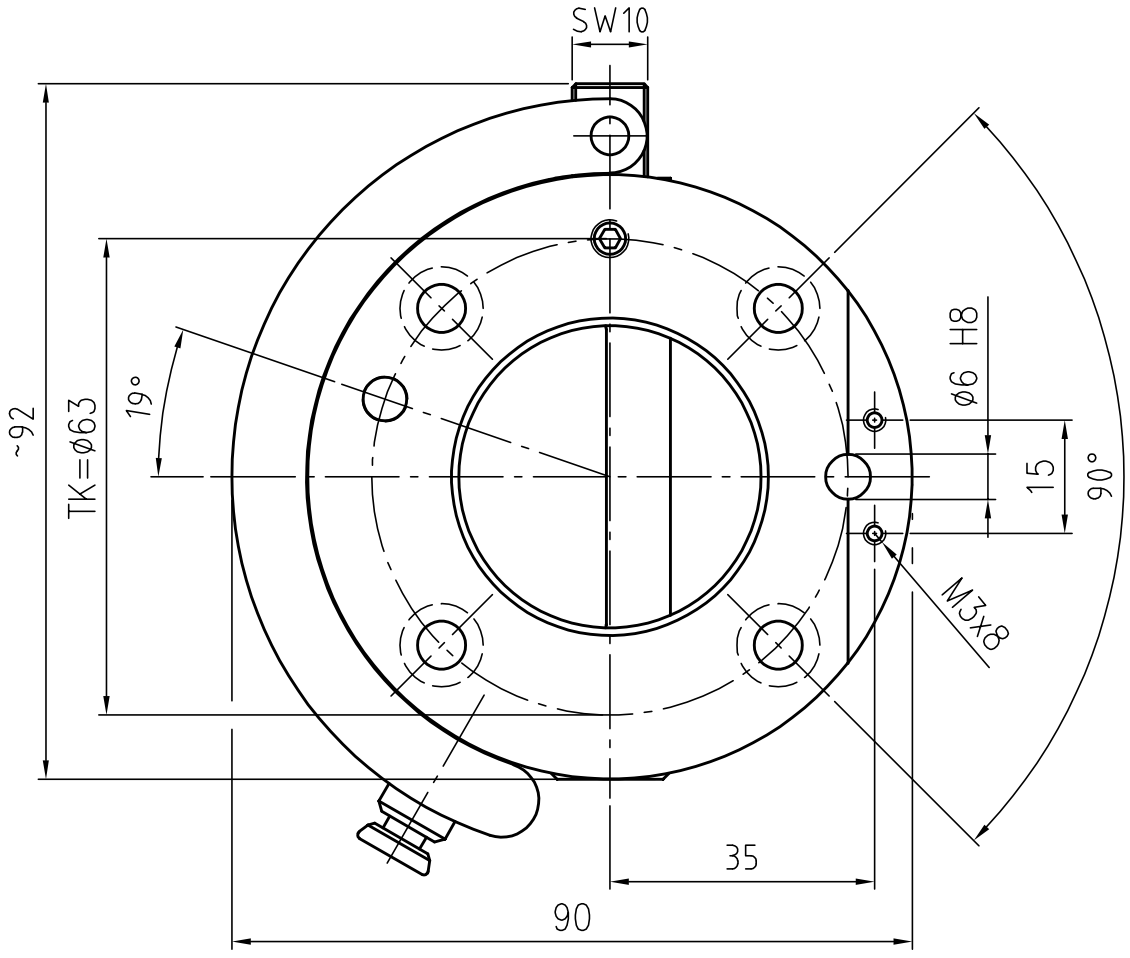
G-MGW080-2U

GRIP GmbH Handhabungstechnik



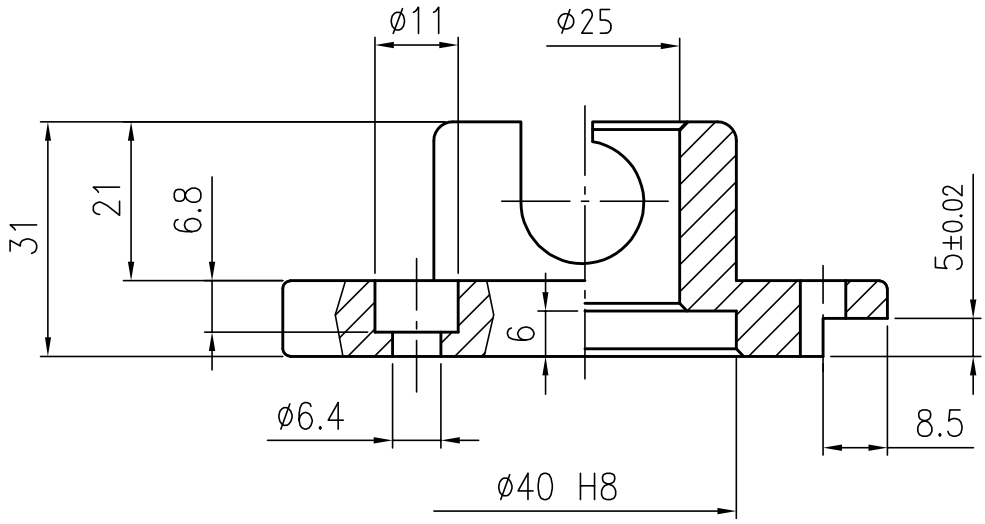
Datum 08.11.2016	Maßstab 1:1		GRIP
Zeichnungsnummer G-MGW080-2ZE			GRIP GmbH Handhabungstechnik

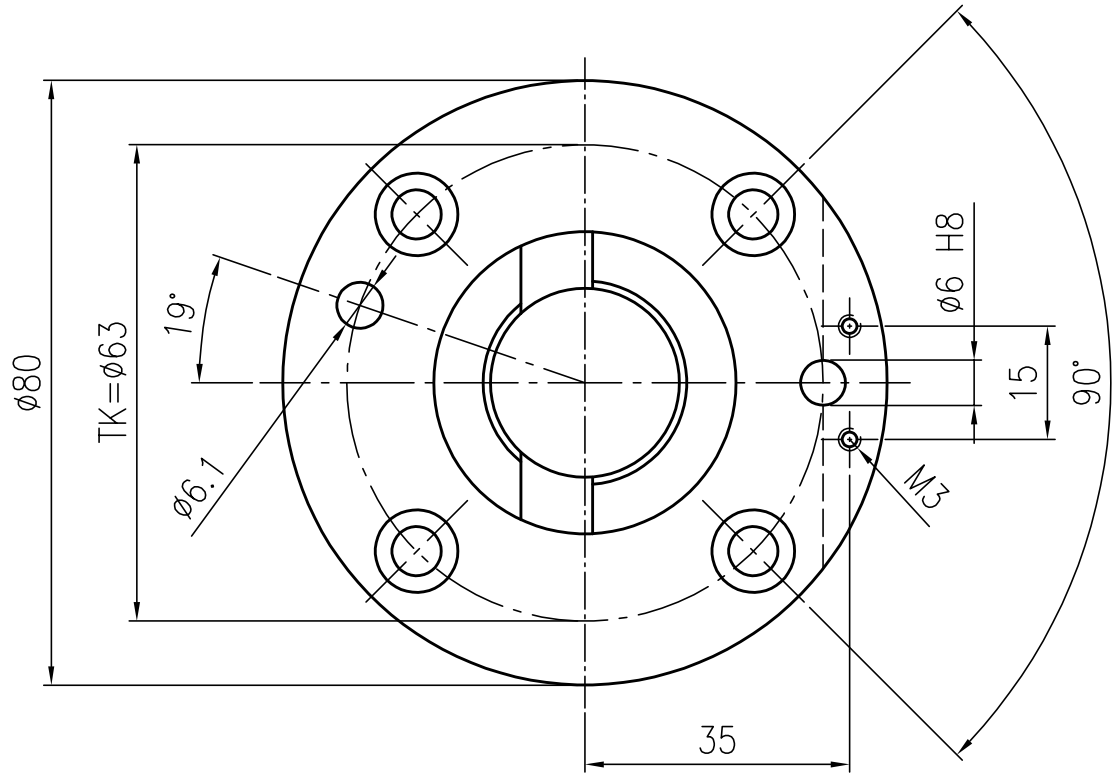




Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW080-2OE
Stahl	G-MGW080-2OES
St. nitriert	G-MGW080-2OEN

Datum 08.11.2016	Maßstab 1:1		
Zeichnungsnummer G-MGW080-2OE			GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-MGW080-2UE
Stahl	G-MGW080-2UES
St. nitriert	G-MGW080-2UEN

Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

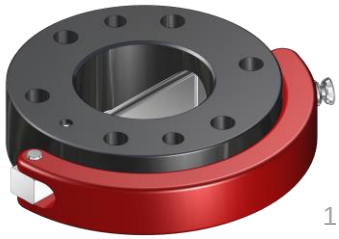
G-MGW080-2UE

GRIP GmbH Handhabungstechnik

G-MGW100

Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Withstands high loads with low dead weight
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Resilient locking pin secures hand lever against independent releasing
Holds up to 5,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface acc. to DIN EN ISO 9409-1
Optional connection of a Multi energy coupling **MEK**

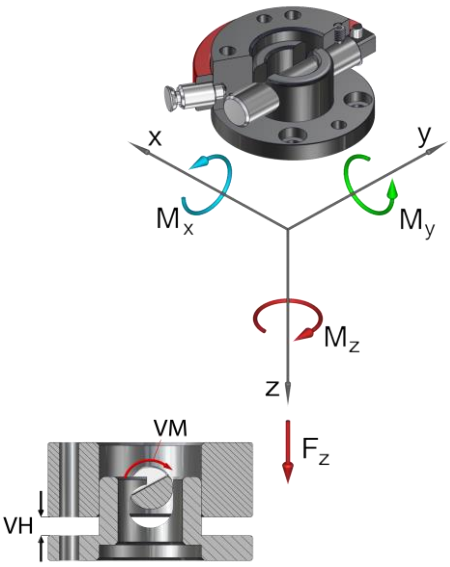


1

2

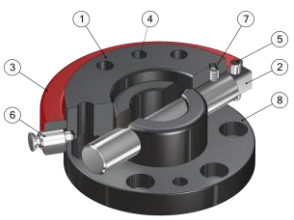
Technical specifications		MGW100	
Basic material		Al. anod.	St, nitrated
External diameter x Height [mm]		100 x 45	
Pitch circle diameter [mm]		80	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.200	4.200
Compression -Fz [kN]		219	439
Torsion Mz [Nm]		110	185
Bending Mx, My [Nm]		130	205
Mass [kg]	upper assembly	0,74	1,53
	lower assembly	0,35	1,01
Recommended load [kg] *		28	39
Locking torque VM [Nm]		2 – 10	3 – 14
Locking stroke VH [mm]		0 - 8	
Operating temperature range [°C]		-30 to +120	

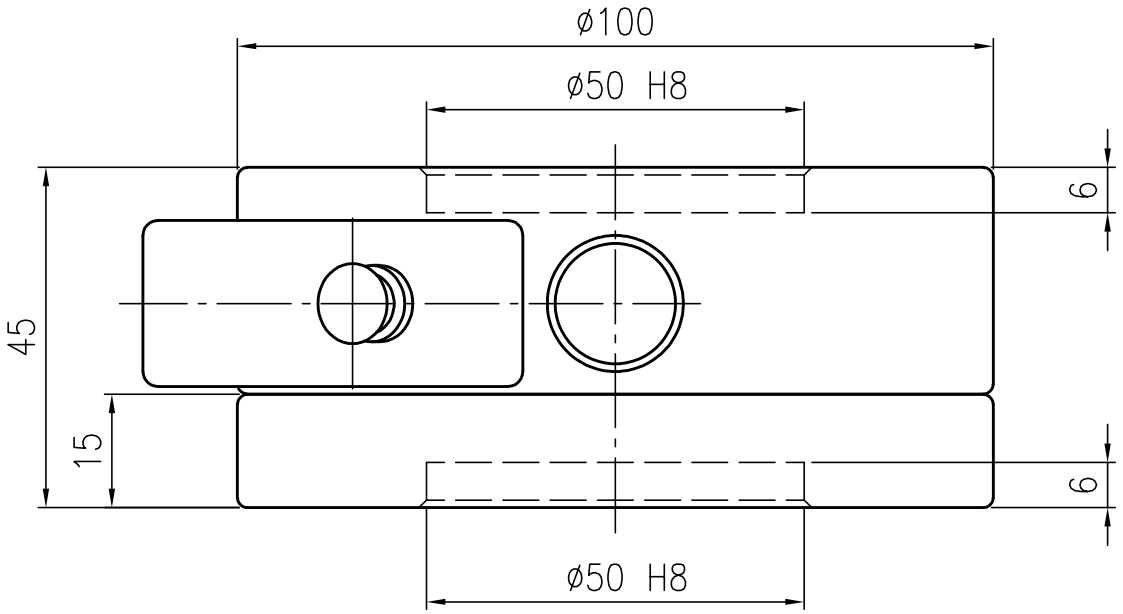
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety

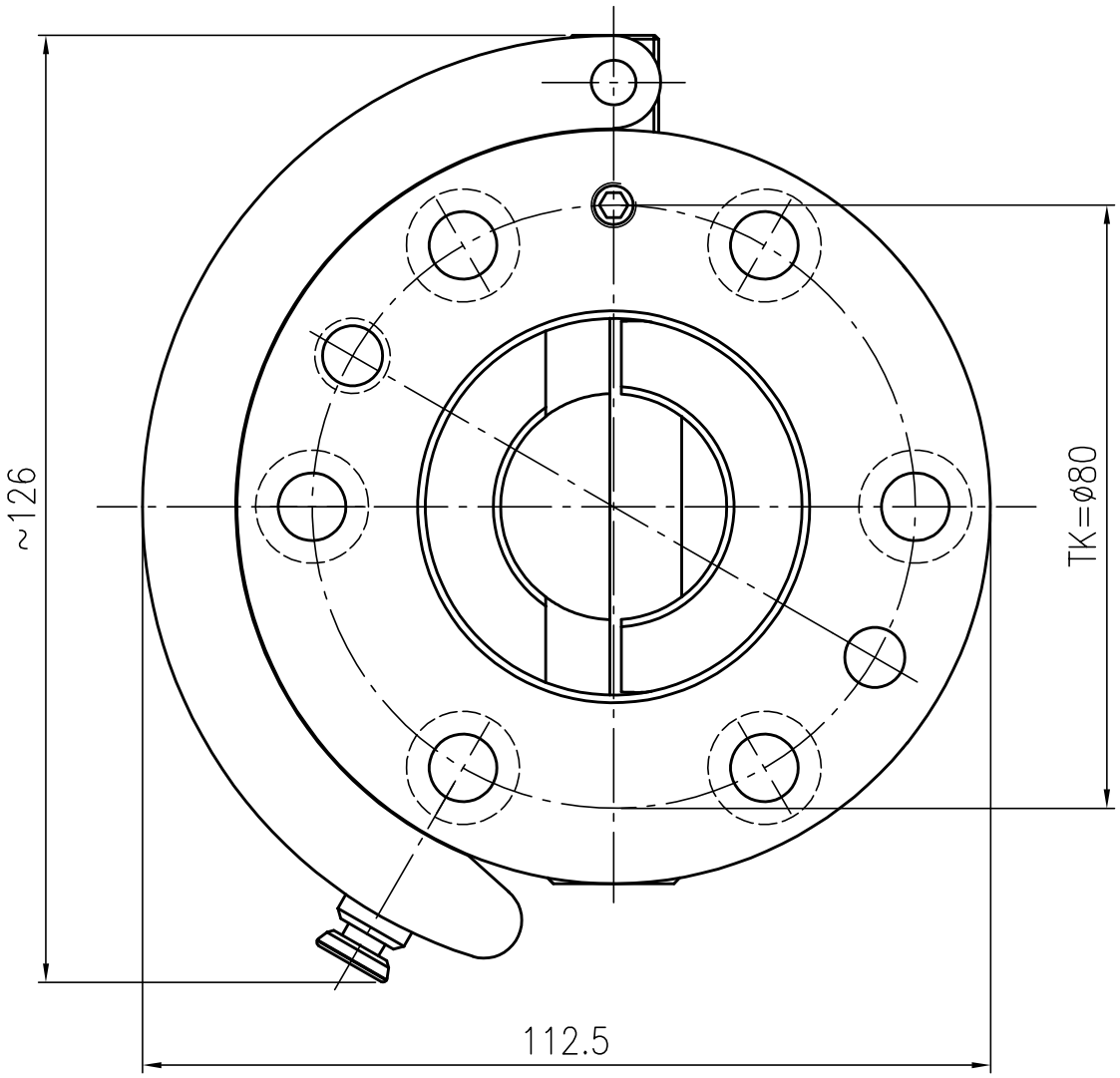


Manual gripper change system Ø100, drilled acc. to ISO…	
G-MGW100-2O	upper assembly, Al, anodized
G-MGW100-2OE	upper assembly, E-Mount, Al, anodized
G-MGW100-2OEN	upper assembly, E-Mount, steel, nitrated
G-MGW100-2O-N	upper assembly, steel, nitrated
G-MGW100-2U	lower assembly, Al, anodized
G-MGW100-2UE	lower assembly, E-Mount, Al, anodized
G-MGW100-2UEN	lower assembly, E-Mount, steel, nitrated
G-MGW100-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt…	
EG-MGW100-HB	for MGW100
EG-MGW100-HB-VA	for MGW100, out off VA
Replacement hand lever	
EG-MGW100-HH	for MGW100

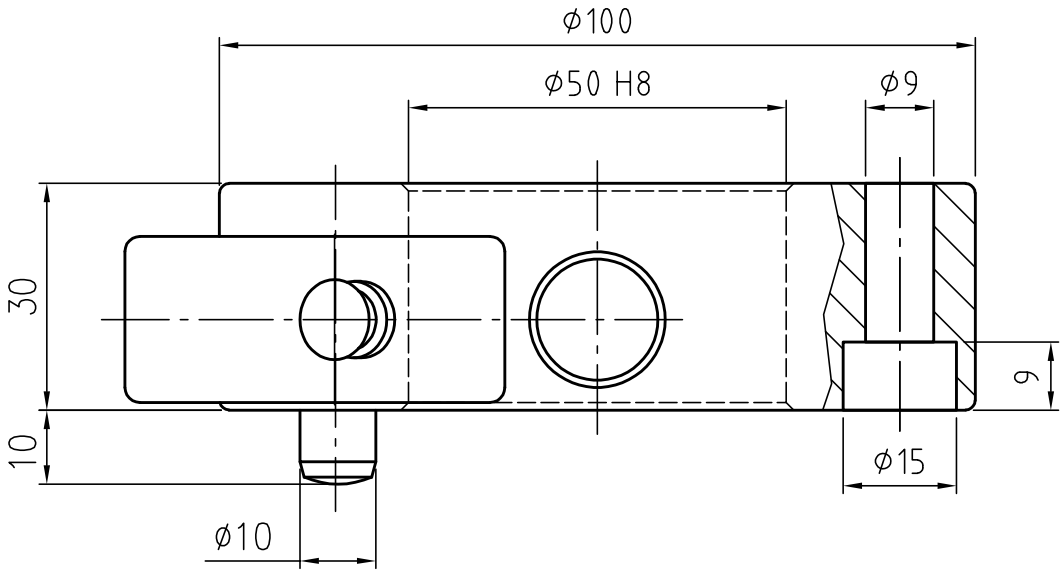
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly

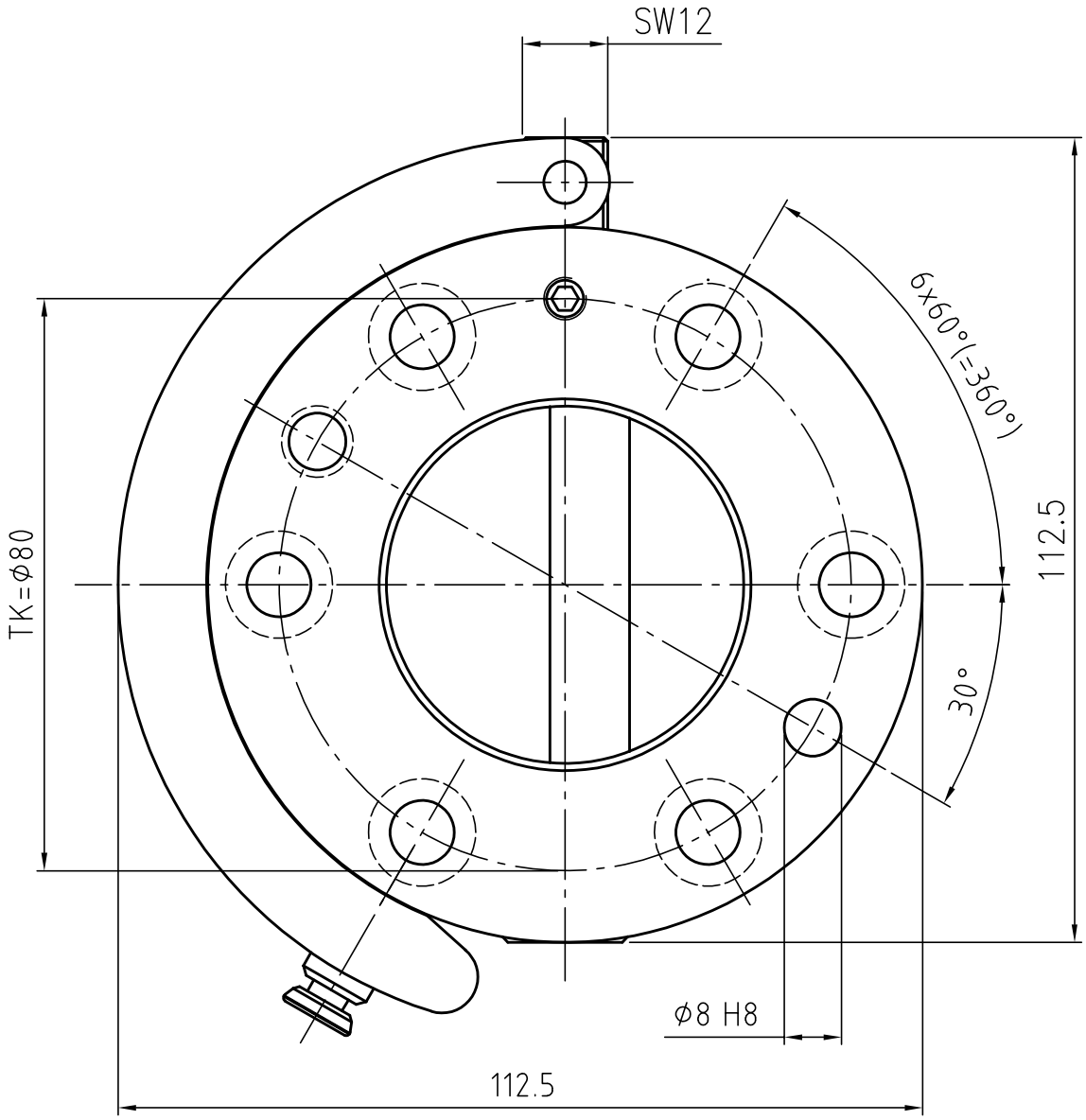






Datum 08.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-MGW100-2Z			





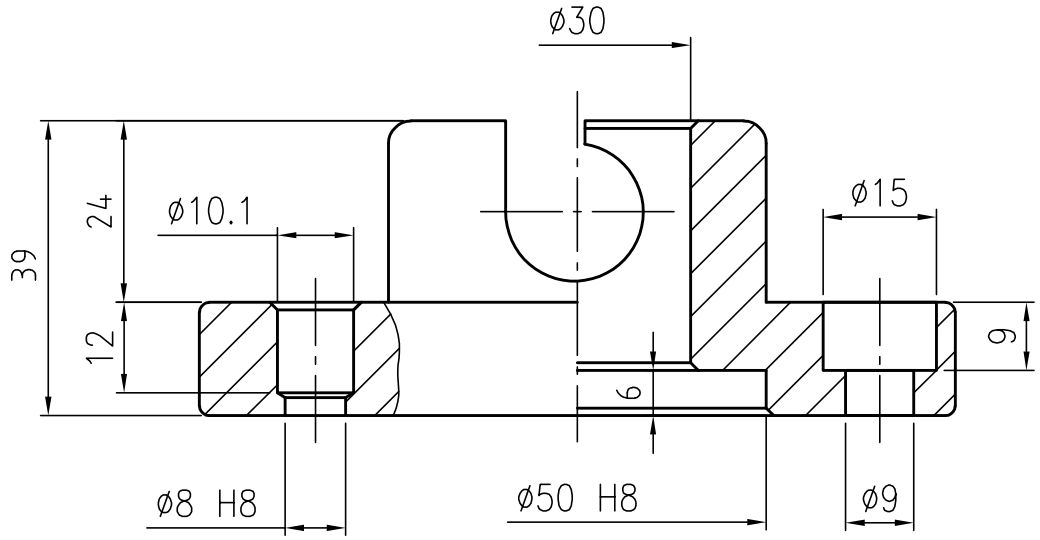
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW100-20
Stahl	G-MGW100-20-S
St. nitriert	G-MGW100-20-N

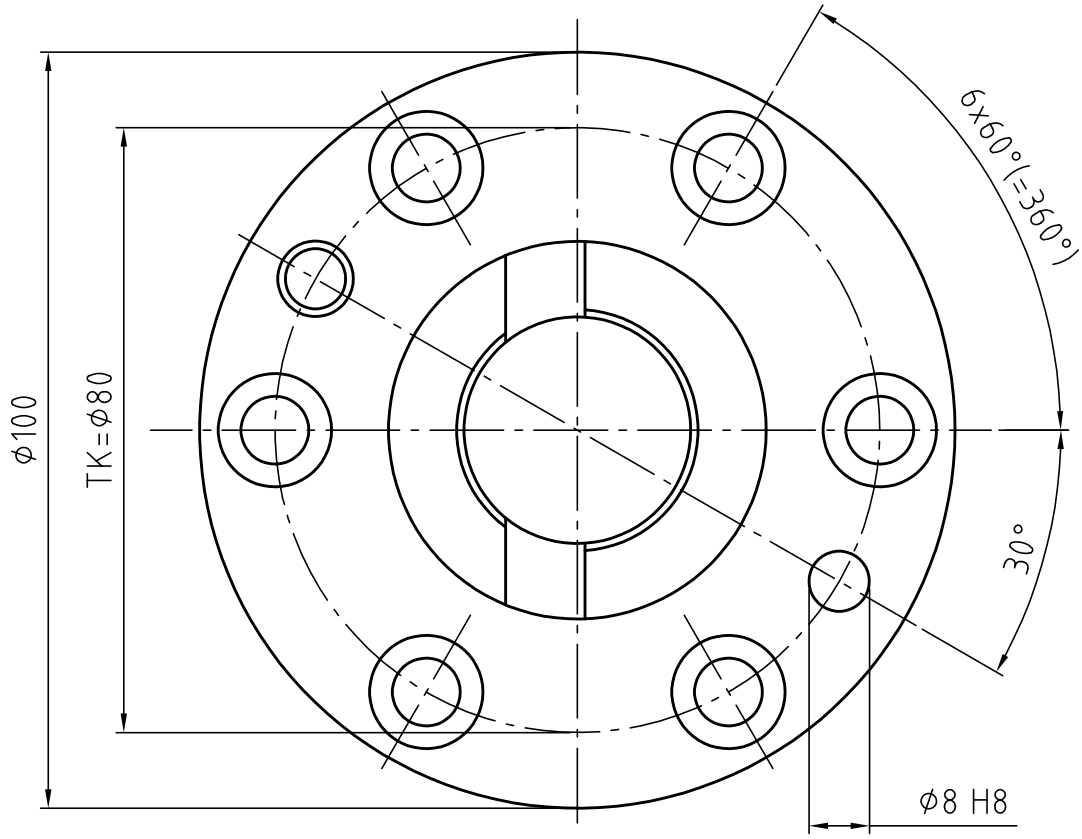
Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

G-MGW100-20

GRIP GmbH Handhabungstechnik





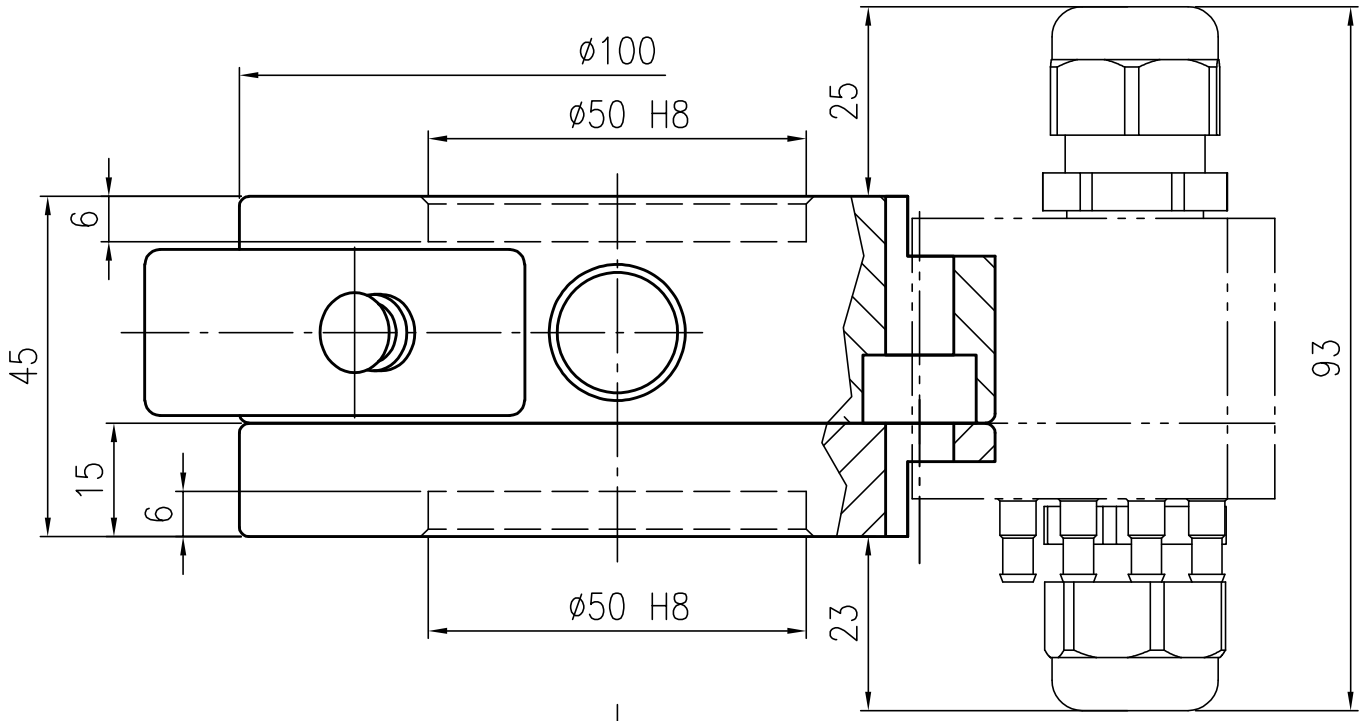
Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-MGW100-2U
Stahl	G-MGW100-2U-S
St. nitriert	G-MGW100-2U-N

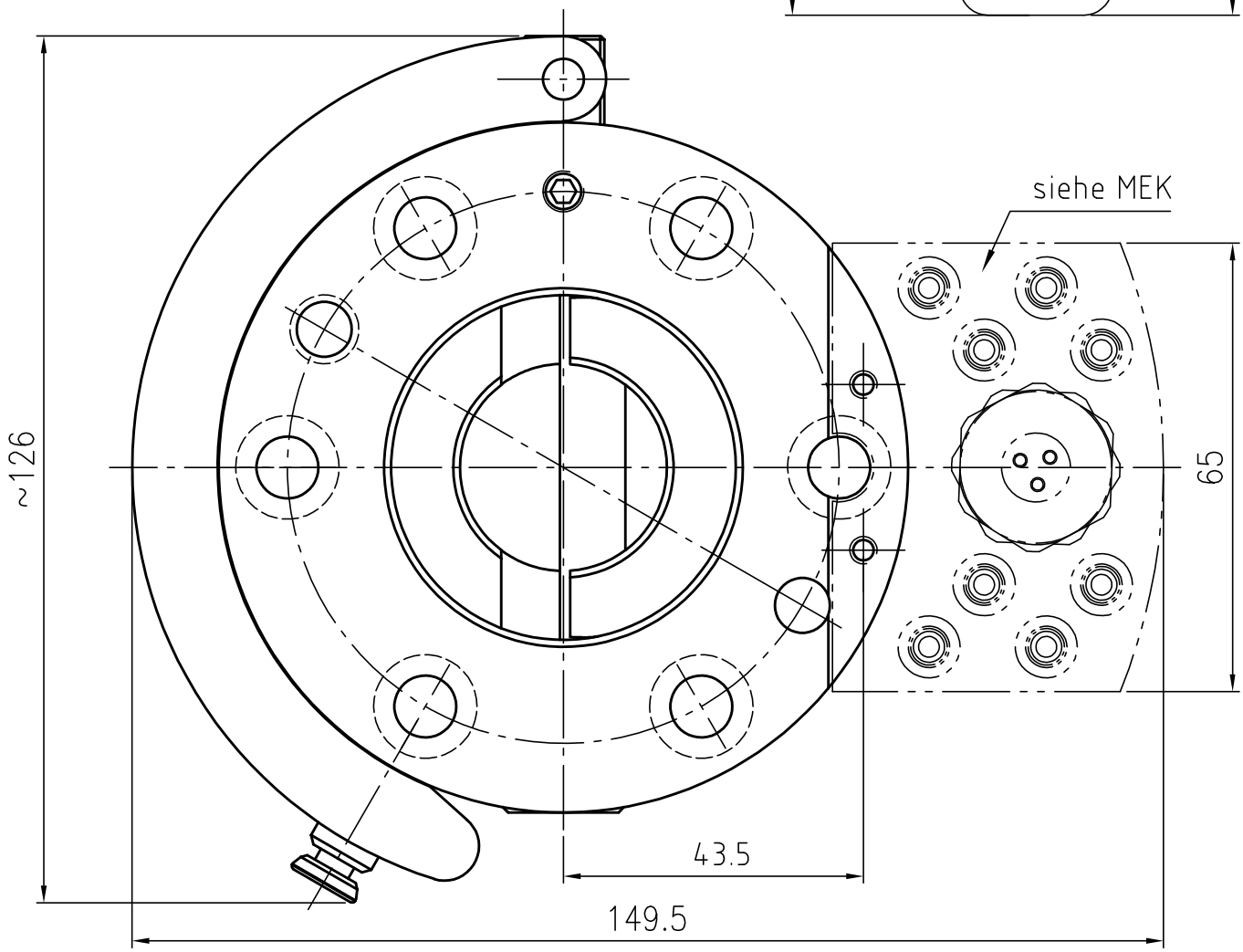
Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

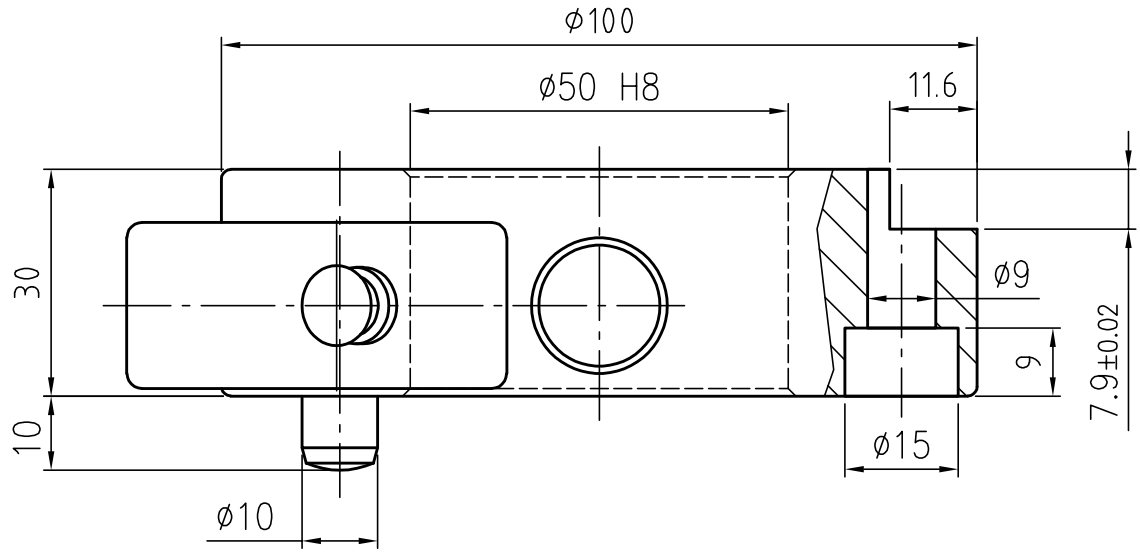
G-MGW100-2U

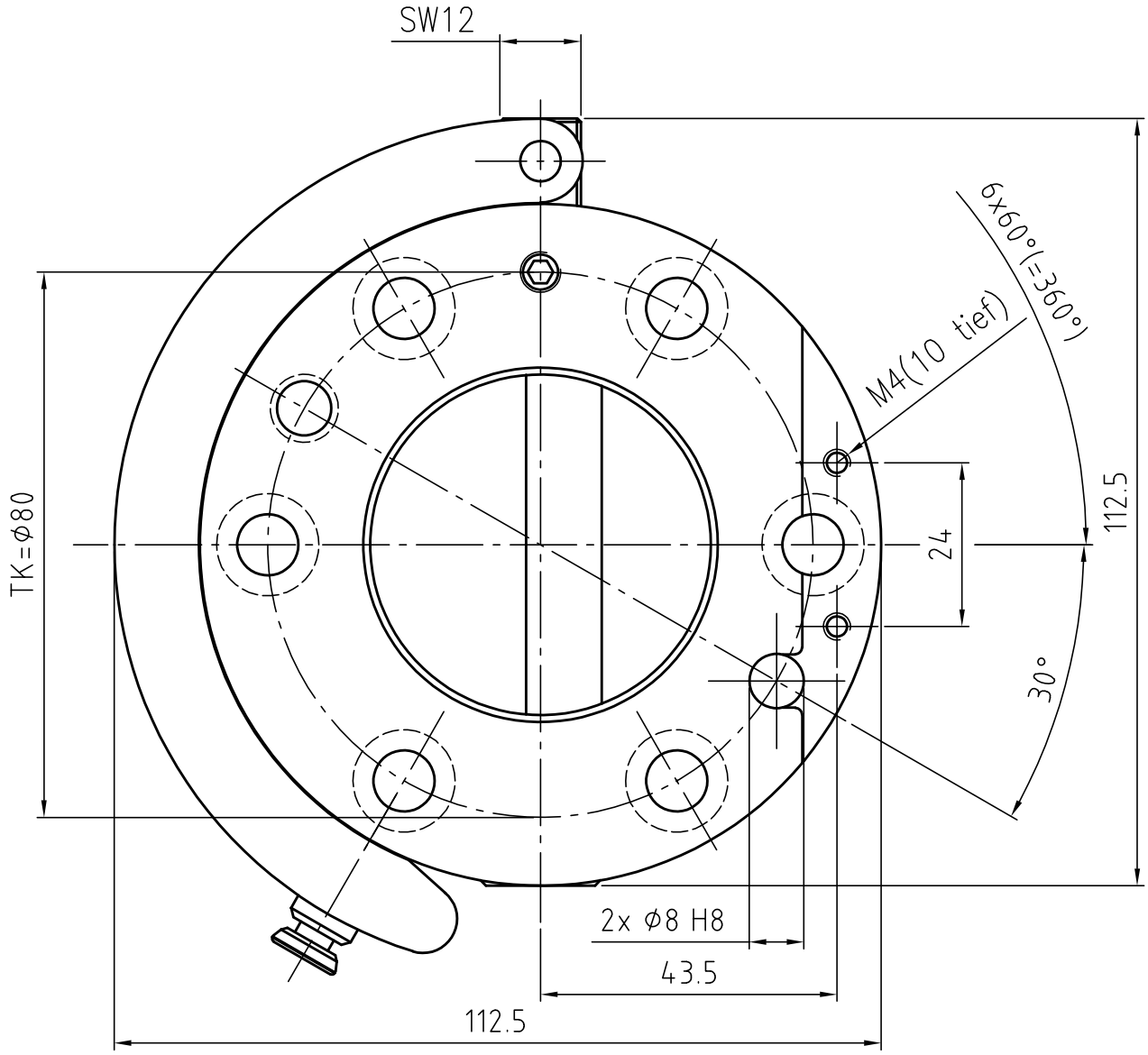
GRIP GmbH Handhabungstechnik





Datum 08.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-MGW100-2ZE			





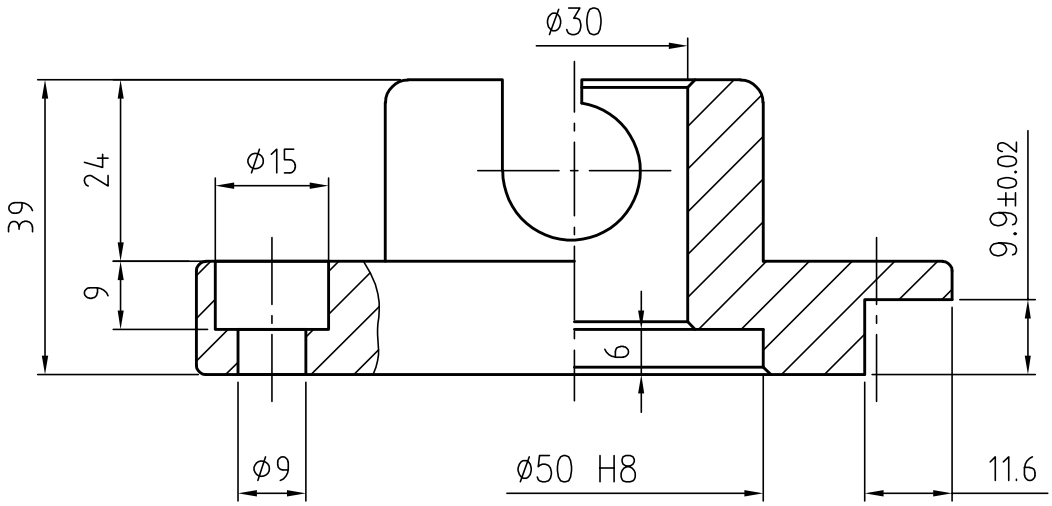
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW100-20E
Stahl	G-MGW100-20ES
St. nitriert	G-MGW100-20EN

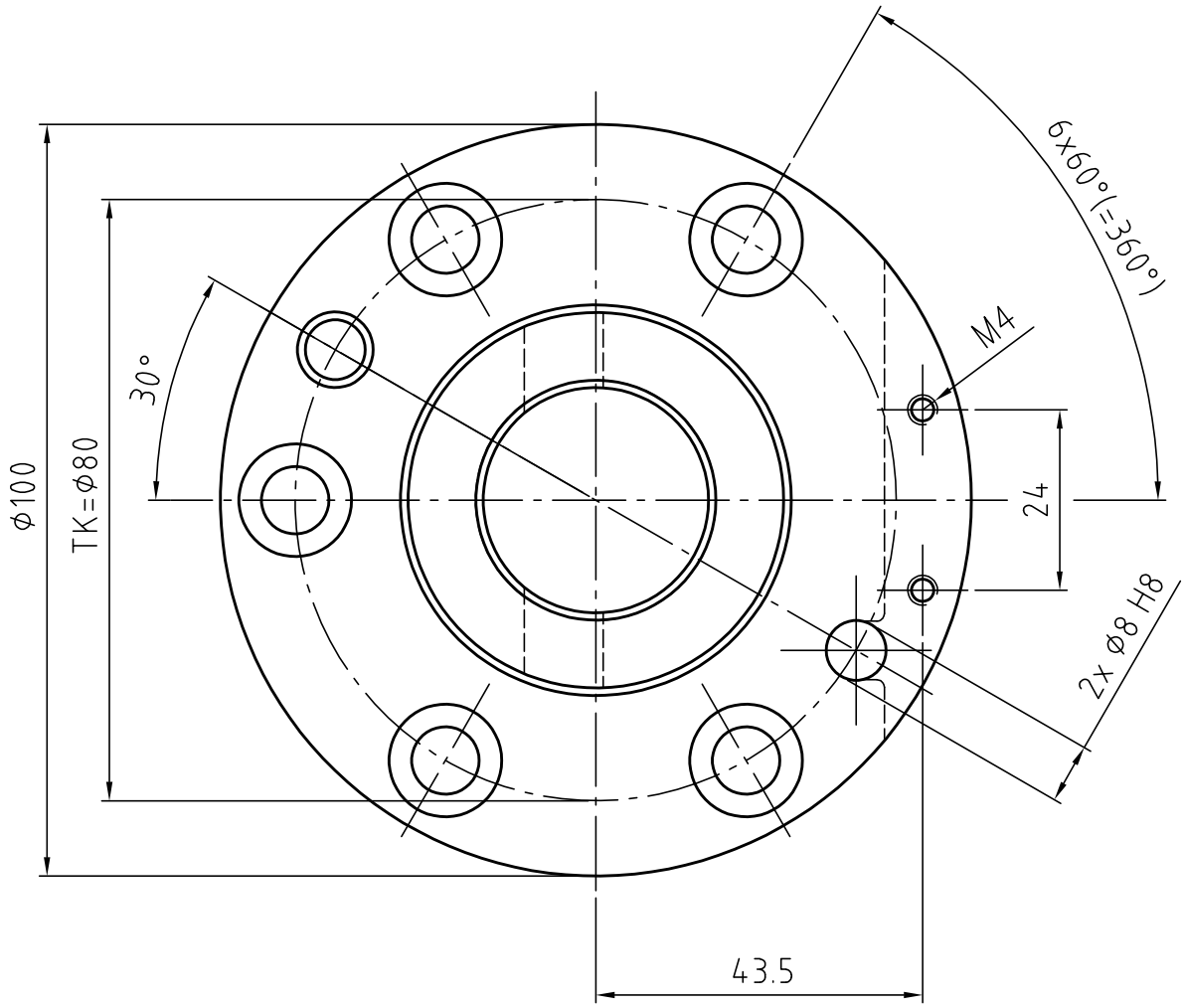
Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

G-MGW100-20E

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-MGW100-2UE
Stahl	G-MGW100-2UES
St. nitriert	G-MGW100-2UEN

Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

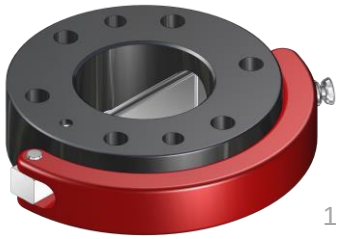
G-MGW100-2UE

GRIP GmbH Handhabungstechnik

G-MGW125

Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Withstands high loads with low dead weight
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Resilient locking pin secures hand lever against independent releasing
Holds up to 5,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface acc. to DIN EN ISO 9409-1
Optional connection of a Multi energy coupling **MEK**

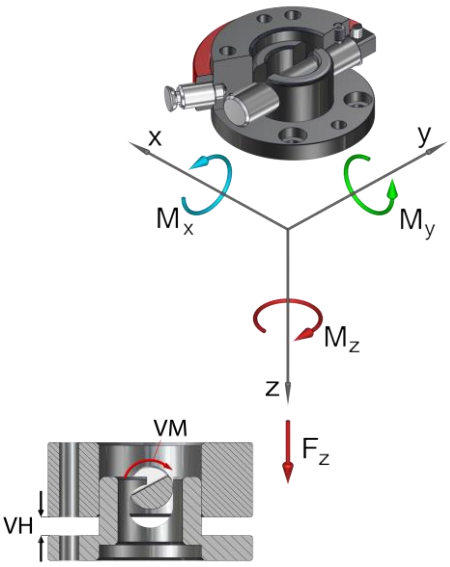


1

2

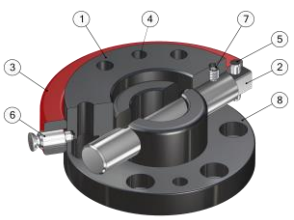
Technical specifications		MGW125	
Basic material		Al. anod.	St, nitrated
External diameter x Height [mm]		125 x 50	
Pitch circle diameter [mm]		100	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.500	5.200
Compression -Fz [kN]		377	754
Torsion Mz [Nm]		150	210
Bending Mx, My [Nm]		180	250
Mass [kg]	upper assembly	1,3	2,8
	lower assembly	0,55	1,6
Recommended load [kg] *		40	55
Locking torque VM [Nm]		2 – 16	3 – 20
Locking stroke VH [mm]		0 - 8	
Operating temperature range [°C]		-30 to +120	

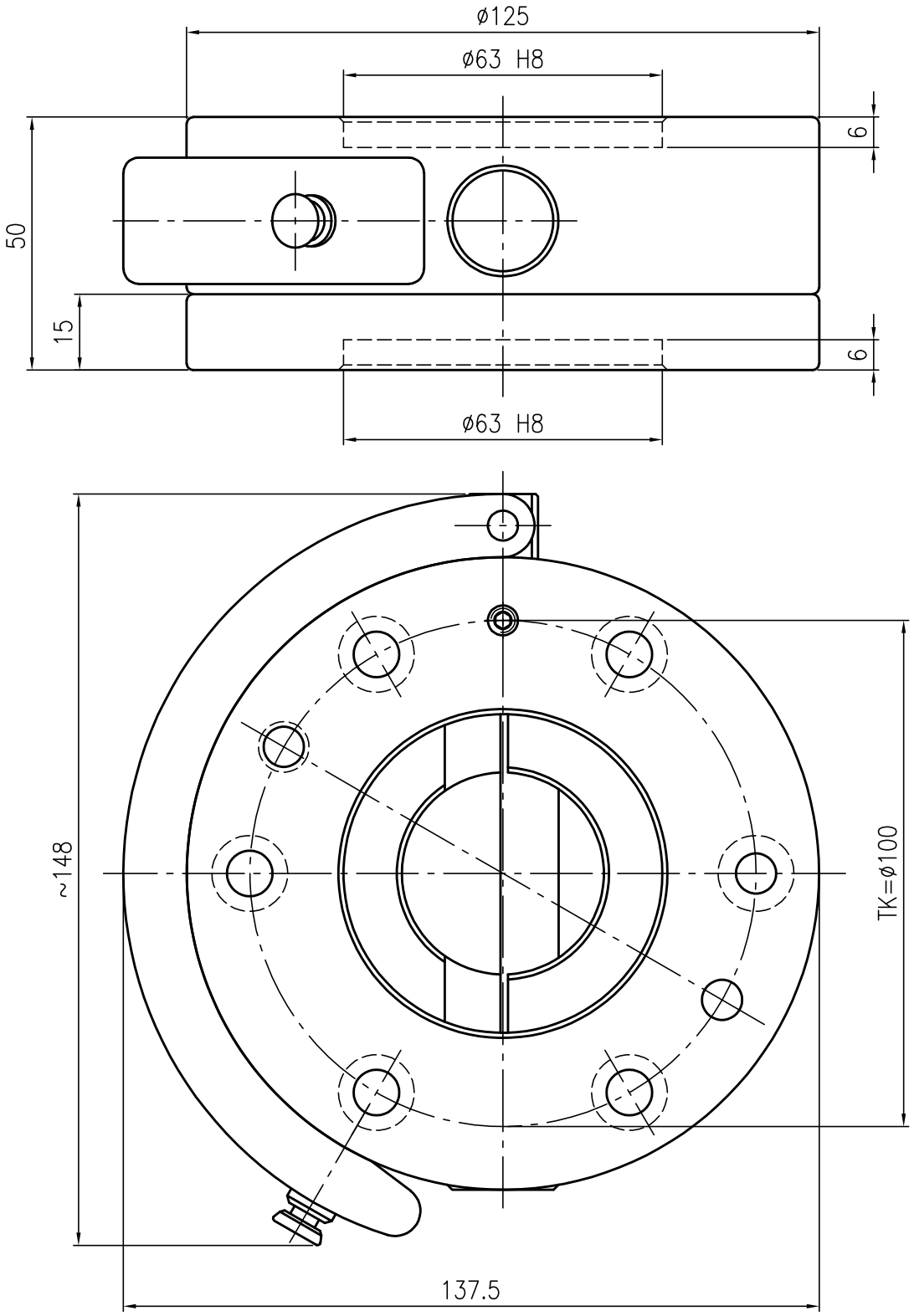
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety



Manual gripper change system Ø125, drilled acc. to ISO…	
G-MGW125-2O	upper assembly, Al, anodized
G-MGW125-2OE	upper assembly, E-Mount, Al, anodized
G-MGW125-2OEN	upper assembly, E-Mount, steel, nitrated
G-MGW125-2O-N	upper assembly, steel, nitrated
G-MGW125-2U	lower assembly, Al, anodized
G-MGW125-2UE	lower assembly, E-Mount, Al, anodized
G-MGW125-2UEN	lower assembly, E-Mount, steel, nitrated
G-MGW125-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt…	
EG-MGW125-HB	for MGW125
EG-MGW125-HB-VA	for MGW125, out off VA
Replacement hand lever	
EG-MGW125-HH	for MGW125

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly



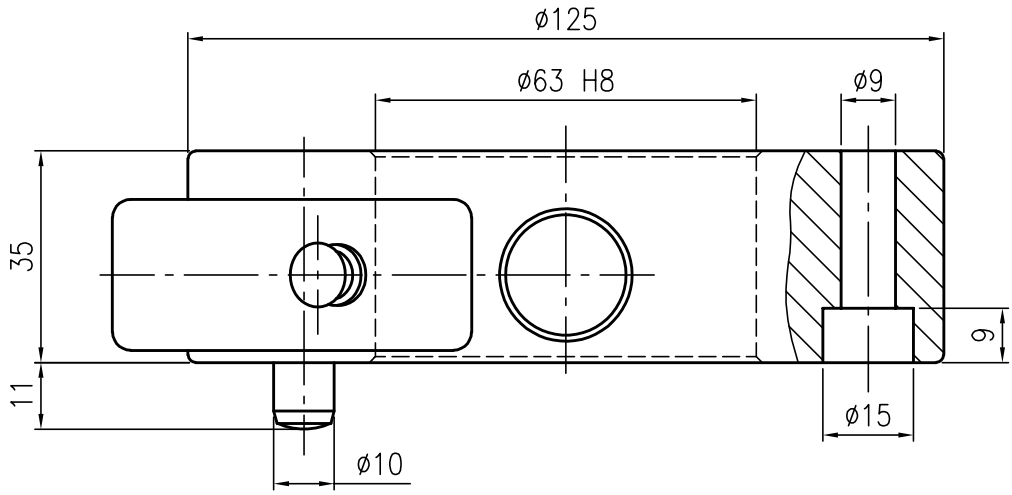


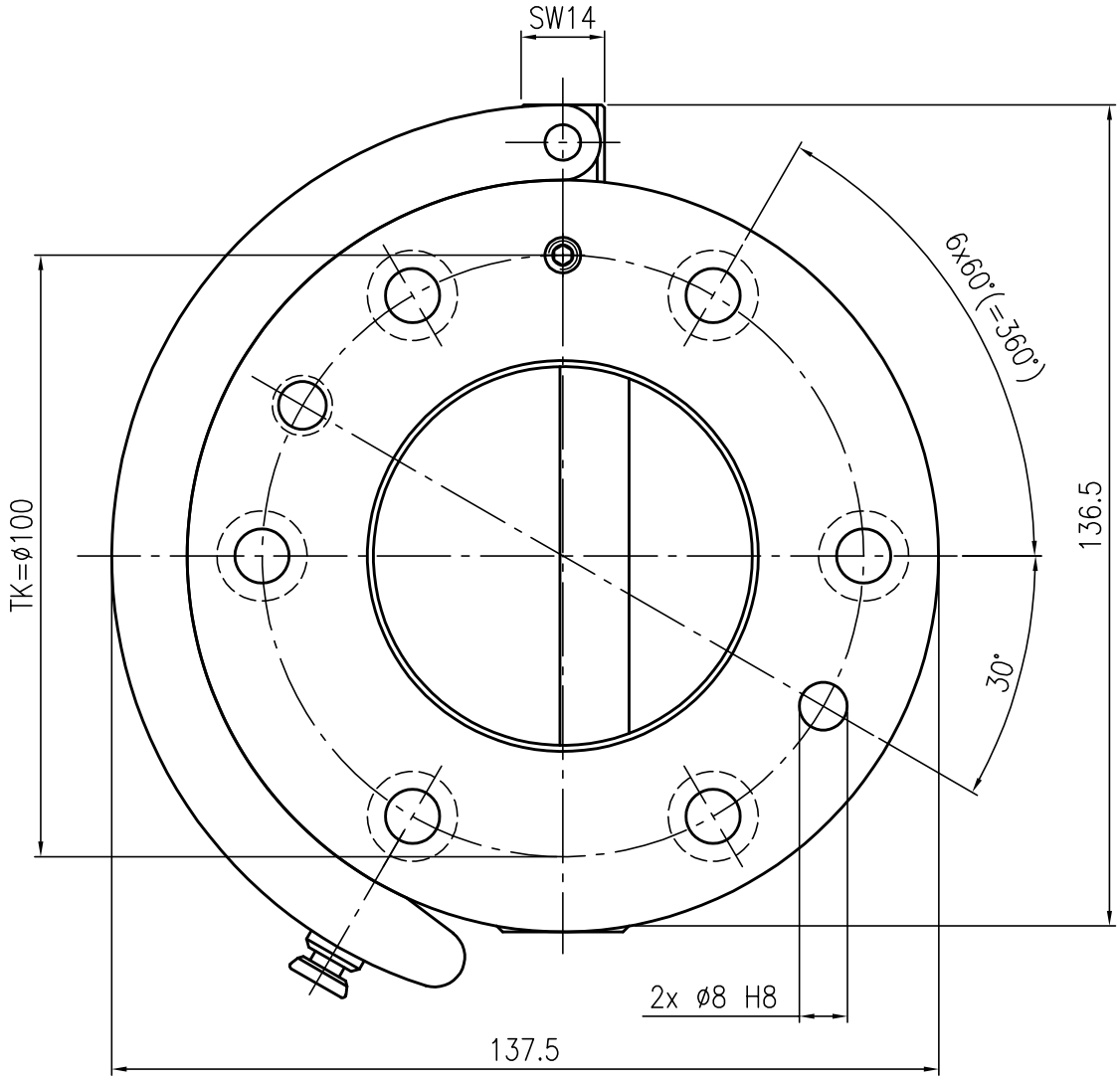
Datum	Maßstab	
08.11.2016	1:1.25	

Zeichnungsnummer

G-MGW125-2Z

GRIP GmbH Handhabungstechnik





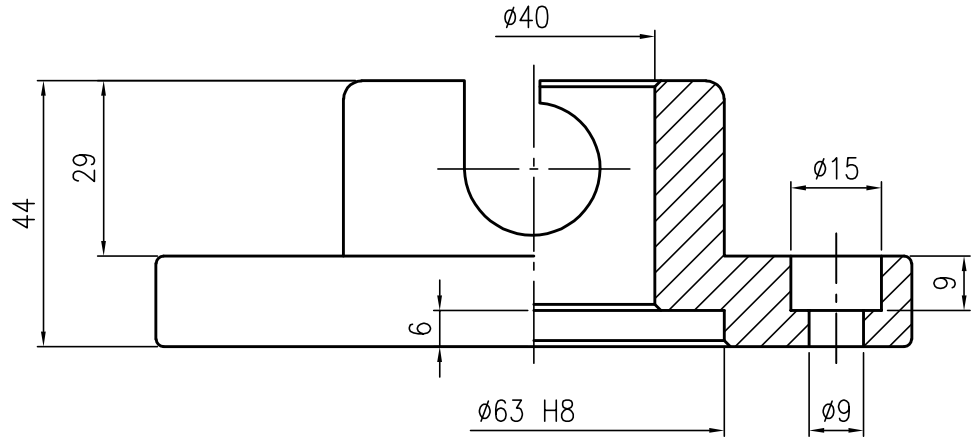
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW125-20
Stahl	G-MGW125-20-S
St. nitriert	G-MGW125-20-N

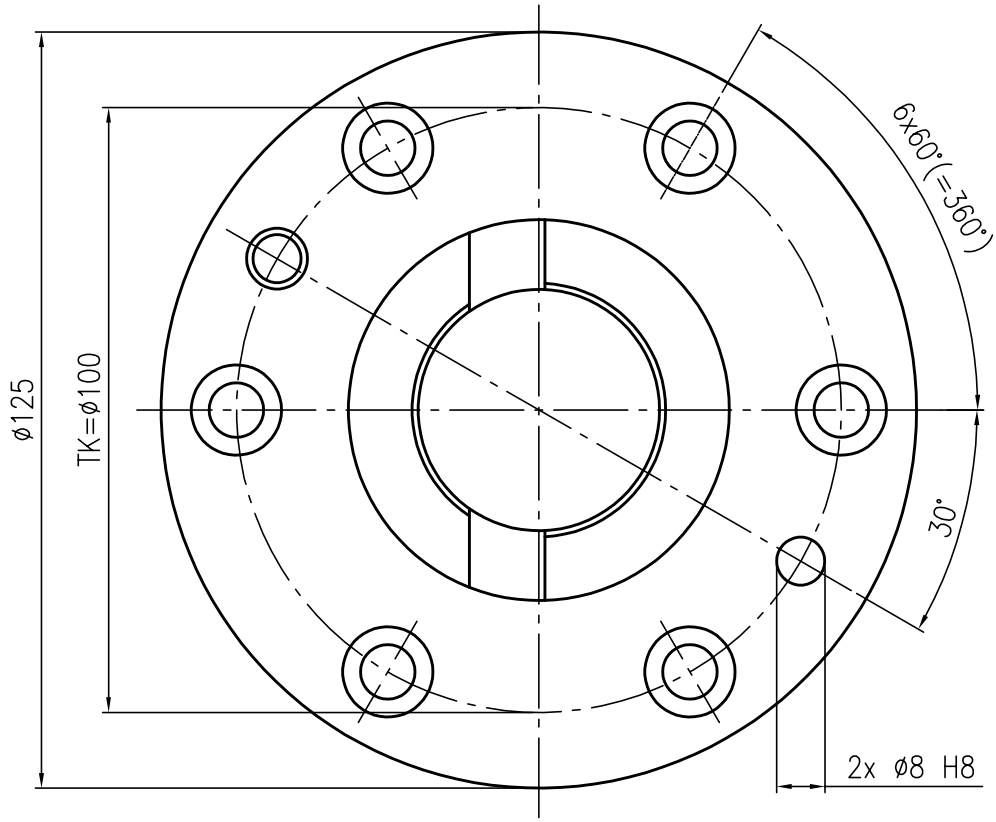
Datum	Maßstab
08.11.2016	1:1.25

Zeichnungsnummer

G-MGW125-20

GRIP GmbH Handhabungstechnik





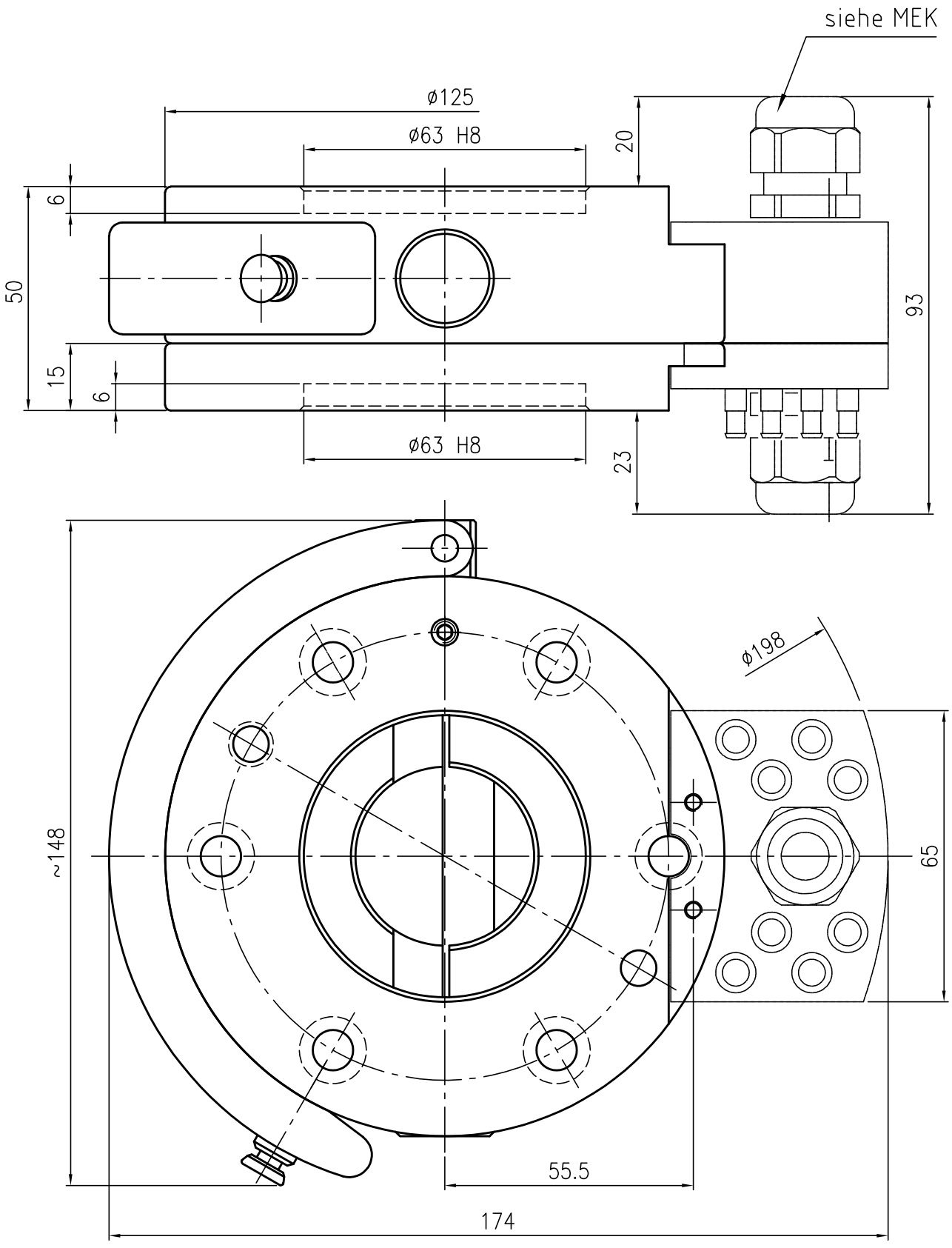
Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-MGW125-2U
Stahl	G-MGW125-2U-S
St. nitriert	G-MGW125-2U-N

Datum	Maßstab
08.11.2016	1:1.25

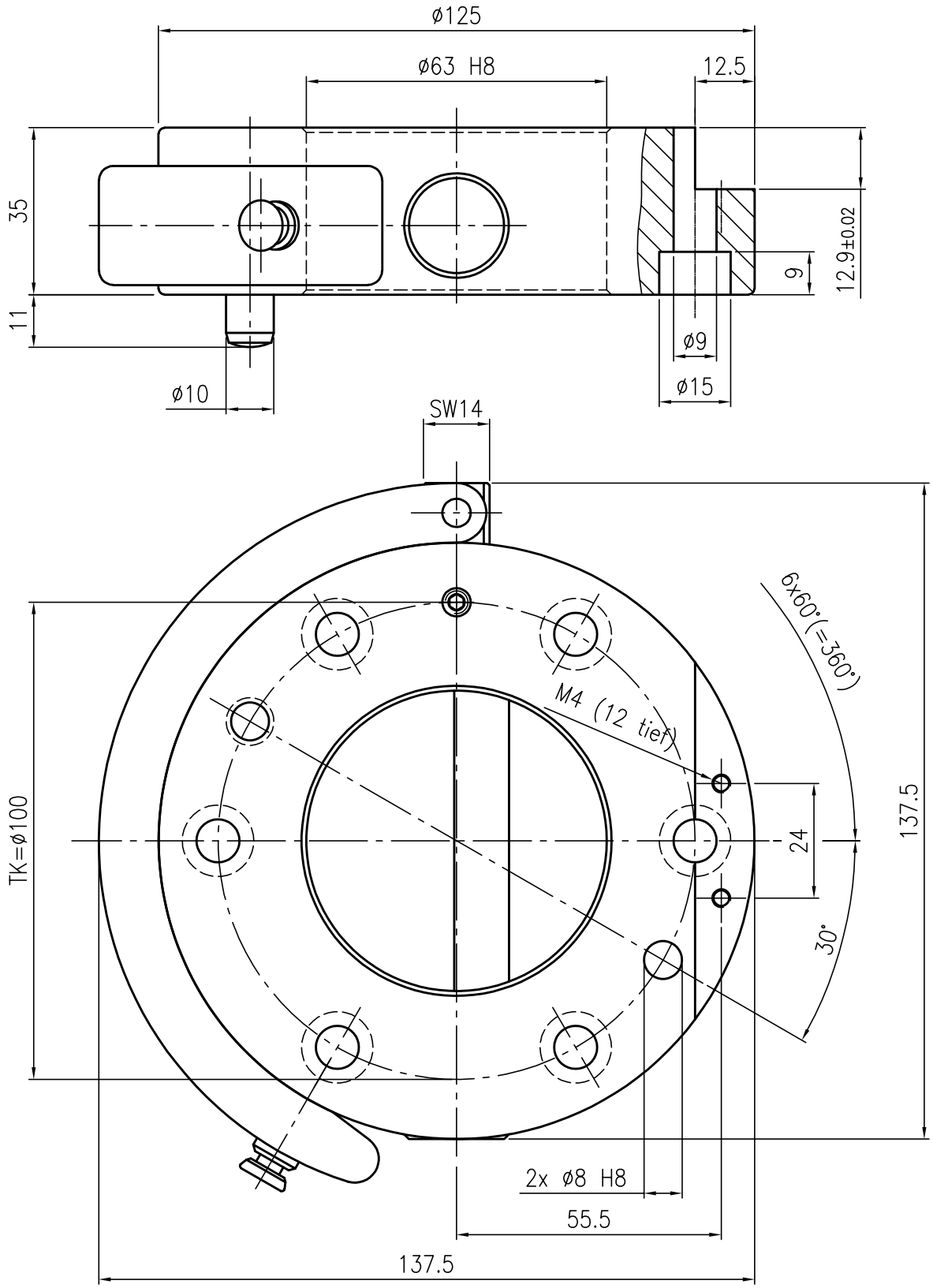
Zeichnungsnummer

G-MGW125-2U

GRIP GmbH Handhabungstechnik



Datum 08.11.2016	Maßstab 1:1.25		
Zeichnungsnummer G-MGW125-2ZE			GRIP GmbH Handhabungstechnik



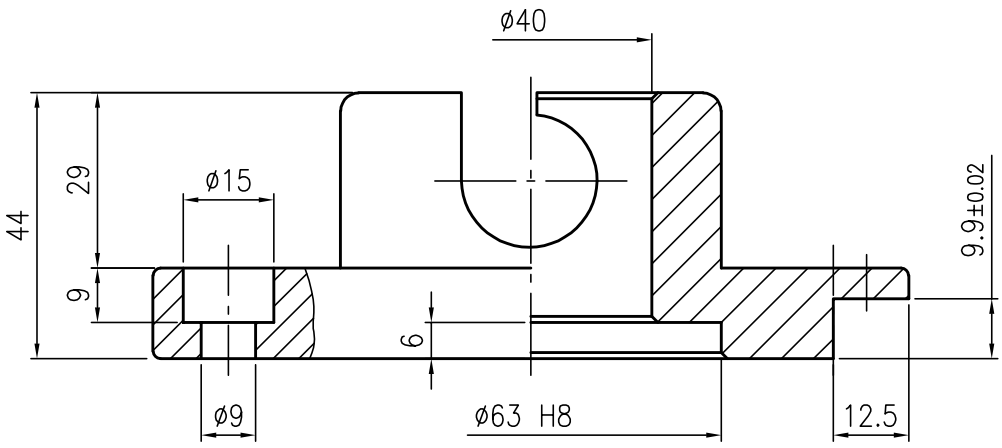
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW125-20E
Stahl	G-MGW125-20ES
St. nitriert	G-MGW125-20EN

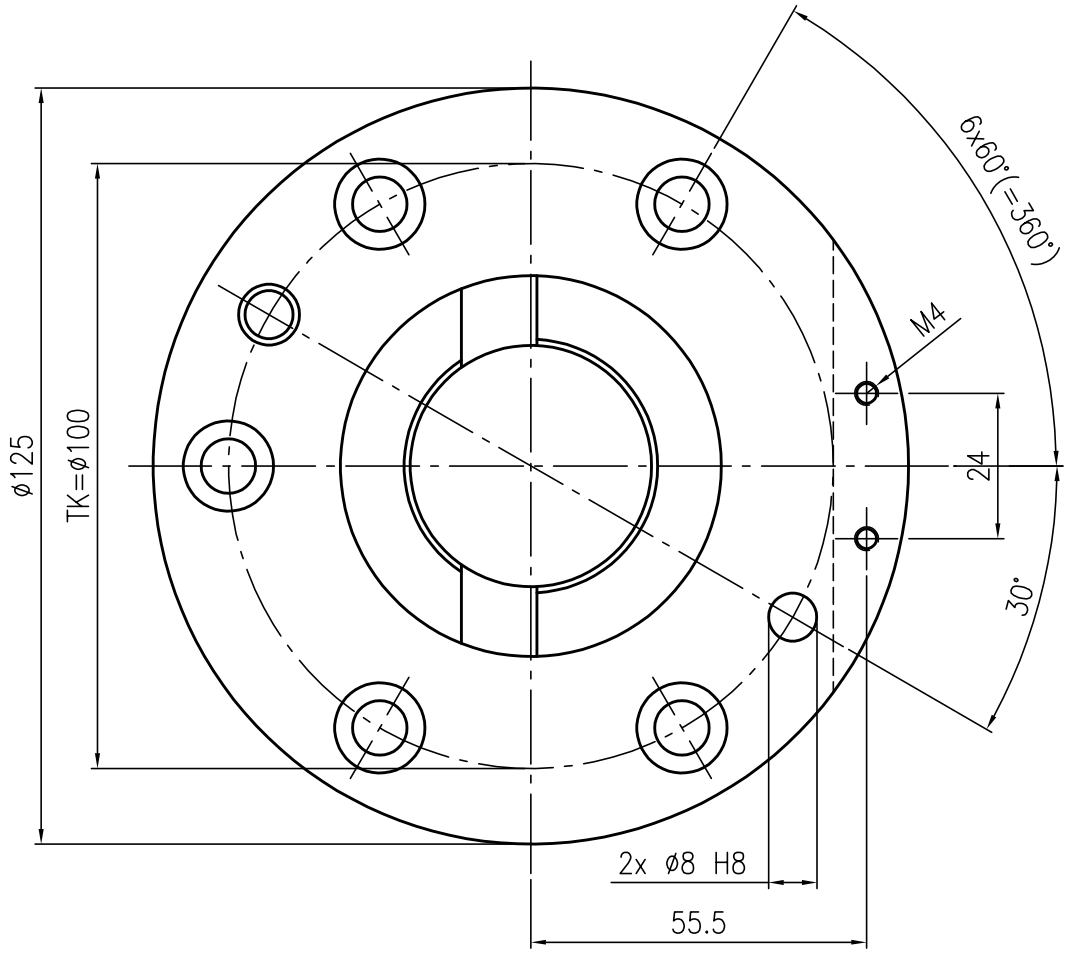
Datum	Maßstab
08.11.2016	1:1.25

Zeichnungsnummer

G-MGW125-20E

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-MGW125-2UE
Stahl	G-MGW125-2UES
St. nitriert	G-MGW125-2UEN

Datum	Maßstab	
08.11.2016	1:1.25	

Zeichnungsnummer

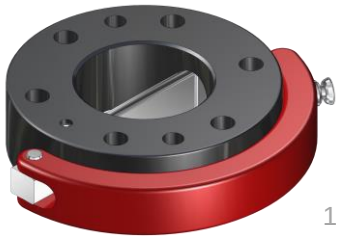
G-MGW125-2UE

GRIP GmbH Handhabungstechnik

G-MGW160

Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Withstands high loads with low dead weight
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Resilient locking pin secures hand lever against independent releasing
Holds up to 5,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface acc. to DIN EN ISO 9409-1
Optional connection of a Multi energy coupling **MEK**



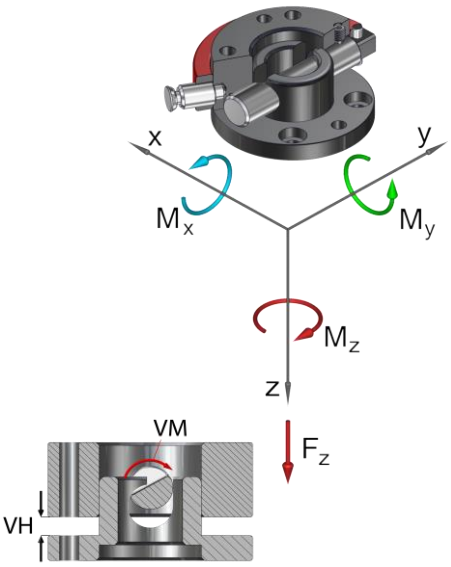
1

2

Technical specifications		MGW160	
Basic material		Al. anod.	St, nitrated
External diameter x Height [mm]		160 x 70	
Pitch circle diameter [mm]		125	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		2.500	10.000
Compression -Fz [kN]		626	1.252
Torsion Mz [Nm]		250	1.000
Bending Mx, My [Nm]		320	1.000
Mass [kg]	upper assembly	2,8	6,6
	lower assembly	1,3	3,85
Recommended load [kg]		75 *	120 **
Locking torque VM [Nm]		3 - 24	4 - 30
Locking stroke VH [mm]		0 - 10	
Operating temperature range [°C]		-30 to +120	

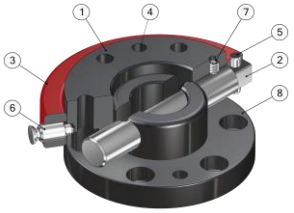
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 1.6 times safety

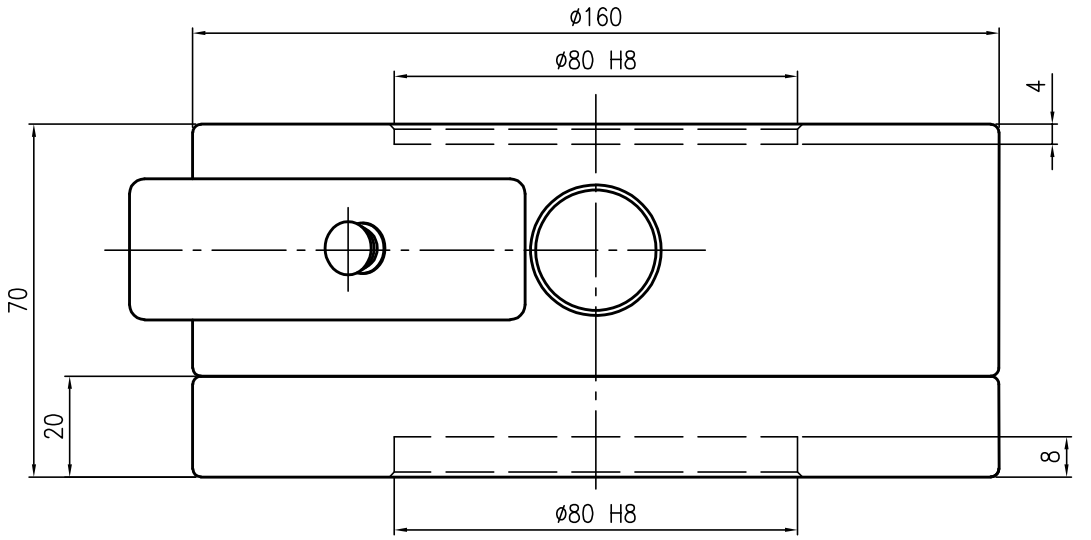
** This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 1.6 times safety

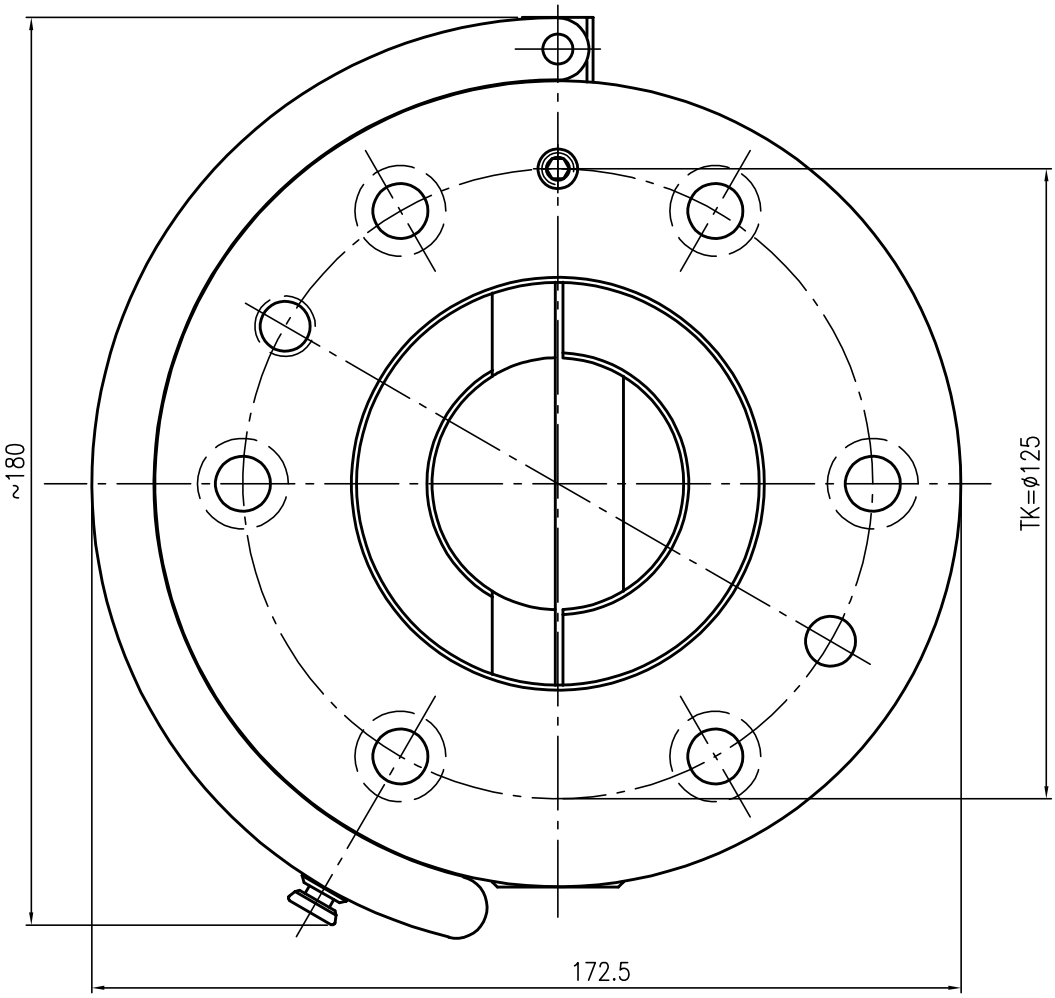


Manual gripper change system Ø160, drilled acc. to ISO…	
G-MGW160-2O	upper assembly, Al, anodized
G-MGW160-2OE	upper assembly, E-Mount, Al, anodized
G-MGW160-2OEN	upper assembly, E-Mount, steel, nitrated
G-MGW160-2O-N	upper assembly, steel, nitrated
G-MGW160-2U	lower assembly, Al, anodized
G-MGW160-2UE	lower assembly, E-Mount, Al, anodized
G-MGW160-2UEN	lower assembly, E-Mount, steel, nitrated
G-MGW160-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt…	
EG-MGW160-HB	for MGW160
EG-MGW160-HB-VA	for MGW160, out off VA
Replacement hand lever	
EG-MGW160-HH	for MGW160

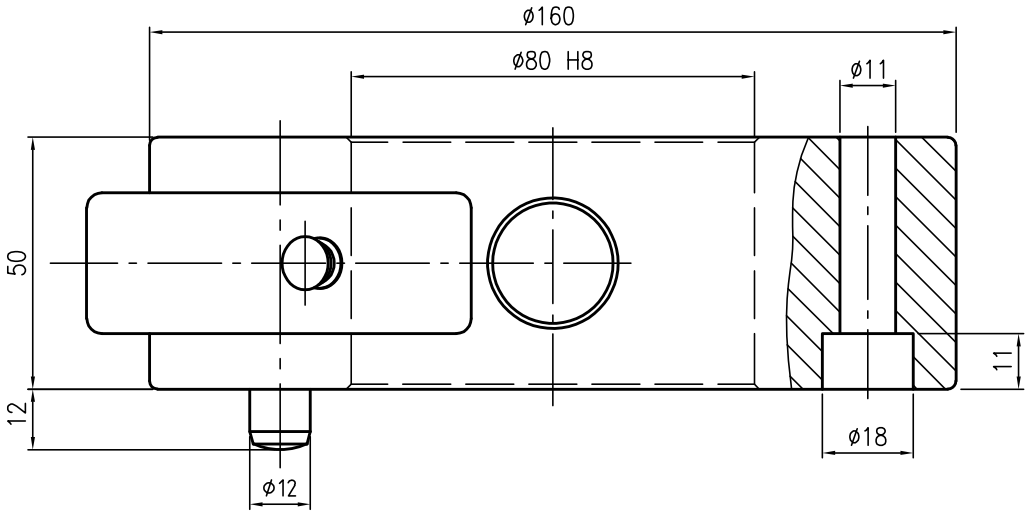
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly

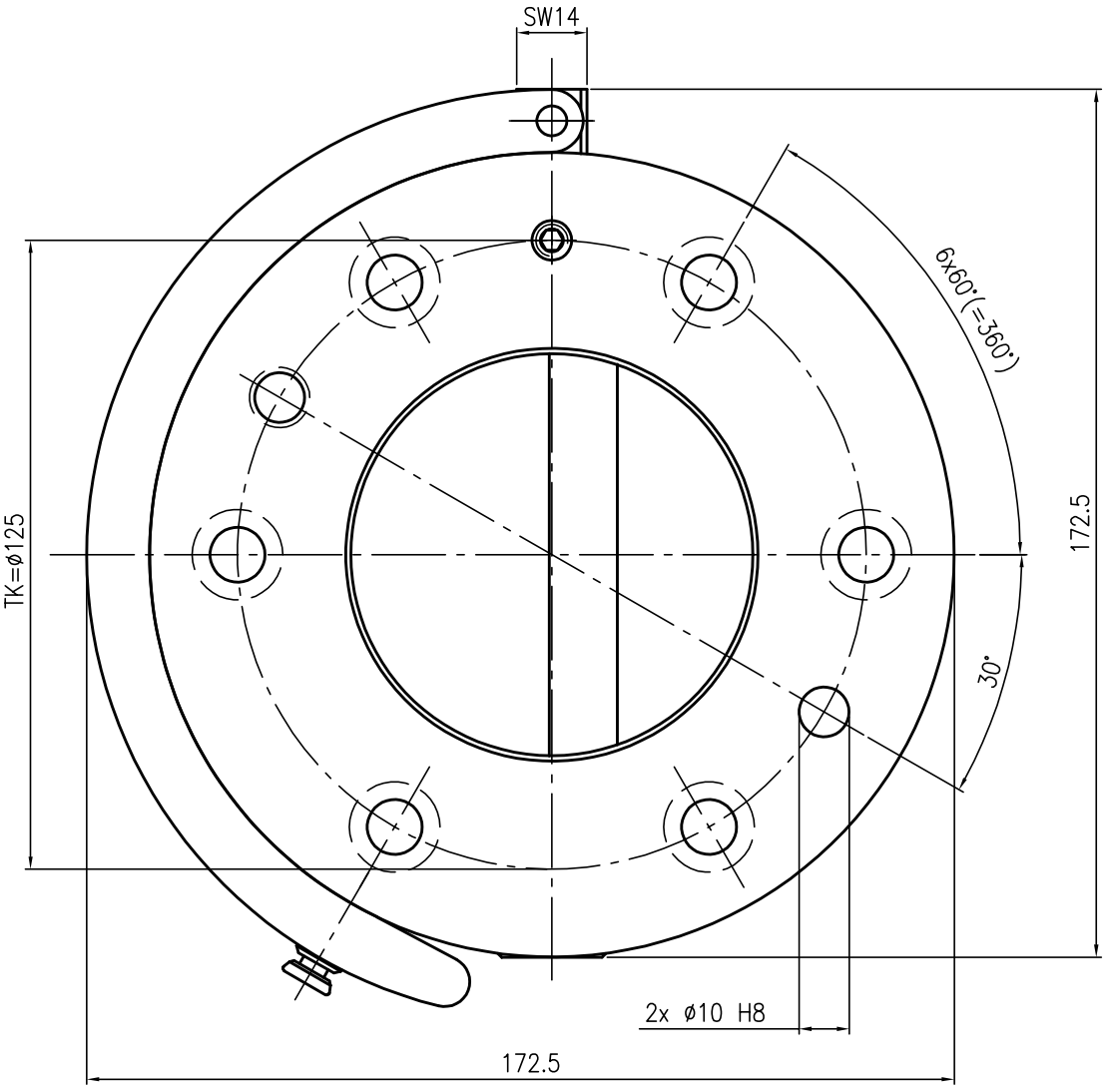






Datum 08.11.2016	Maßstab 1:1.5	
Zeichnungsnummer G-MGW160-2Z		GRIP GmbH Handhabungstechnik





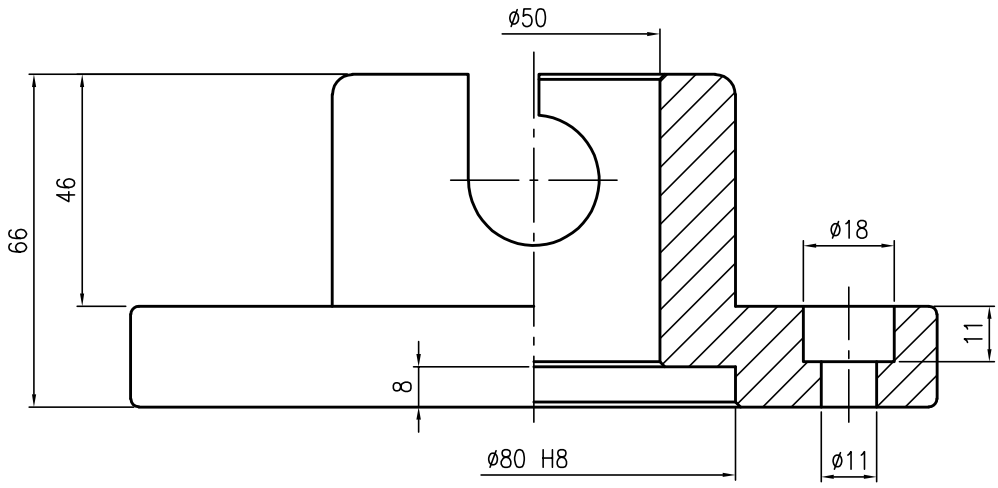
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW160-20
Stahl	G-MGW160-20-S
St. nitriert	G-MGW160-20-N

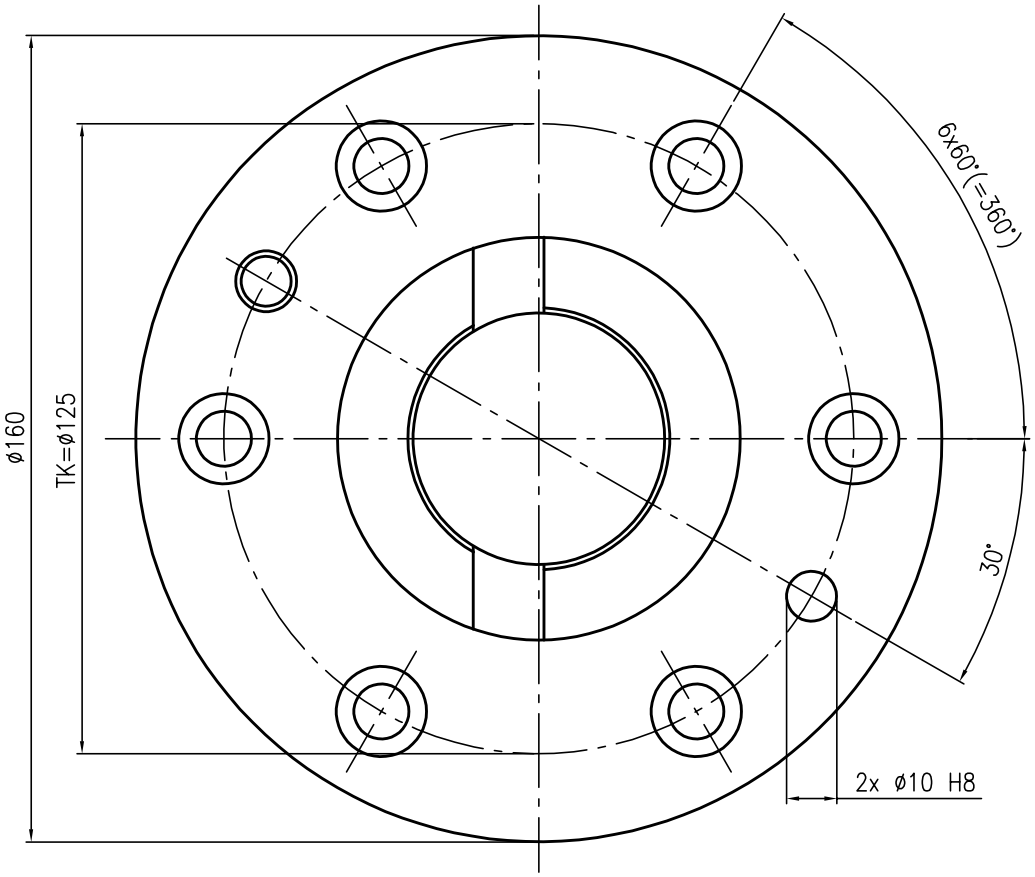
Datum	Maßstab
08.11.2016	1:1.5

Zeichnungsnummer

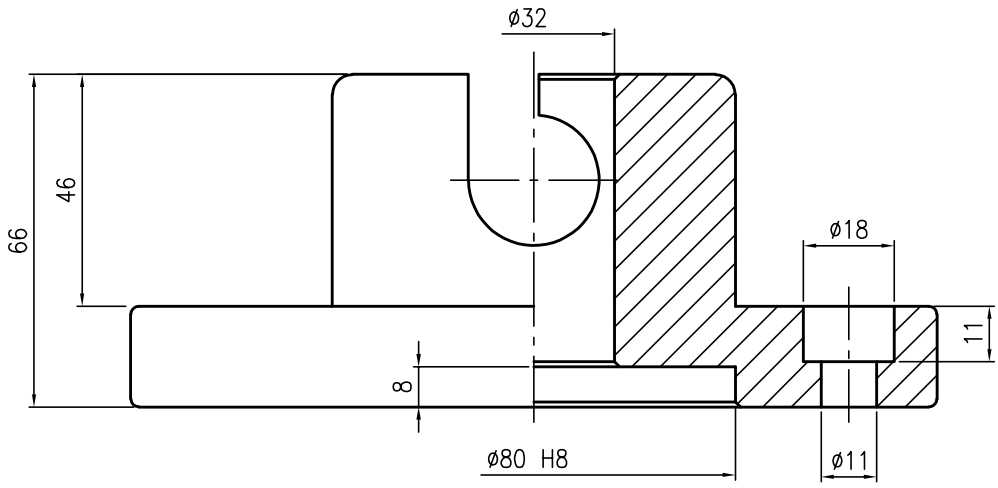
G-MGW160-20

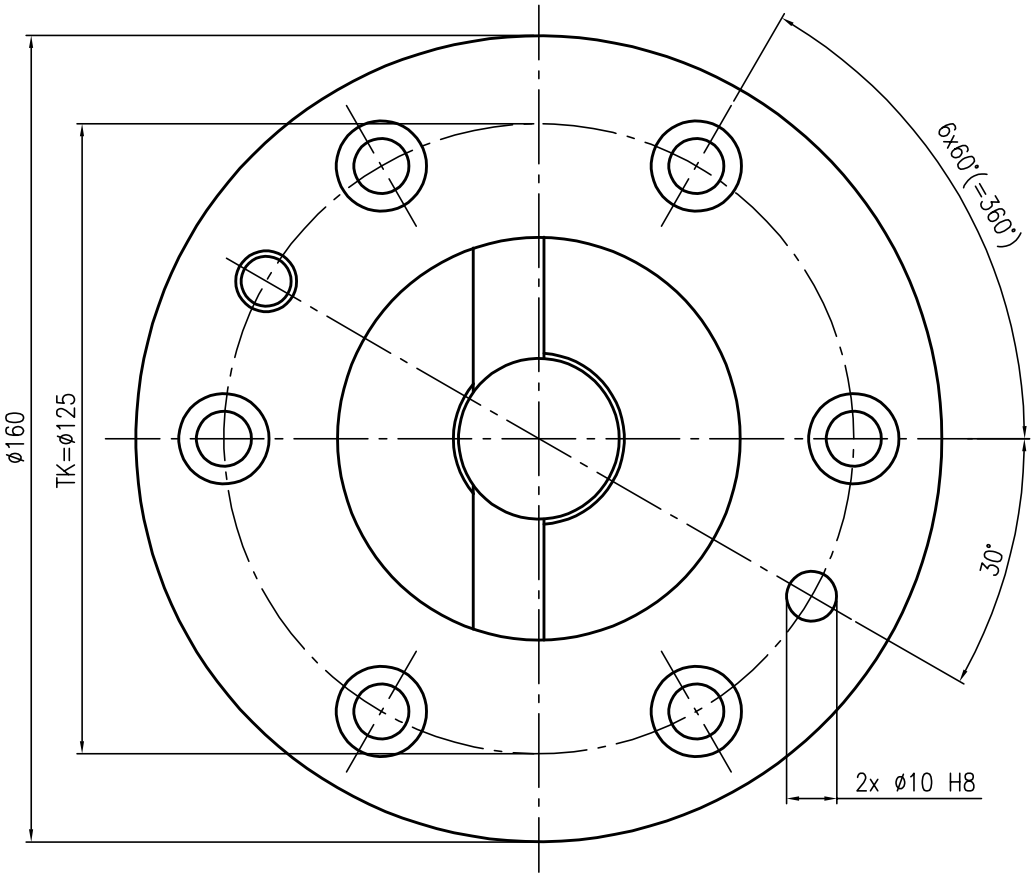
GRIP GmbH Handhabungstechnik





Datum 08.11.2016	Maßstab 1:1.5		
Zeichnungsnummer G-MGW160-2U			GRIP GmbH Handhabungstechnik





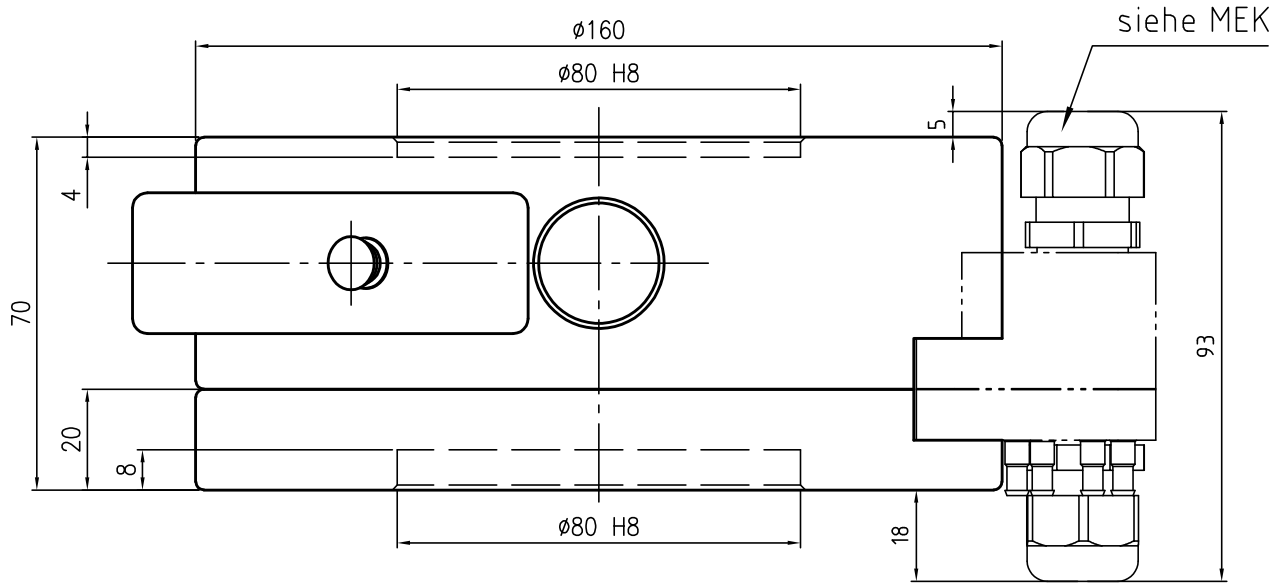
Grundmaterial	Bestellnummer Unterteil
Stahl	G-MGW160-2U-S
St. nitriert	G-MGW160-2U-N

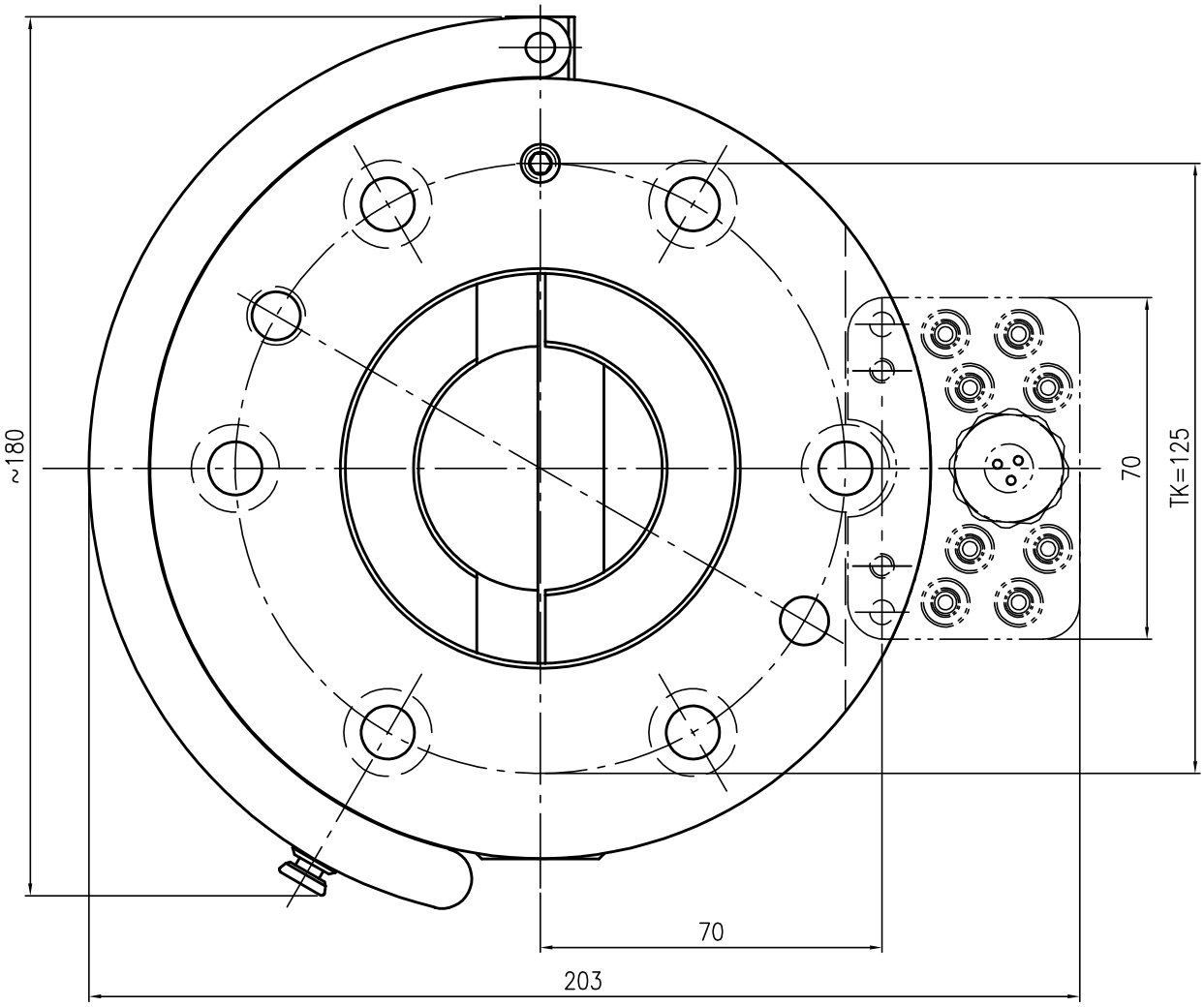
Datum	Maßstab	
08.11.2016	1:1.5	

Zeichnungsnummer

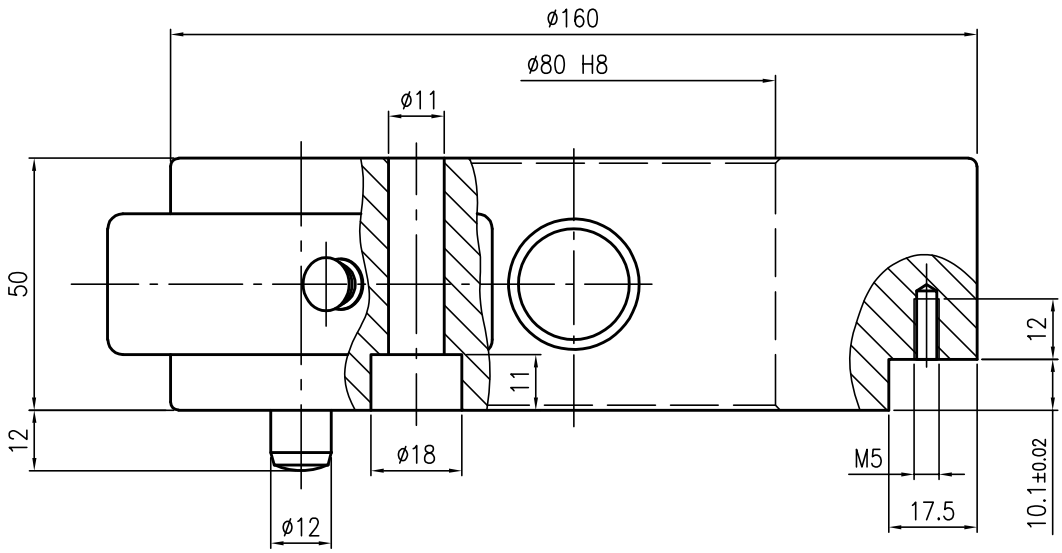
G-MGW160-2U-N

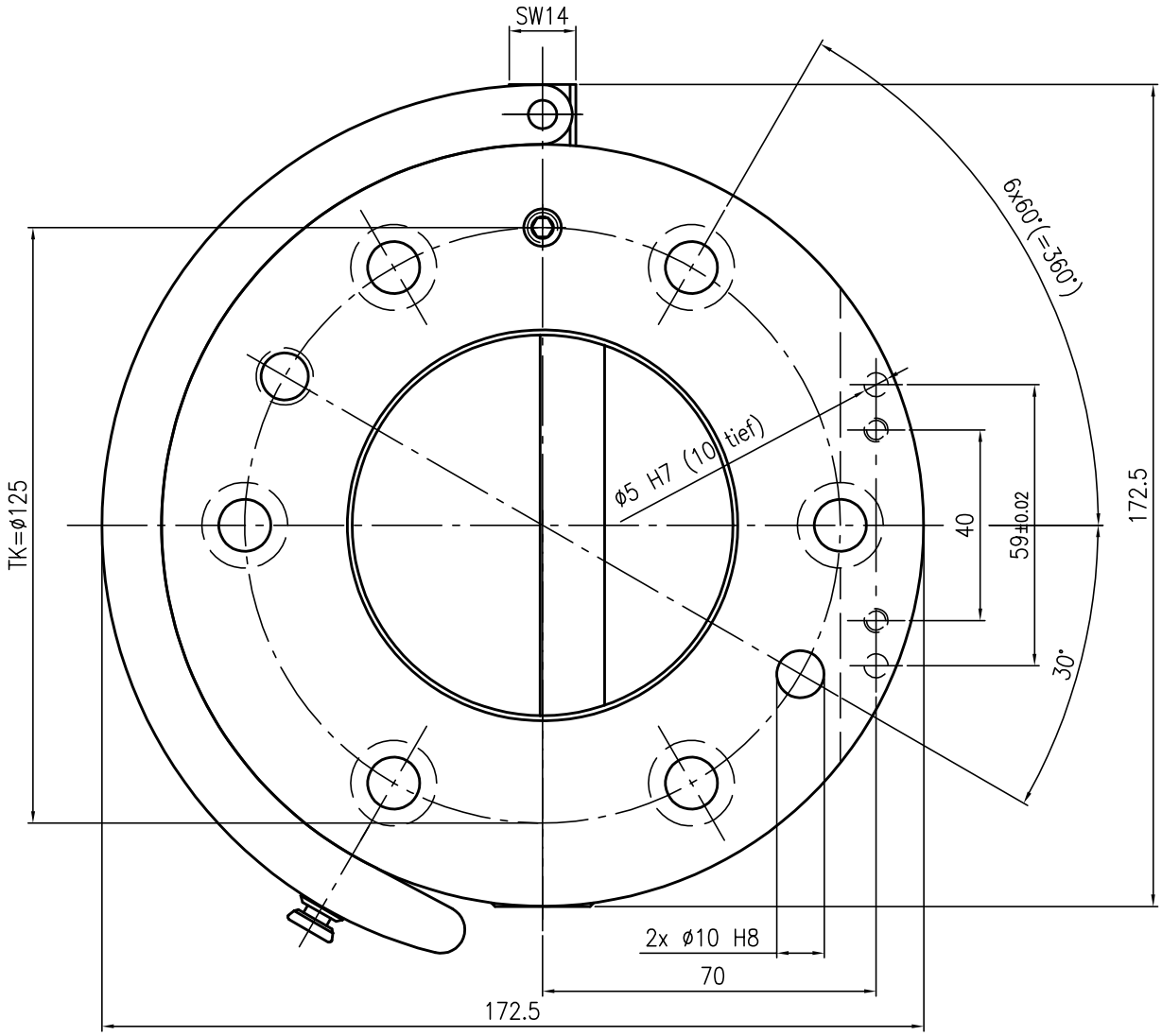
GRIP GmbH Handhabungstechnik





Datum 08.11.2016	Maßstab 1:1.5	
Zeichnungsnummer G-MGW160-2ZE		GRIP GmbH Handhabungstechnik





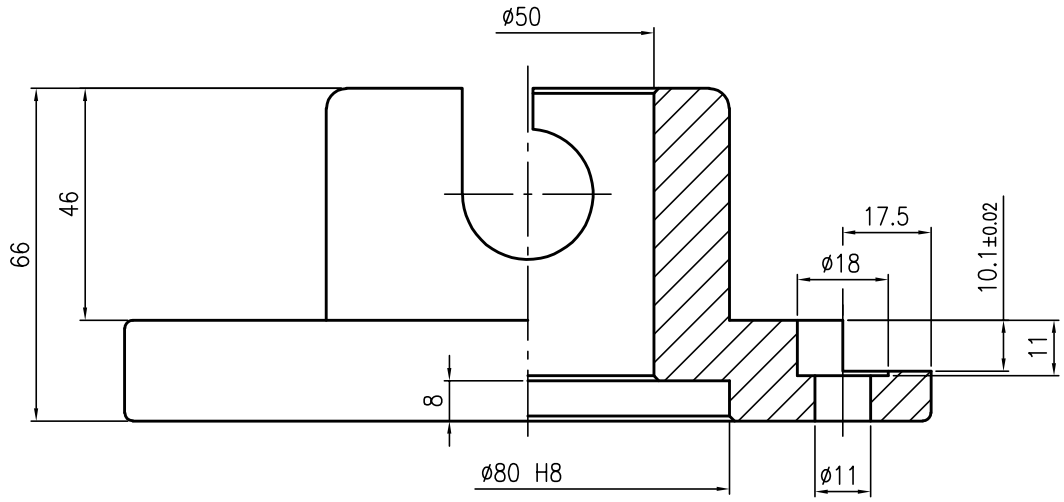
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-MGW160-20E
Stahl	G-MGW160-20ES
St. nitriert	G-MGW160-20EN

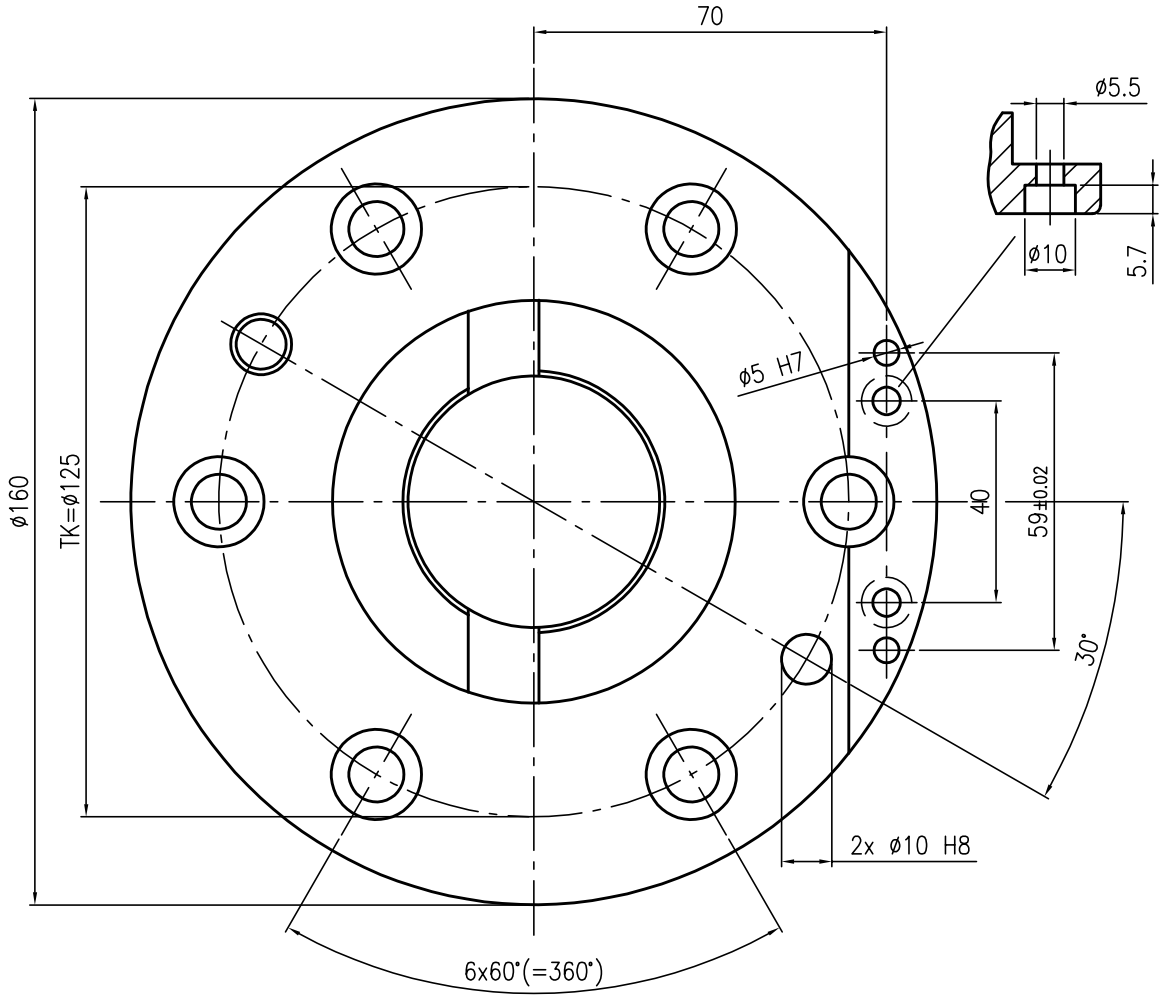
Datum	Maßstab	
08.11.2016	1:1.5	

Zeichnungsnummer

G-MGW160-20E

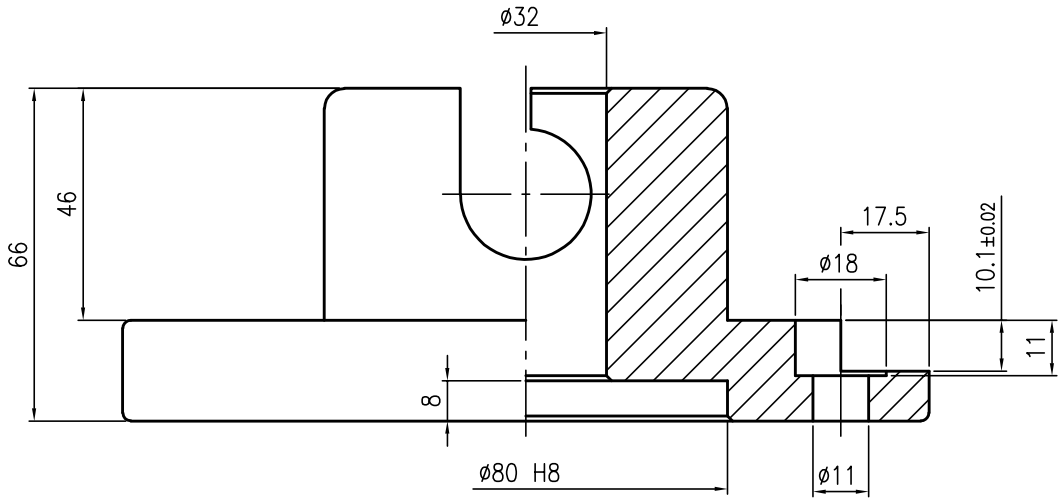
GRIP GmbH Handhabungstechnik

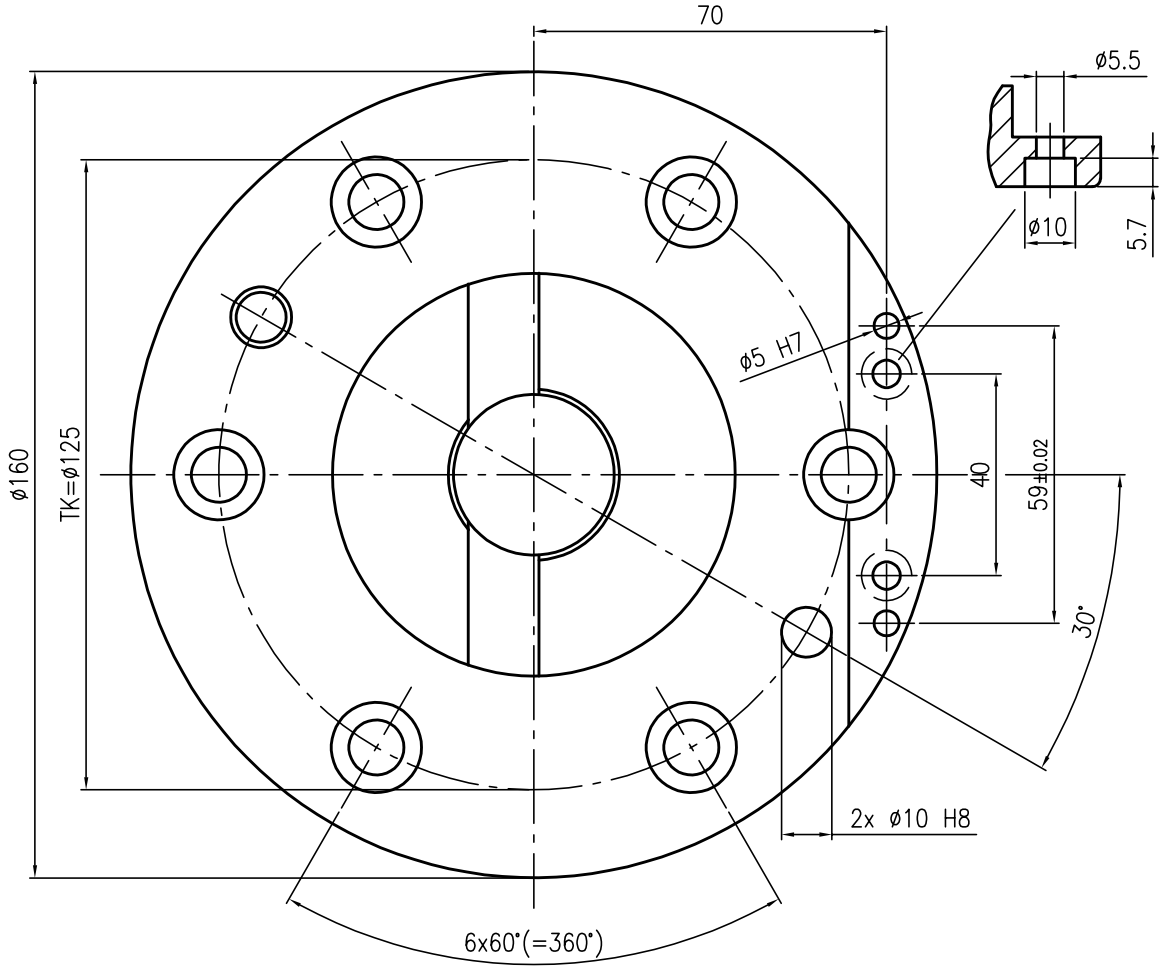




Datum	08.11.2016	Maßstab	1:1.5	
Zeichnungsnummer				
G-MGW160-2UE				

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Stahl	G-MGW160-2UES
St. nitriert	G-MGW160-2UEN

Datum	Maßstab	
08.11.2016	1:1.5	

Zeichnungsnummer

G-MGW160-2UEN

GRIP GmbH Handhabungstechnik

SWS CONNECTOR

The SWS end of arm tool changer is our heavy duty tool changer for applications with increased force and torque loads. The semi-cylindrical bolt accurately joins the upper and lower assembly without play. A centering disc can be installed on both the upper assembly (robot side) and lower assembly (tool side) of the robot and ensures that the tools are correctly aligned with the robot arm.

SWS Connector Advantages:

- Operation with square socket key
- Optional Safety-Lock. Prevents unintentional opening in dynamic applications
- Steel version, optionally nitrated
- Optional mounting surface for energy feed-through
- Withstands high loads
- Can be opened and closed with one handle
- High repeatability < 0.02 mm
- Durable - over 10.000 application changes with no loss in accuracy
- When locking, the lower assembly is pulled up by the locking action
- Interface according to DIN EN ISO 9409-1

SWS Connectors can be modified to meet your needs. Please inquire about special applications.

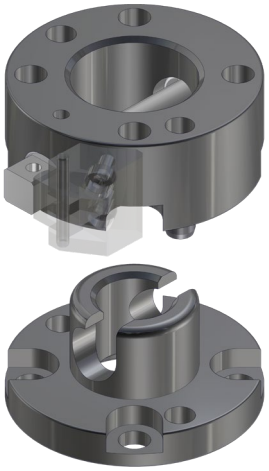
SIZES

SWS 050
SWS 063
SWS 080
SWS 100
SWS 125
SWS 160
SWS 160-B02
SWS 200

G-SWS050

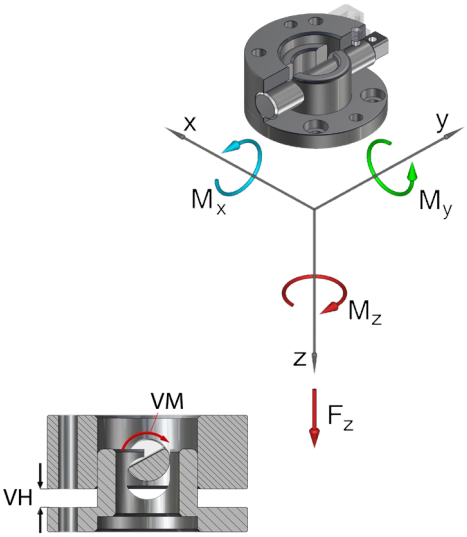
Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Cost-effective alternative to the MGW
Without hand lever, thereby low interference contours
High repeat accuracy +/- 0,02 mm
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1



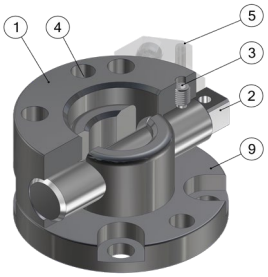
Technical specifications		SWS050	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		50 x 30	
Pitch circle diameter [mm]		40	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		700	1.320
Compression -Fz [kN]		72	96
Torsion Mz [Nm]		60	78
Bending Mx, My [Nm]		70	80
Mass [kg]	upper assembly	0,28	
	lower assembly	0,13	
Recommended load [kg] *		14	16
Locking moment VM [Nm]		2 - 6	
Locking stroke VH [mm]		0 - 5	
Operating temperature range [°C]		-30 to +120	

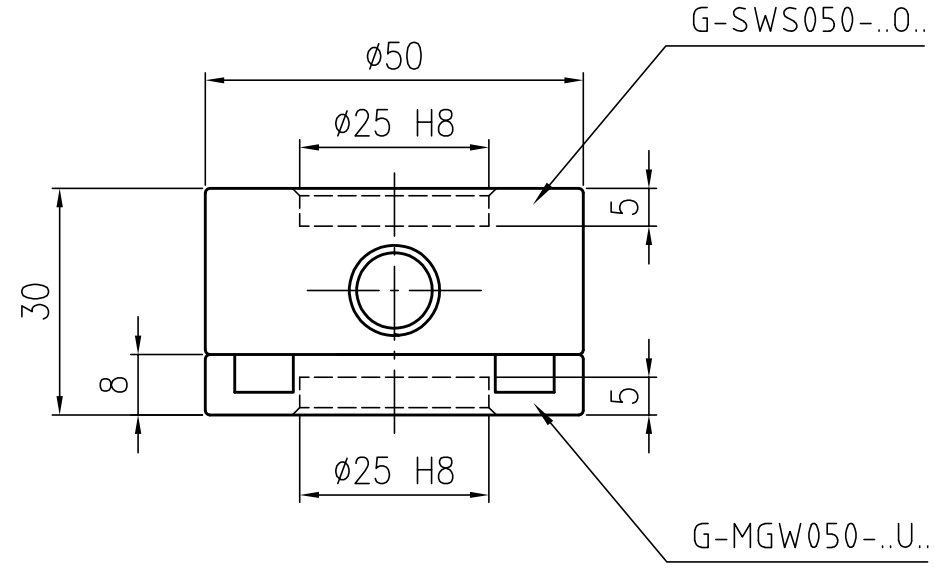
* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 100 mm, double safety

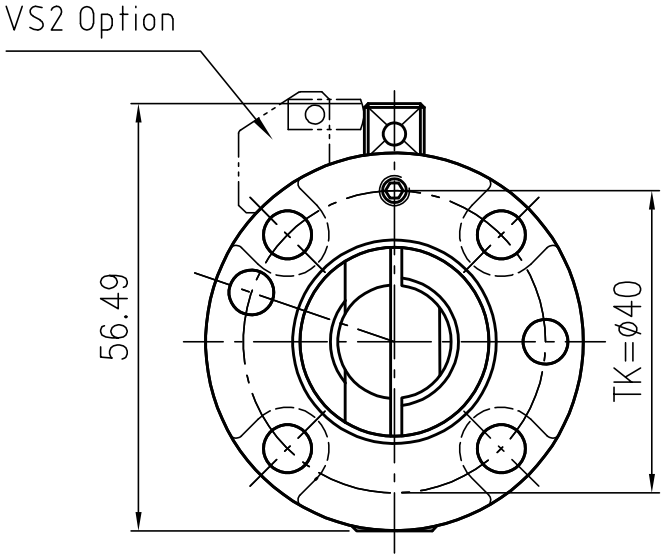


Quick change system Ø50, drilled according to ISO…	
G-SWS050-2O	upper assembly, steel
G-SWS050-2O-N	upper assembly, steel, nitrated
G-MGW050-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt safety…	
EG-SWS050-VS2	for SWS050
Square socket key…	
ZG-VKS050-SW08	for SW 08

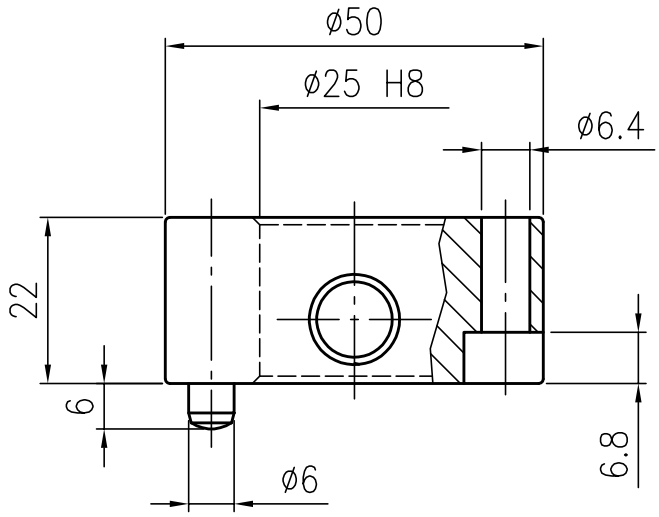
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock (opt.)
9	Lower assembly

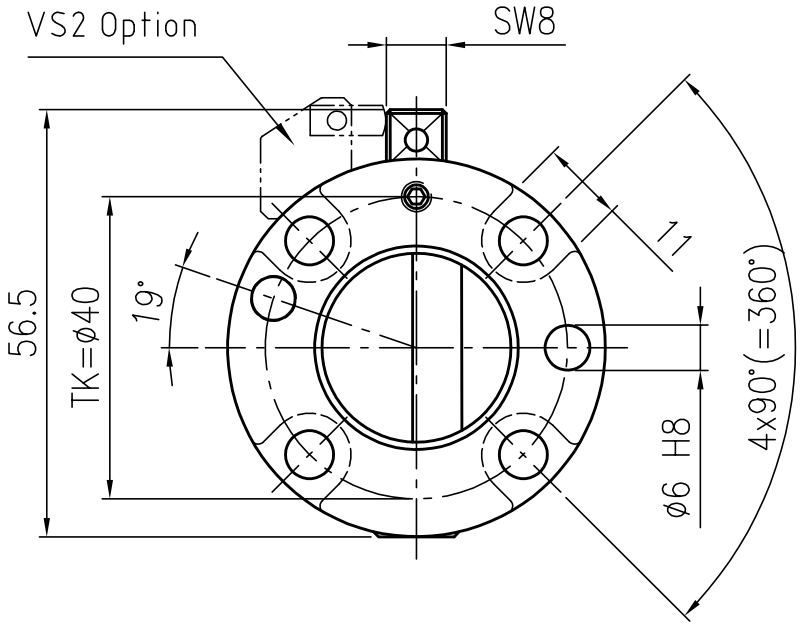






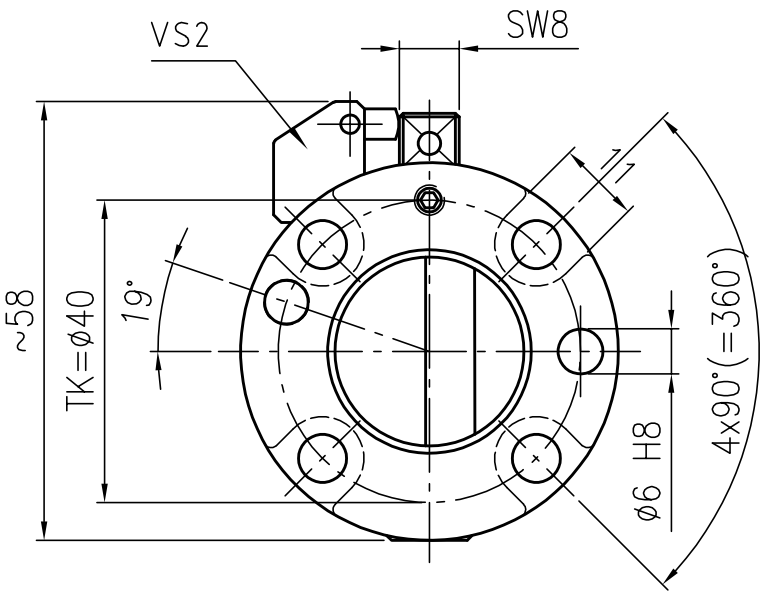
Datum 08.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS050-2Z			

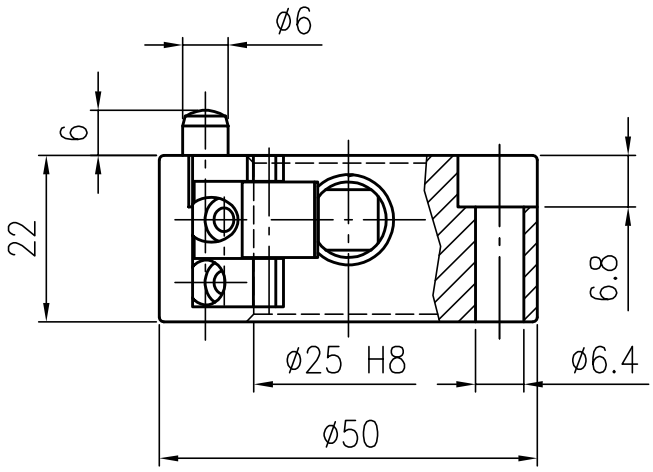




Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS050-20
St. nitriert	G-SWS050-20-N

Datum 08.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS050-20			





Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS050-20-VS2
St. nitriert	G-SWS050-20-N-VS2

Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

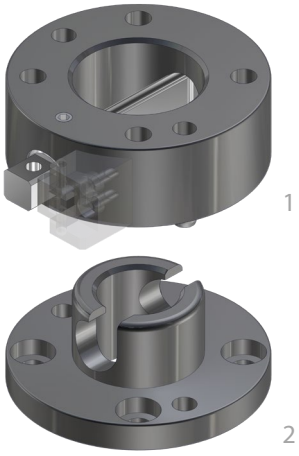
G-SWS050-20-VS2

GRIP GmbH Handhabungstechnik

G-SWS063

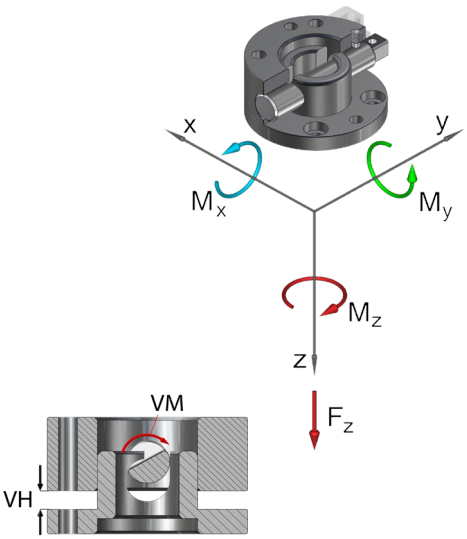
Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Cost-effective alternative to the MGW
Without hand lever, thereby low interference contours
High repeat accuracy +/- 0,02 mm
Optional connection of a power coupling MEK for electrical and pneumatical ducts
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1



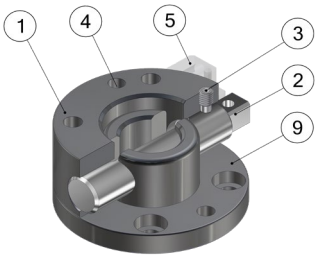
Technical specifications		SWS063	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		63 x 32	
Pitch circle diameter [mm]		50	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.500	1.800
Compression -Fz [kN]		134	178
Torsion Mz [Nm]		80	105
Bending Mx, My [Nm]		100	115
Mass [kg]	upper assembly	0,48	
	lower assembly	0,23	
Recommended load [kg] *		20	22
Locking moment VM [Nm]		3 - 8	
Locking stroke VH [mm]		0 - 6	
Operating temperature range [°C]		-30 to +120	

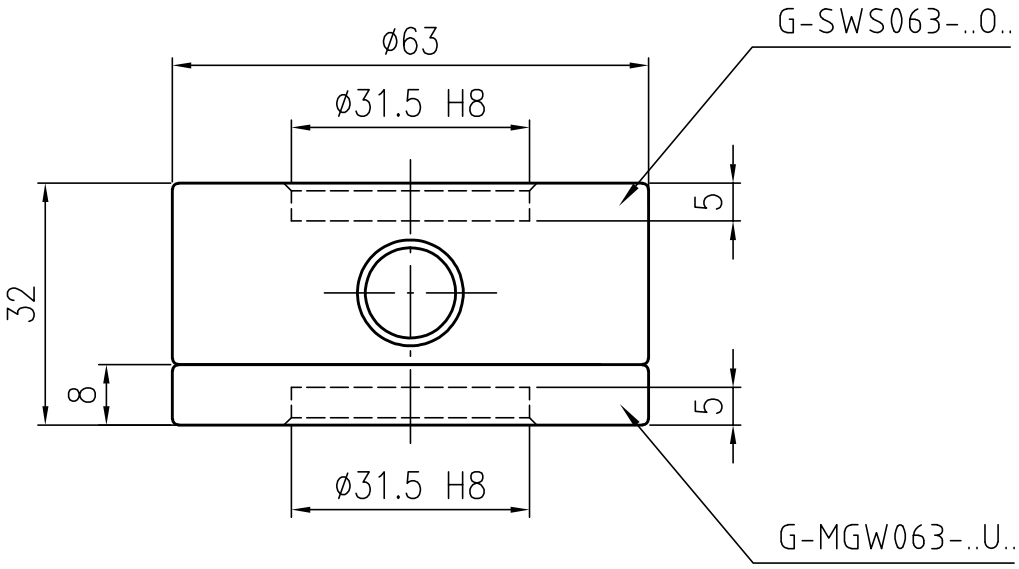
* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 100 mm, double safety

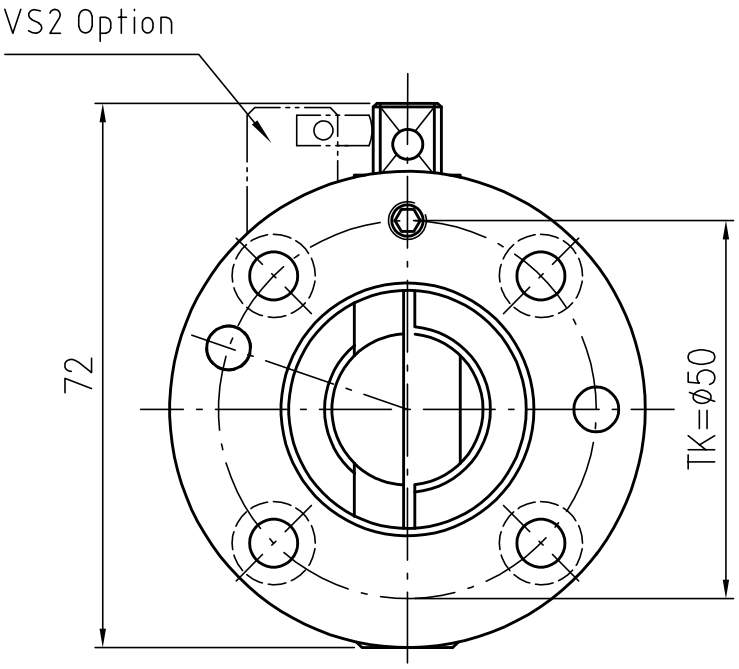


Quick change system Ø63, drilled according to ISO…	
G-SWS063-2O	upper assembly, steel
G-SWS063-2OE	upper assembly, steel, E-Mounting
G-SWS063-2OEN	upper assembly, steel, E-Mounting, nitrated
G-SWS063-2O-N	upper assembly, steel, nitrated
G-MGW063-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW063-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt safety…	
EG-SWS063-VS2	for SWS063
Square socket key…	
ZG-VKS063-SW09	for SW 09

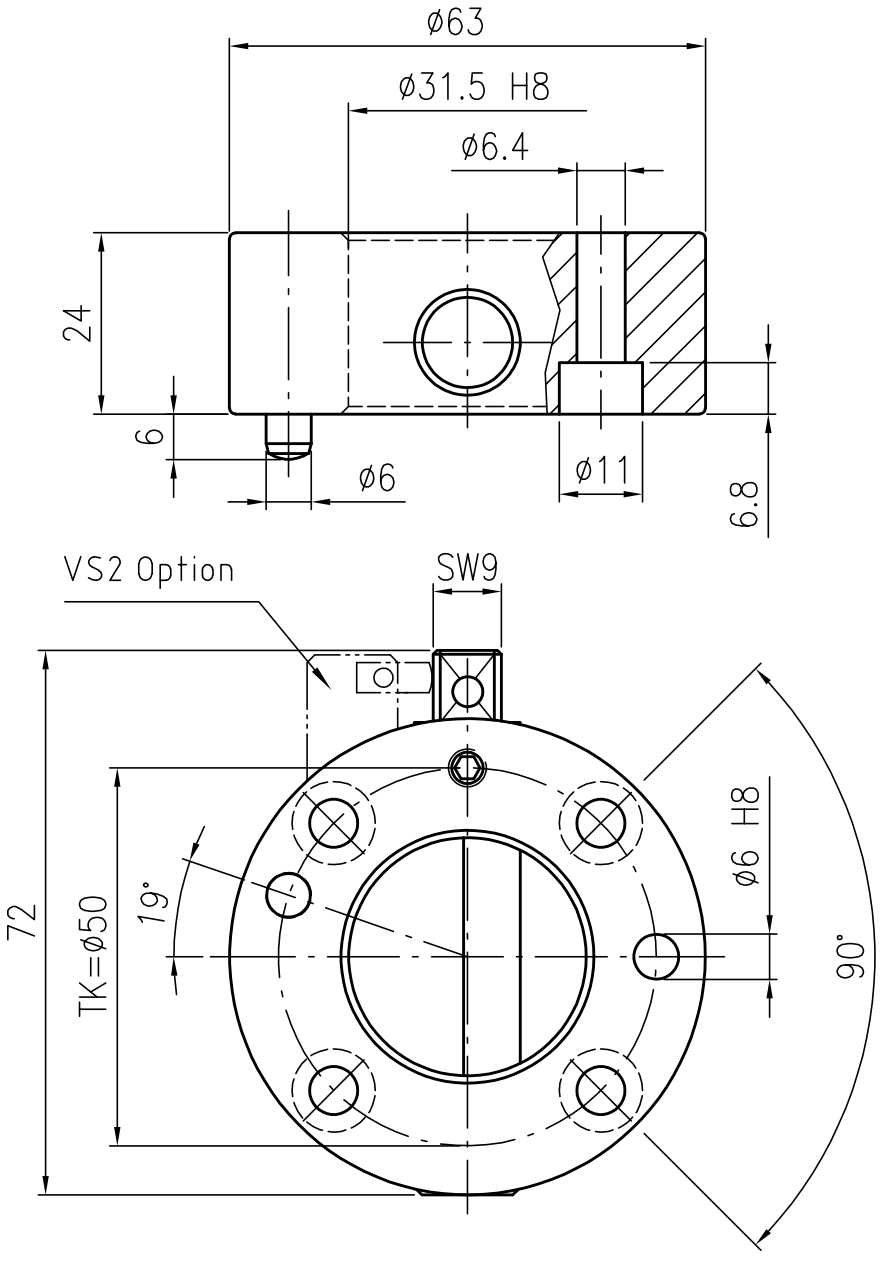
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock (opt.)
9	Lower assembly





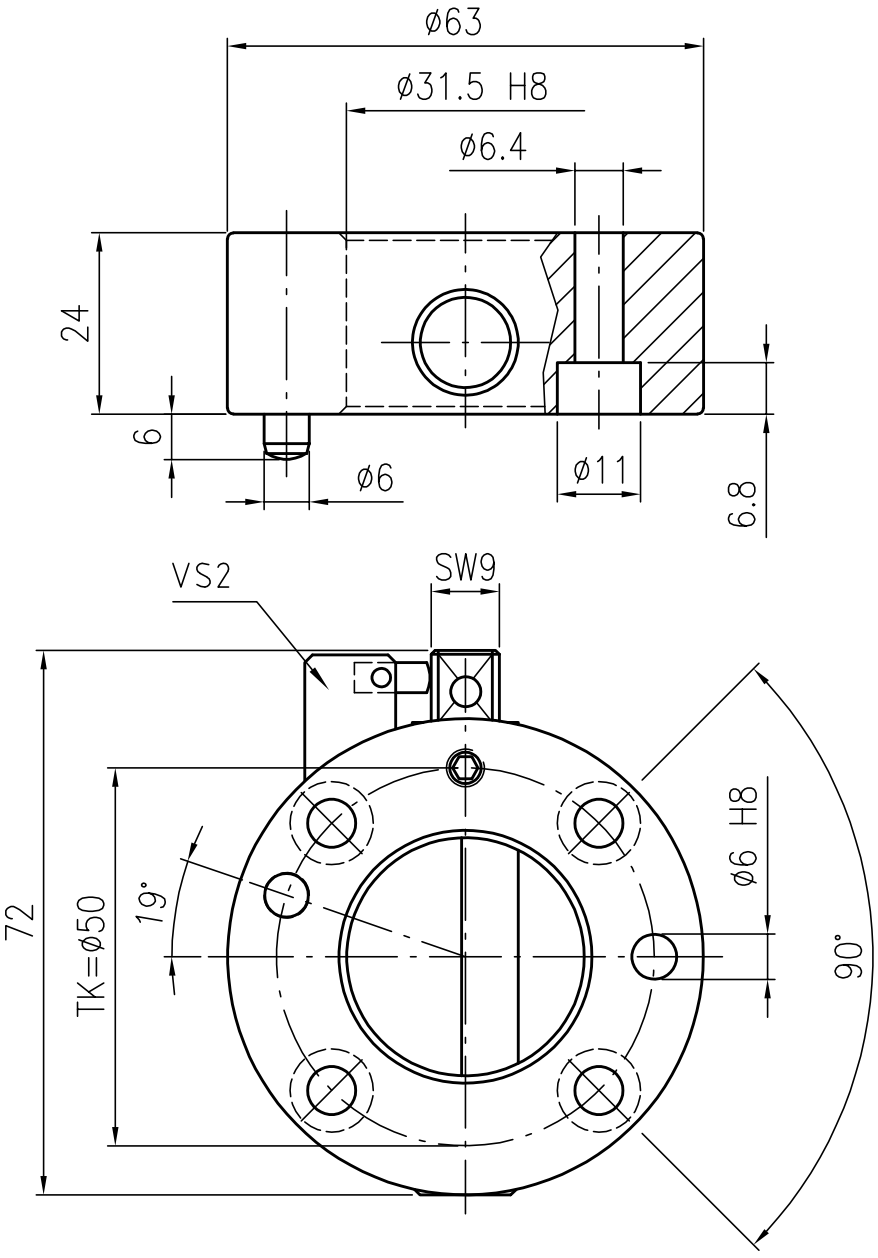


Datum 08.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS063-2Z			



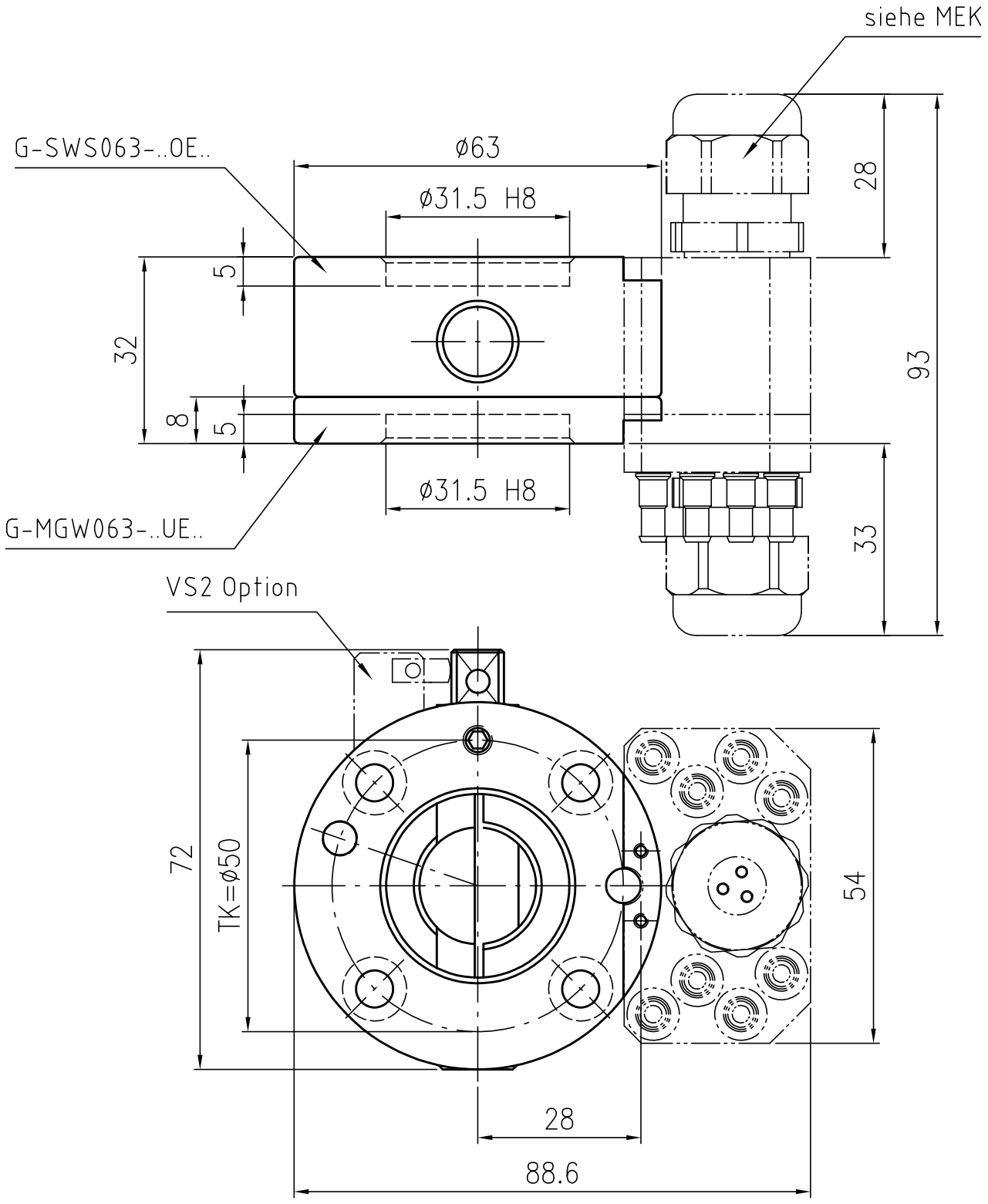
Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS063-20
St. nitriert	G-SWS063-20-N

Datum 08.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS063-20			

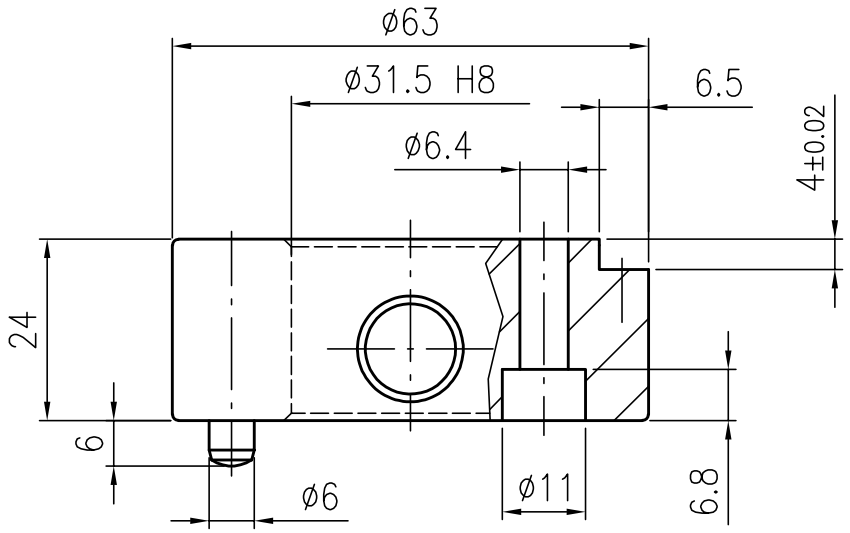


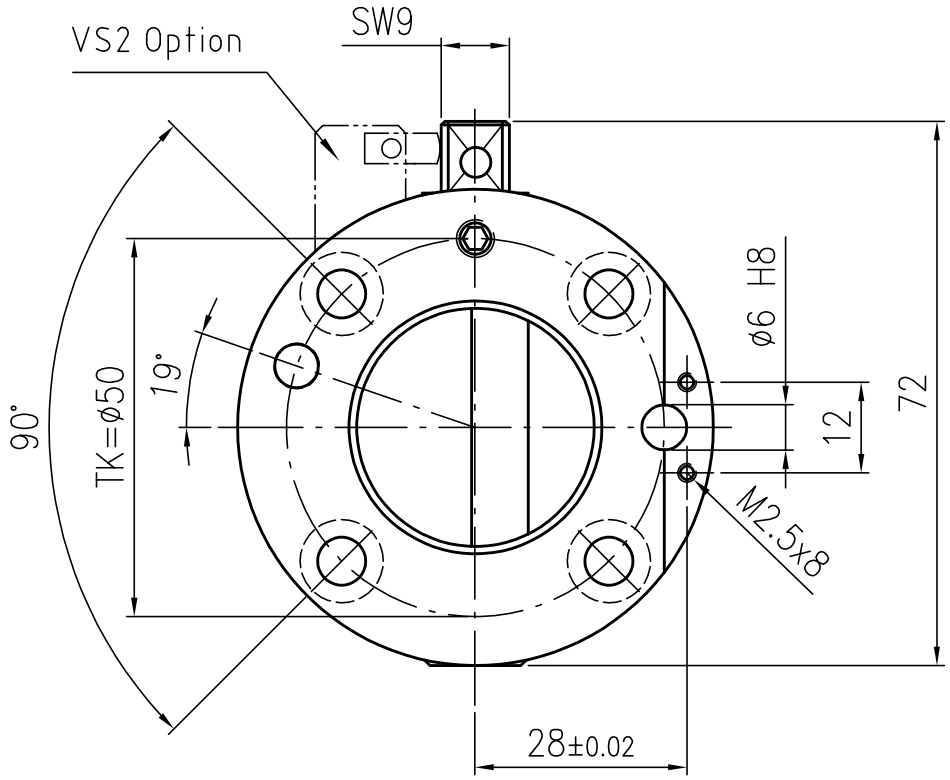
Grundmaterial	Bestellnummer Oberteil
St. nitriert mit Verdrehsicherung	G-SWS063-20-N-VS2

Datum 08.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS063-20-N-VS2			



Datum 08.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS063-2ZE			





Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS063-20E
St. nitriert	G-SWS063-20EN

Datum	Maßstab	
08.11.2016	1:1	

Zeichnungsnummer

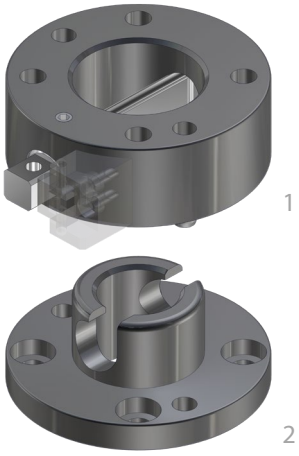
G-SWS063-20E

GRIP GmbH Handhabungstechnik

G-SWS080

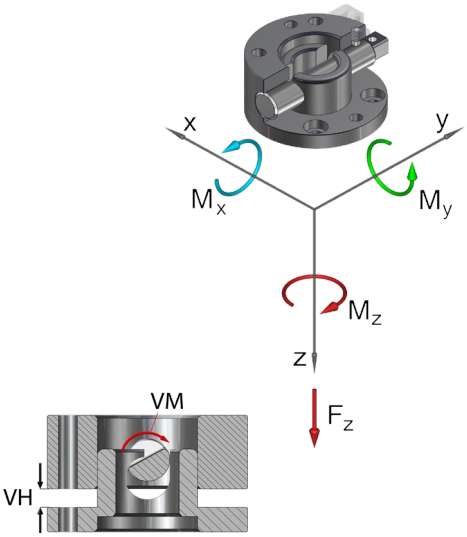
Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Cost-effective alternative to the MGW
Without hand lever, thereby low interference contours
High repeat accuracy +/- 0,02 mm
Optional connection of a power coupling MEK for electrical and pneumatical ducts
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1



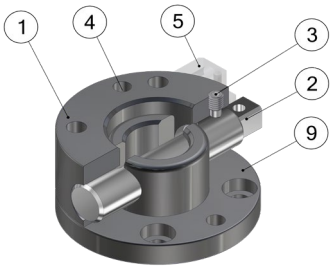
Technical specifications		SWS080	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		80 x 37	
Pitch circle diameter [mm]		63	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		2.500	3.000
Compression -Fz [kN]		235	313
Torsion Mz [Nm]		100	120
Bending Mx, My [Nm]		140	160
Mass [kg]	upper assembly	0,92	
	lower assembly	0,5	
Recommended load [kg] *		25	28
Locking moment VM [Nm]		3 - 9	
Locking stroke VH [mm]		0 - 8	
Operating temperature range [°C]		-30 to +120	

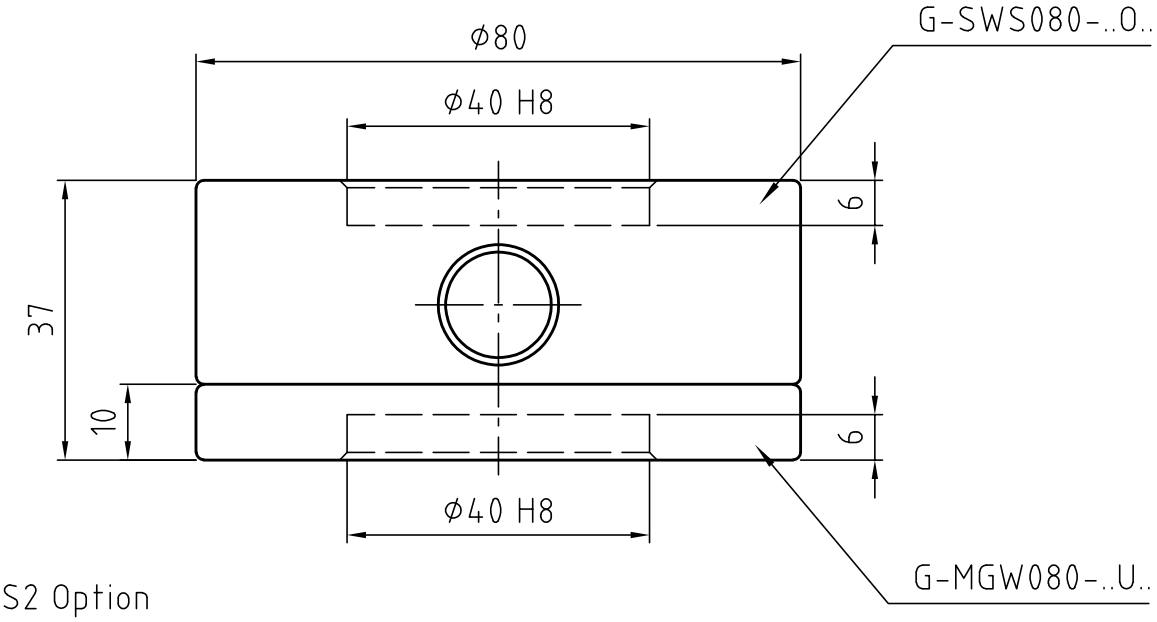
* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 100 mm, double safety

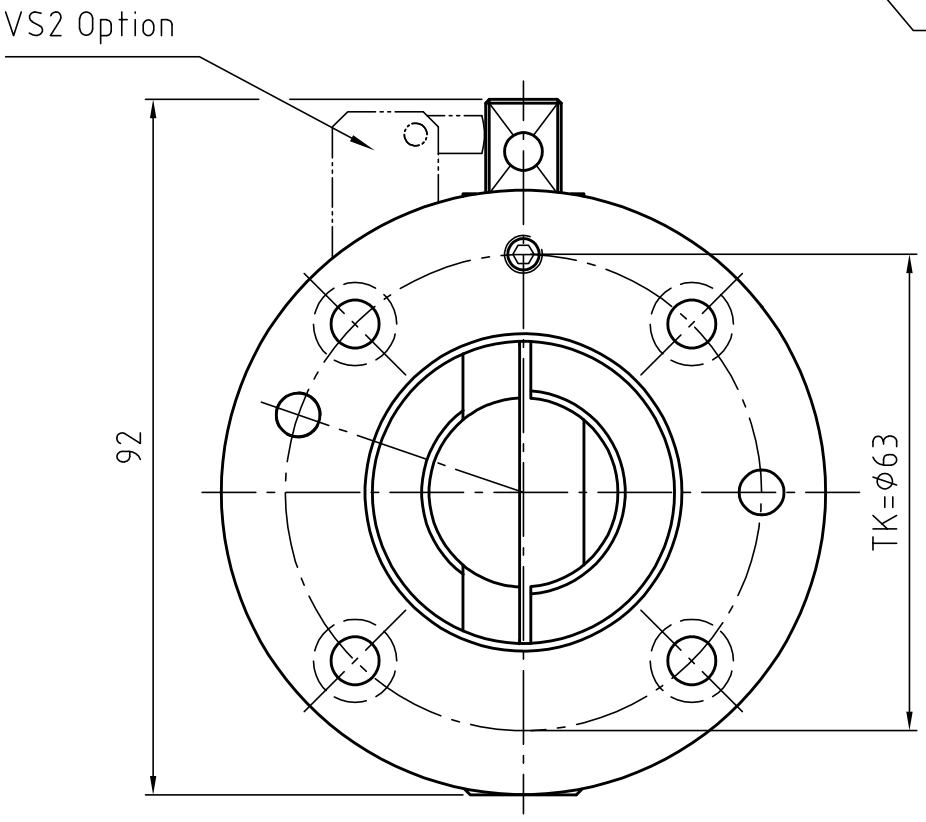


Quick change system Ø80, drilled according to ISO…	
G-SWS080-2O	upper assembly, steel
G-SWS080-2OE	upper assembly, steel, E-Mounting
G-SWS080-2OEN	upper assembly, steel, E-Mounting, nitrated
G-SWS080-2O-N	upper assembly, steel, nitrated
G-MGW080-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW080-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt safety…	
EG-SWS080-VS2	for SWS080
Square socket key…	
ZG-VKS080-SW10	for SW 10

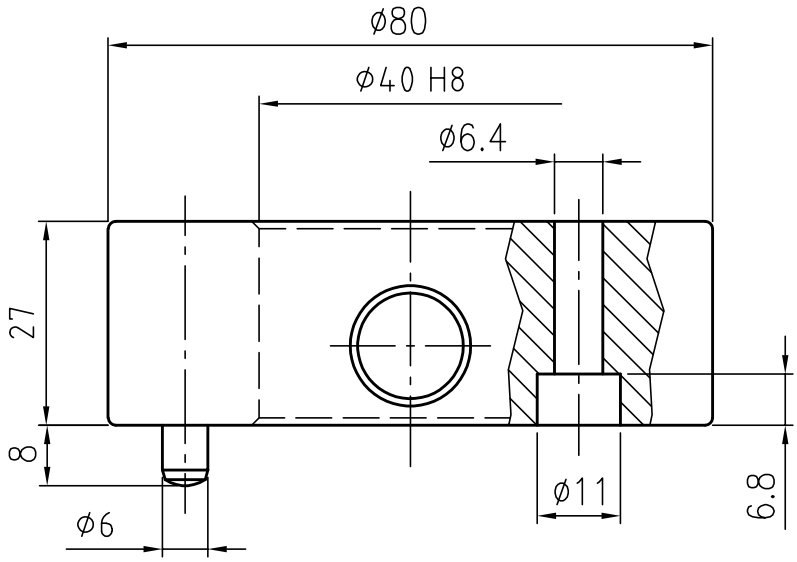
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock (opt.)
9	Lower assembly

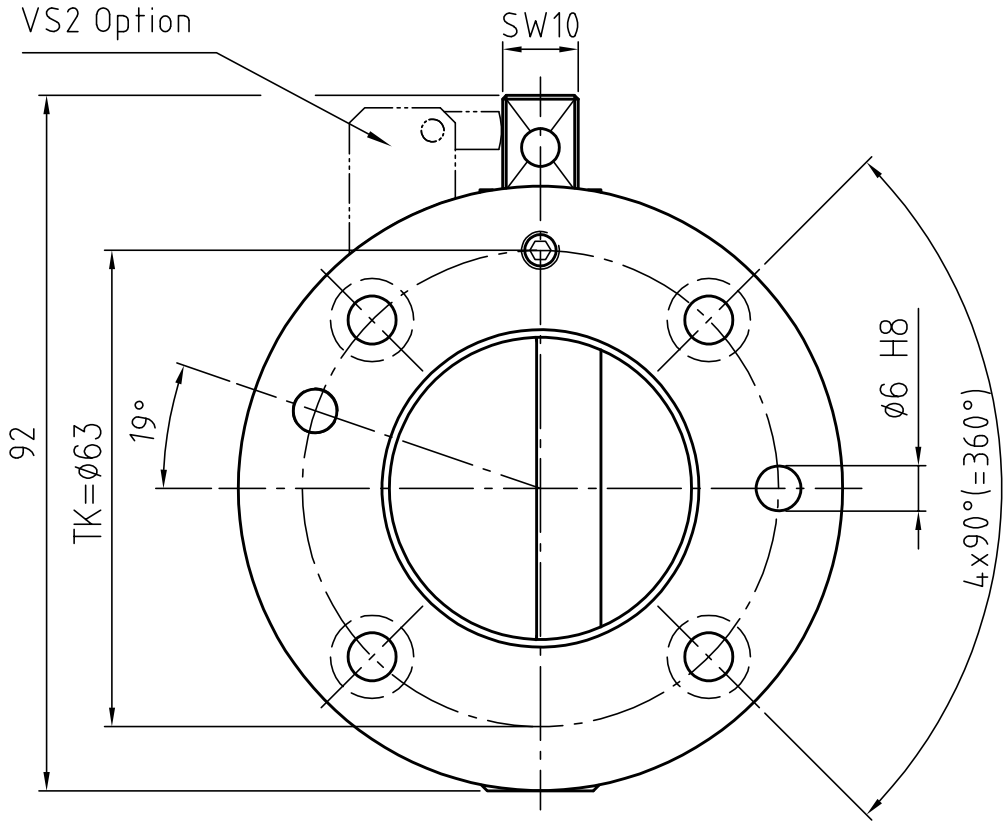






Datum 08.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS080-2Z			





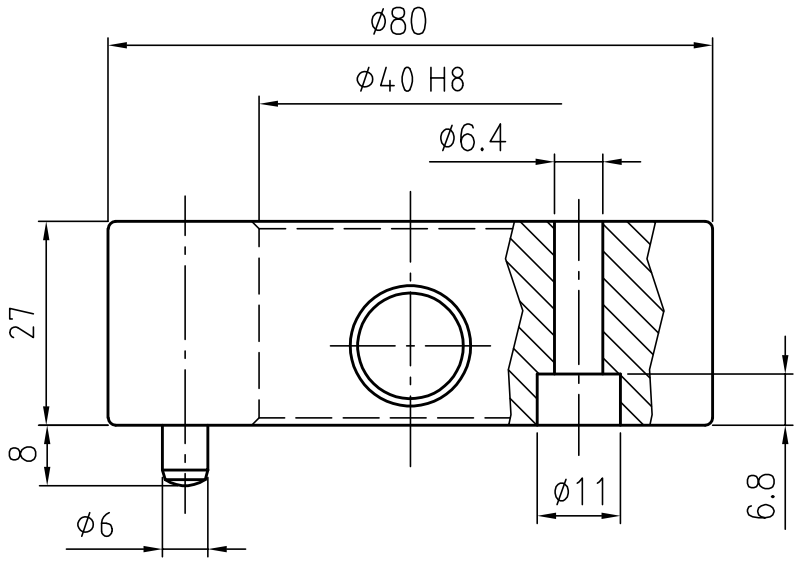
Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS080-20
St. nitriert	G-SWS080-20-N

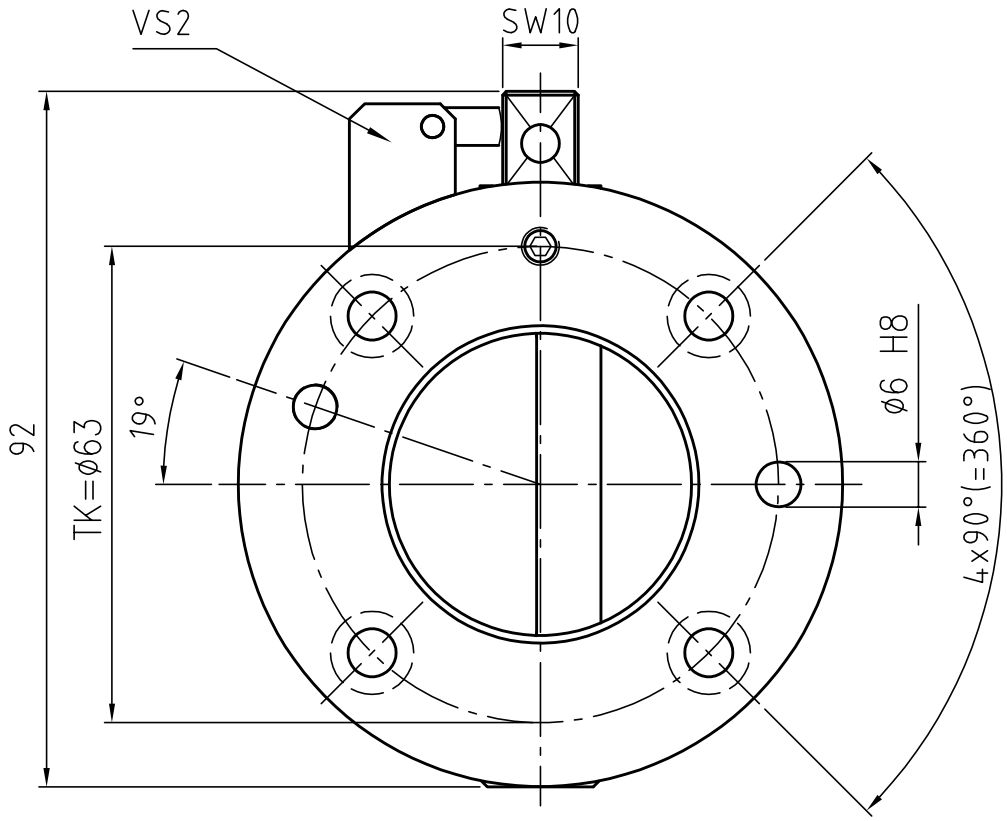
Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

G-SWS080-20

GRIP GmbH Handhabungstechnik





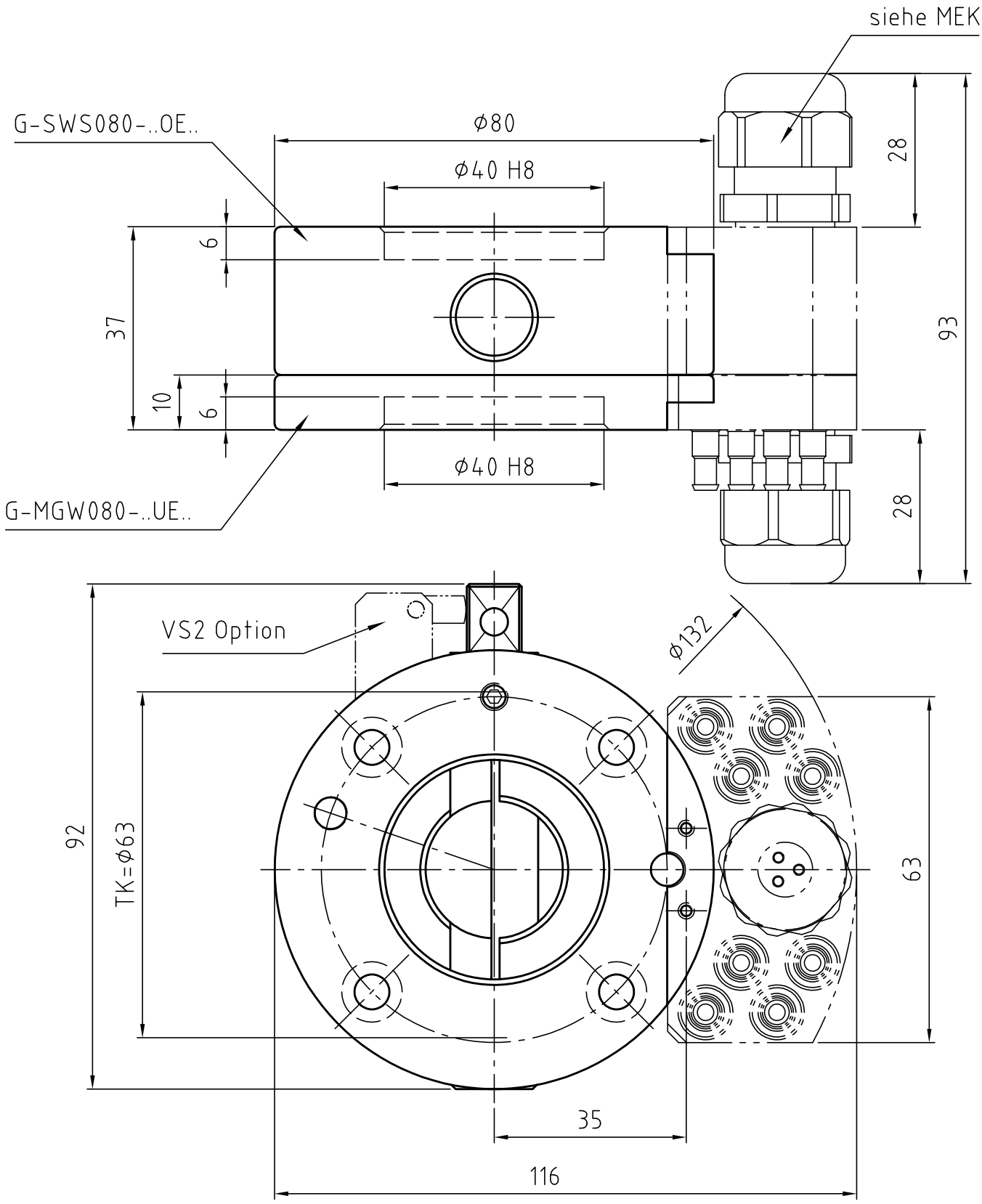
Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS080-20-VS2
St. nitriert	G-SWS080-20-N-VS2

Datum	Maßstab	
08.11.2016	1:1	

Zeichnungsnummer

G-SWS080-20-VS2

GRIP GmbH Handhabungstechnik

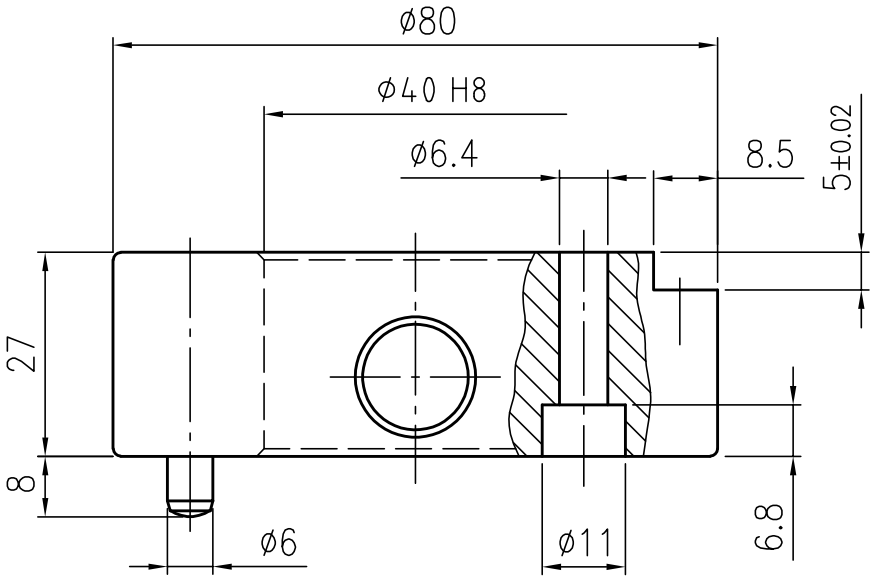


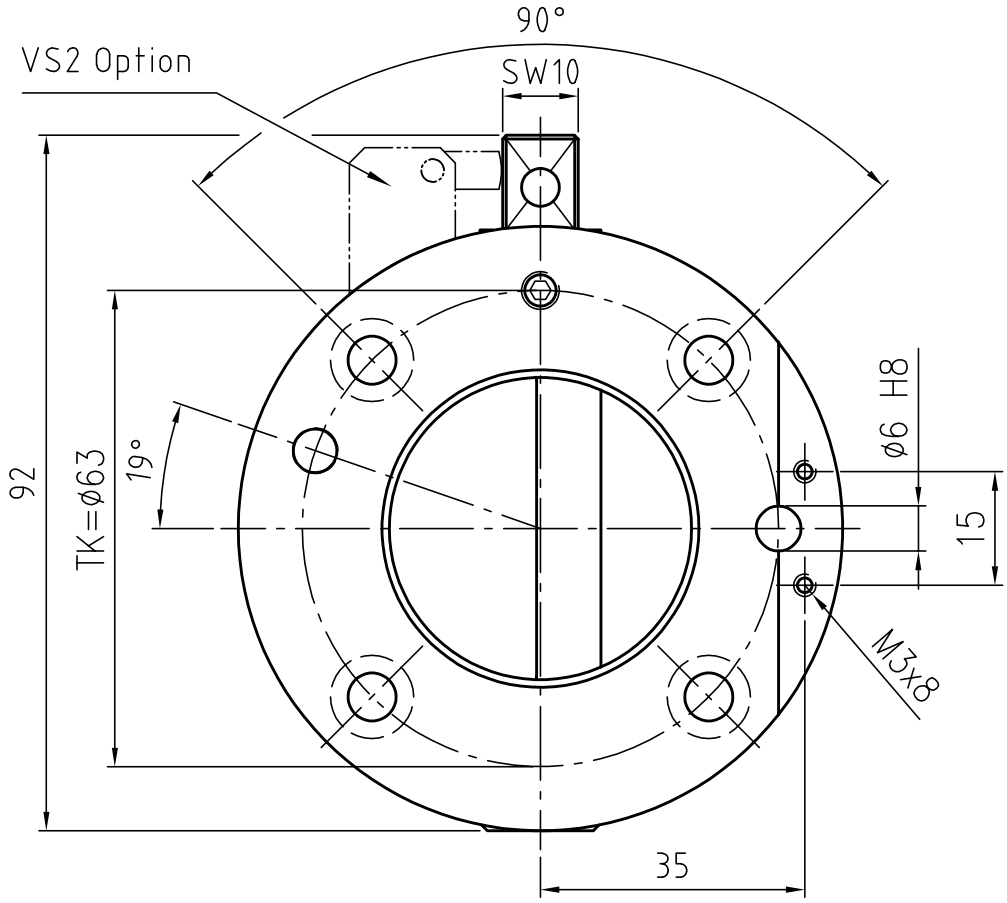
Datum	Maßstab	
08.11.2016	1:1	

Zeichnungsnummer

G-SWS080-2ZE

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS080-20E
St. nitriert	G-SWS080-20EN

Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

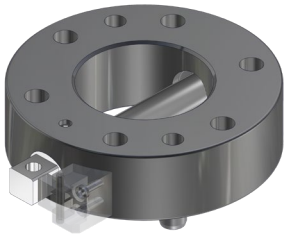
G-SWS080-20E

GRIP GmbH Handhabungstechnik

G-SWS100

Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Cost-effective alternative to the MGW
Without hand lever, thereby low interference contours
High repeat accuracy +/- 0,02 mm
Optional connection of a power coupling MEK for electrical and pneumatical ducts
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1

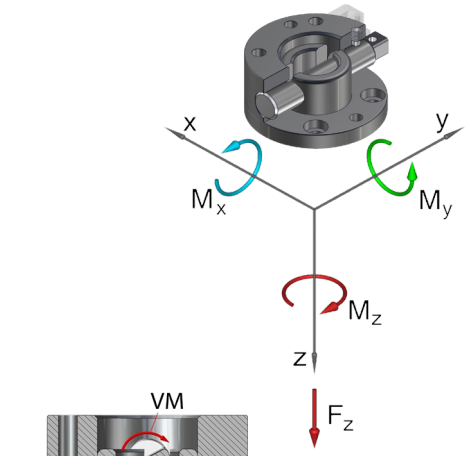


1

2

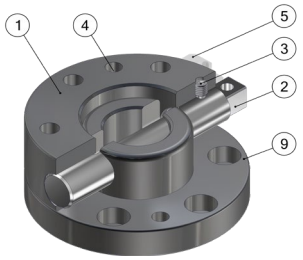
Technical specifications		SWS100	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		100 x 45	
Pitch circle diameter [mm]		80	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		3.500	4.200
Compression -Fz [kN]		329	439
Torsion Mz [Nm]		140	185
Bending Mx, My [Nm]		180	205
Mass [kg]	upper assembly	1,53	
	lower assembly	1,01	
Recommended load [kg] *		35	39
Locking moment VM [Nm]		3 - 14	
Locking stroke VH [mm]		0 - 8	
Operating temperature range [°C]		-30 to +120	

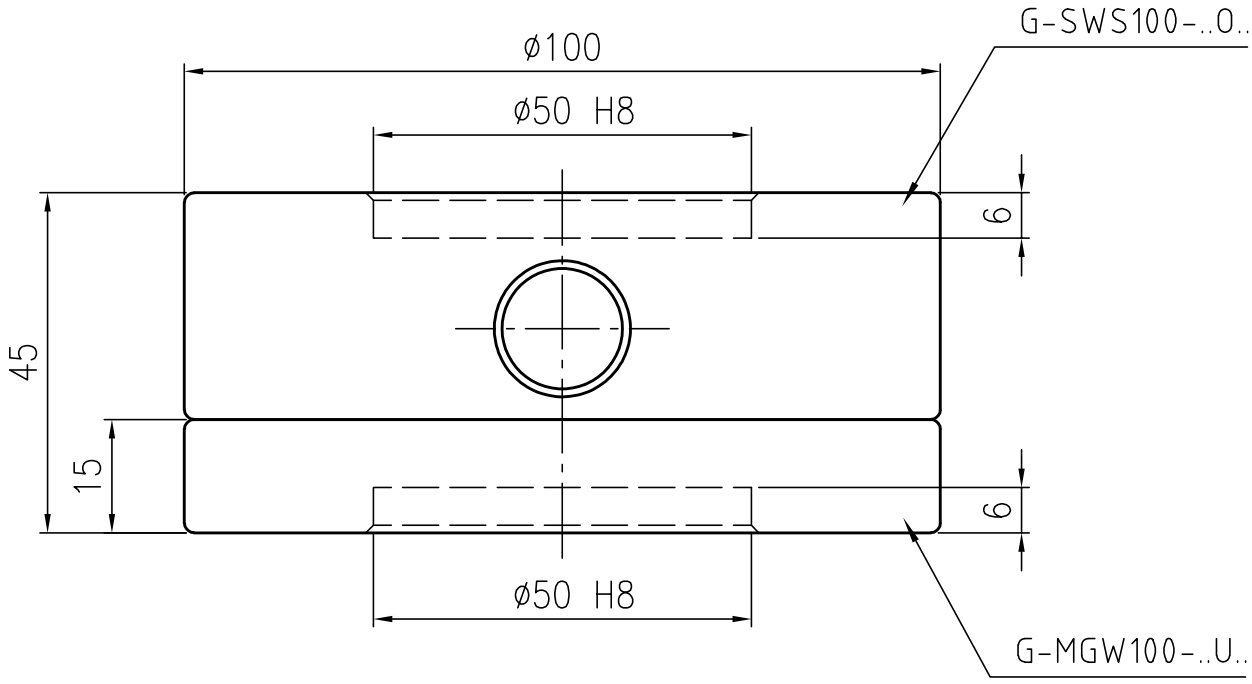
* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 100 mm, double safety

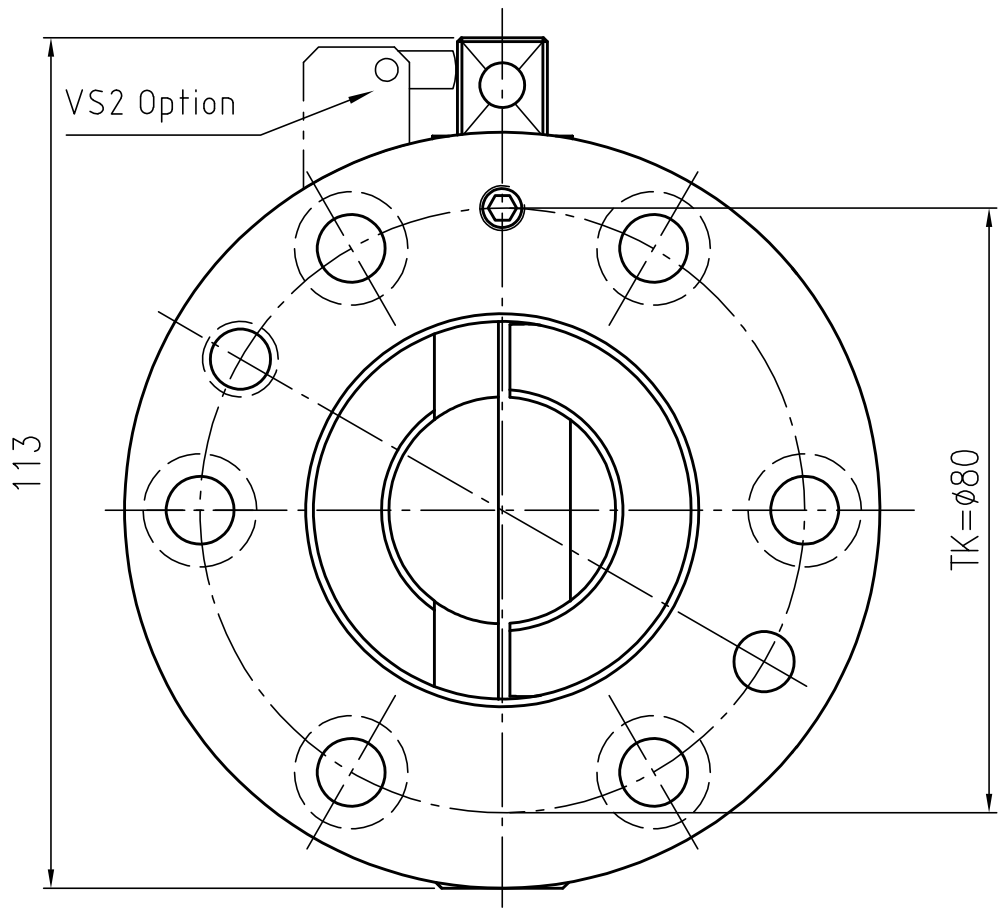


Quick change system Ø100, drilled according to ISO…	
G-SWS100-2O	upper assembly, steel
G-SWS100-2OE	upper assembly, steel, E-Mounting
G-SWS100-2OEN	upper assembly, steel, E-Mounting, nitrated
G-SWS100-2O-N	upper assembly, steel, nitrated
G-MGW100-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW100-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt safety…	
EG-SWS100-VS2	for SWS100
Square socket key…	
ZG-VKS100-SW12	for SW 12

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock (opt.)
9	Lower assembly

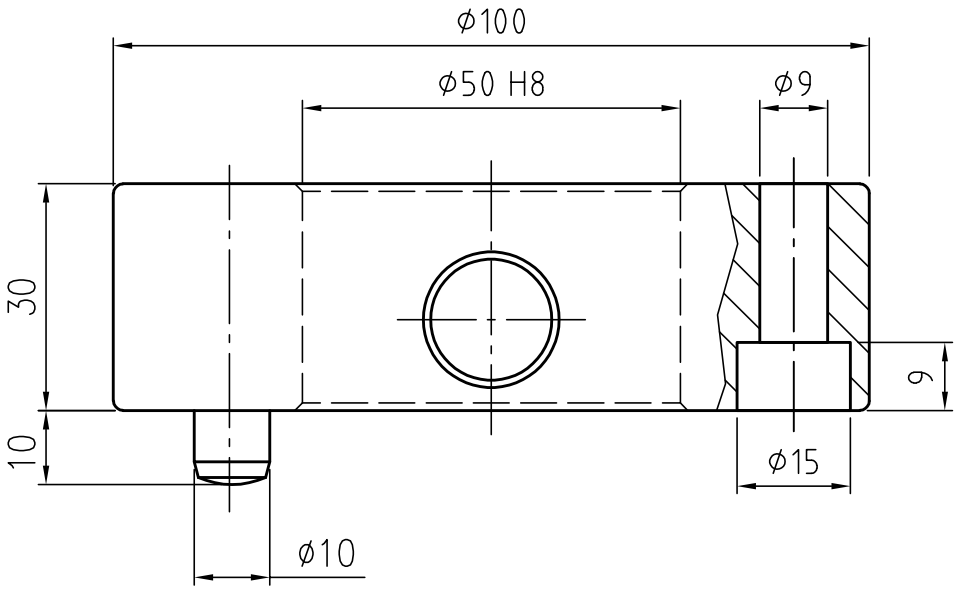


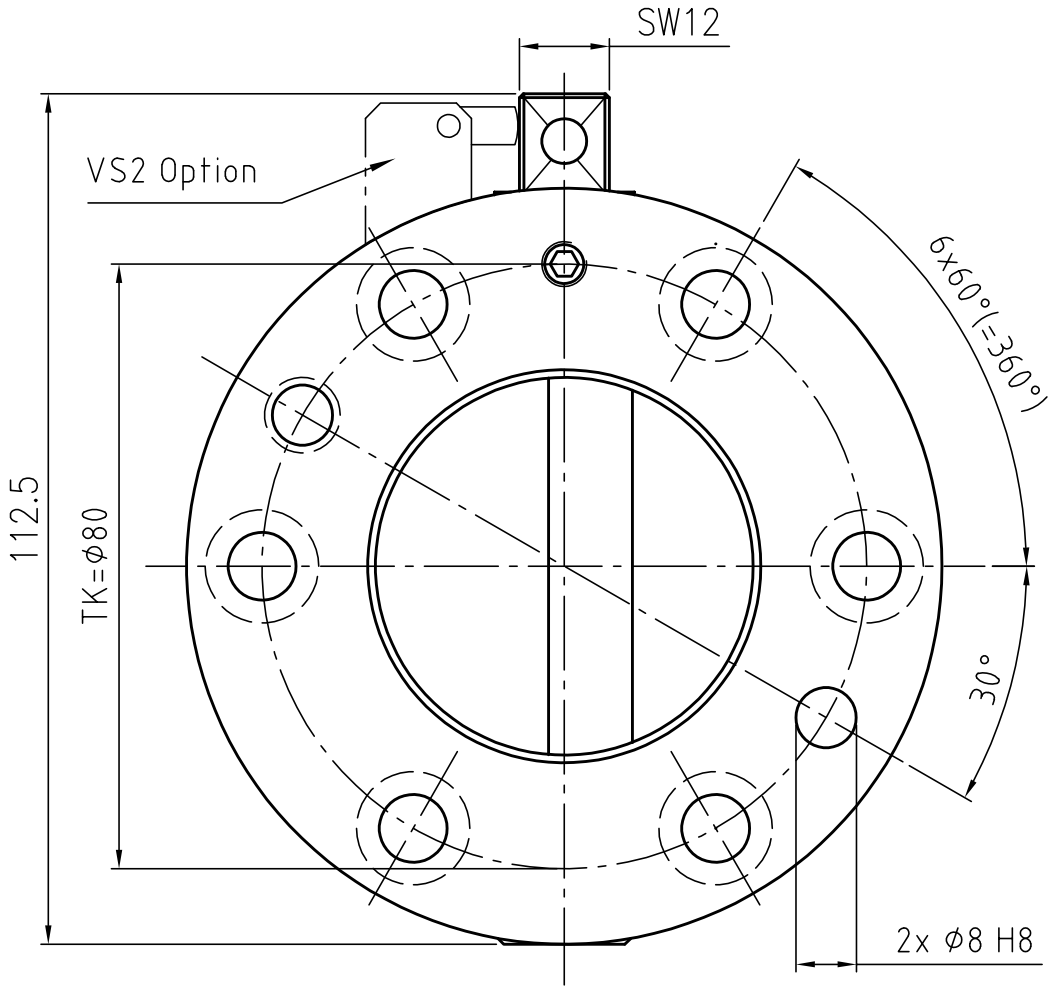




Datum	08.11.2016	Maßstab	1:1	
Zeichnungsnummer				
G-SWS100-2Z				

GRIP GmbH Handhabungstechnik





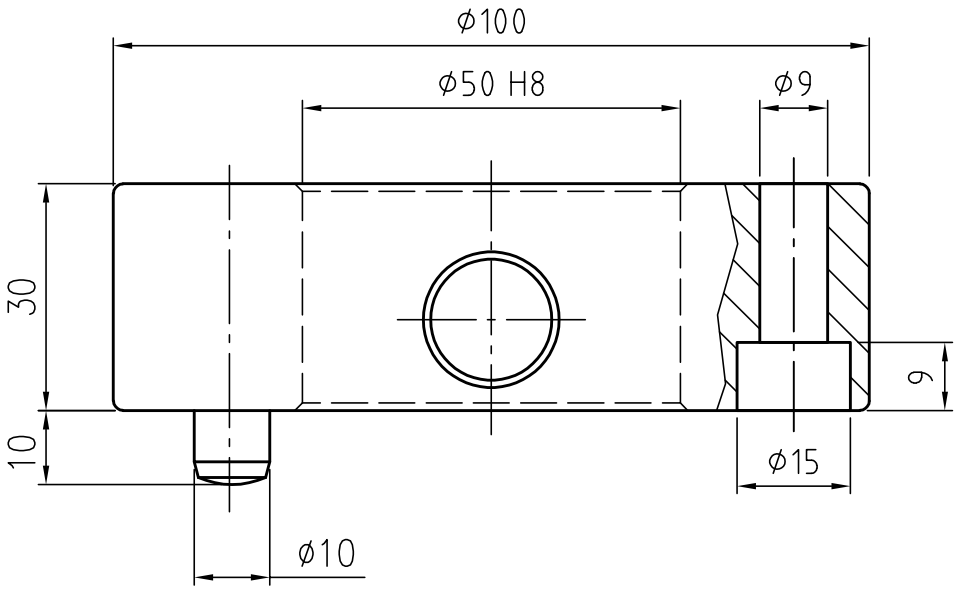
Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS100-20
St. nitriert	G-SWS100-20-N

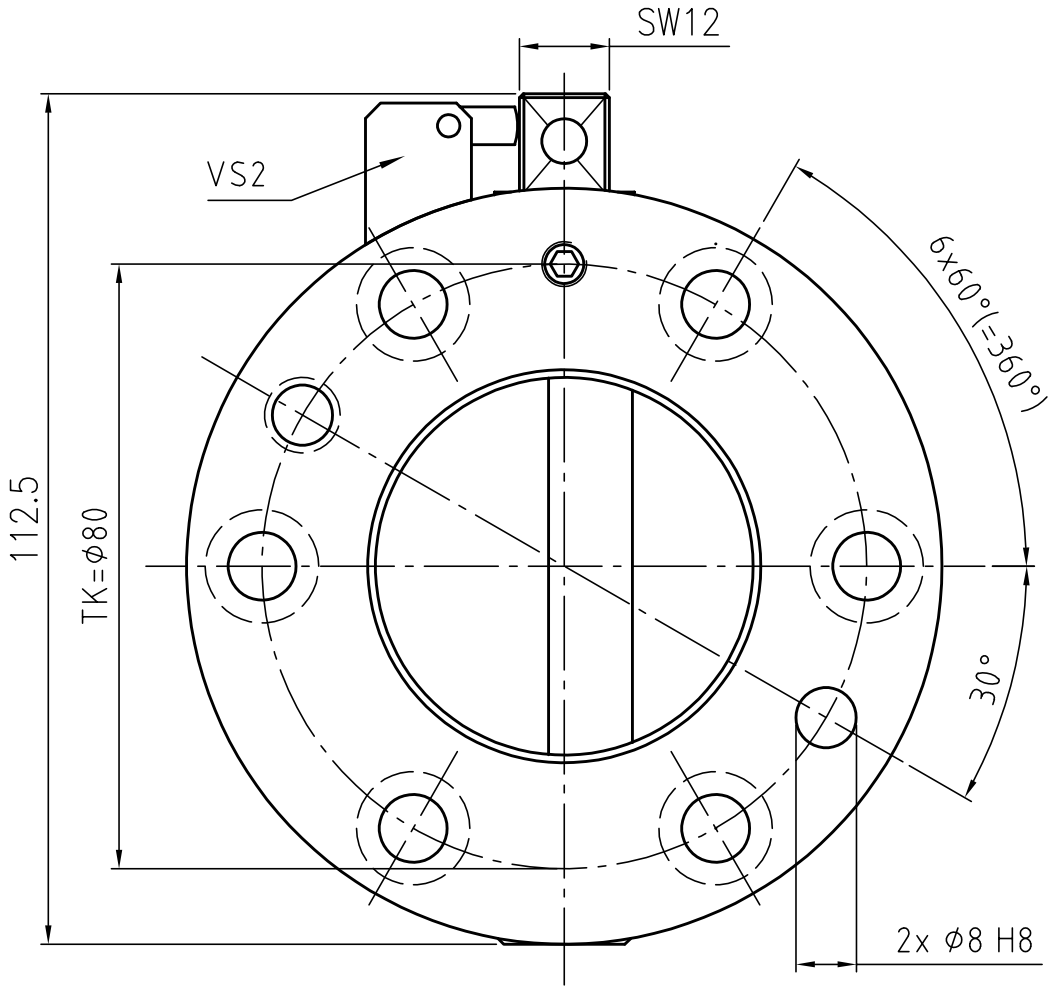
Datum	Maßstab
08.11.2016	1:1

Zeichnungsnummer

G-SWS100-20

GRIP GmbH Handhabungstechnik





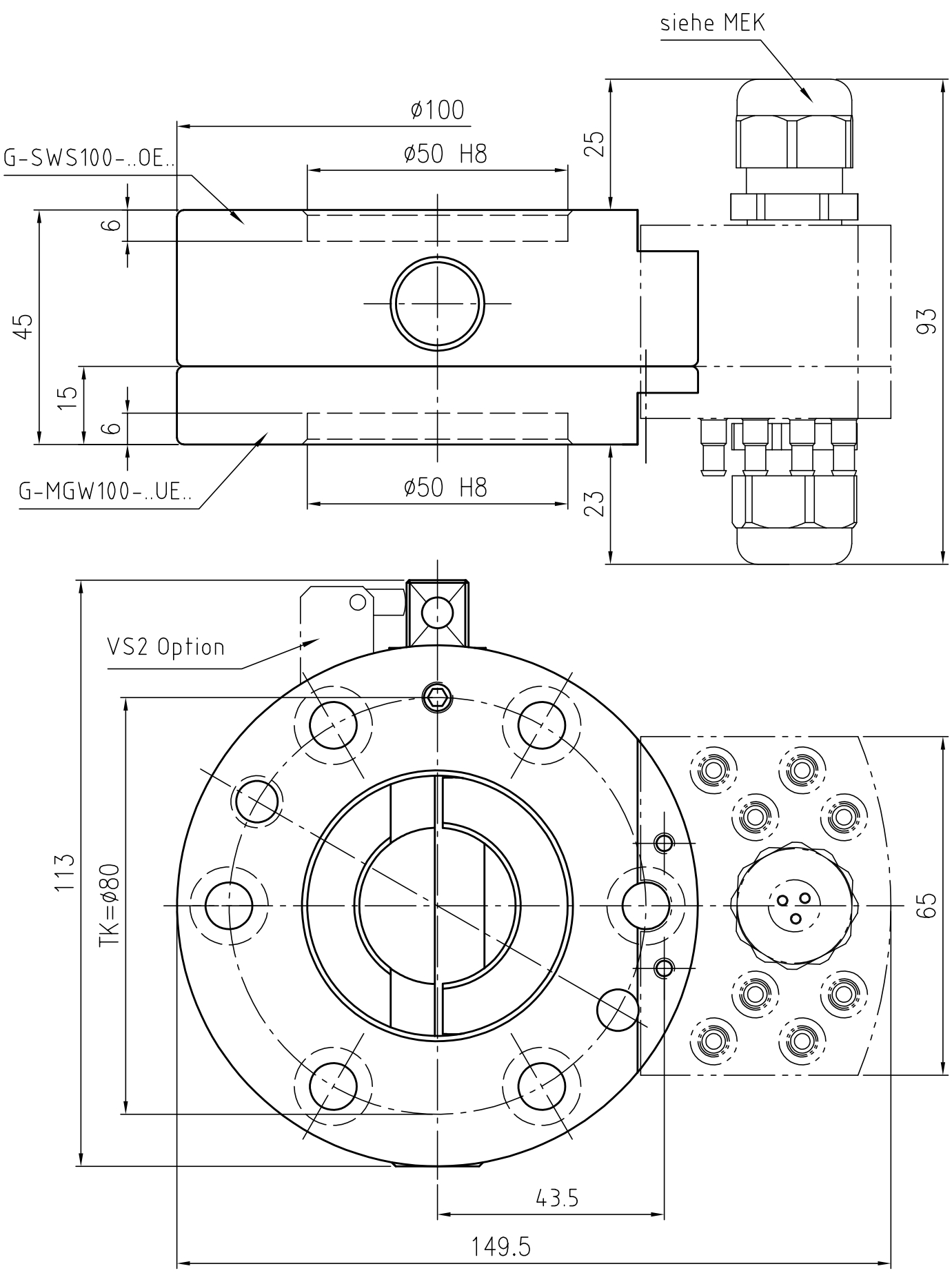
Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS100-20-VS2
St. nitriert	G-SWS100-20-N-VS2

Datum	Maßstab	
08.11.2016	1:1	

Zeichnungsnummer

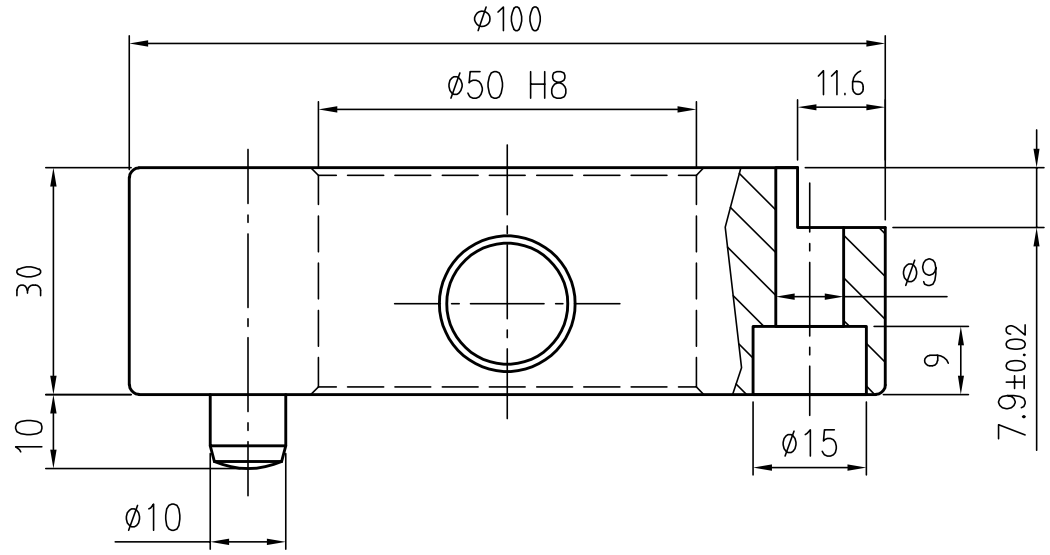
G-SWS100-20-VS2

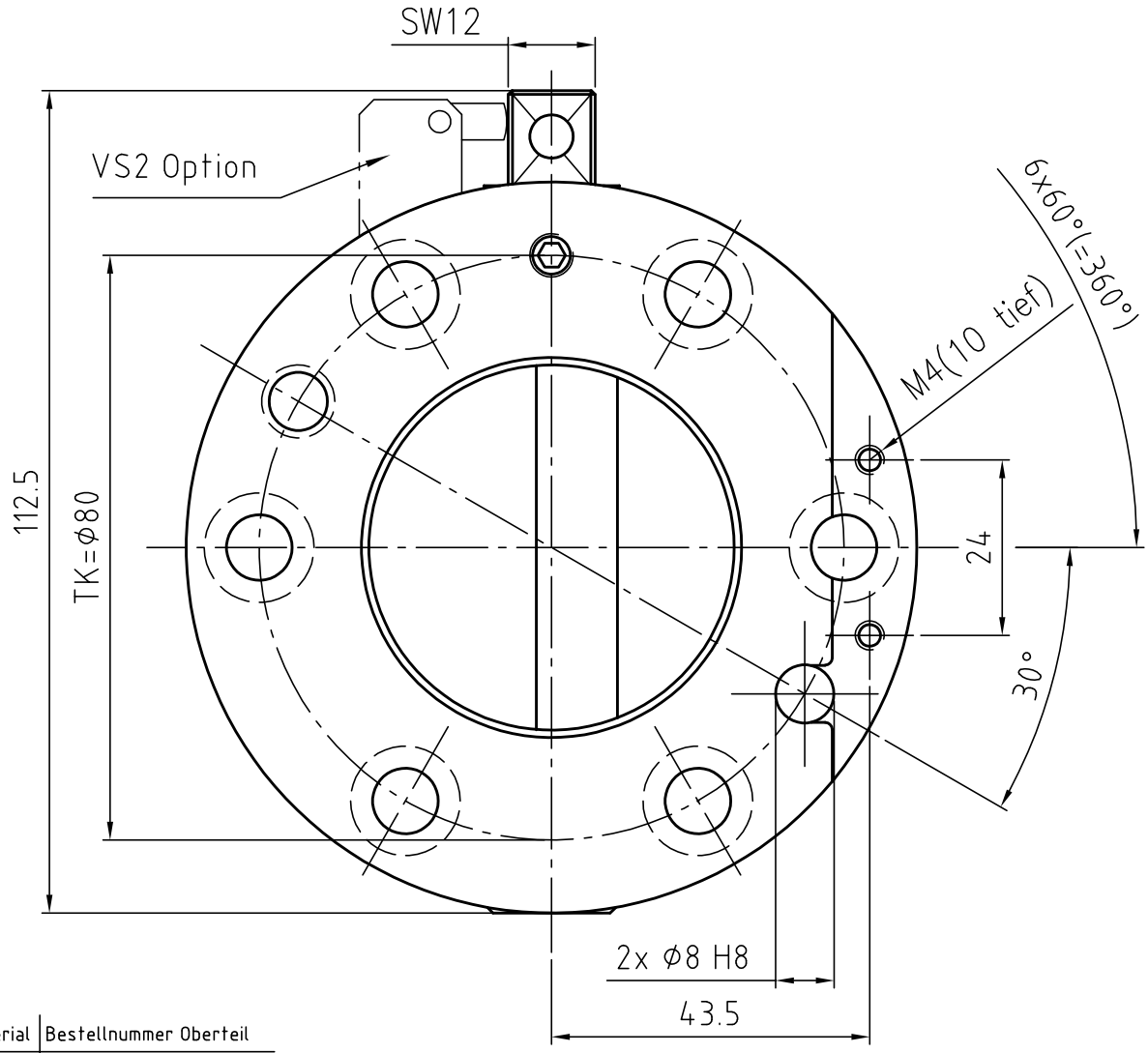
GRIP GmbH Handhabungstechnik



Datum	08.11.2016	Maßstab	1:1	
Zeichnungsnummer				
G-SWS100-2ZE				

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS100-20E
St. nitriert	G-SWS100-20EN

Datum	Maßstab	
08.11.2016	1:1	

Zeichnungsnummer

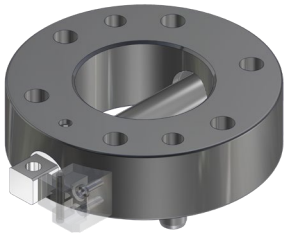
G-SWS100-20E

GRIP GmbH Handhabungstechnik

G-SWS125

Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Cost-effective alternative to the MGW
Without hand lever, thereby low interference contours
High repeat accuracy +/- 0,02 mm
Optional connection of a power coupling MEK for electrical and pneumatical ducts
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1

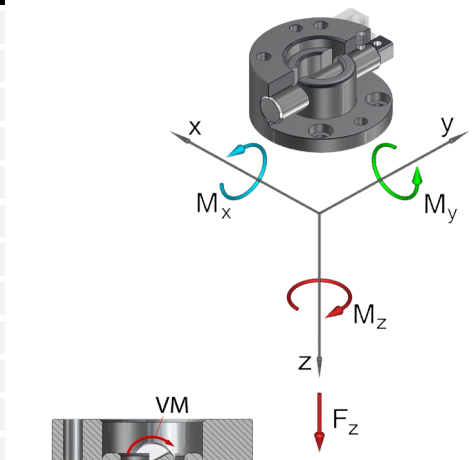


1

2

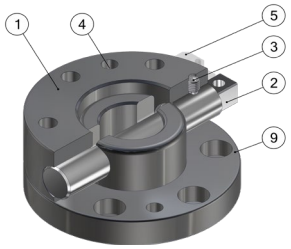
Technical specifications		SWS125	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		125 x 50	
Pitch circle diameter [mm]		100	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		4.500	5.200
Compression -Fz [kN]		565	754
Torsion Mz [Nm]		180	210
Bending Mx, My [Nm]		220	250
Mass [kg]	upper assembly	2,8	
	lower assembly	1,6	
Recommended load [kg] *		50	55
Locking moment VM [Nm]		3 - 20	
Locking stroke VH [mm]		0 - 8	
Operating temperature range [°C]		-30 to +120	

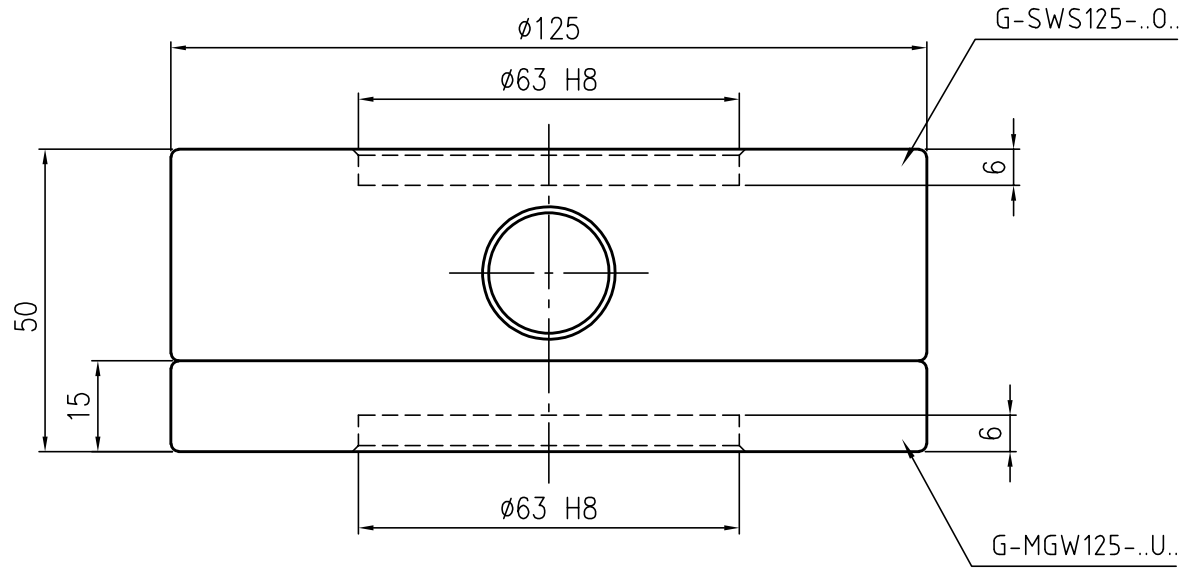
* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 100 mm, 1,7 times safety

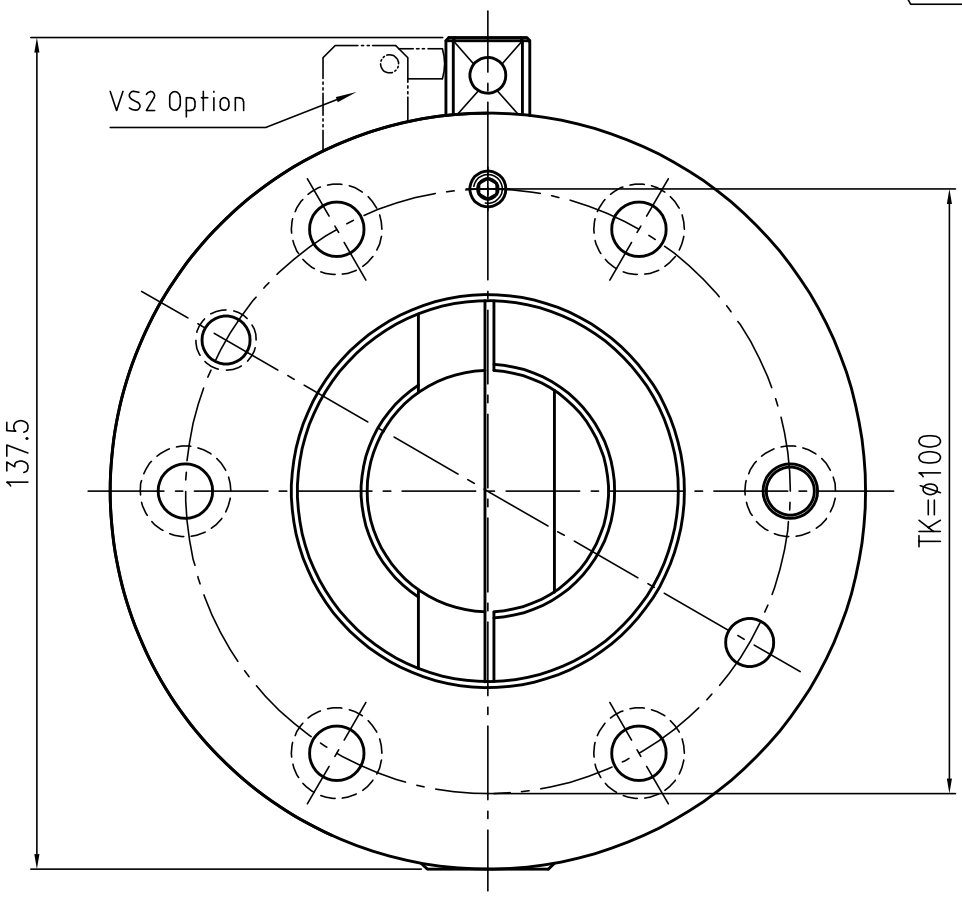


Quick change system Ø125, drilled according to ISO…	
G-SWS125-2O	upper assembly, steel
G-SWS125-2OE	upper assembly, steel, E-Mounting
G-SWS125-2OEN	upper assembly, steel, E-Mounting, nitrated
G-SWS125-2O-N	upper assembly, steel, nitrated
G-MGW125-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW125-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt safety…	
EG-SWS125-VS2	for SWS125
Square socket key…	
ZG-VKS125-SW14	for SW 14

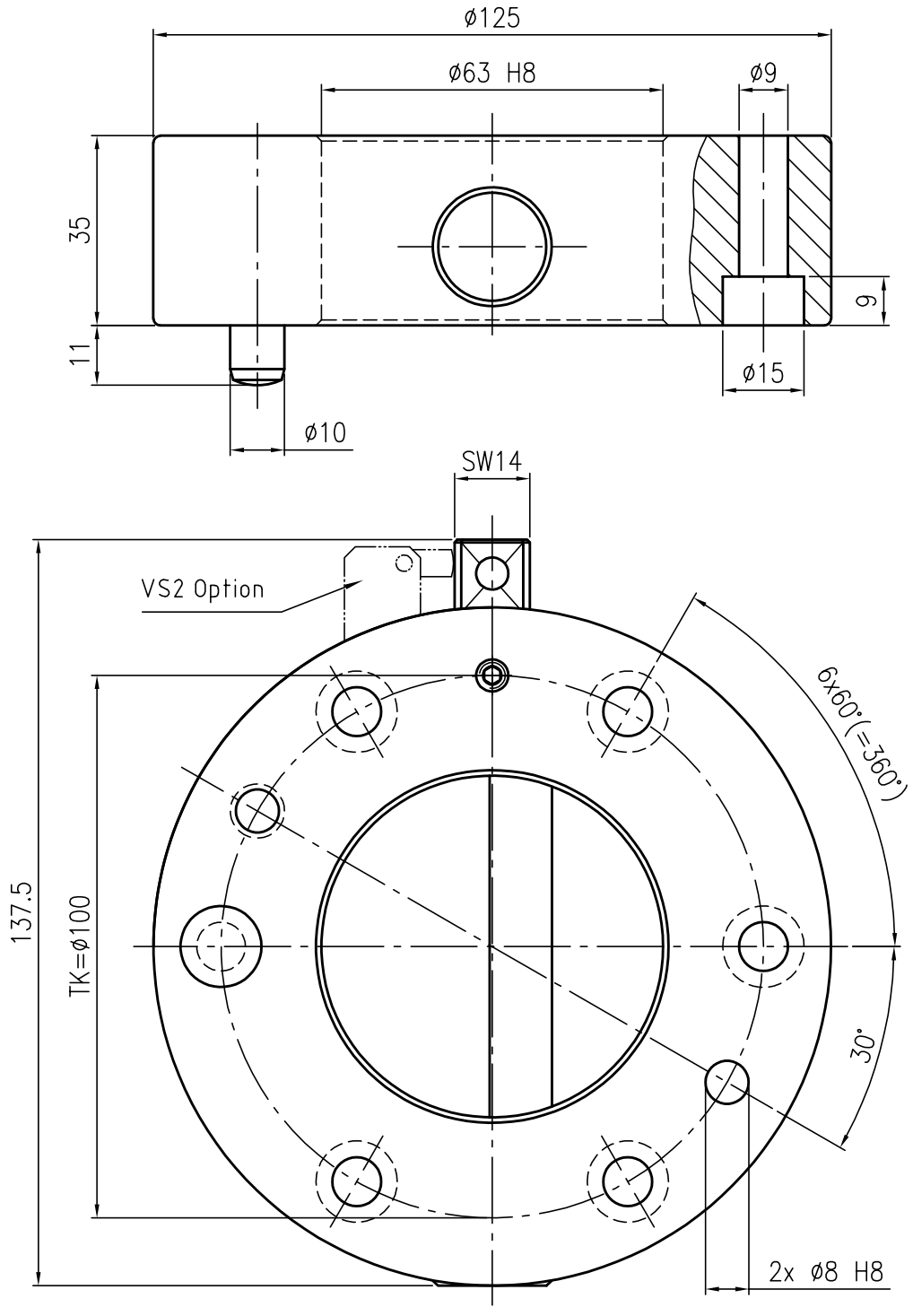
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock (opt.)
9	Lower assembly







Datum 08.11.2016	Maßstab 1:1.25		
Zeichnungsnummer G-SWS125-2Z			GRIP GmbH Handhabungstechnik



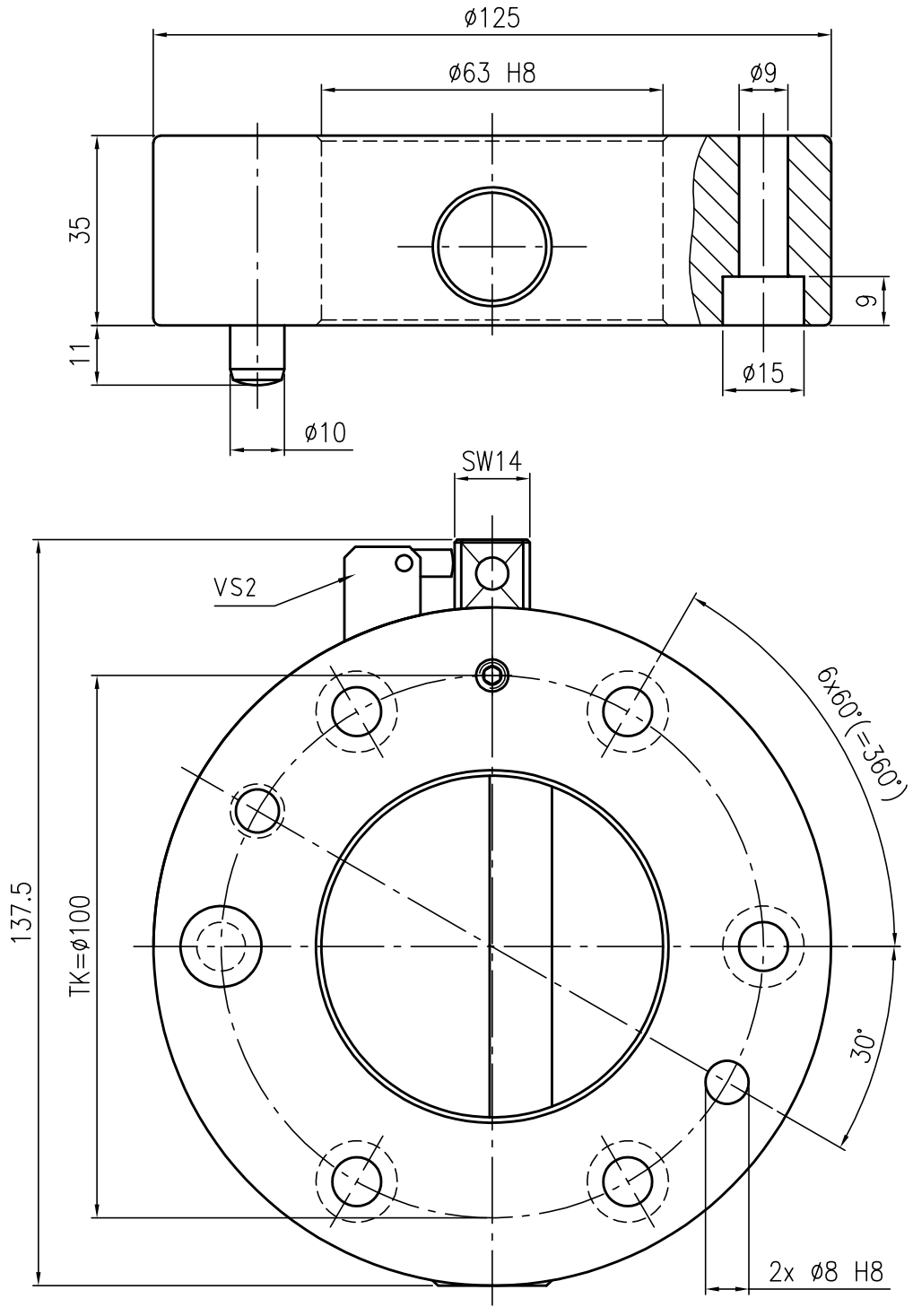
Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS125-20
St. nitriert	G-SWS125-20-N

Datum	Maßstab
08.11.2016	1:1.25

Zeichnungsnummer

G-SWS125-20

GRIP GmbH Handhabungstechnik



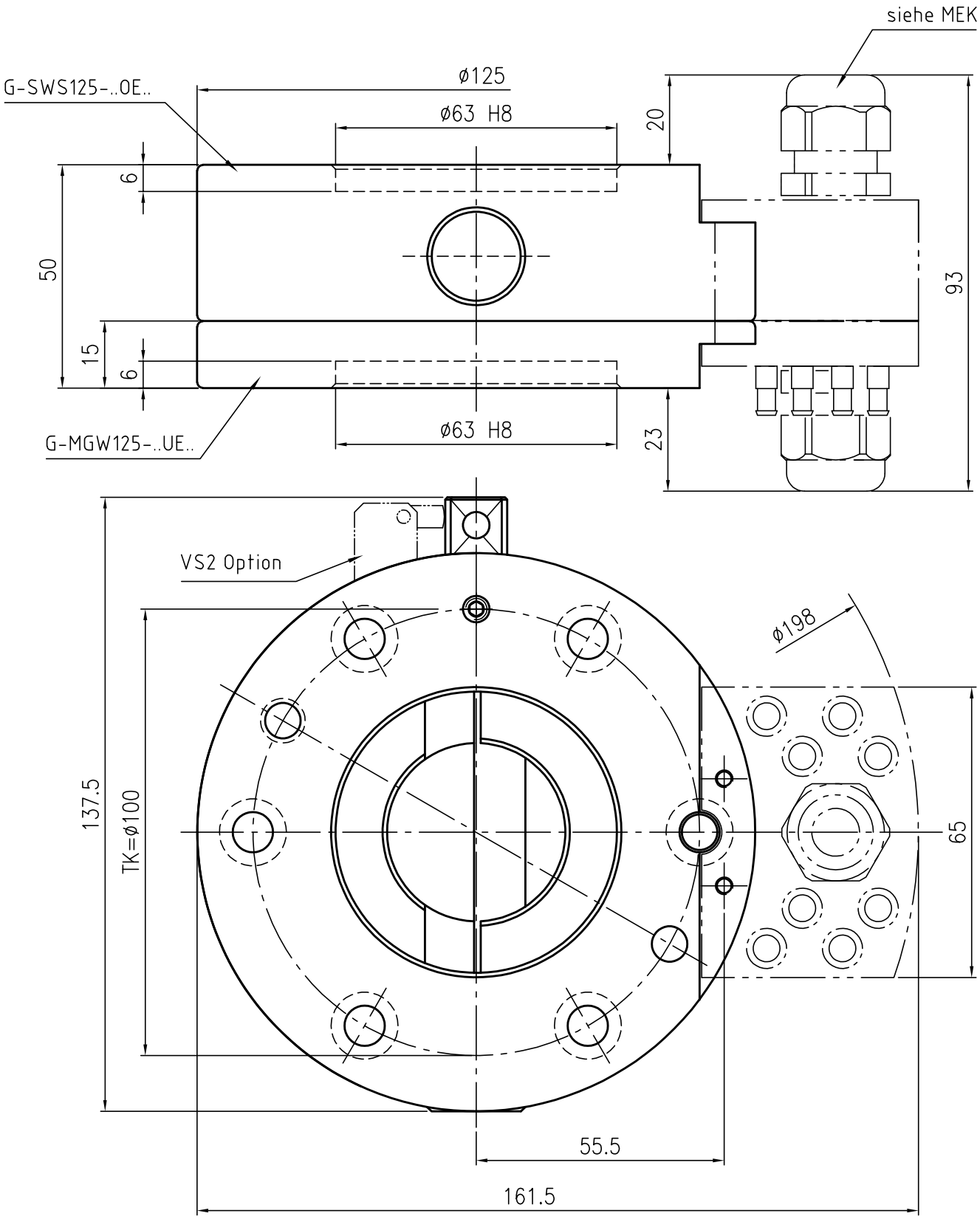
Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS125-20-VS2
St. nitriert	G-SWS125-20-N-VS2

Datum	Maßstab
08.11.2016	1:1.25

Zeichnungsnummer

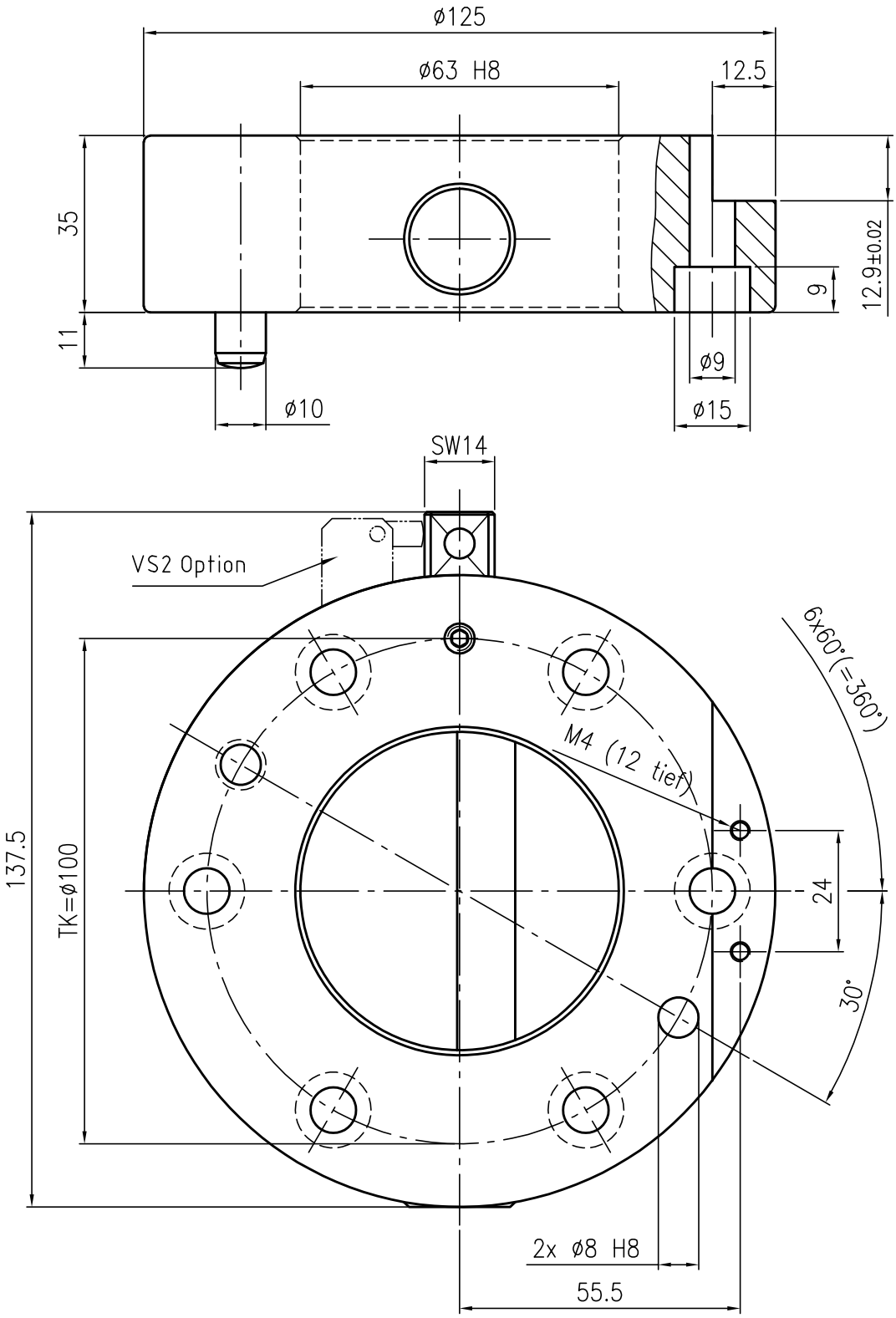
G-SWS125-20-VS2

GRIP GmbH Handhabungstechnik



Datum	08.11.2016	Maßstab	1:1.25	
Zeichnungsnummer				
G-SWS125-2ZE				

GRIP GmbH Handhabungstechnik



Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS125-20E
St. nitriert	G-SWS125-20EN

Datum	Maßstab
08.11.2016	1:1.25

Zeichnungsnummer

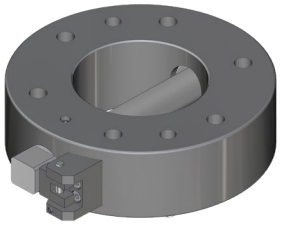
G-SWS125-20E

GRIP GmbH Handhabungstechnik

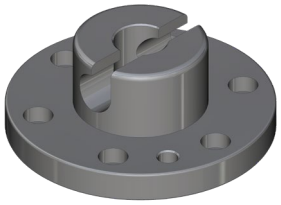
G-SWS160

Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Cost-effective alternative to the MGW
Without hand lever, thereby low interference contours
High repeat accuracy +/- 0,02 mm
Optional connection of a power coupling MEK for electrical and pneumatical ducts
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1



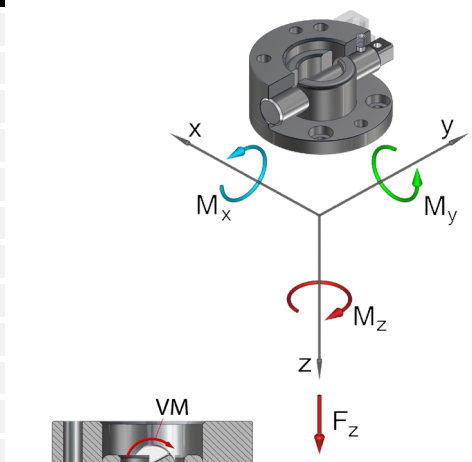
1



2

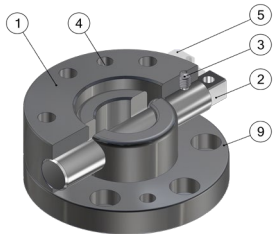
Technical specifications		SWS160	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		160 x 70	
Pitch circle diameter [mm]		125	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		8.000	10.000
Compression -Fz [kN]		939	1.252
Torsion Mz [Nm]		750	1.000
Bending Mx, My [Nm]		850	1.000
Mass [kg]	upper assembly	6,6	
	lower assembly	3,85	
Recommended load [kg] *		100	120
Locking moment VM [Nm]		4 - 30	
Locking stroke VH [mm]		0 - 10	
Operating temperature range [°C]		-30 to +120	

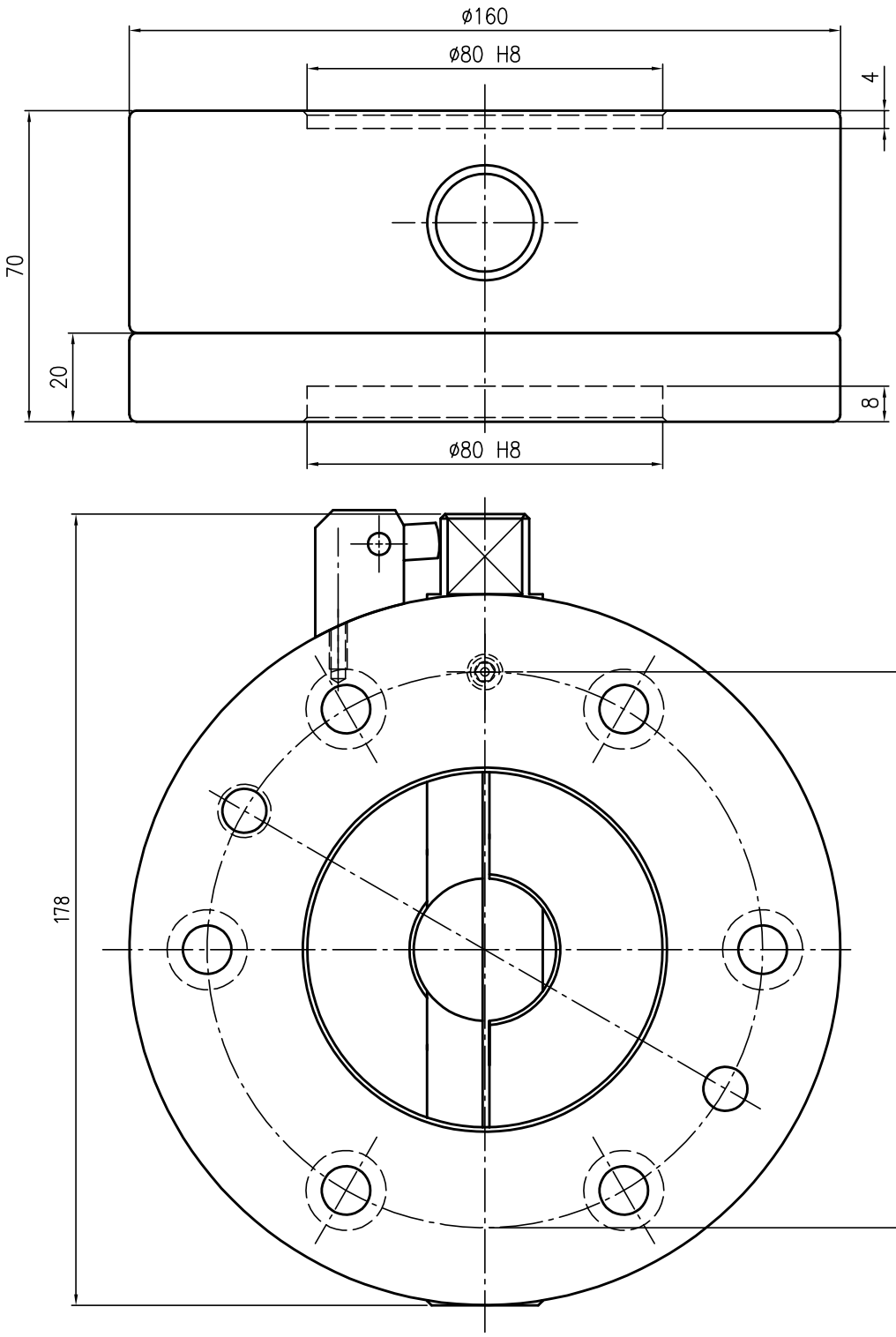
* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 200 mm, 1,7 times safety



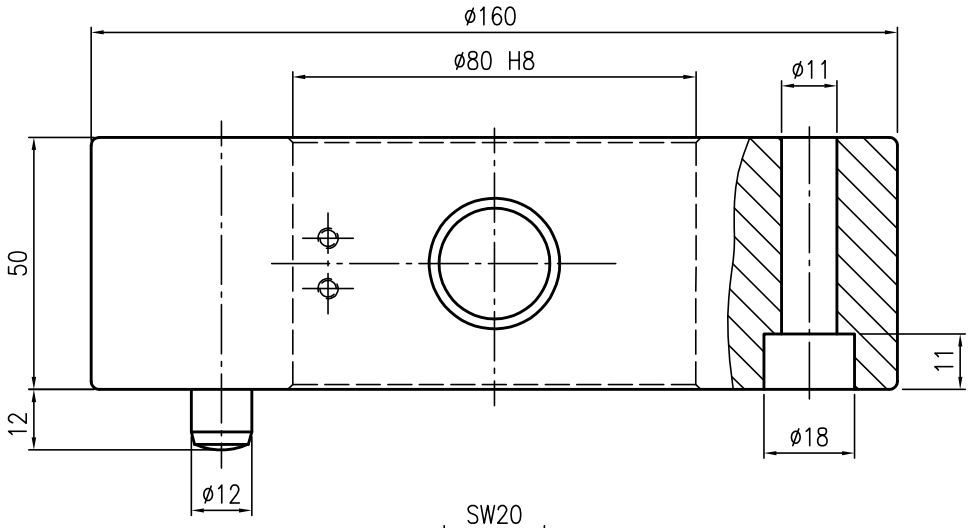
Quick change system Ø160, drilled according to ISO, steel…	
G-SWS160-2O	upper assembly, with anti-rotation-protection
G-SWS160-2O-N	upper assembly, nitrated, with anti-rotation-protection
G-SWS160-2OEN	upper assembly, E-Mounting, nitrated, anti-rotation-p.
G-SWS160-2U	lower assembly
G-SWS160-2U-N	lower assembly, nitrated
G-SWS160-2UEN	lower assembly, E-Mounting, nitrated
Replacement semi-cylindrical bolt…	
EG-SWS160-HB	for SWS160
Replacement semi-cylindrical bolt safety…	
EG-SWS160-VS2	for SWS160
Square socket key…	
ZG-VKS160-SW20	for SW 20

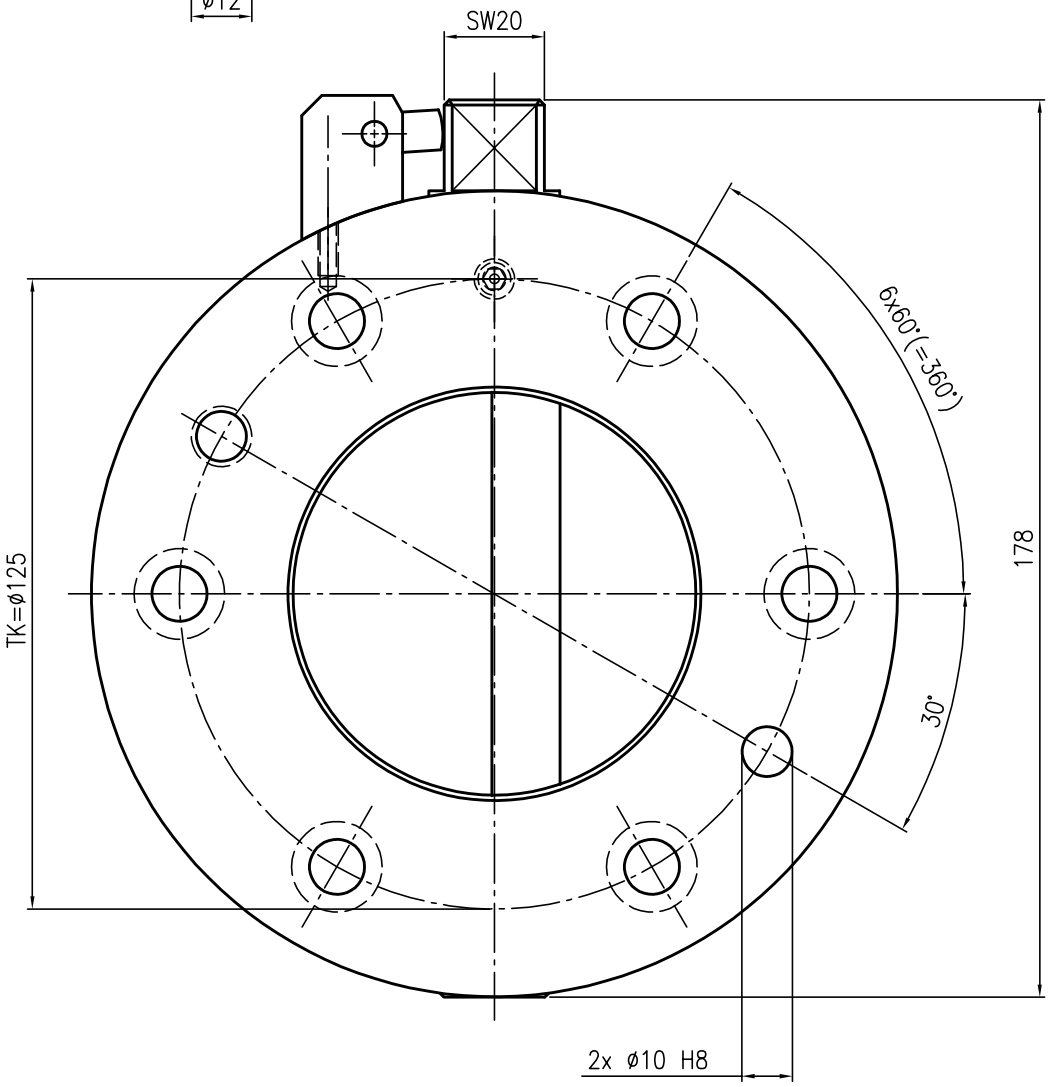
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock
9	Lower assembly





Datum 08.11.2016	Maßstab 1:1.5		
Zeichnungsnummer G-SWS160-2Z			GRIP GmbH Handhabungstechnik





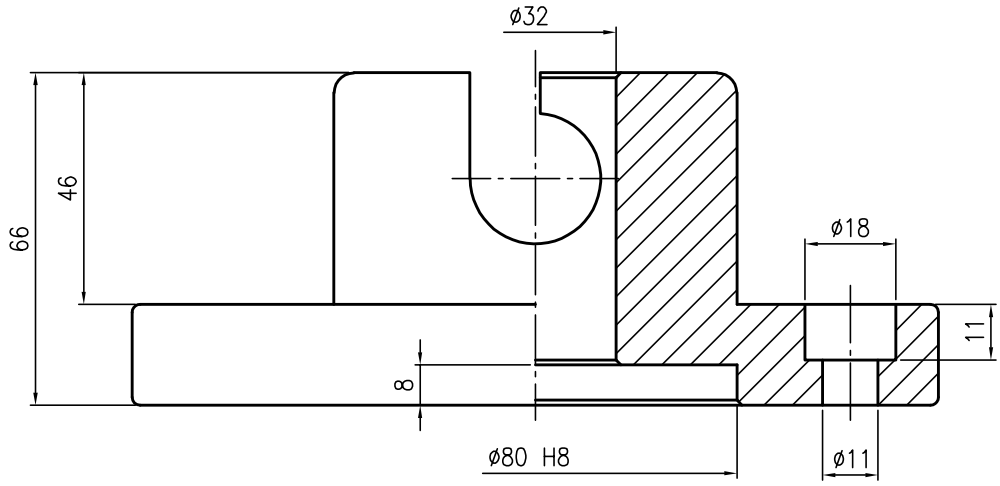
Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS160-20
St. nitriert	G-SWS160-20-N

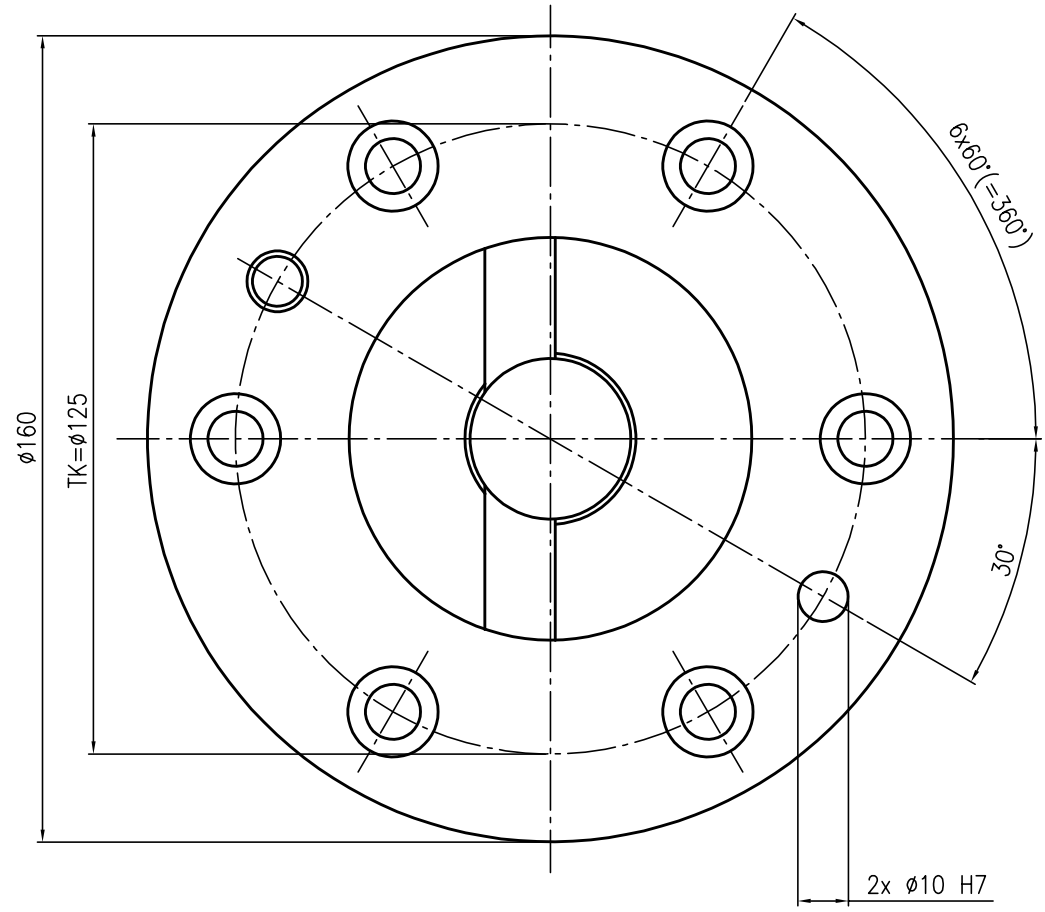
Datum	Maßstab
08.11.2016	1:1.5

Zeichnungsnummer

G-SWS160-20

GRIP GmbH Handhabungstechnik





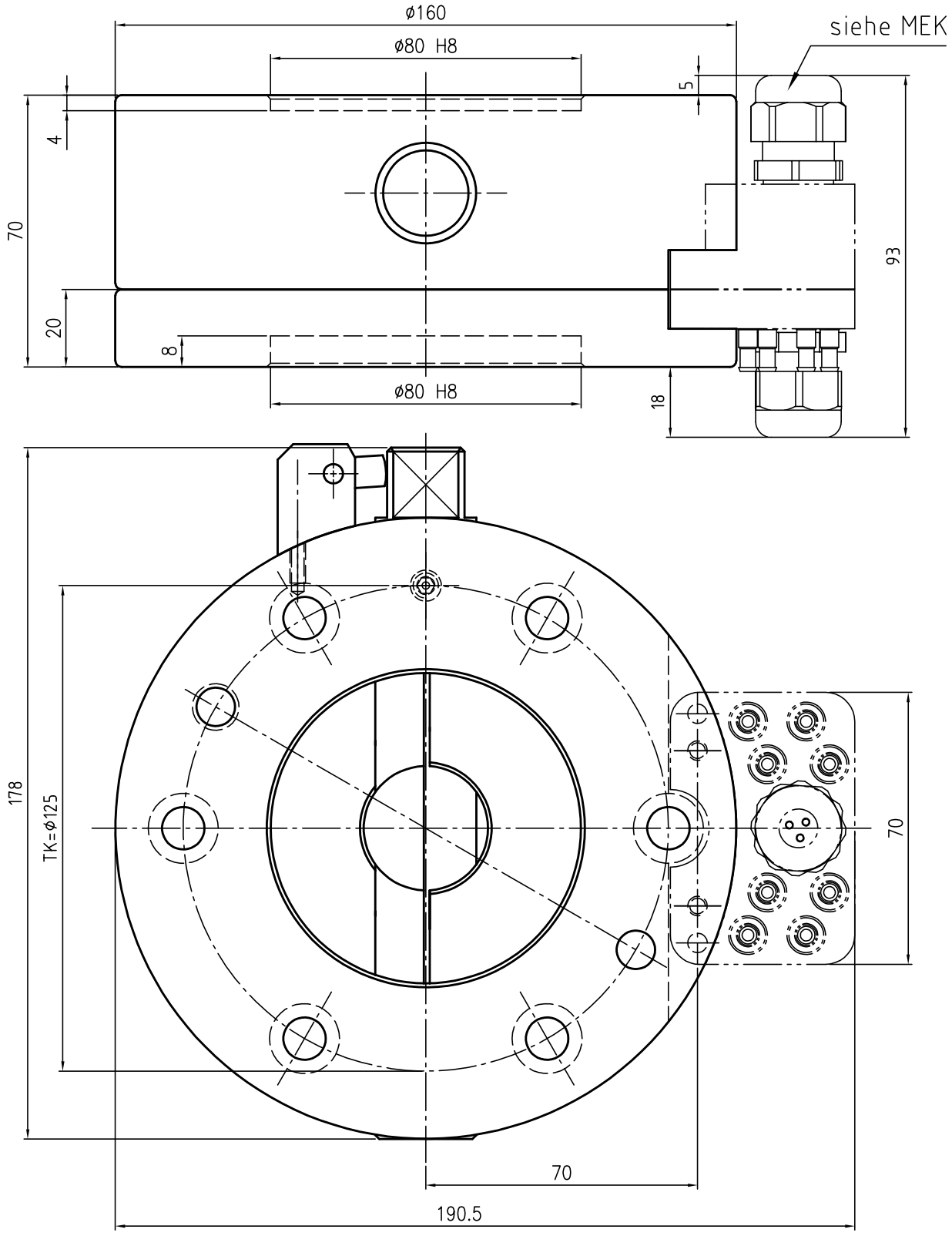
Grundmaterial	Bestellnummer Unterteil
Stahl	G-SWS160-2U
St. nitriert	G-SWS160-2U-N

Datum	Maßstab	
08.11.2016	1:1.5	

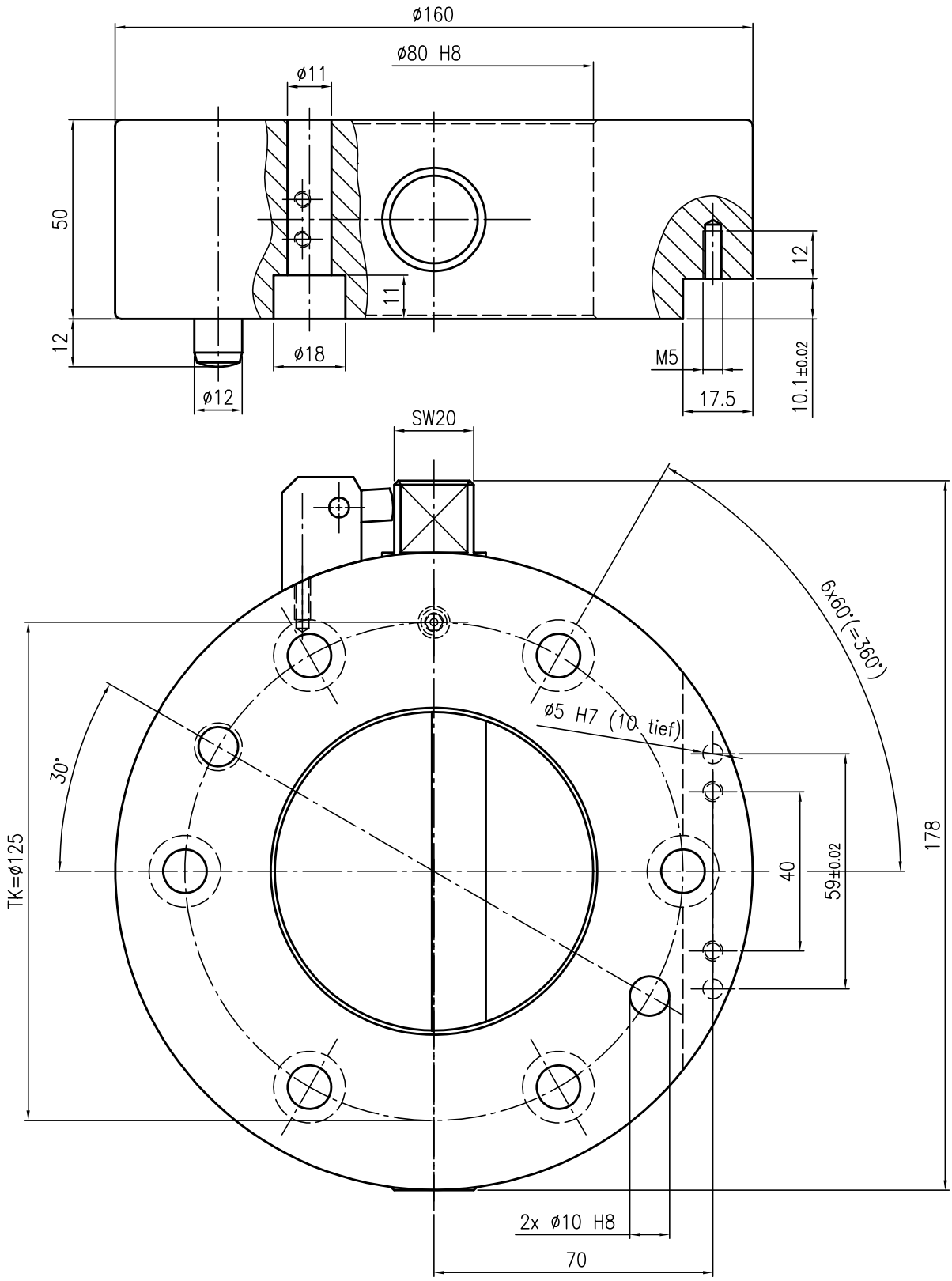
Zeichnungsnummer

G-SWS160-2U

GRIP GmbH Handhabungstechnik



Datum 08.11.2016	Maßstab 1:1.5	
Zeichnungsnummer G-SWS160-2ZE		GRIP GmbH Handhabungstechnik



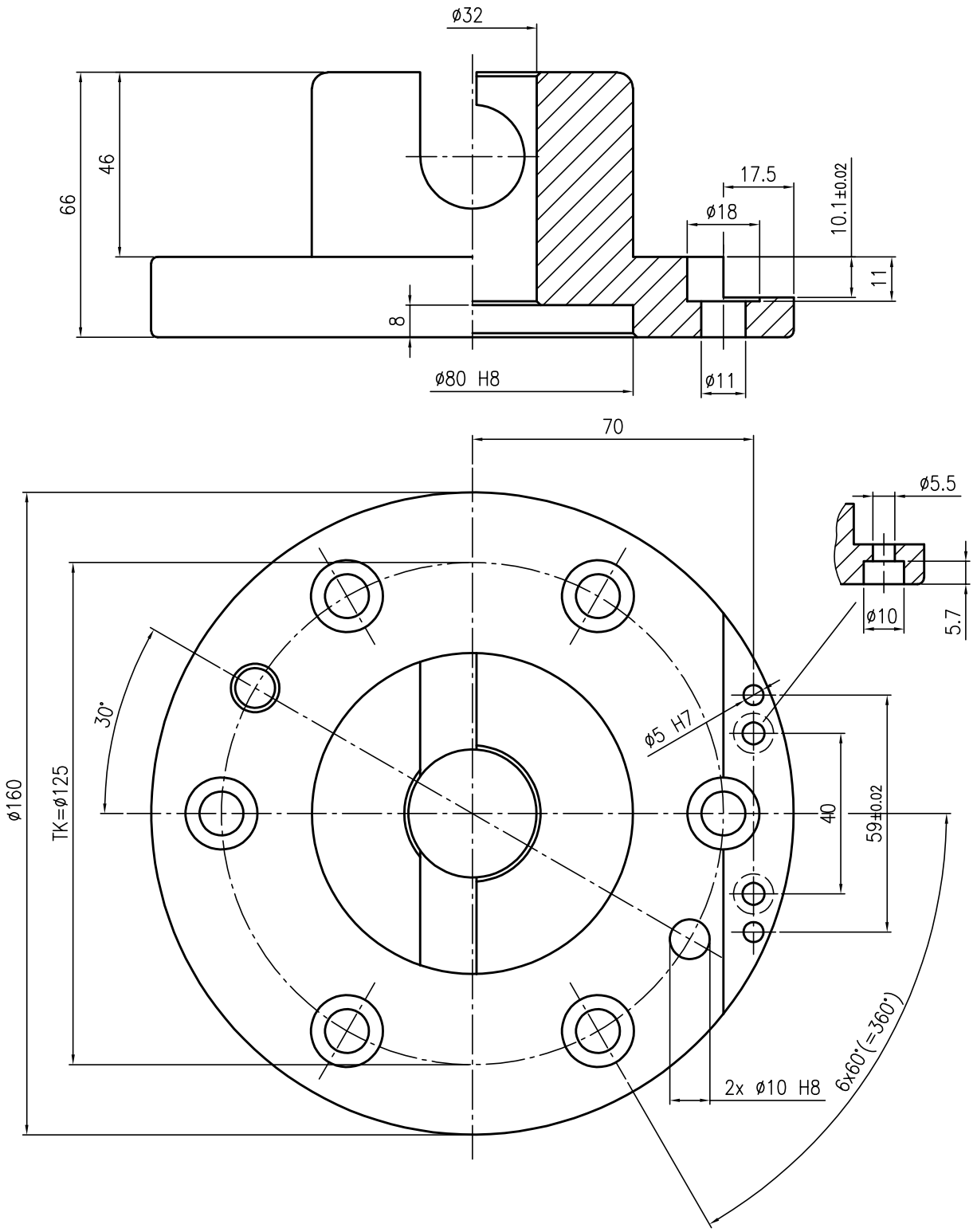
Grundmaterial	Bestellnummer Oberteil
Stahl	G-SWS160-20E
St. nitriert	G-SWS160-20EN

Datum	Maßstab		
08.11.2016	1:1.5		

Zeichnungsnummer

G-SWS160-20E

GRIP GmbH Handhabungstechnik



Grundmaterial	Bestellnummer Unterteil
Stahl	G-SWS160-2UE
St. nitriert	G-SWS160-2UEN

Datum	Maßstab
08.11.2016	1:1.5

Zeichnungsnummer

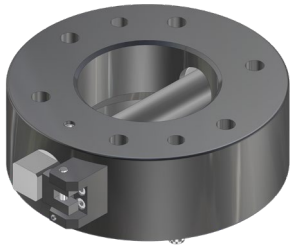
G-SWS160-2UE

GRIP GmbH Handhabungstechnik

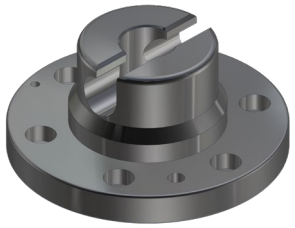
G-SWS160-B02

Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Reinforced version with pre-centring
Cost-effective alternative to the MGW
Without hand lever, thereby low interference contours
High repeat accuracy +/- 0,02 mm
Optional connection of a power coupling MEK for electrical and pneumatical ducts
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1



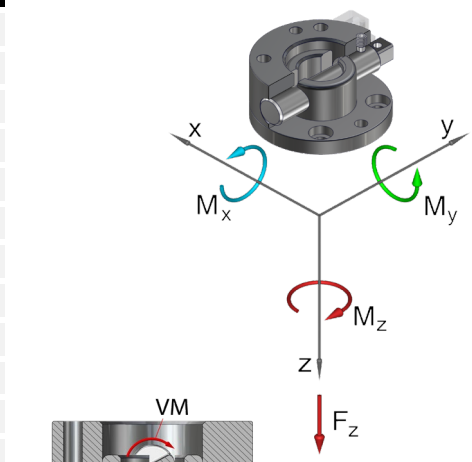
1



2

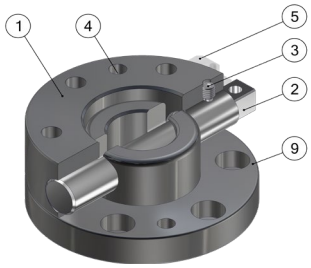
Technical specifications		SWS160-B02	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		160 x 80	
Pitch circle diameter [mm]		125	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		8.000	10.000
Compression -Fz [kN]		939	1.252
Torsion Mz [Nm]		750	1.000
Bending Mx, My [Nm]		950	1.200
Mass [kg]	upper assembly	6,6	
	lower assembly	3,85	
Recommended load [kg] *		110	130
Locking moment VM [Nm]		4 - 30	
Locking stroke VH [mm]		0 - 10	
Operating temperature range [°C]		-30 to +120	

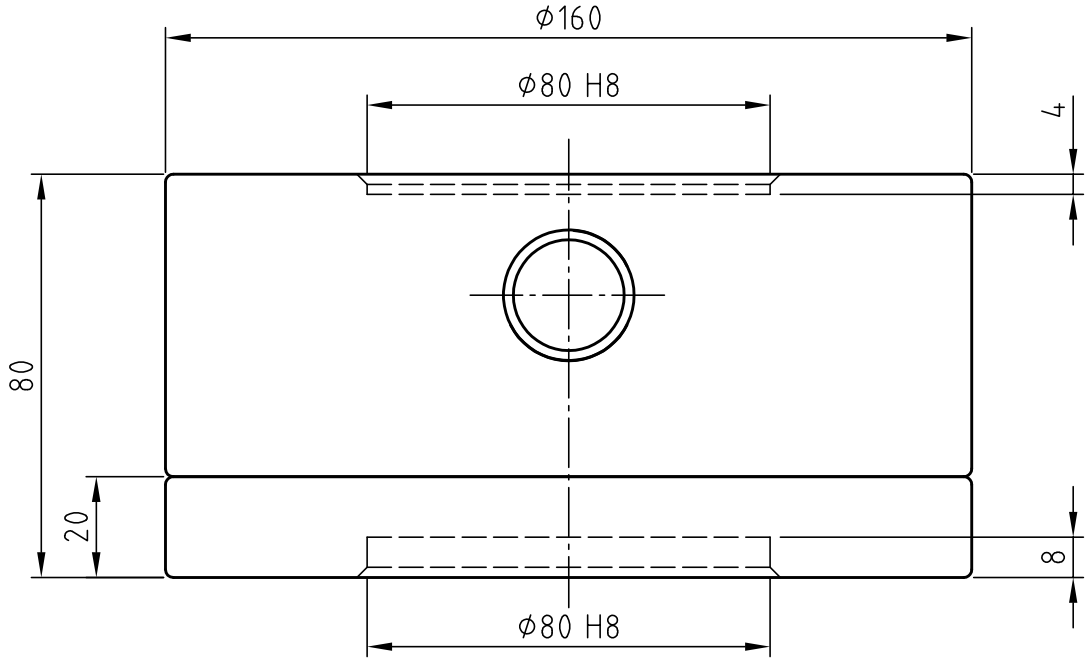
* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 200 mm, 1,7 times safety

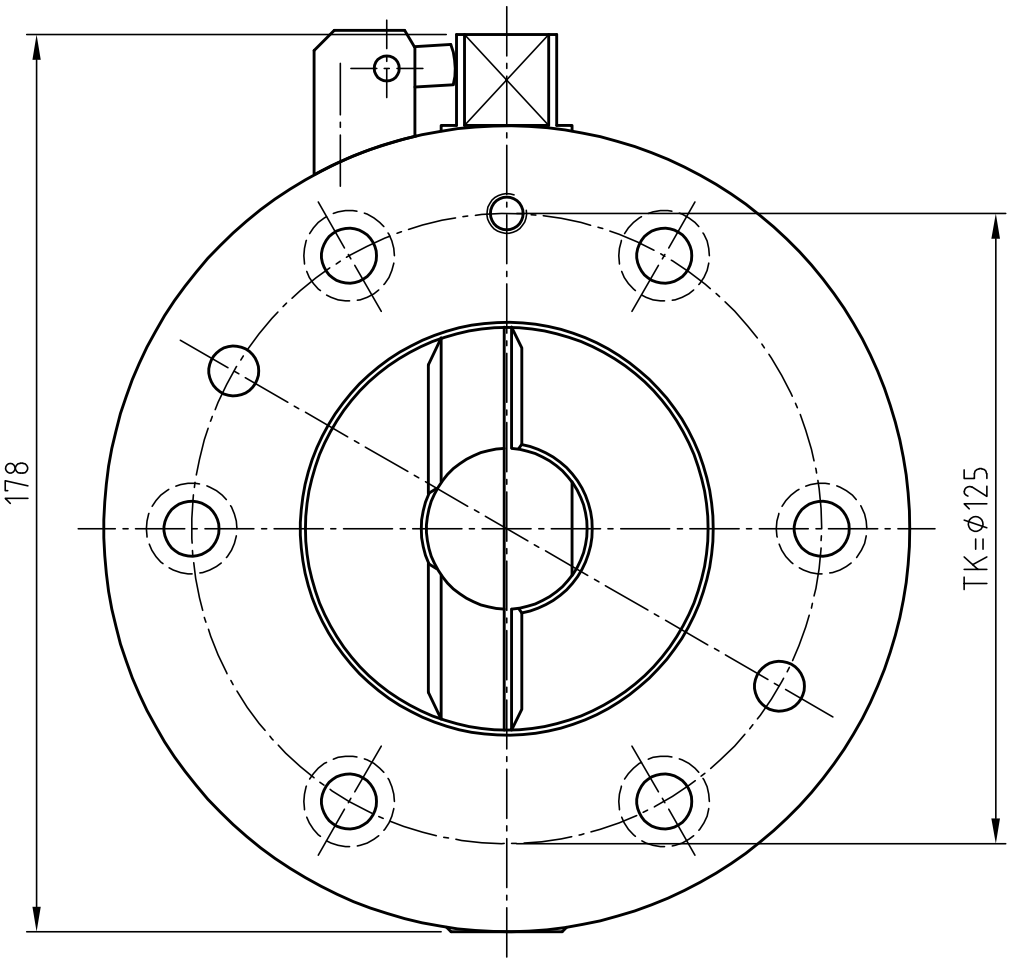


Quick change system Ø160, B02, drilled according to ISO…	
G-SWS160-2O/B02	steel, anti-rotation-protection, - pre-centring
G-SWS160-2OEN/B02	E-Mounting, steel, nitrated, with anti-rotation-protection, - pre-centring
G-SWS160-2O-N/B02	steel, nitrated, with anti-rotation-protection, - pre-centring
G-SWS160-2U/B02	lower assembly, steel, with pre-centring
G-SWS160-2UEN/B02	lower assembly, steel, nitrated, with pre-centring, E-Mounting
G-SWS160-2U-N/B02	lower assembly, steel, nitrated, with pre-centring
Replacement semi-cylindrical bolt…	
EG-SWS160-HB	for SWS160
Replacement semi-cylindrical bolt safety…	
EG-SWS160-VS2	for SWS160
Square socket key…	
ZG-VKS160-SW20	for SW 20

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock
9	Lower assembly

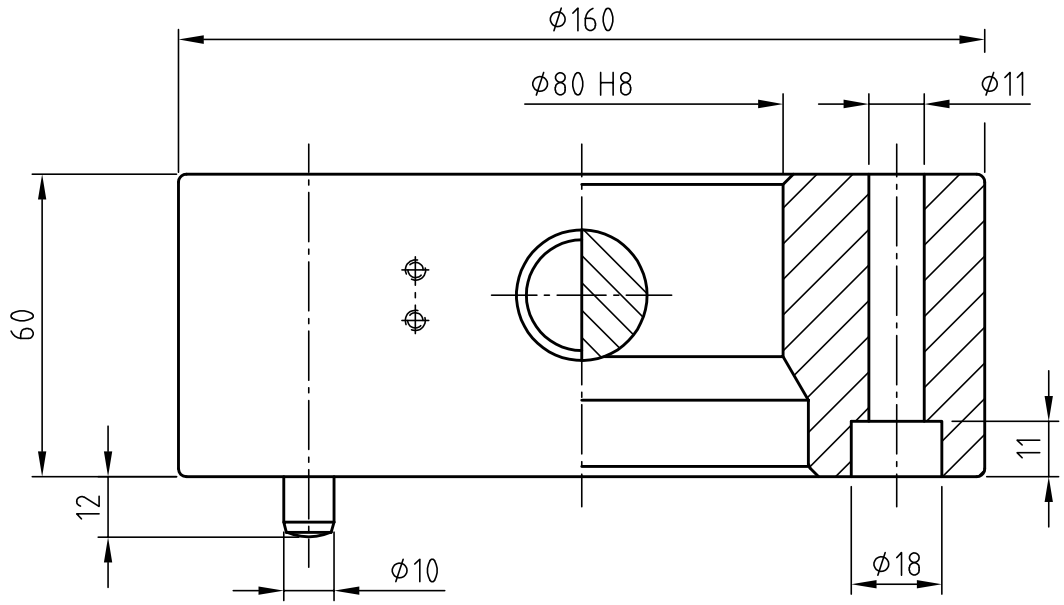


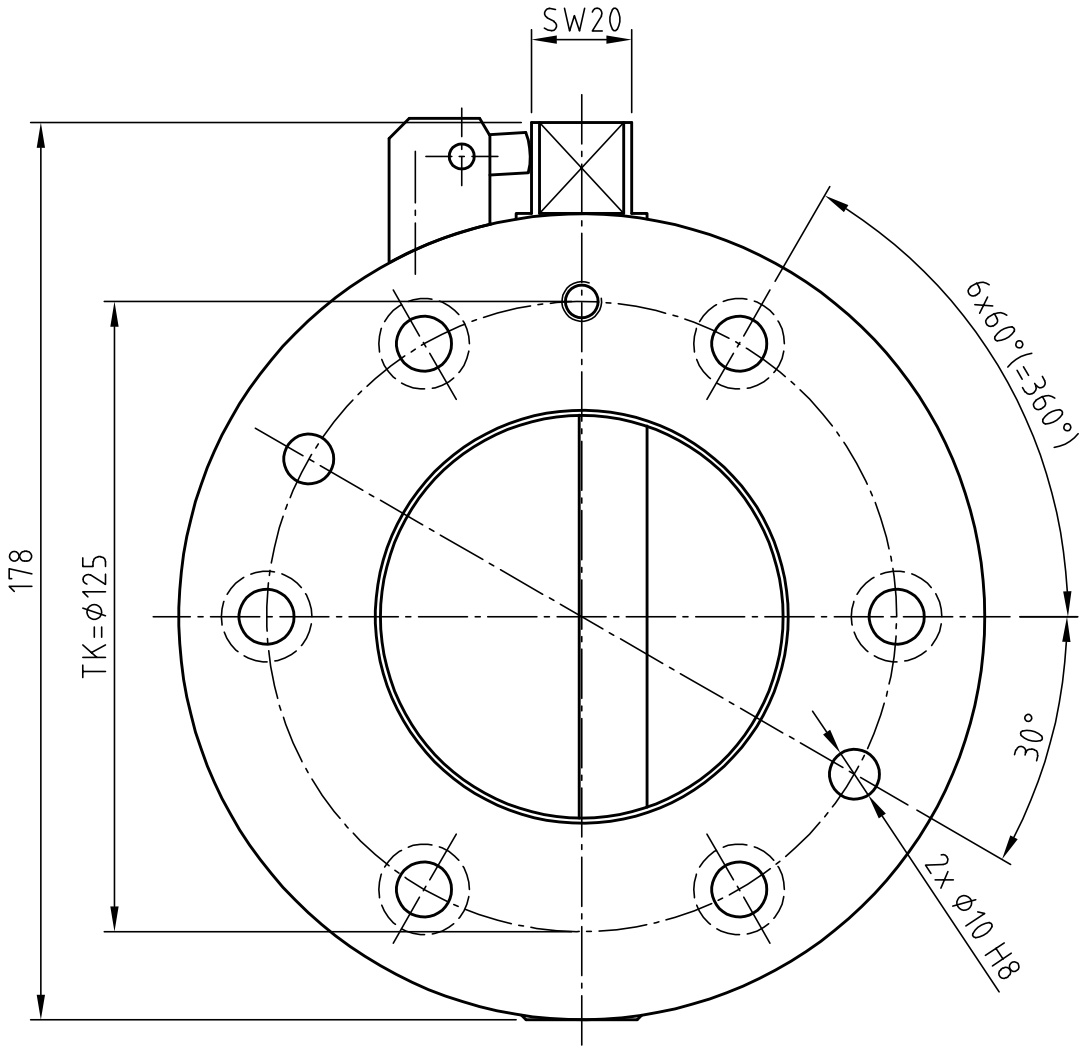




Datum	08.11.2016	Maßstab	1:1.5	
Zeichnungsnummer				
G-SWS160-2Z/B02				

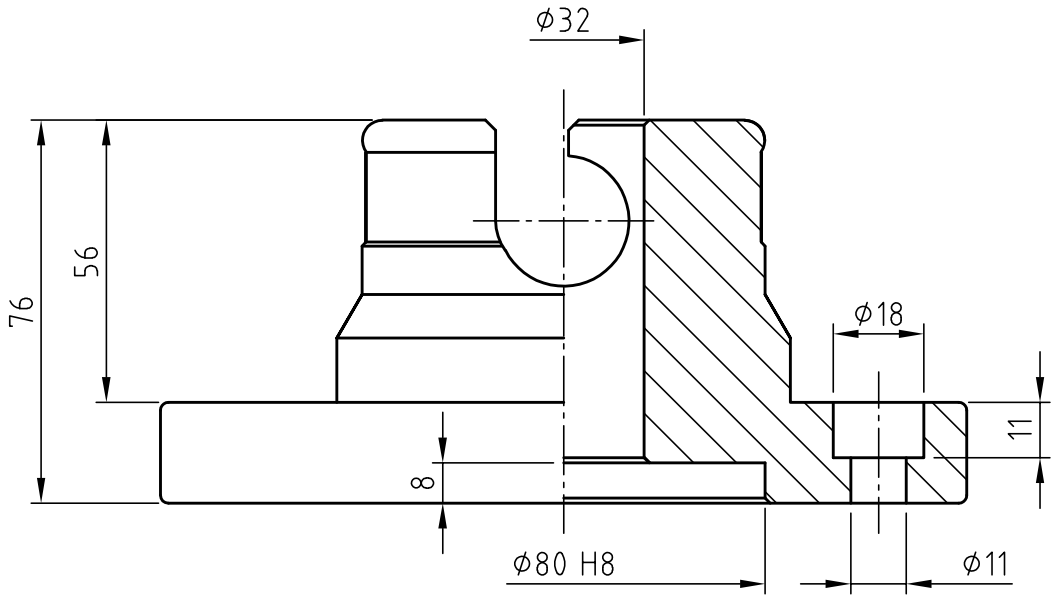
GRIP GmbH Handhabungstechnik

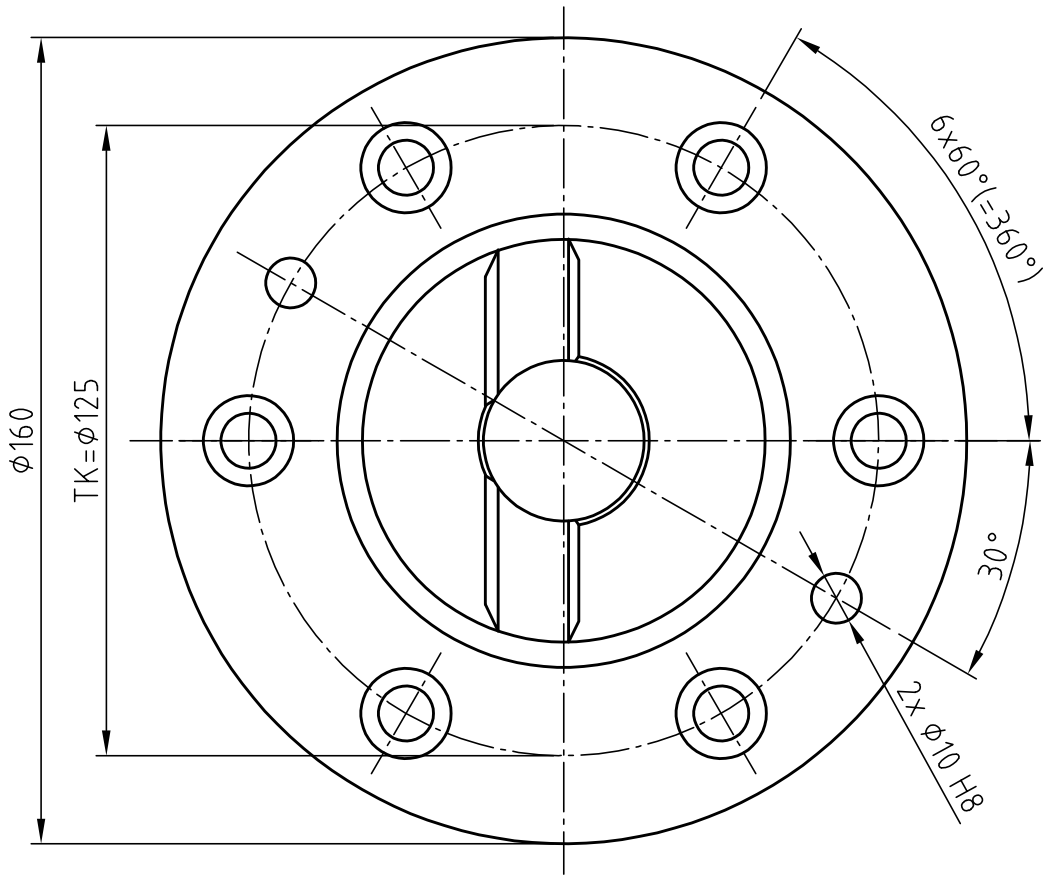




Datum	08.11.2016	Maßstab	1:1.5	
Zeichnungsnummer				
G-SWS160-20-N/B02				

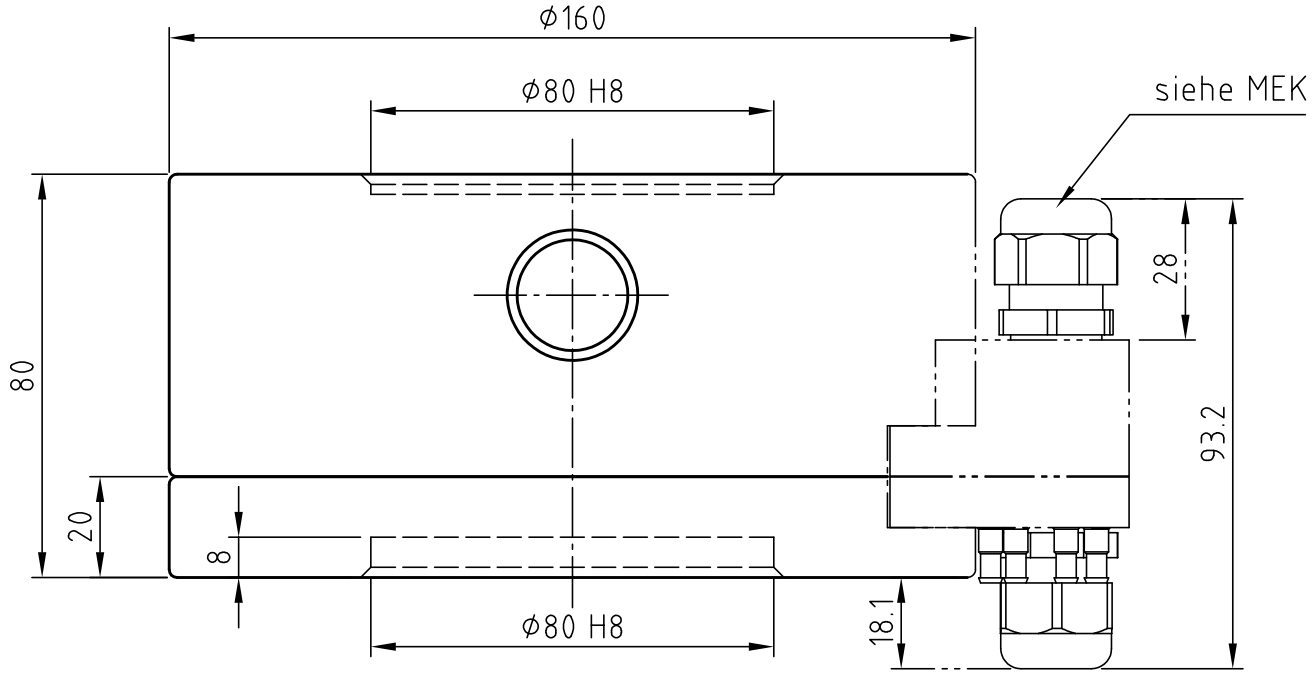
GRIP GmbH Handhabungstechnik

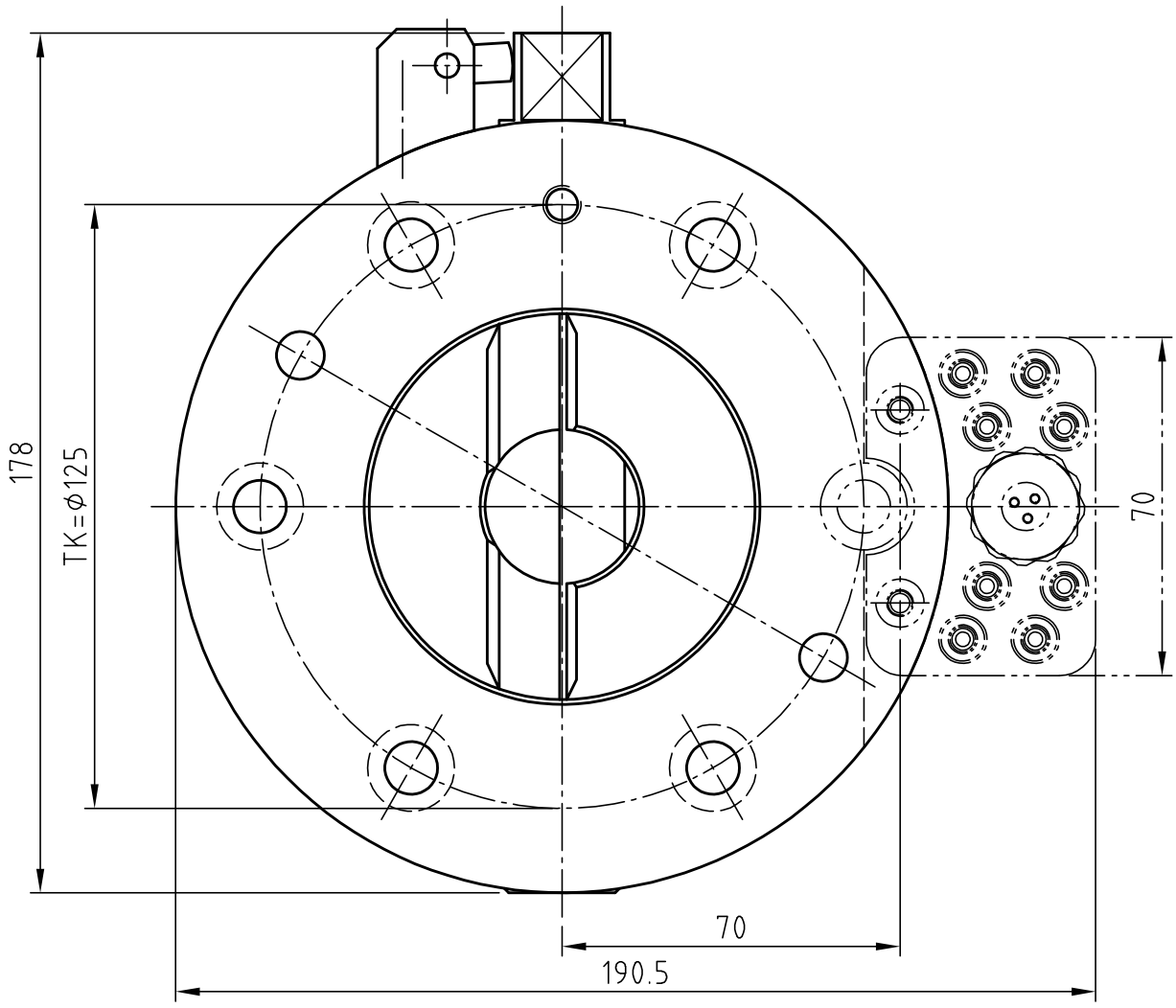




Datum	08.11.2016	Maßstab	1:1.5	
Zeichnungsnummer				
G-SWS160-2U-N/B02				

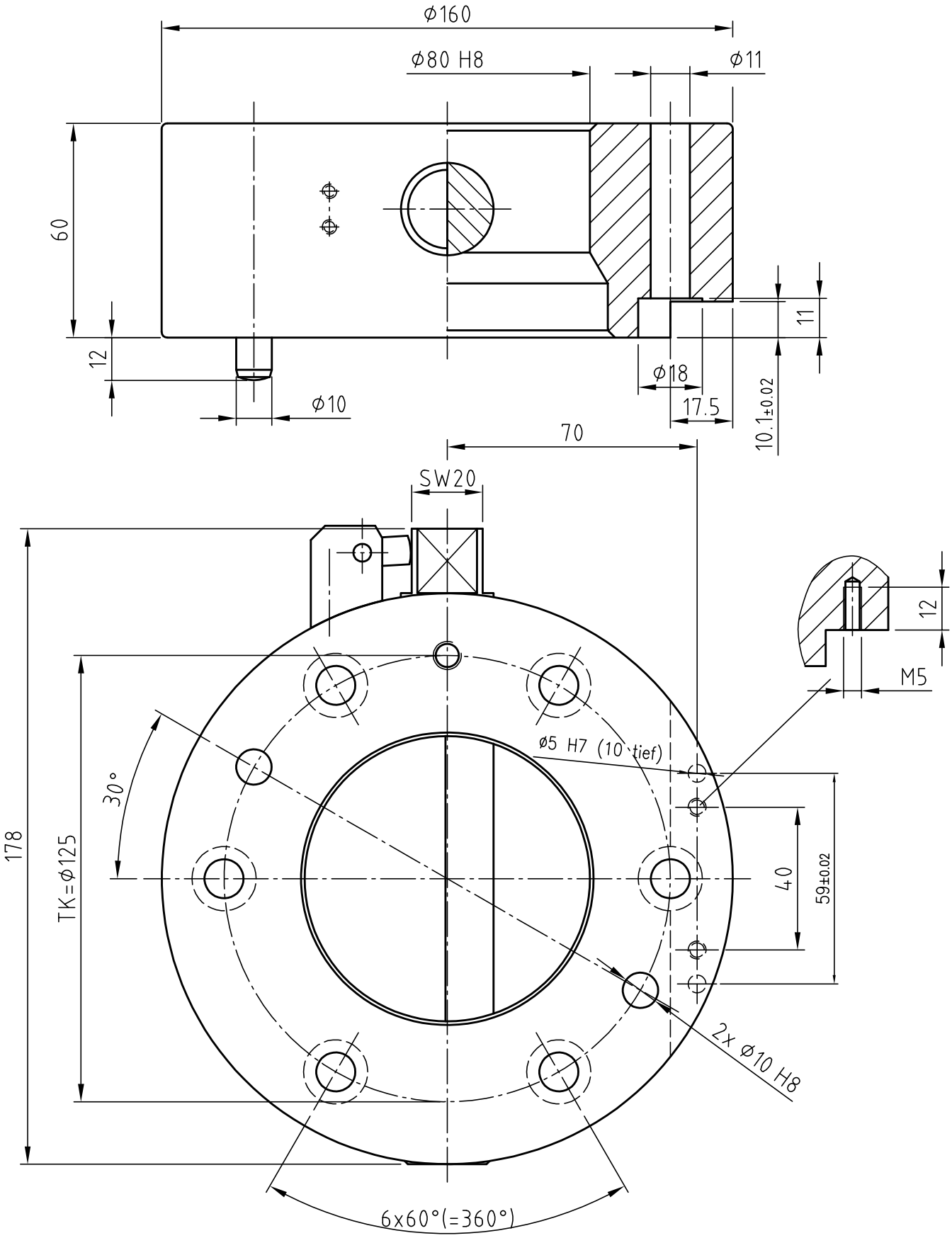
GRIP GmbH Handhabungstechnik





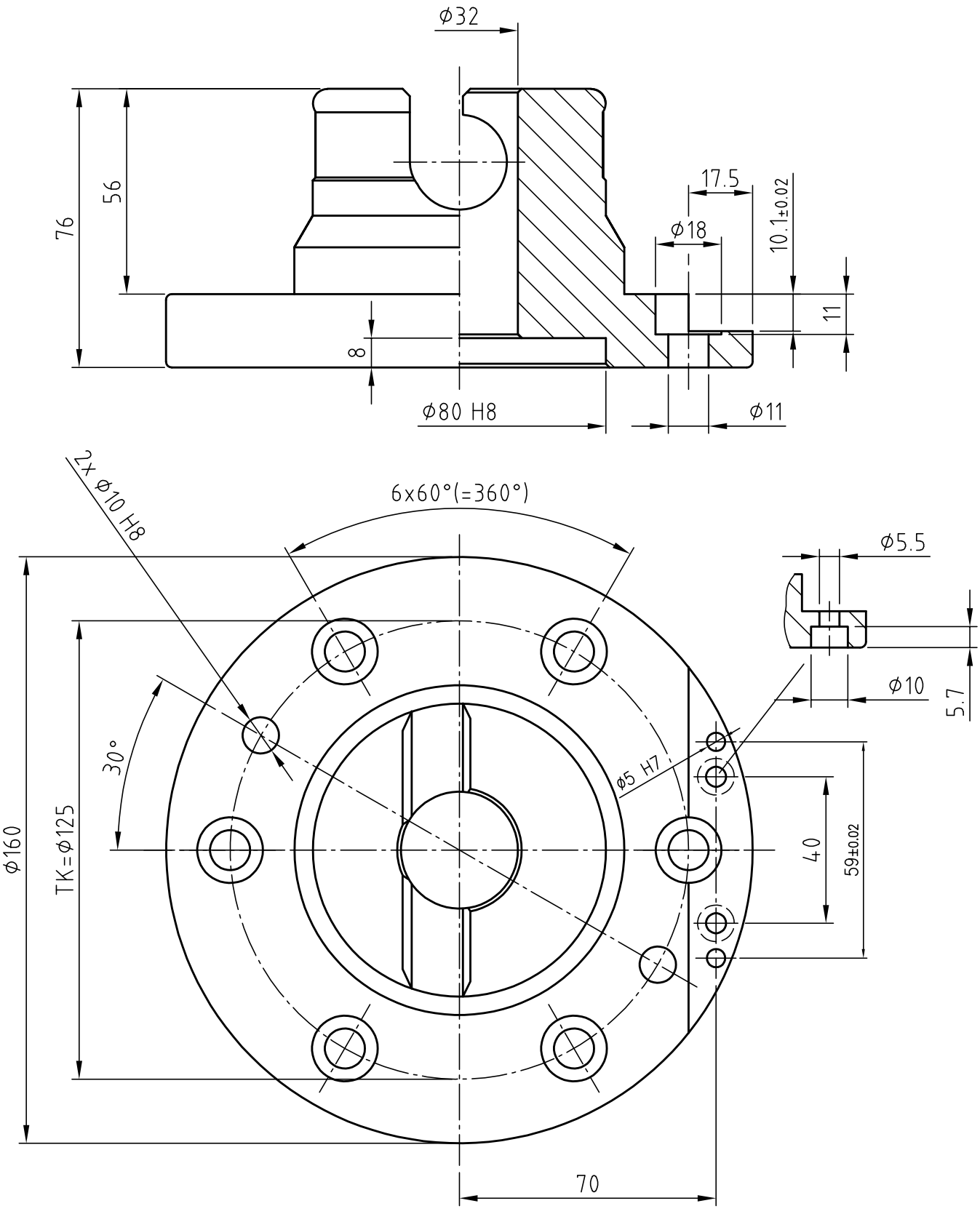
Datum	08.11.2016	Maßstab	1:1.5	
Zeichnungsnummer				
G-SWS160-2EZ/B02				

GRIP GmbH Handhabungstechnik



Datum	08.11.2016	Maßstab	1:1.5		
Zeichnungsnummer					
G-SWS160-20EN/B02					

GRIP GmbH Handhabungstechnik

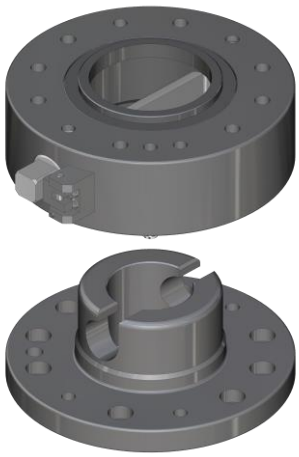


Datum 08.11.2016	Maßstab 1:1.5		
Zeichnungsnummer G-SWS160-2UEN/B02			GRIP GmbH Handhabungstechnik

G-SWS200

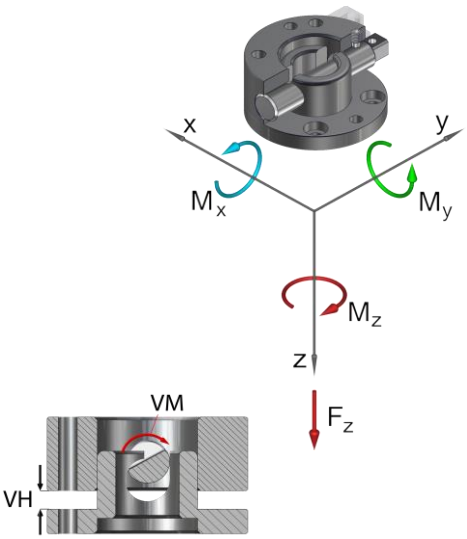
Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Cost-effective alternative to the MGW
Without hand lever, thereby low interference contours
High repeat accuracy +/- 0,02 mm
Optional connection of a power coupling MEK for electrical and pneumatical ducts
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1
Low dead weight due to the combination of steel and aluminum



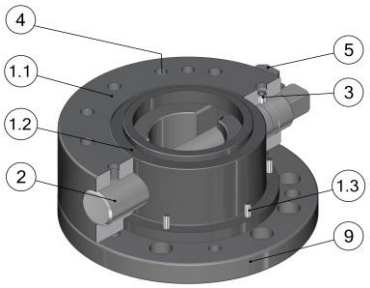
Technical specifications		SWS200
Basic material		steel, nitrated + Al
External diameter x Height [mm]		200 x 85
Pitch circle diameter [mm]		160
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		14.500
Compression -Fz [kN]		1.480
Torsion Mz [Nm]		1.250
Bending Mx, My [Nm]		1.350
Mass [kg]	upper assembly	6,4
	lower assembly	6
Recommended load [kg] *		160
Locking moment VM [Nm]		5 - 35
Locking stroke VH [mm]		0 - 10
Operating temperature range [°C]		-30 to +120

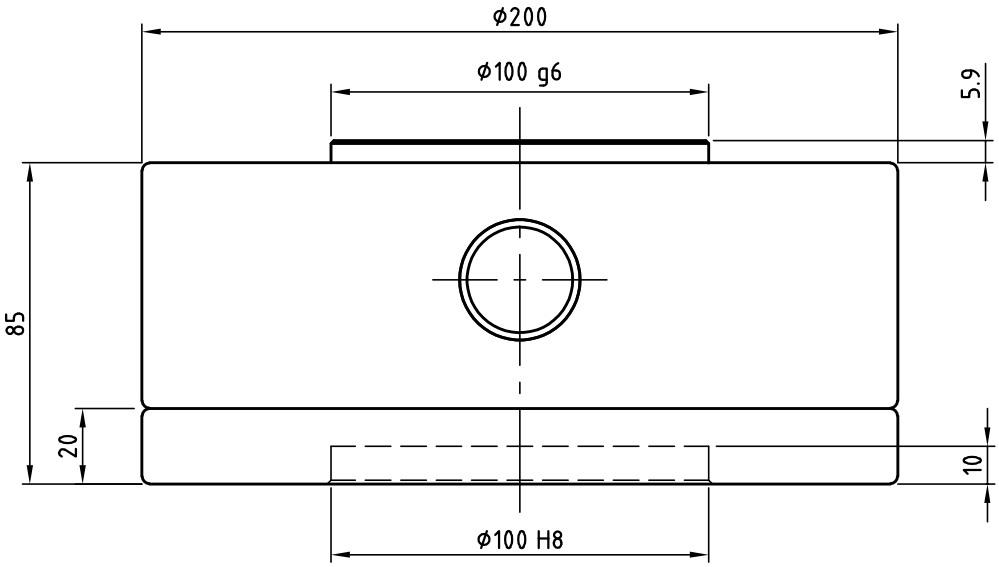
* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 200 mm, 1,7 times safety

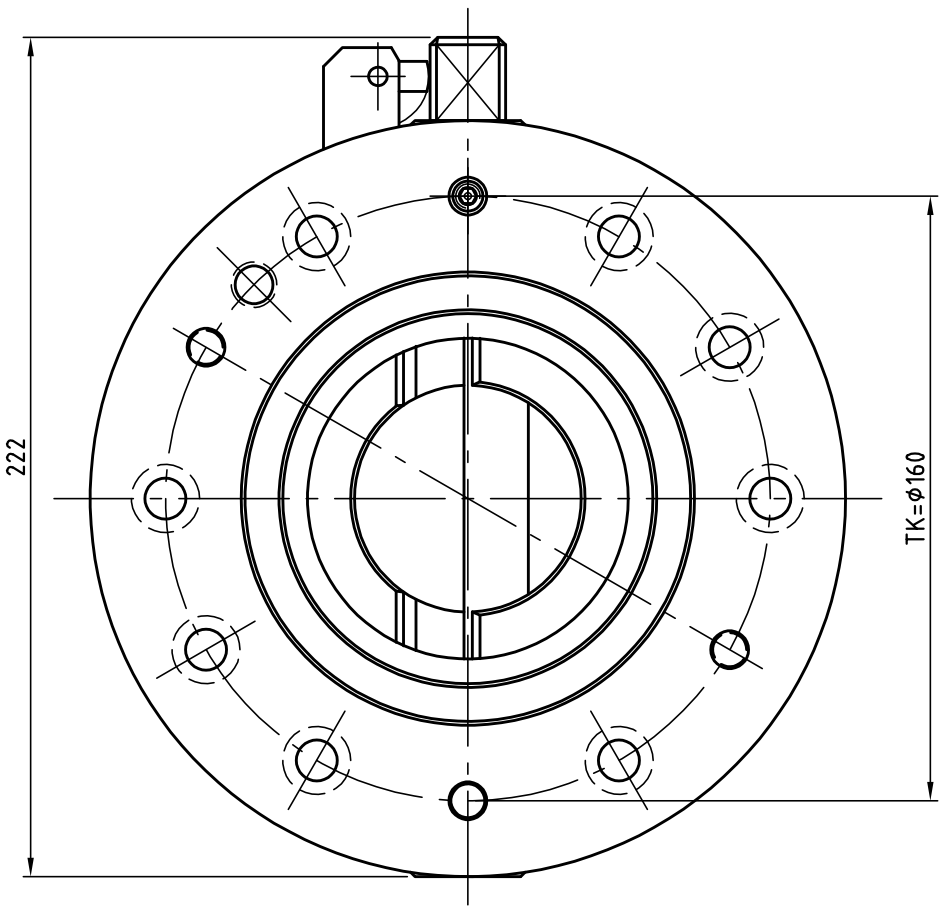


Quick change system Ø200… drilled according to ISO, steel, nitrated, with pre-centring…	
G-SWS200-2OEN	upper assembly, E-Mounting, anti-rotation-prot.
G-SWS200-2OEN-M12	for M12, upper assembly, E-Mounting, anti-rotation-protection
G-SWS200-2O-N	upper assembly, anti-rotation-protection
G-SWS200-2O-N-M12	for M12, upper assembly, anti-rotation-protection
G-SWS200-2UEN	lower assembly, E-Mounting
G-SWS200-2UEN-M12	for M12, lower assembly, E-Mounting
G-SWS200-2U-N	lower assembly
G-SWS200-2U-N-M12	for M12, lower assembly
Replacement semi-cylindrical bolt…	
EG-SWS200-HB	for SWS200
Replacement semi-cylindrical bolt safety…	
EG-SWS200-VS2	for SWS200
Square socket key…	
ZG-VKS160-SW20	for SW 20

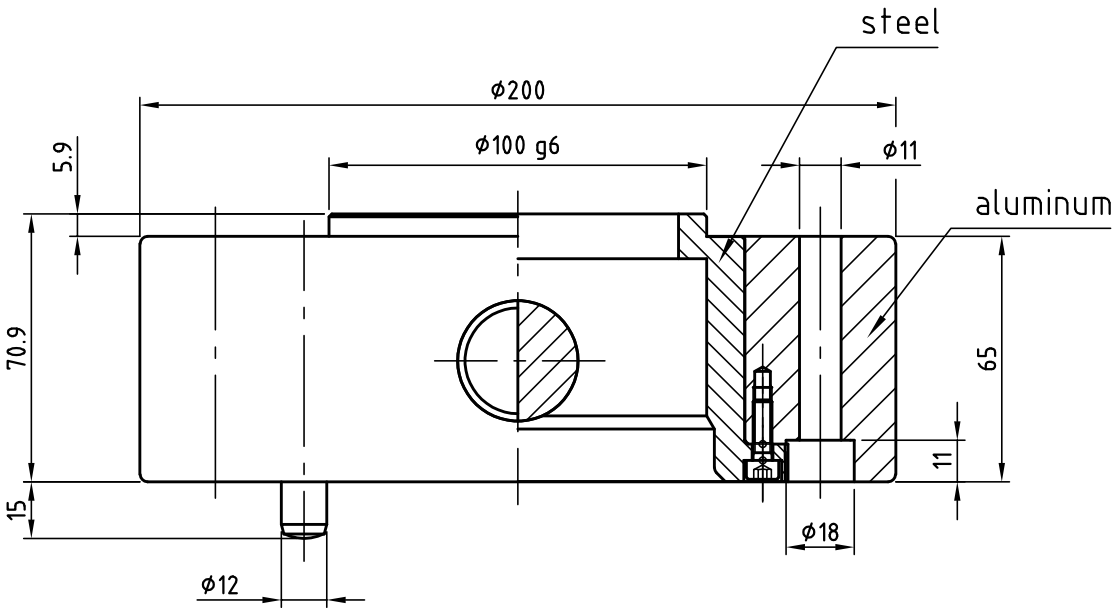
Pos.	Description
1.1	Upper assembly ring (Al)
1.2	Upper assembly hull (st)
1.3	Screw
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock
9	Lower assembly

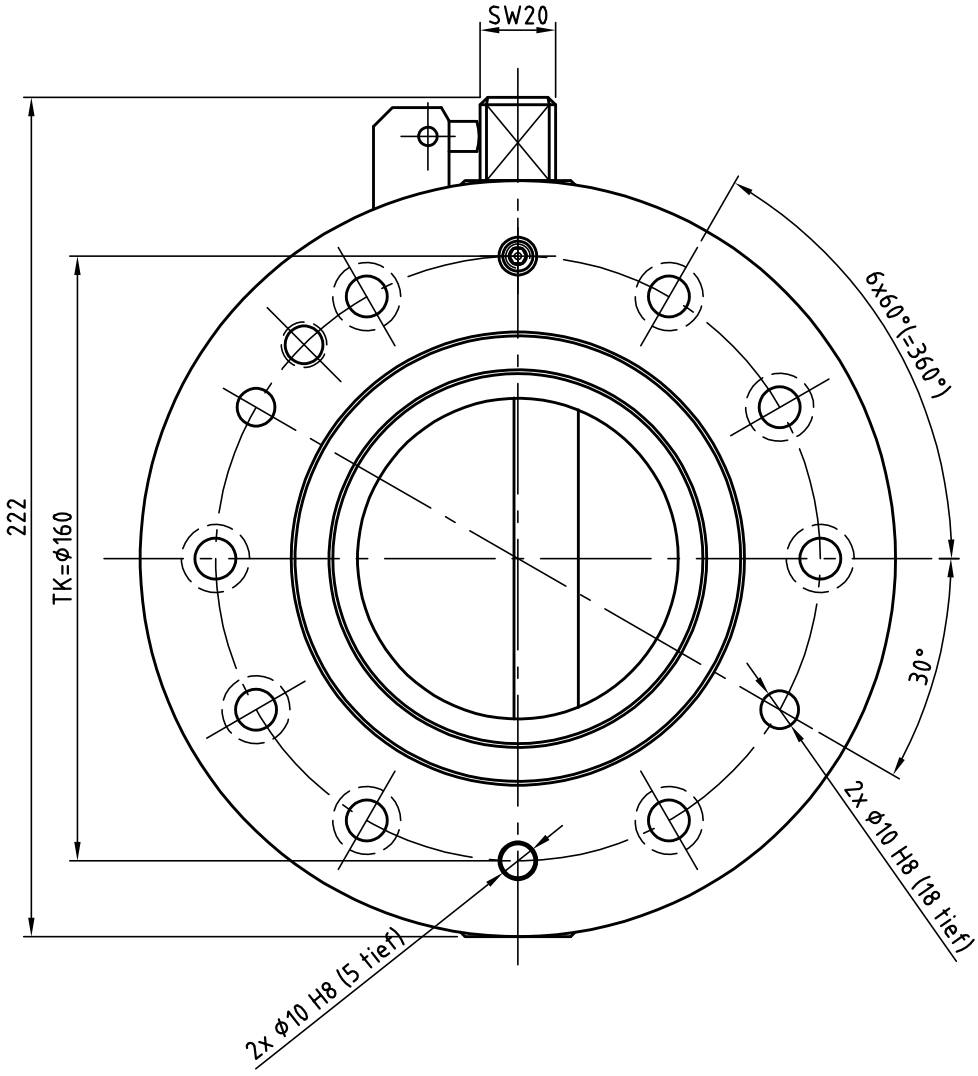




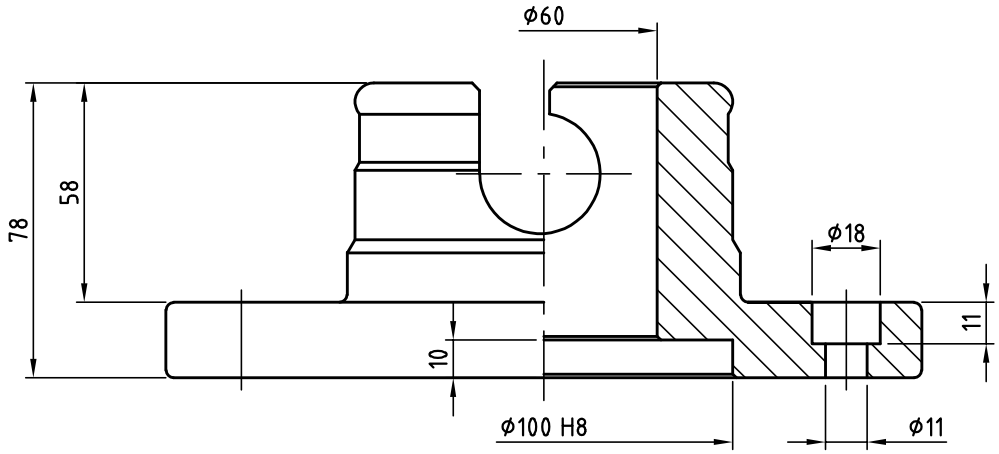


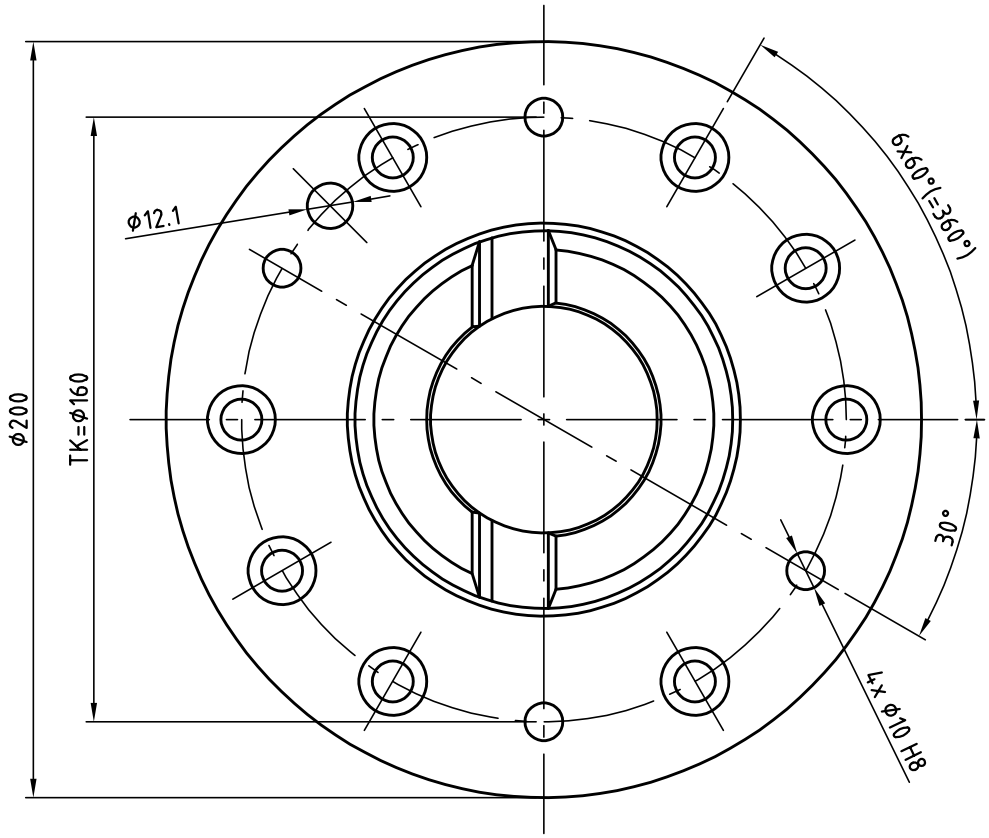
Datum 10.11.2016	Maßstab 1:2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS200-2Z			





Datum 10.11.2016	Maßstab 1:2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS200-20-N			



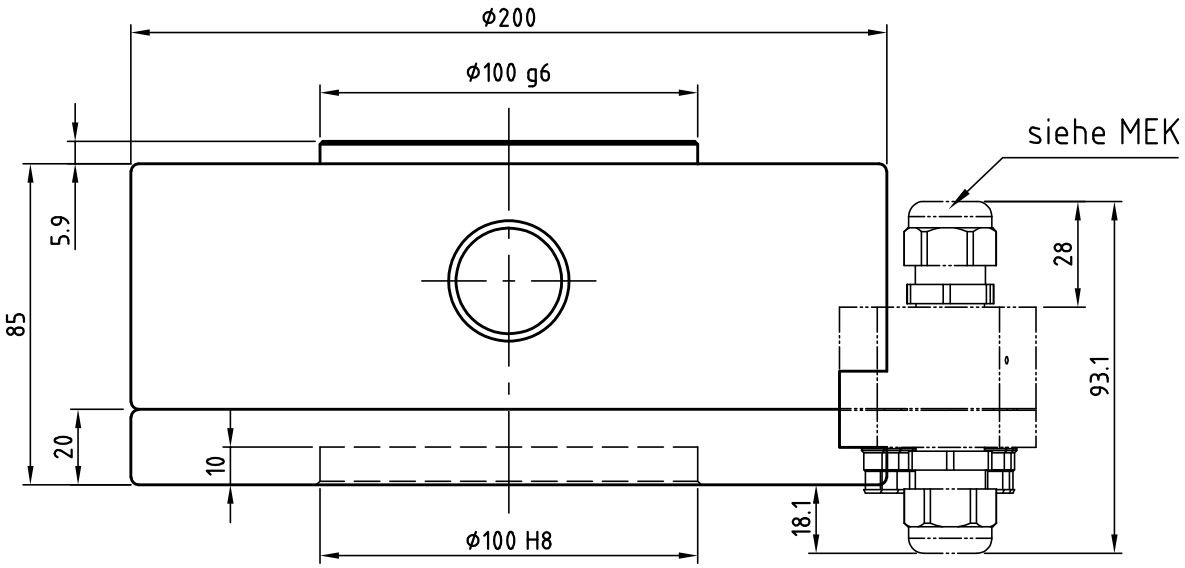


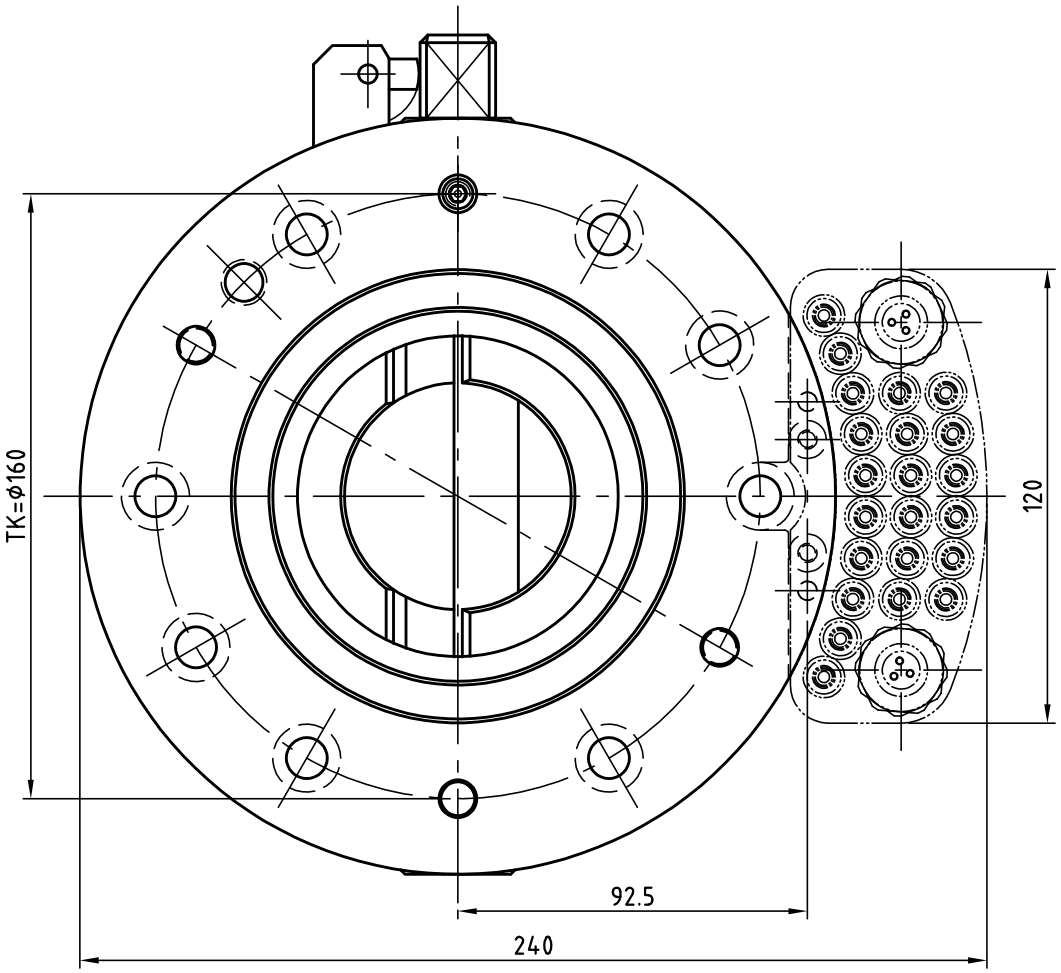
Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

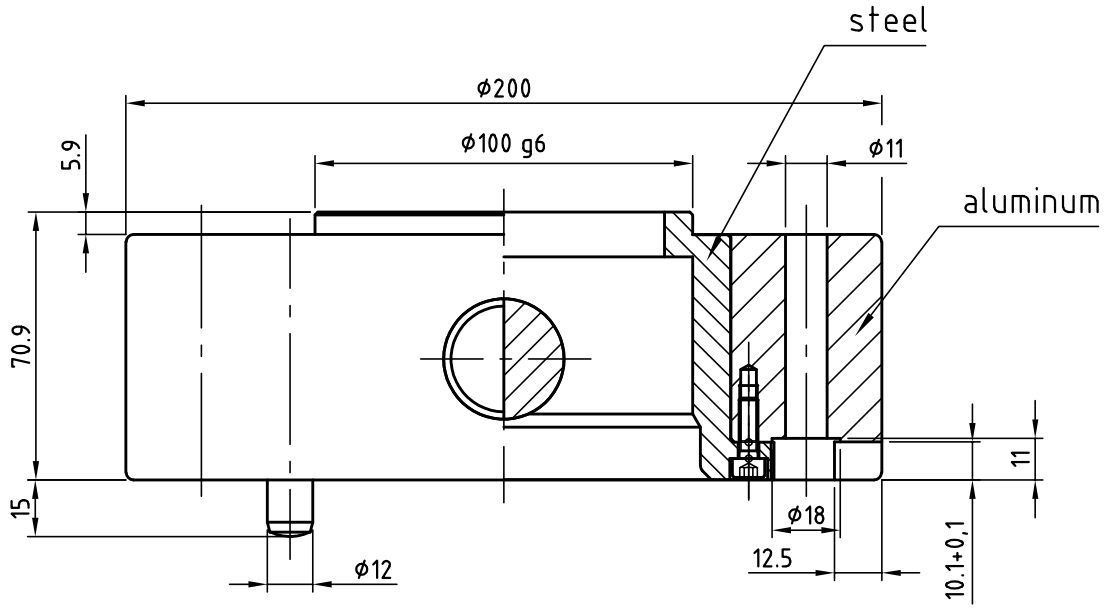
G-SWS200-2U-N

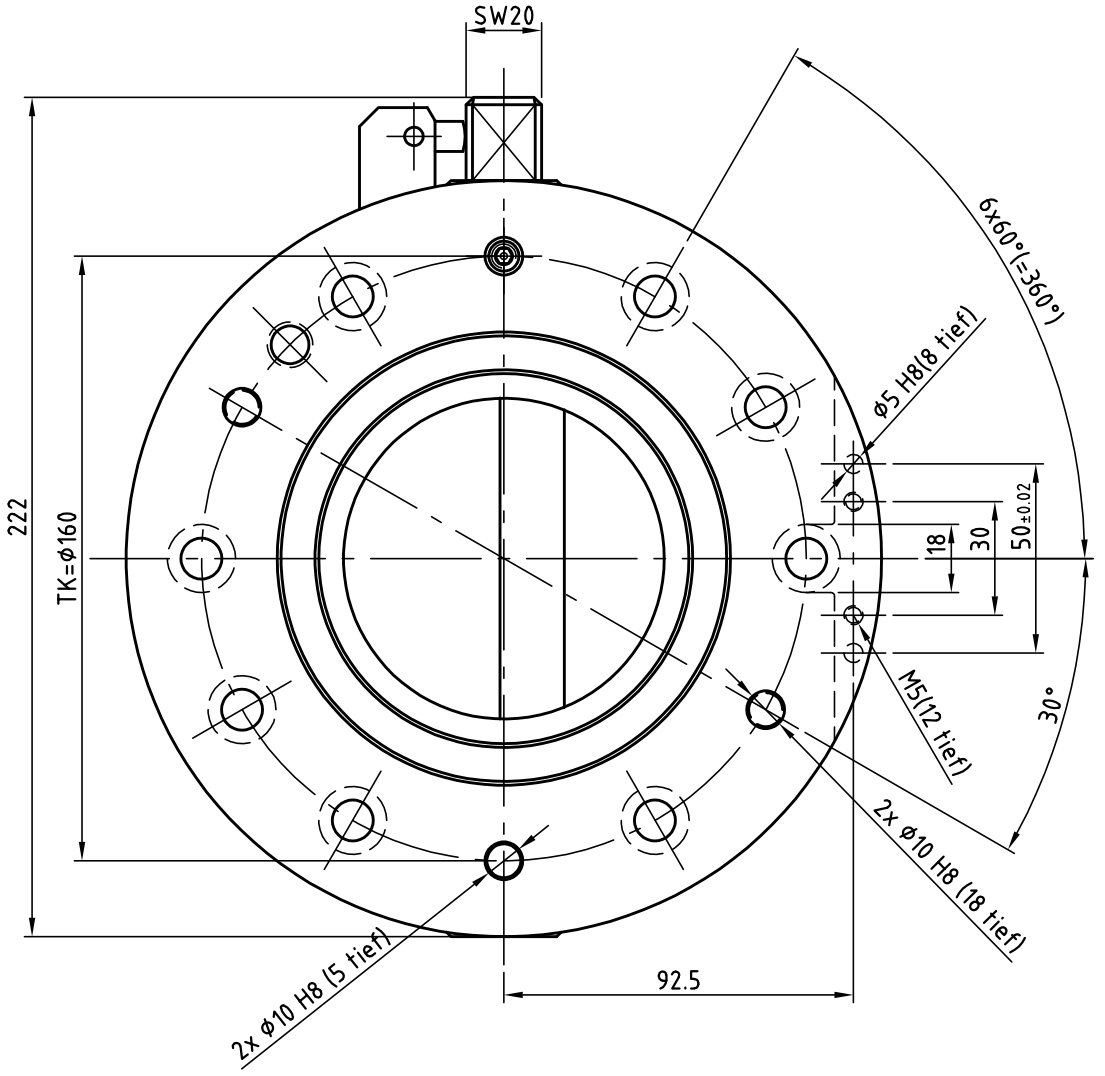
GRIP GmbH Handhabungstechnik





Datum 10.11.2016	Maßstab 1:2		
Zeichnungsnummer G-SWS200-2ZE			GRIP GmbH Handhabungstechnik



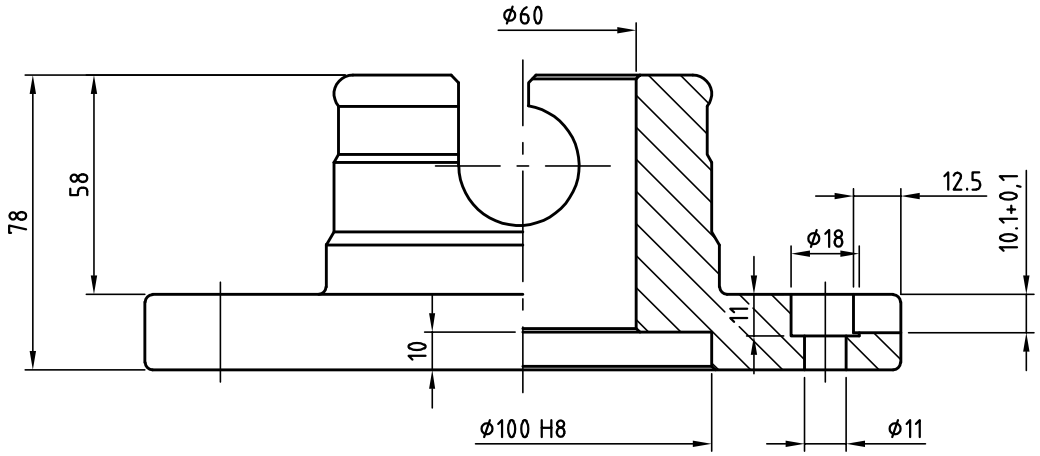


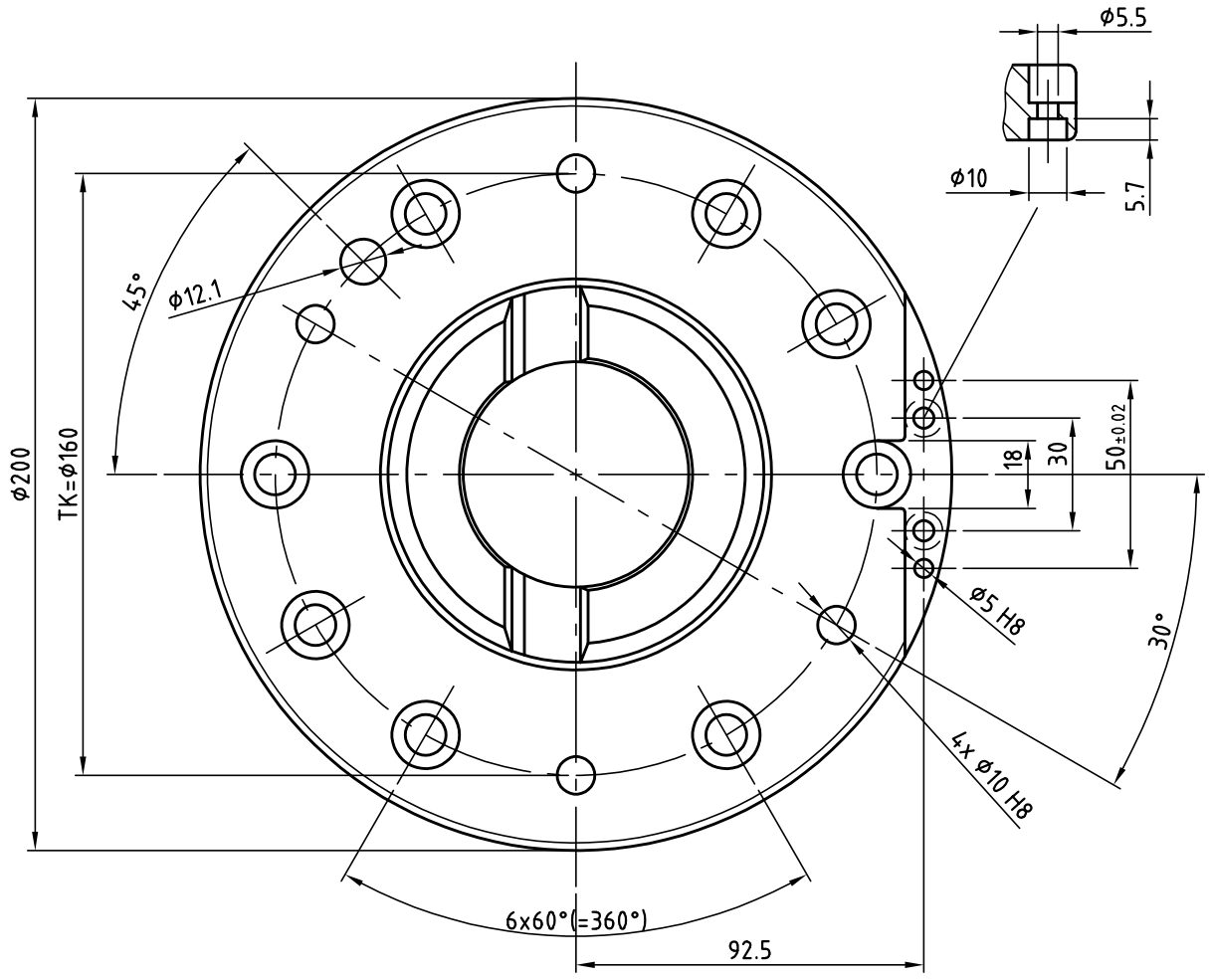
Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

G-SWS200-20EN

GRIP GmbH Handhabungstechnik



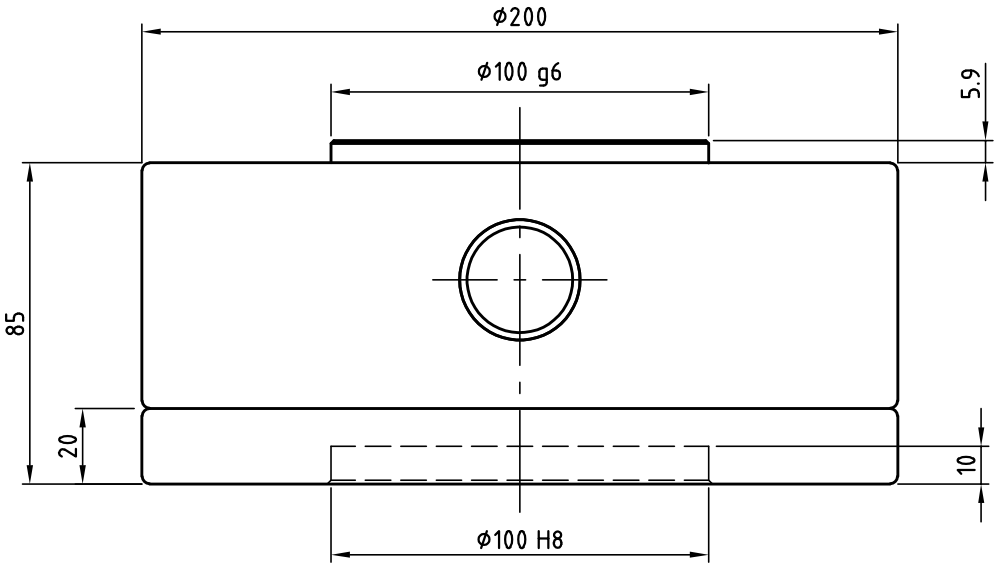


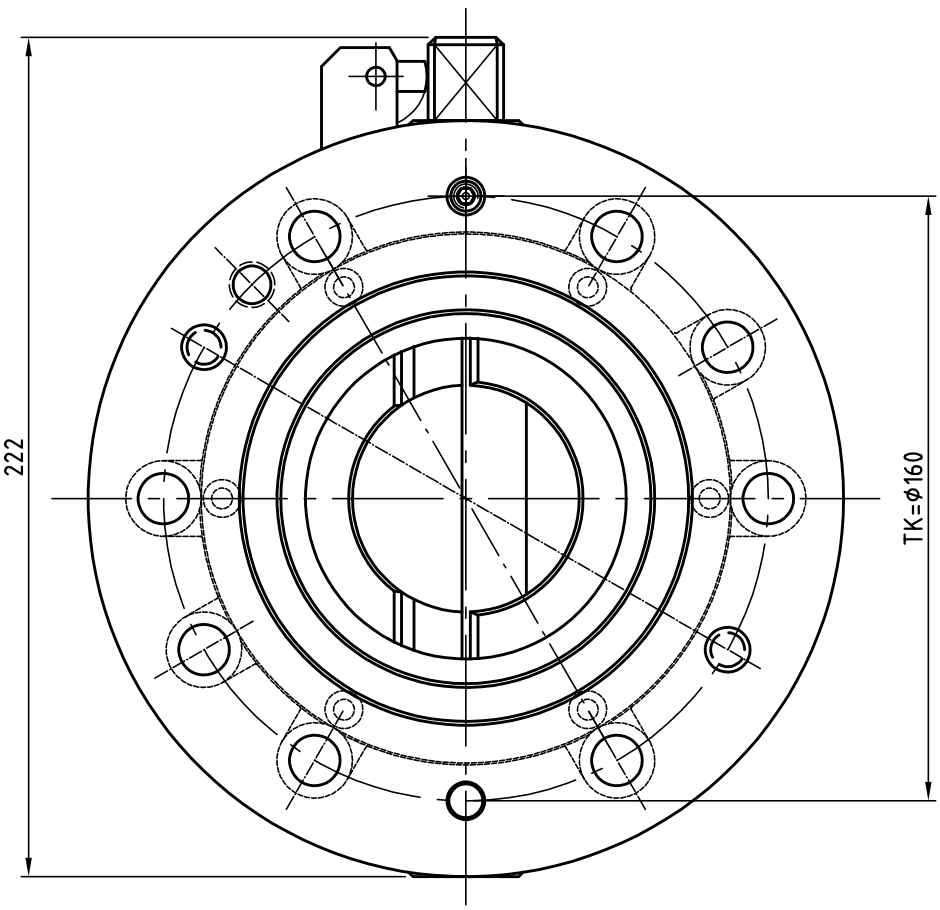
Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

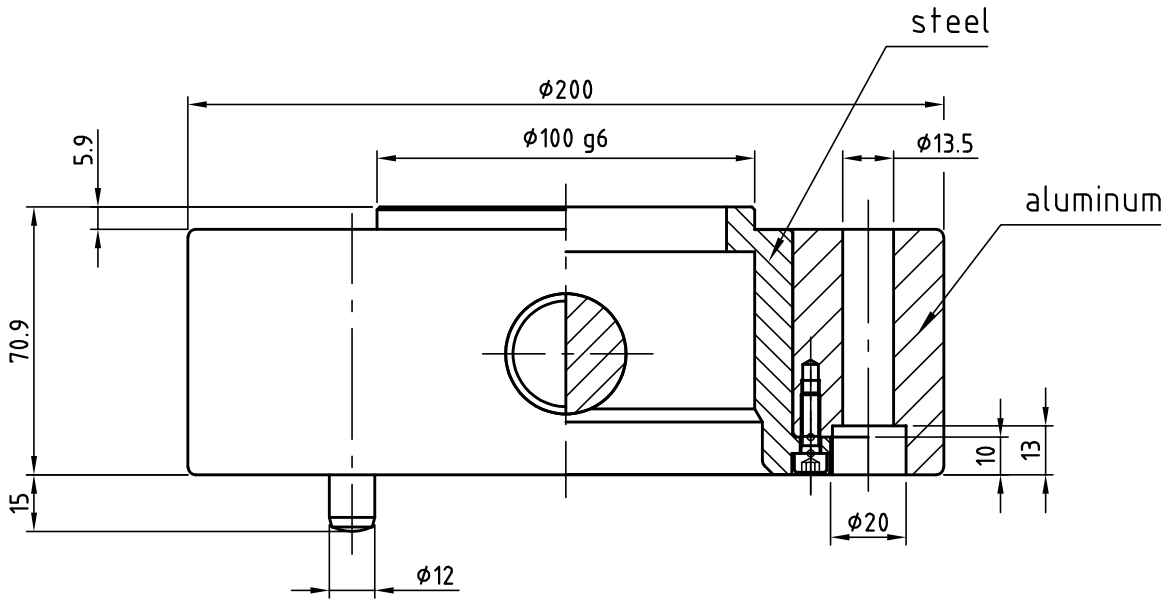
G-SWS200-2UEN

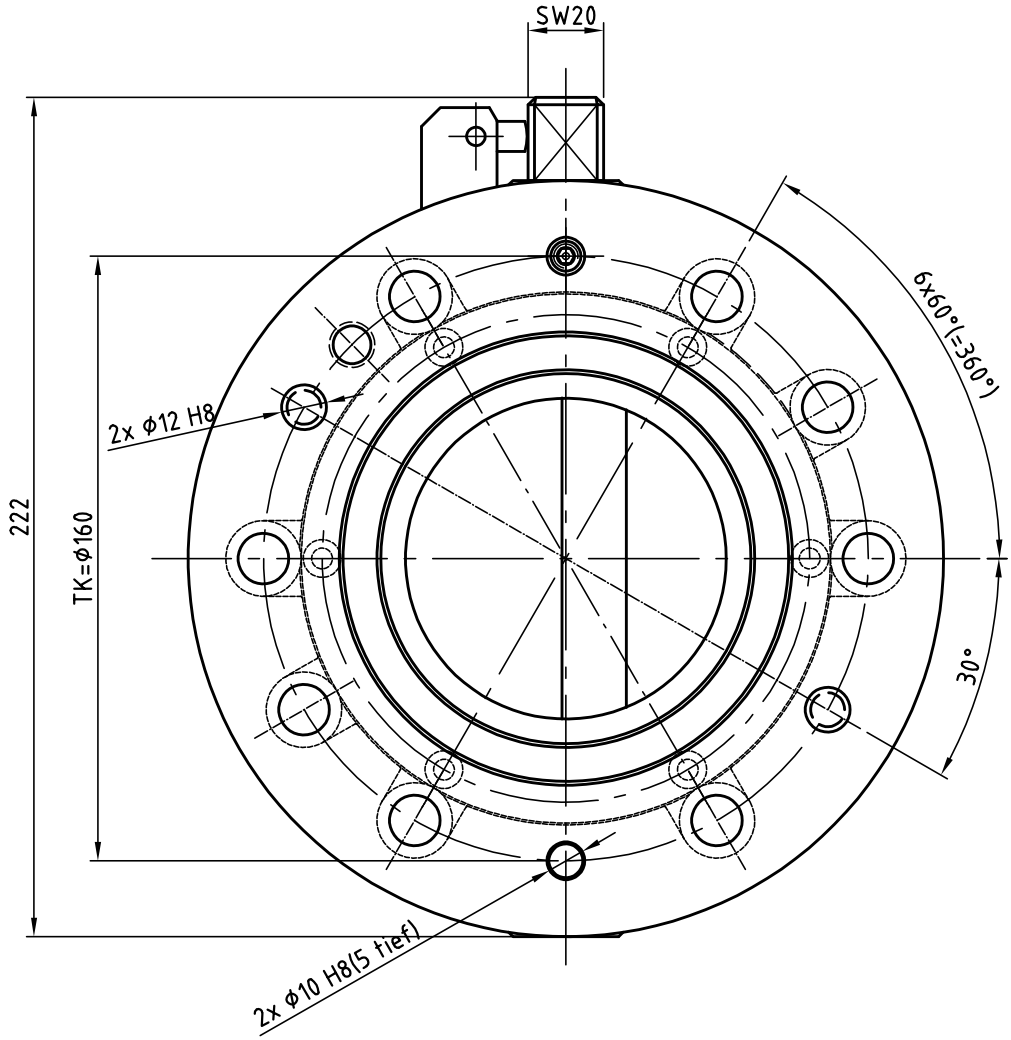
GRIP GmbH Handhabungstechnik





Datum 10.11.2016	Maßstab 1:2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS200-2Z-M12			



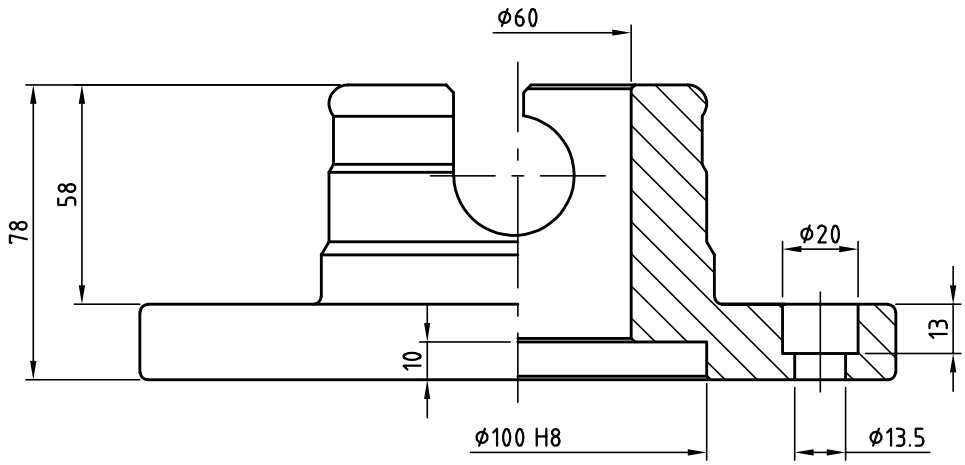


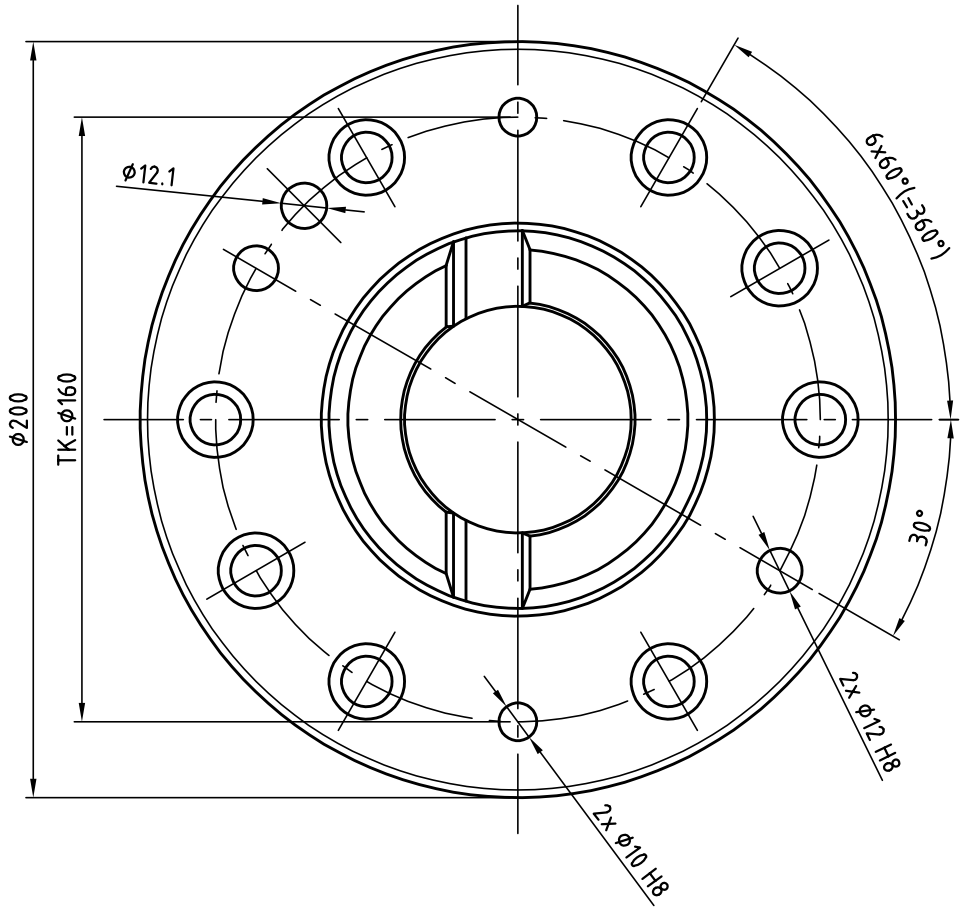
Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

G-SWS200-20-N-M12

GRIP GmbH Handhabungstechnik



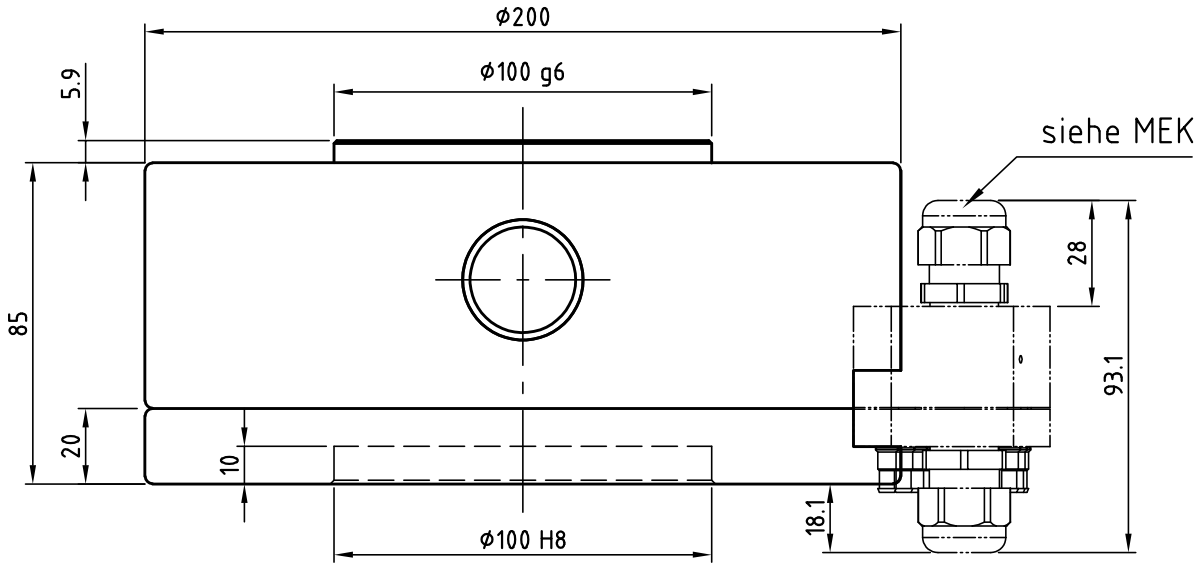


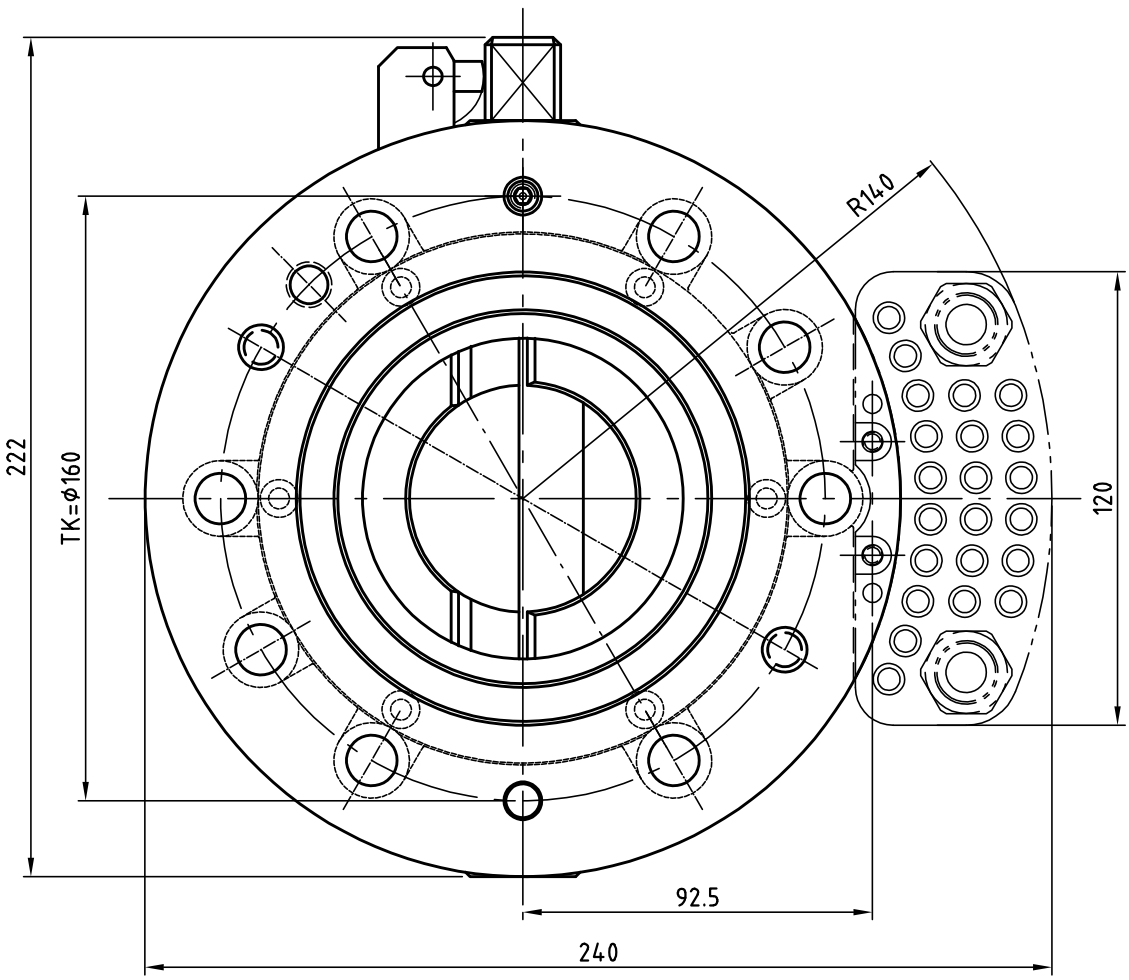
Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

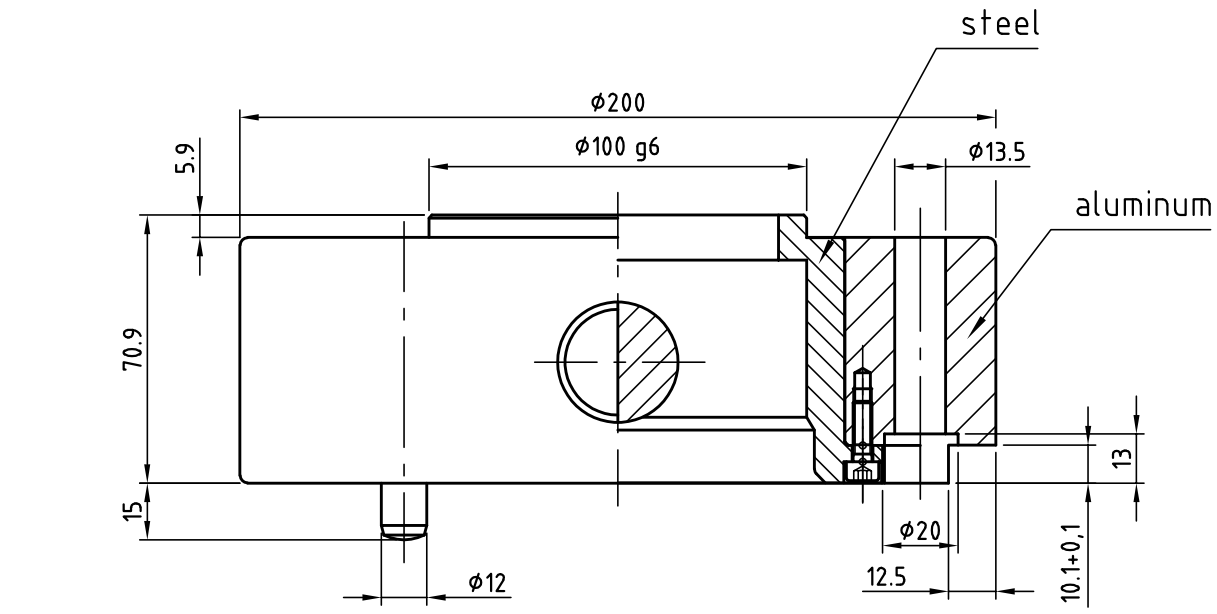
G-SWS200-2U-N-M12

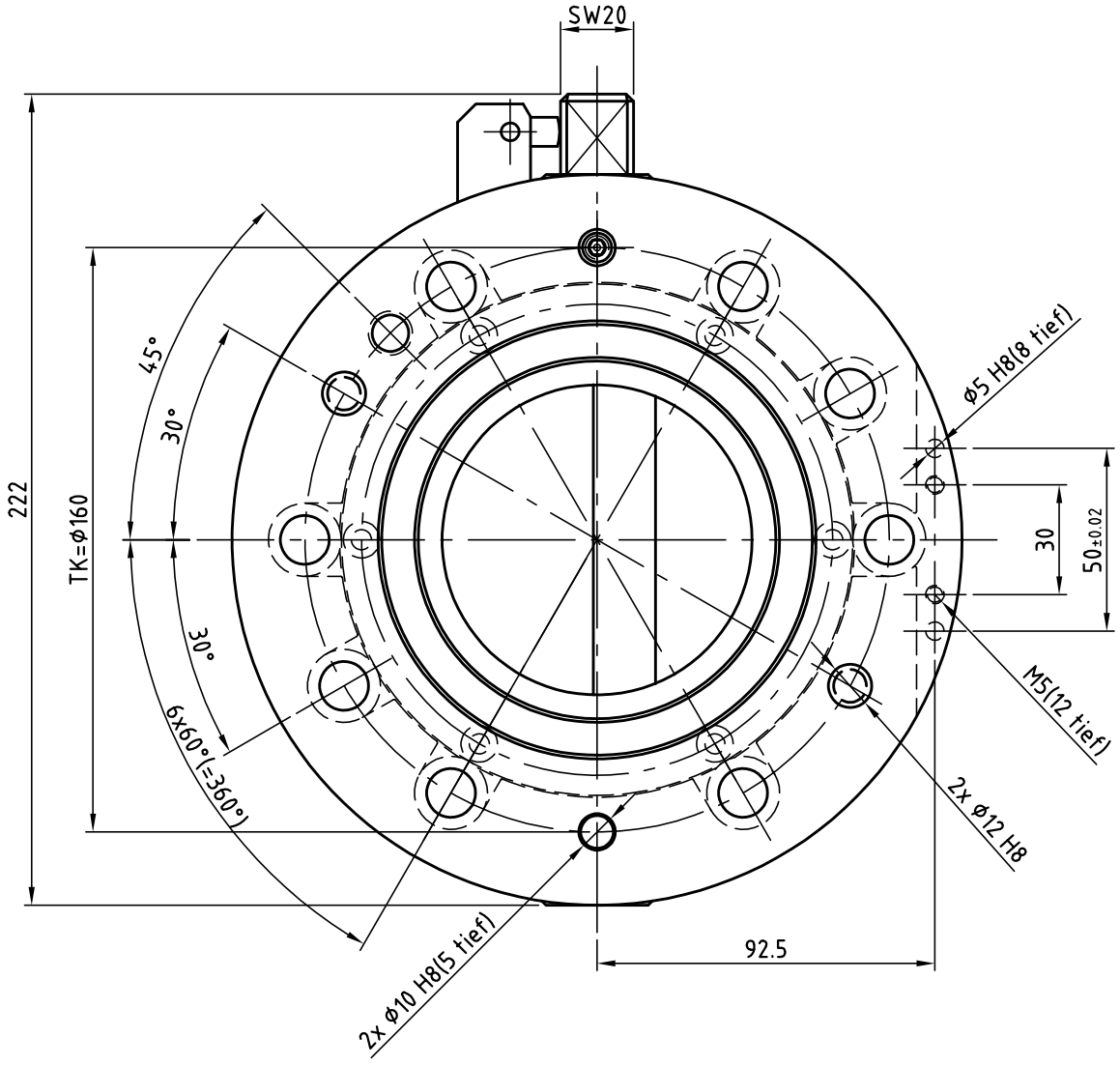
GRIP GmbH Handhabungstechnik



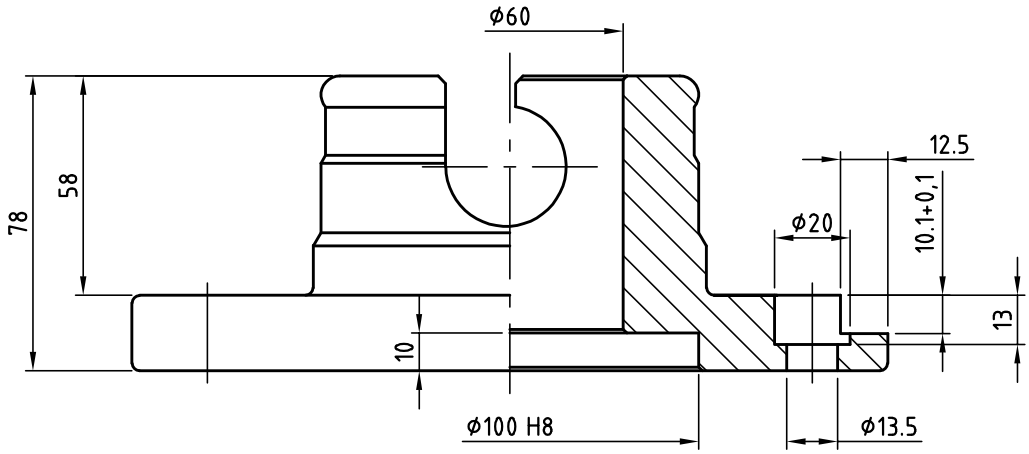


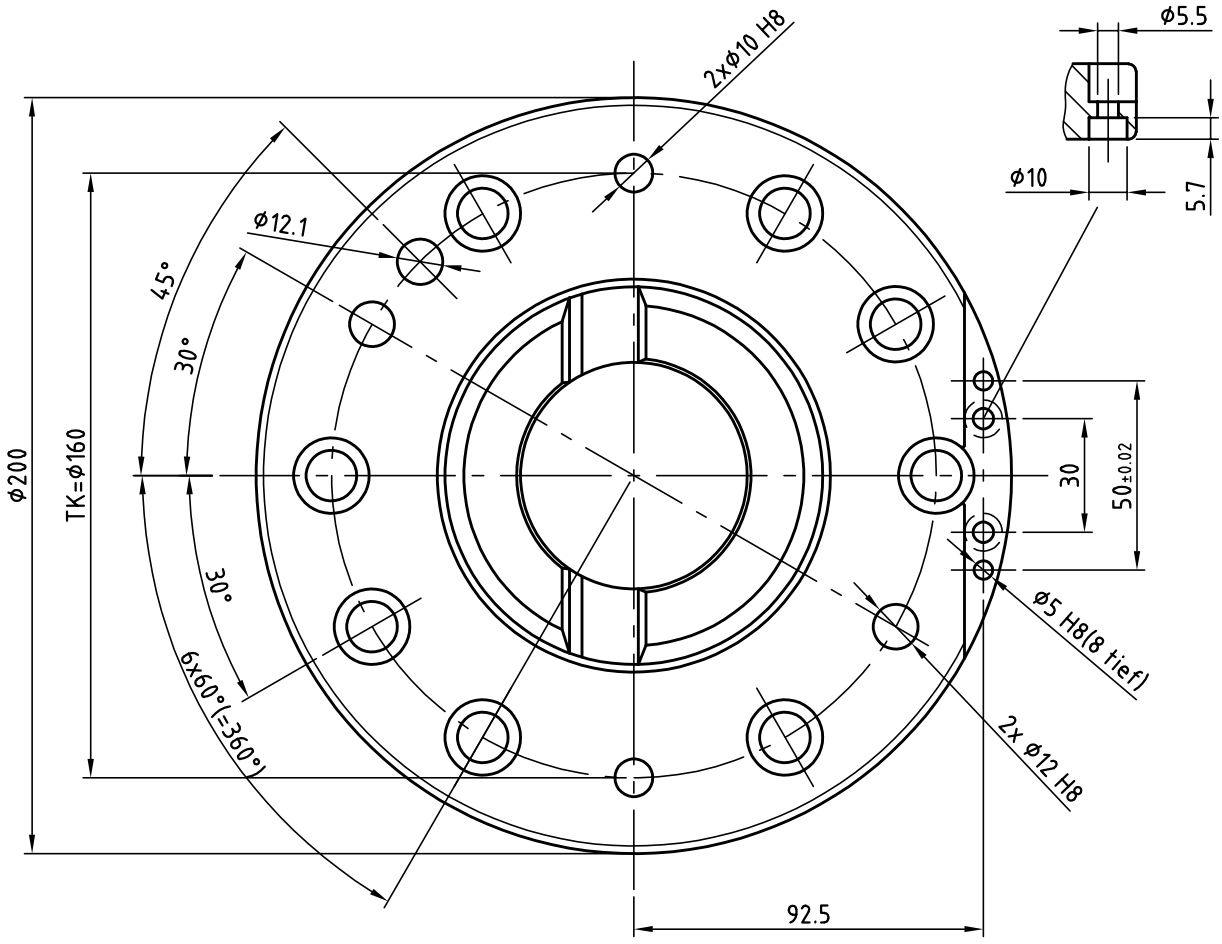
Datum 10.11.2016	Maßstab 1:2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS200-2ZE-M12			





Datum 10.11.2016	Maßstab 1:2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS200-20EN-M12			



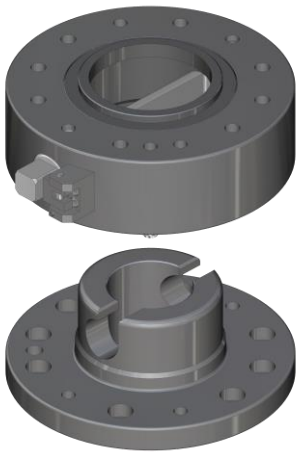


Datum 10.11.2016	Maßstab 1:2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS200-2UEN-M12			

G-SWS250

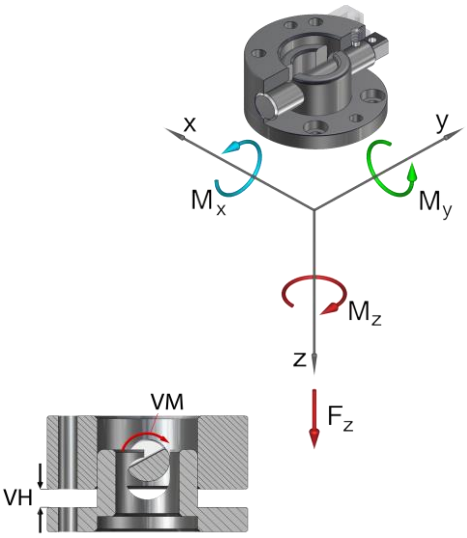
Technical specifications

Operating mode:
By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Cost-effective alternative to the MGW
Without hand lever, thereby low interference contours
High repeat accuracy +/- 0,02 mm
Optional connection of a power coupling MEK for electrical and pneumatical ducts
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1
Low dead weight due to the combination of steel and aluminum



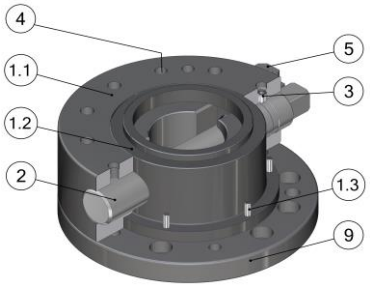
Technical specifications		SWS250
Basic material		steel, nitrated + Al
External diameter x Height [mm]		250 x 104
Pitch circle diameter [mm]		200
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		18.500
Compression -Fz [kN]		1.950
Torsion Mz [Nm]		1.600
Bending Mx, My [Nm]		1.800
Mass [kg]	upper assembly	11,6
	lower assembly	12,2
Recommended load [kg] *		200
Locking moment VM [Nm]		6 - 40
Locking stroke VH [mm]		0 - 10
Operating temperature range [°C]		-30 to +120

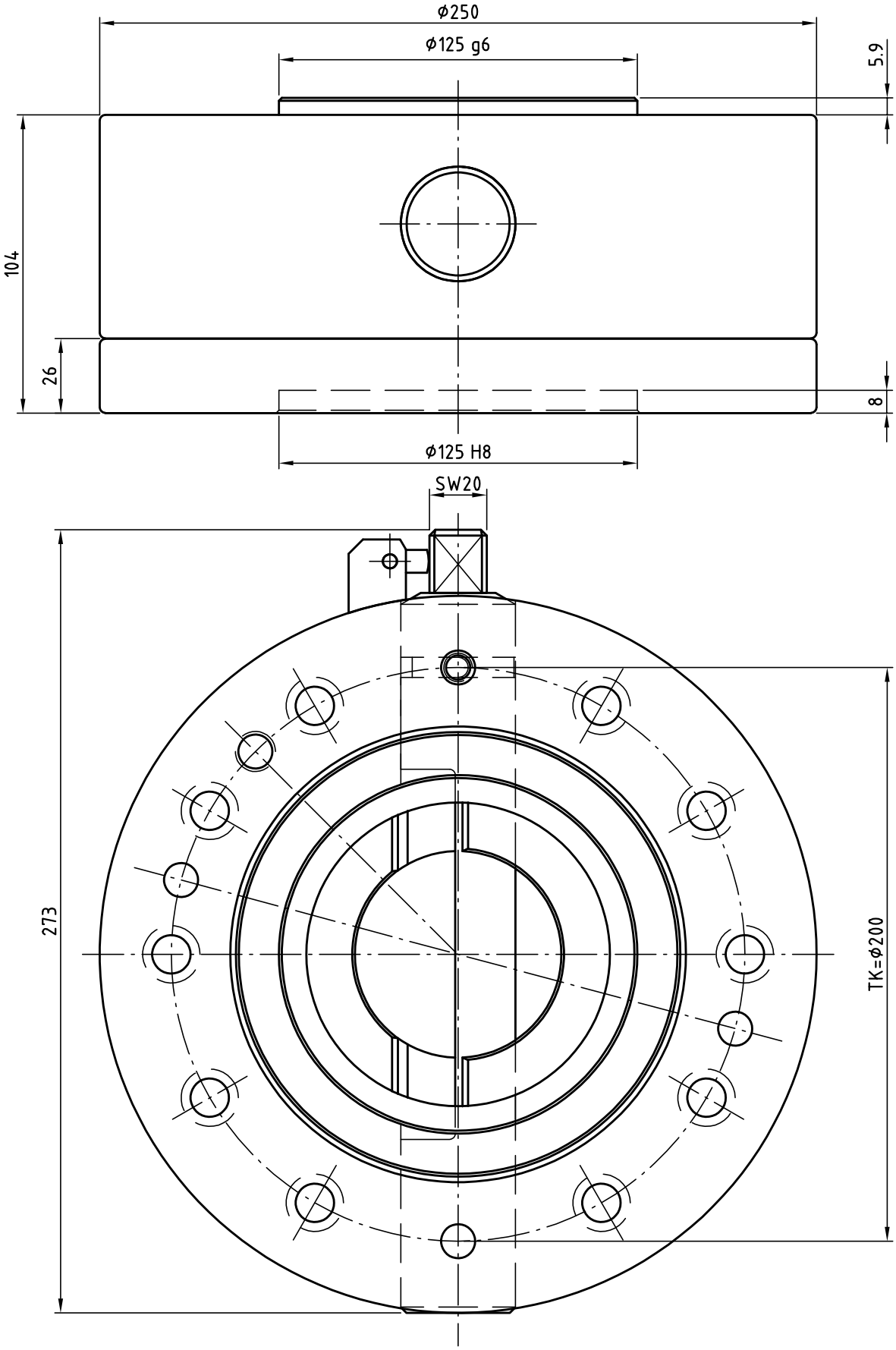
* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 250 mm, 1,5 times safety



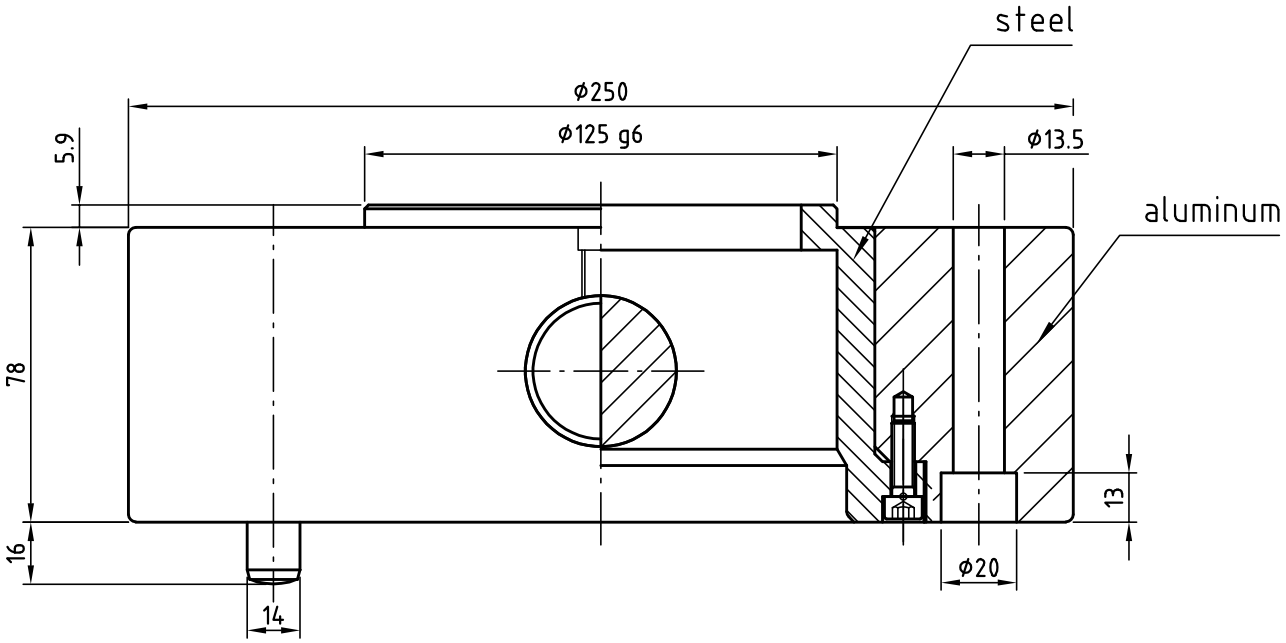
Quick change system Ø250… drilled according to ISO, steel, nitrated…	
G-SWS250-2OEN	upper assembly, E-Mounting, with anti-rotation-protection, - pre-centring
G-SWS250-2O-N	upper assembly, with anti-rotation-protection
G-SWS250-2UEN	lower assembly, E-Mounting, with pre-centring
G-SWS250-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt…	
EG-SWS250-HB	for SWS250
Replacement semi-cylindrical bolt safety…	
EG-SWS250-HB	for SWS250
Square socket key…	
ZG-VKS160-SW20	for SW 20

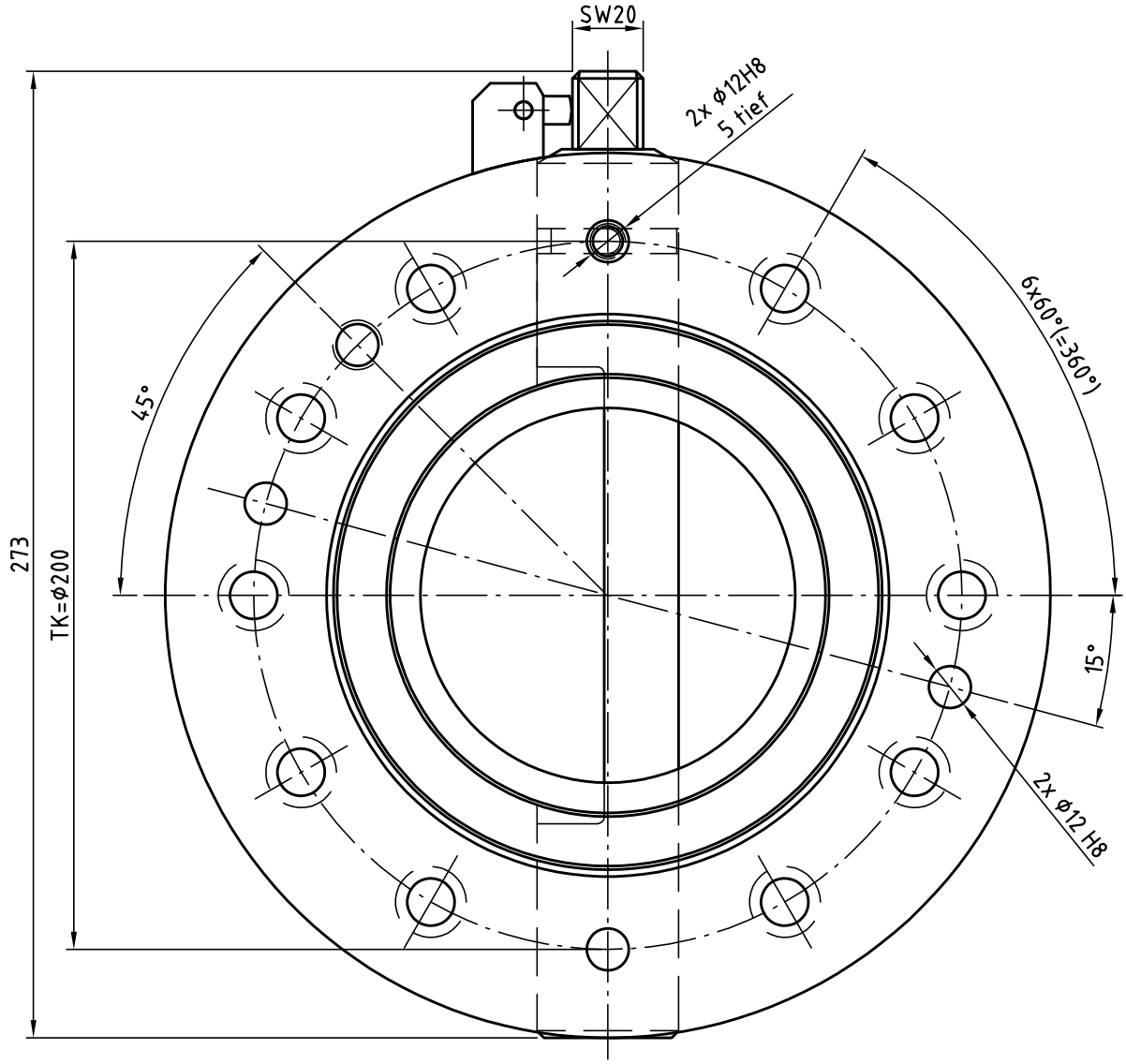
Pos.	Description
1.1	Upper assembly ring (Al)
1.2	Upper assembly hull (st)
1.3	Screw
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock
9	Lower assembly



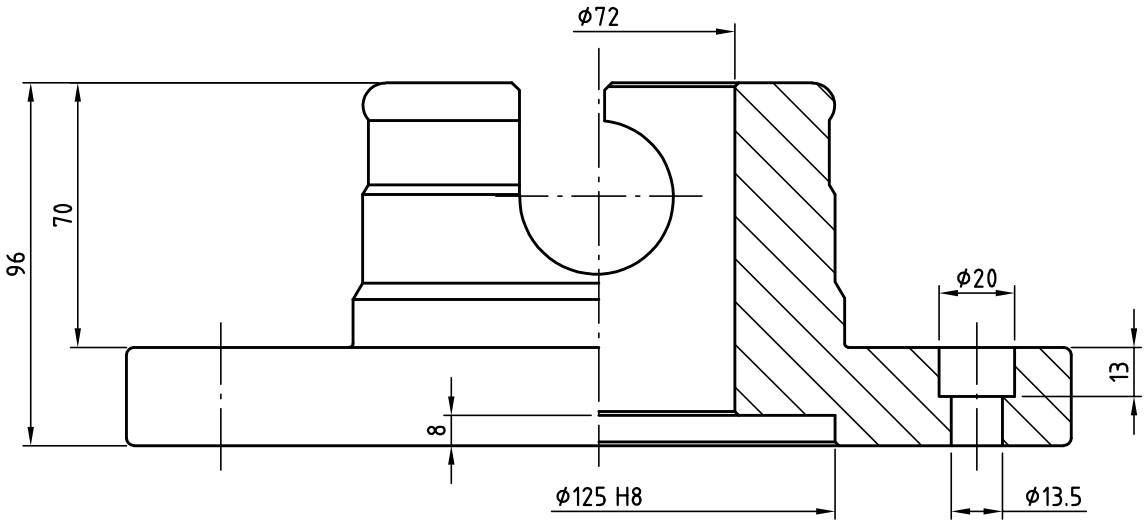


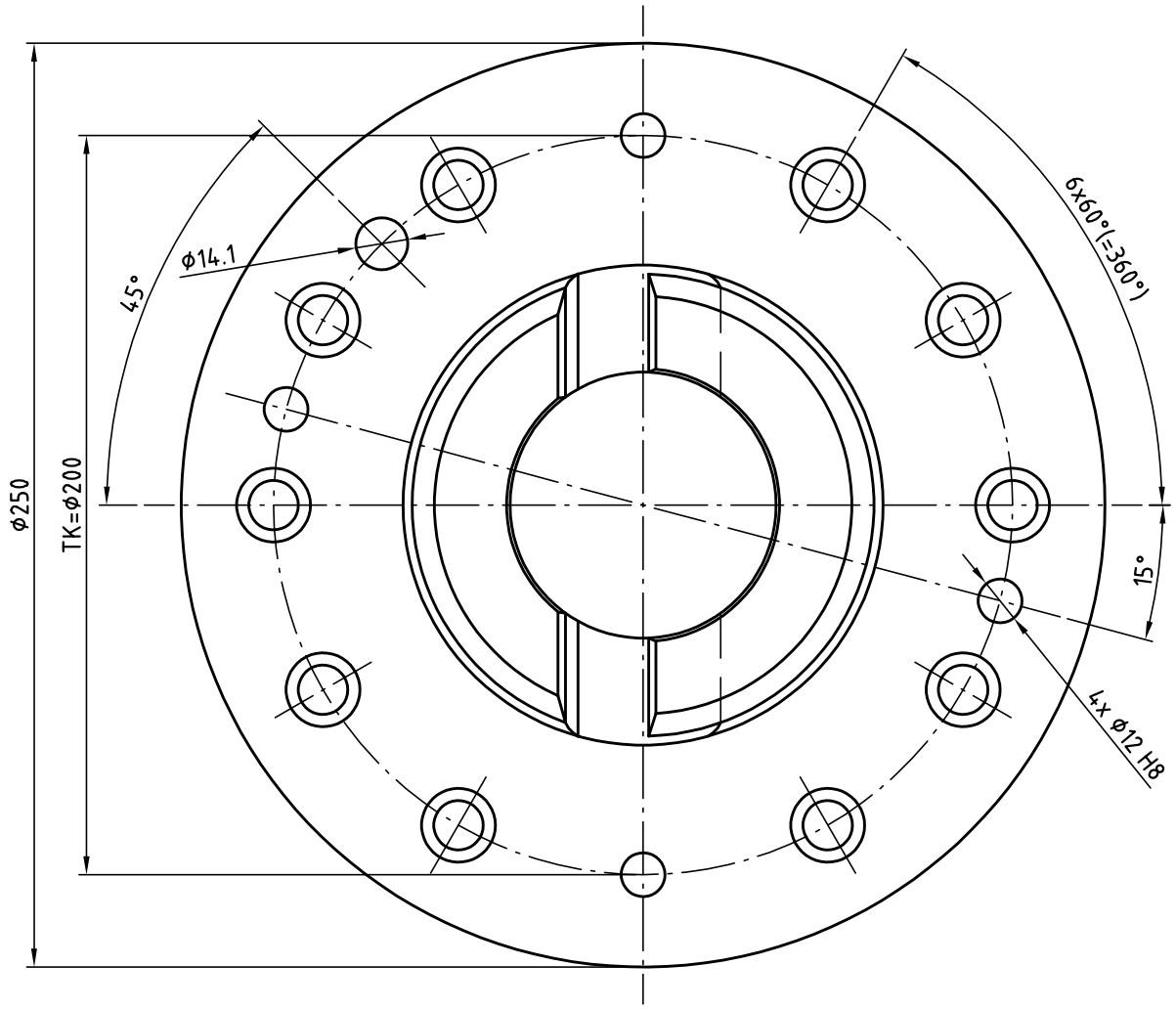
Datum 10.11.2016	Maßstab 1:2		
Zeichnungsnummer G-SWS250-2Z			GRIP GmbH Handhabungstechnik



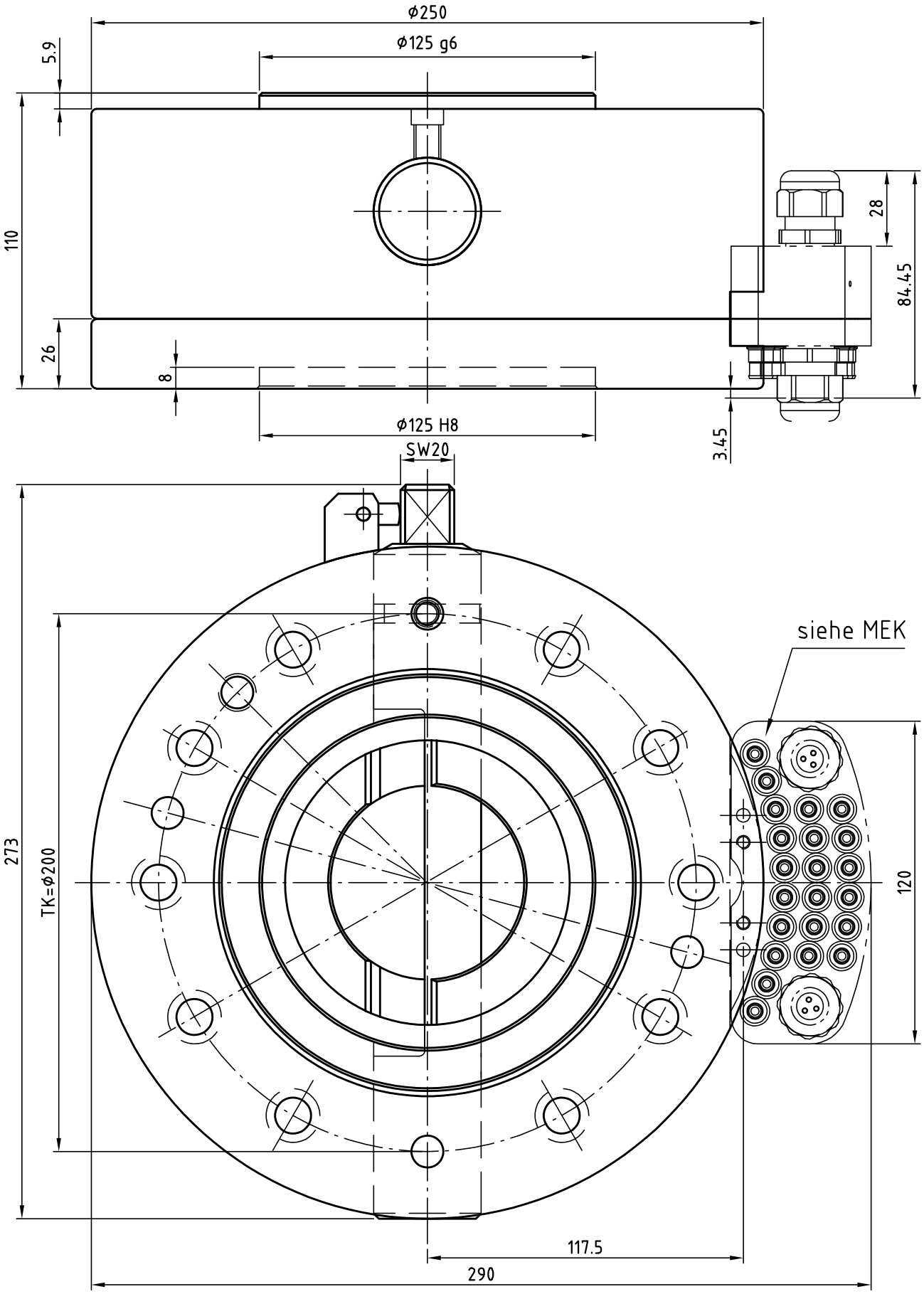


Datum 10.11.2016	Maßstab 1:2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS250-20-N			





Datum 10.11.2016	Maßstab 1:2		
Zeichnungsnummer G-SWS250-2U-N			GRIP GmbH Handhabungstechnik

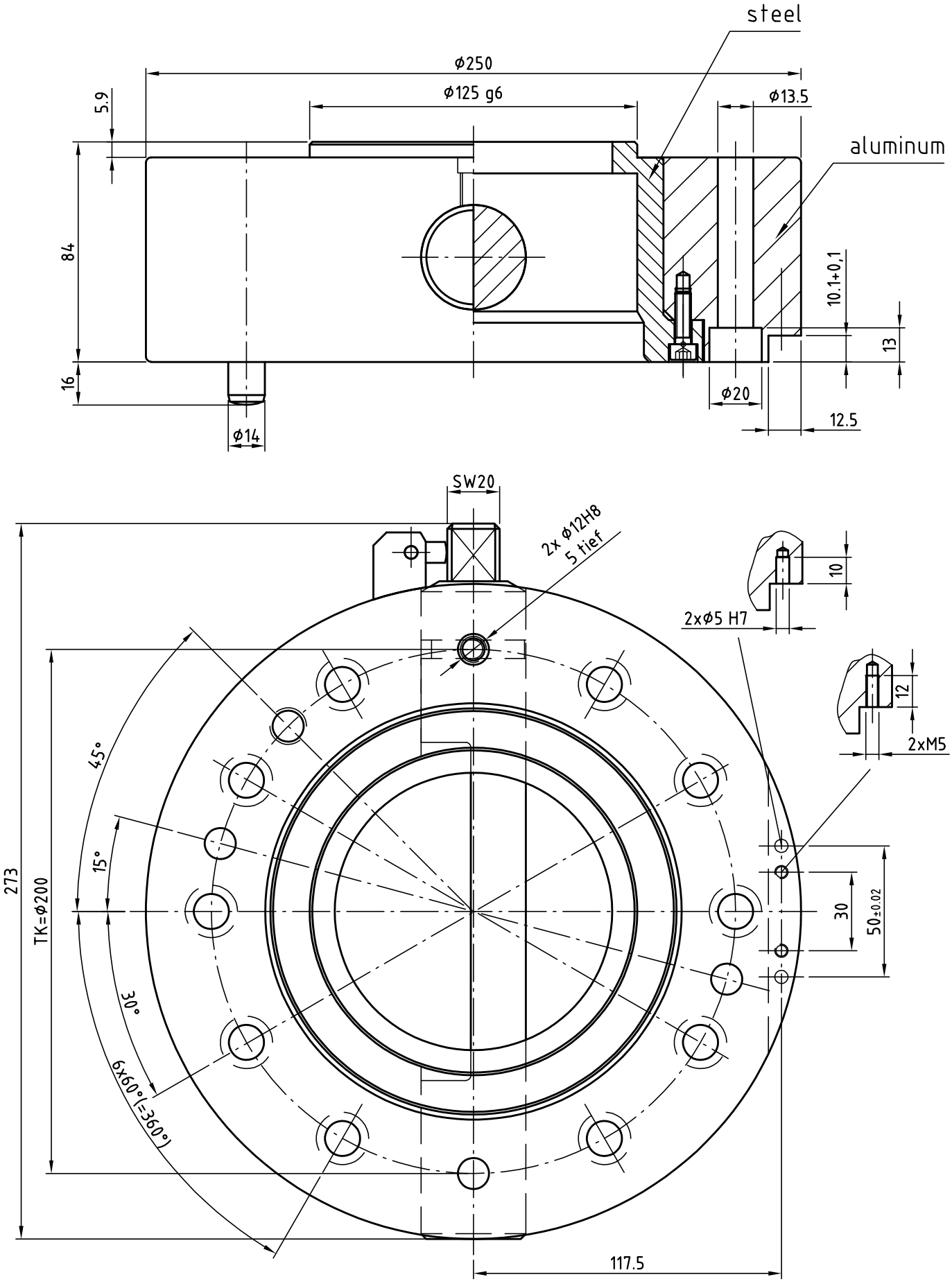


Datum	Maßstab	
10.11.2016	1:2	

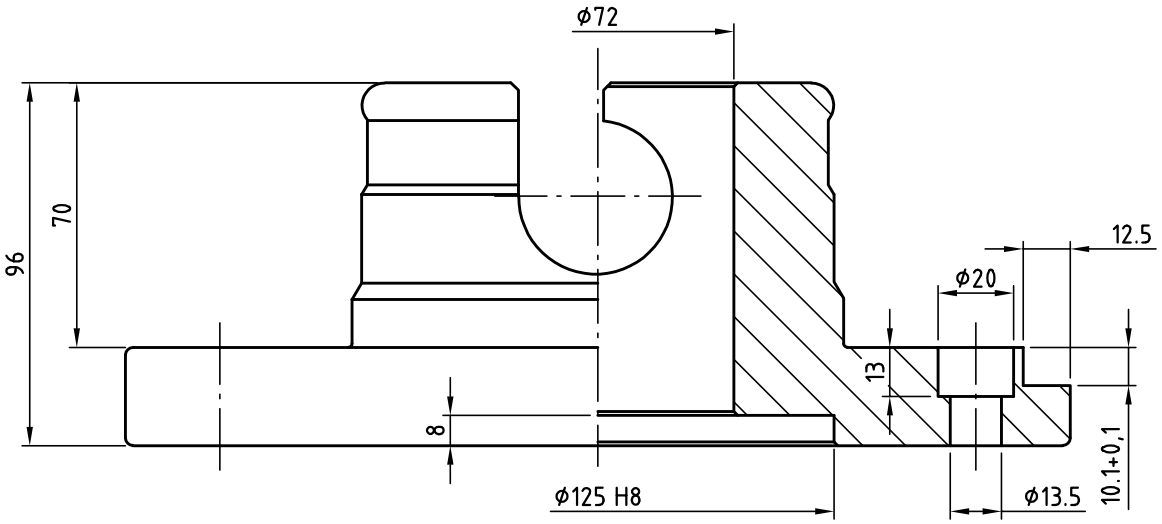
Zeichnungsnummer

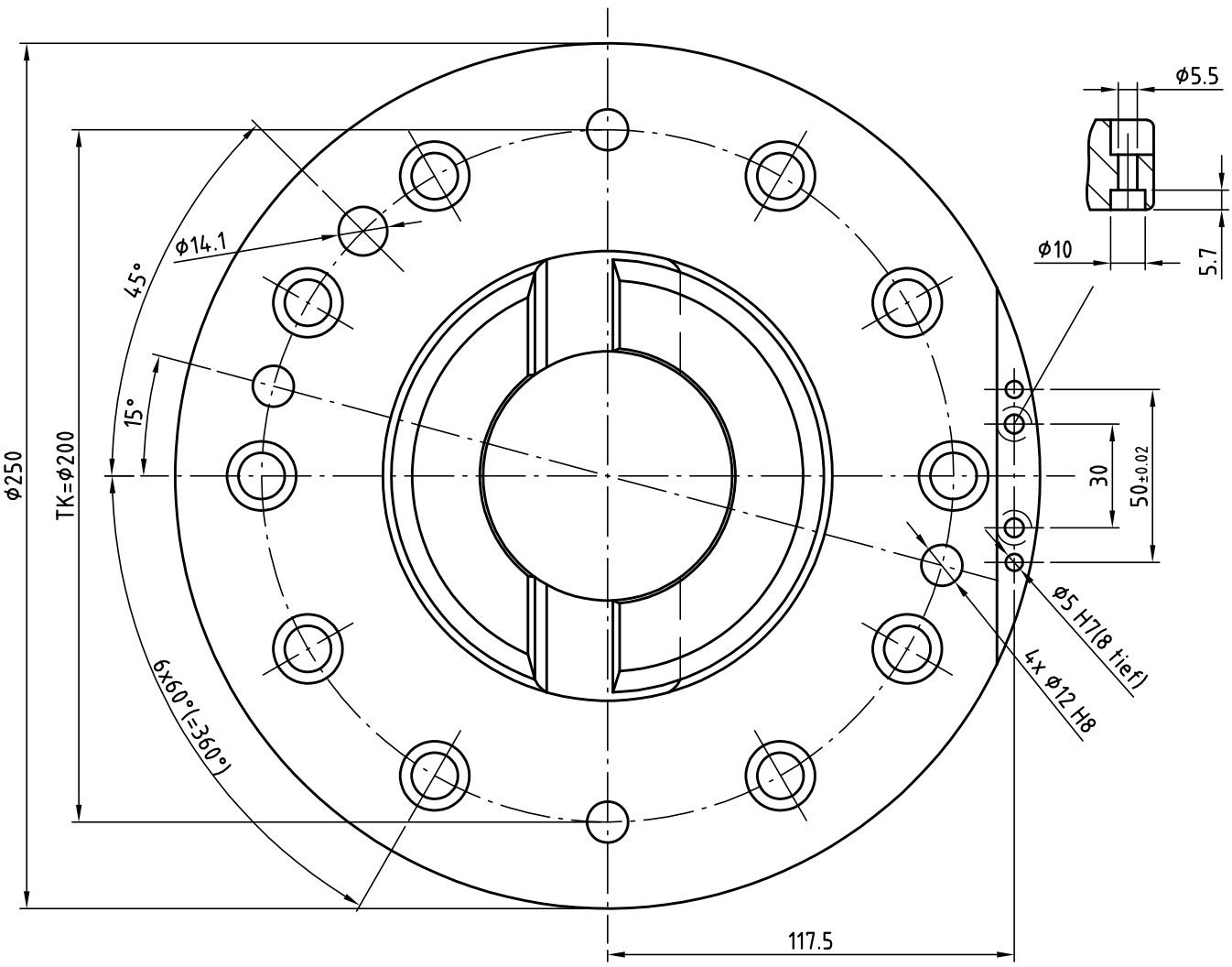
G-SWS250-2ZE

GRIP GmbH Handhabungstechnik



Datum 10.11.2016	Maßstab 1:2		
Zeichnungsnummer G-SWS250-20EN			GRIP GmbH Handhabungstechnik





Datum 10.11.2016	Maßstab 1:2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWS250-2UEN			

SWA CONNECTOR

The SWA Connector has a very low profile for end of arm tool applications with very little space. The transverse screw clamps the upper and lower assembly of the SWA with two wedge–shaped locking flanges, creating a form-fit without any play.

SWA Connector Advantages:

- Extremely low profile
- Easy to use
- Low weight, made of high-strength aluminum, anodized
- Available in steel, optionally nitrated
- High repeatability < 0.02 mm
- Durable - over 10.000 application changes with no loss in accuracy
- Interface according to DIN EN ISO 9409–1

SWA Connectors can be modified to meet your needs. Please inquire about special applications.

SIZES

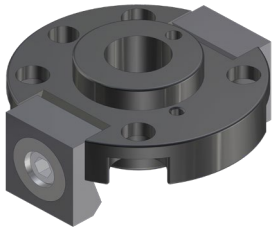
SWA050
SWA063
SWA080
SWA100
SWA125
SWA160

G-SWA050

Technical specifications

Operating mode:
By turning the axis, the upper (1) and the lower assembly (2) are locked.
The wedge-shaped flanges brace the system in a form-closed manner.

Advantages:
Reduced height to a minimum
Very low interference contours
High repeat accuracy +/- 0,02 mm
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1

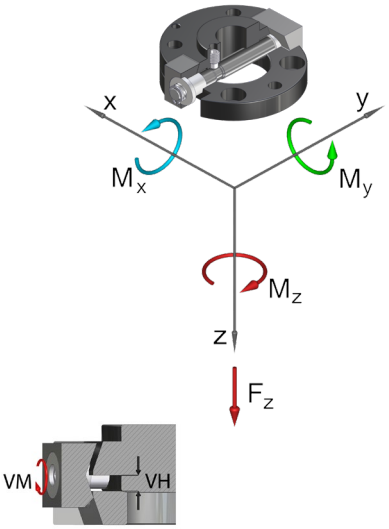


1

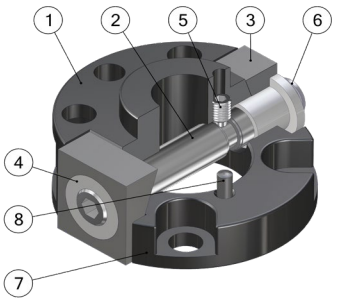
2

Technical specifications		SWA050	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		50 x 20	
Pitch circle diameter [mm]		40	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		800	920
Compression -Fz [kN]		48	96
Torsion Mz [Nm]		60	70
Bending Mx [Nm]		60	70
Bending My [Nm]		40	48
Mass [kg]	Upper assembly	0,11	0,2
	Lower assembly	0,03	0,1
Recommended load [kg] *		8	9
Locking torque VM [Nm]		16	
Locking stroke VH [mm]		0 - 6	
Operating temperature range [°C]		-30 to +120	

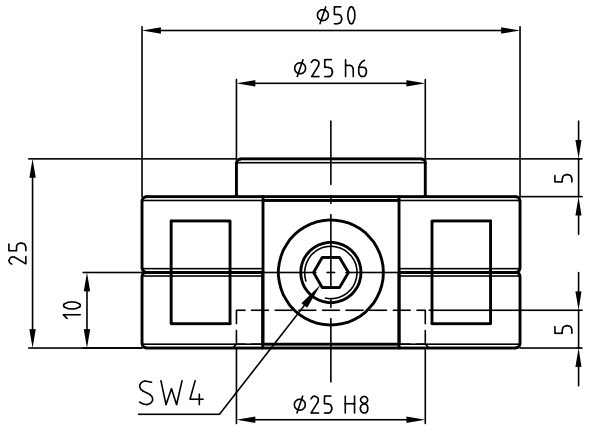
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

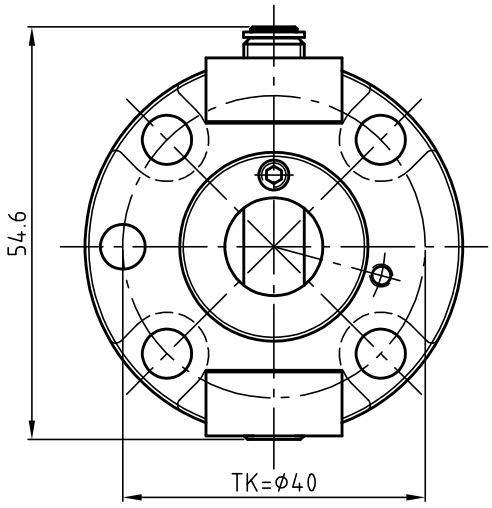


Quick change adapter Ø50, drilled according to ISO...	
G-SWA050-2O	upper assembly, Al, anodized
G-SWA050-2O-N	upper assembly, steel, nitrated
G-SWA050-2U	lower assembly, Al, anodized
G-SWA050-2U-N	lower assembly, steel, nitrated
Replacement axis...	
EG-SWA050-A	for SWA050

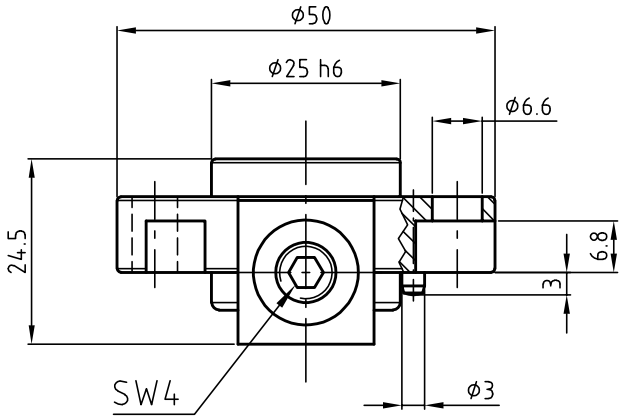


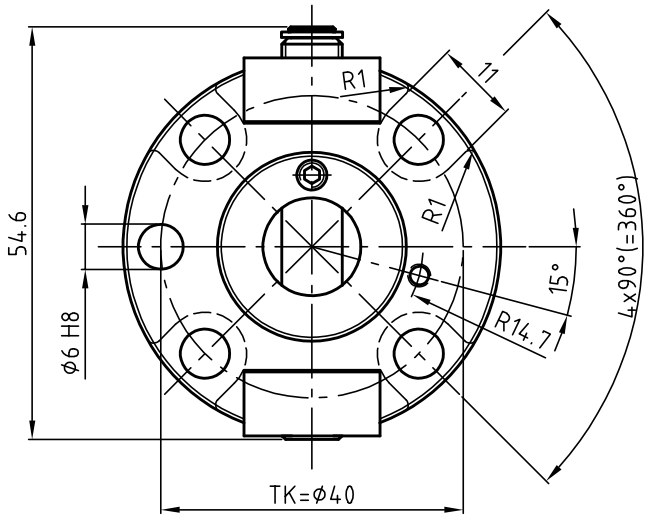
Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin





Datum 10.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWA050-2Z			





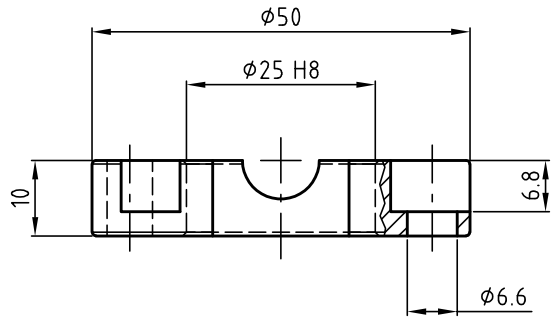
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-SWA050-20
Stahl	G-SWA050-20-S
St. nitriert	G-SWA050-20-N
VA	G-SWA050-20-V

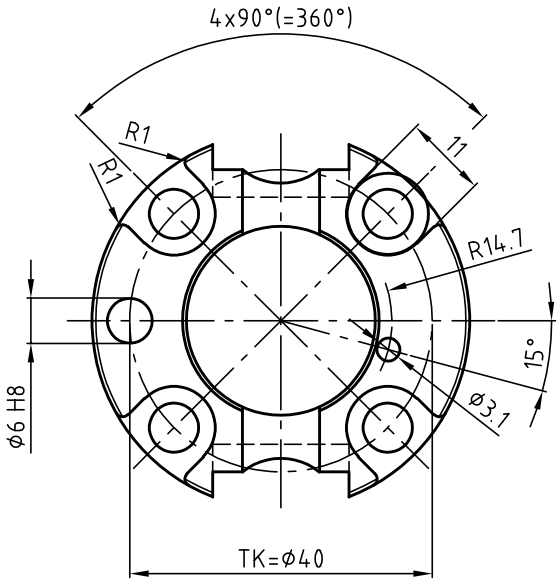
Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

G-SWA050-20

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-SWA050-2U
Stahl	G-SWA050-2U-S
St. nitriert	G-SWA050-2U-N
VA	G-SWA050-2U-V

Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

G-SWA050-2U

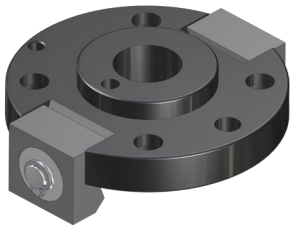
GRIP GmbH Handhabungstechnik

G-SWA063

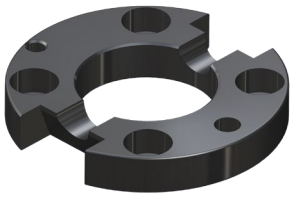
Technical specifications

Operating mode:
By turning the axis, the upper (1) and the lower assembly (2) are locked.
The wedge-shaped flanges brace the system in a form-closed manner.

Advantages:
Reduced height to a minimum
Very low interference contours
High repeat accuracy +/- 0,02 mm
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1



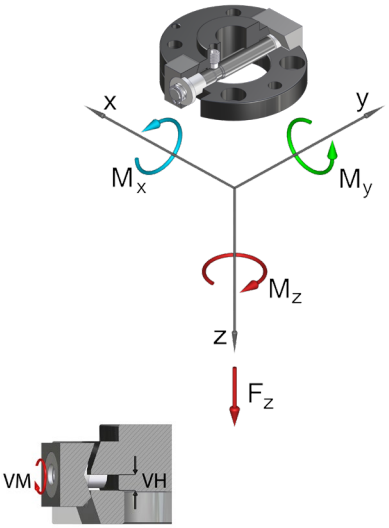
1



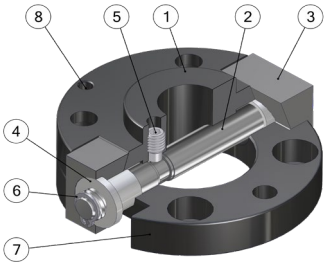
2

Technical specifications		SWA063	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		63 x 20	
Pitch circle diameter [mm]		50	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.000	1.150
Compression -Fz [kN]		89	178
Torsion Mz [Nm]		80	90
Bending Mx [Nm]		70	80
Bending My [Nm]		50	60
Mass [kg]	Upper assembly	0,16	0,35
	Lower assembly	0,05	0,15
Recommended load [kg] *		10	12
Locking torque VM [Nm]		16	
Locking stroke VH [mm]		0 - 6	
Operating temperature range [°C]		-30 to +120	

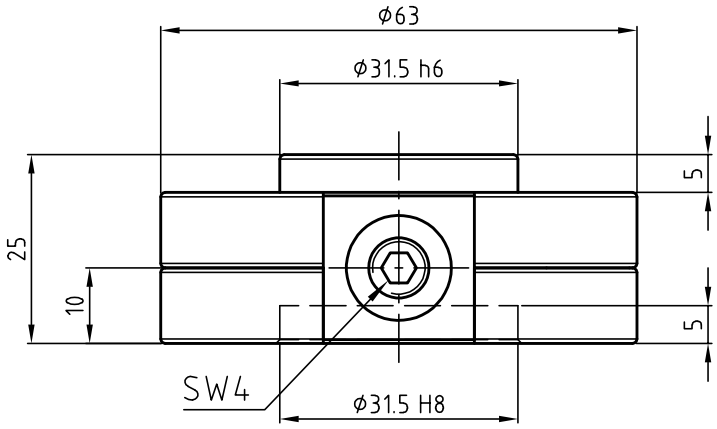
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

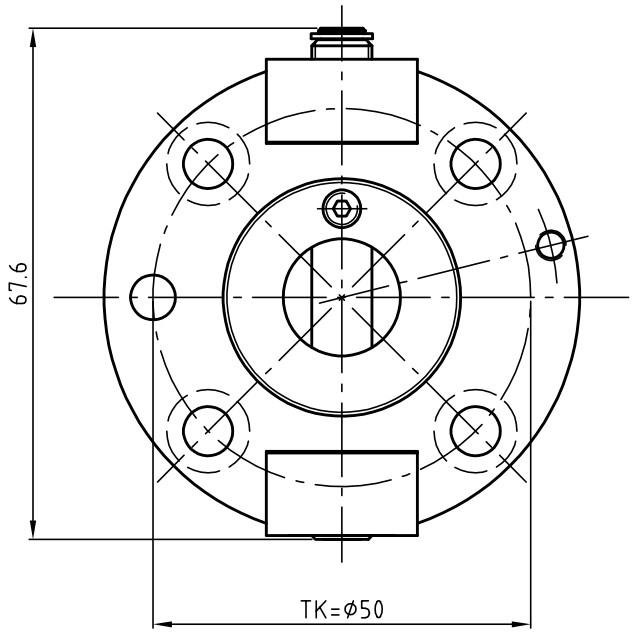


Quick change adapter Ø63, drilled according to ISO…	
G-SWA063-2O	upper assembly, Al, anodized
G-SWA063-2O-N	upper assembly, steel, nitrated
G-SWA063-2U	lower assembly, Al, anodized
G-SWA063-2U-N	lower assembly, steel, nitrated
Replacement axis…	
EG-SWA063-A	for SWA063

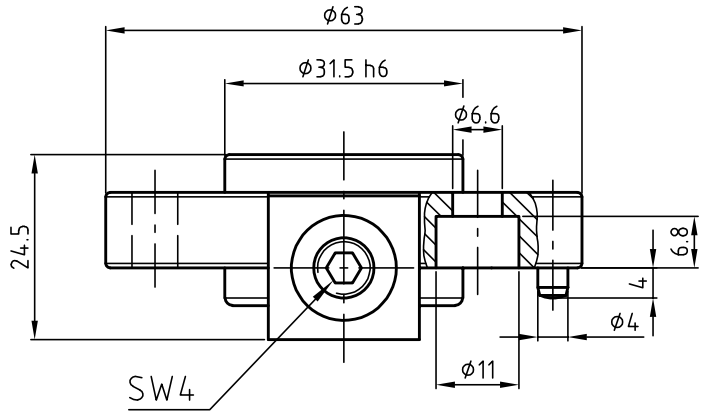


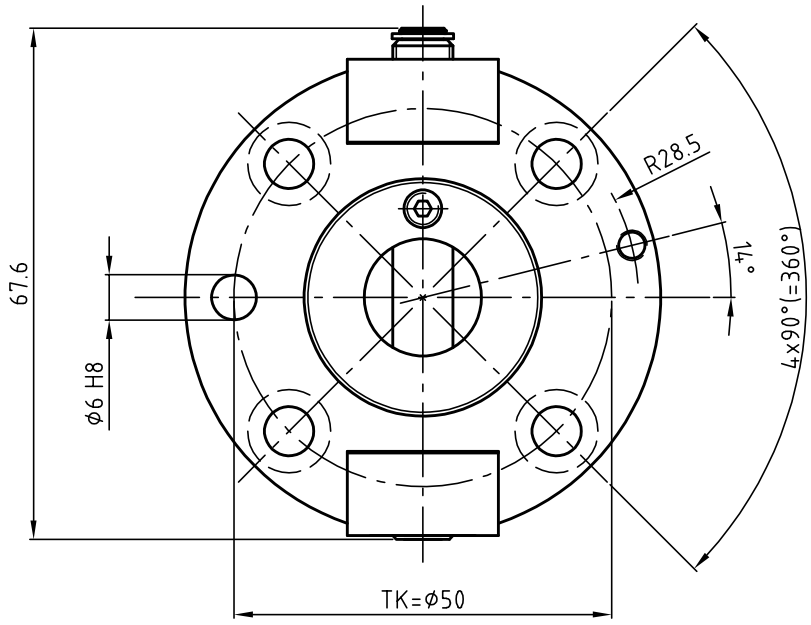
Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin





Datum 10.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWA063-2Z			





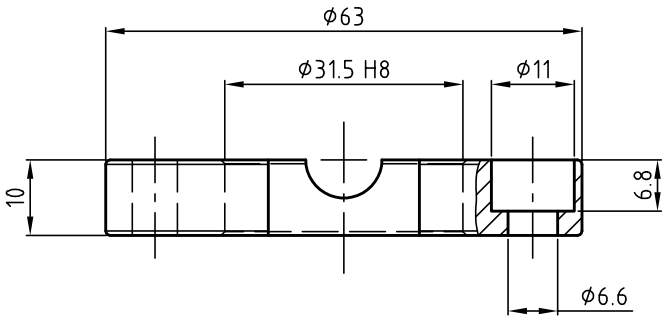
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-SWA063-20
Stahl	G-SWA063-20-S
St. nitriert	G-SWA063-20-N

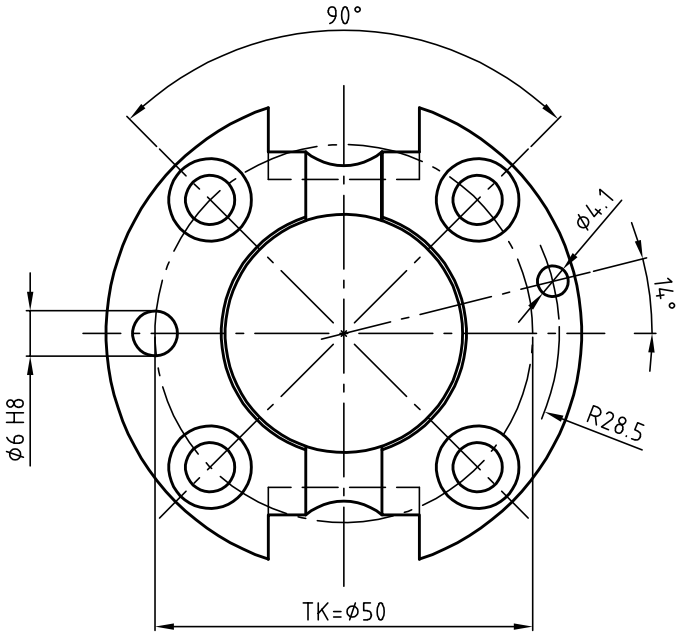
Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

G-SWA063-20

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-SWA063-2U
Stahl	G-SWA063-2U-S
St. nitriert	G-SWA063-2U-N

Datum	Maßstab
10.11.2016	1:1

Zeichnungsnummer

G-SWA063-2U

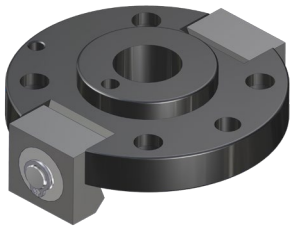
GRIP GmbH Handhabungstechnik

G-SWA080

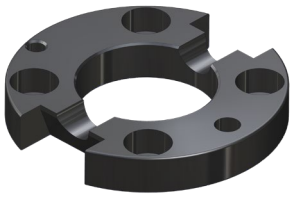
Technical specifications

Operating mode:
By turning the axis, the upper (1) and the lower assembly (2) are locked.
The wedge-shaped flanges brace the system in a form-closed manner.

Advantages:
Reduced height to a minimum
Very low interference contours
High repeat accuracy +/- 0,02 mm
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1



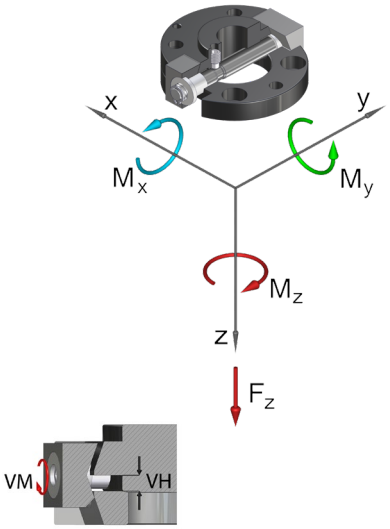
1



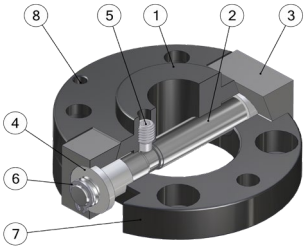
2

Technical specifications		SWA080	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		80 x 20	
Pitch circle diameter [mm]		63	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.200	1.400
Compression -Fz [kN]		157	313
Torsion Mz [Nm]		140	160
Bending Mx [Nm]		120	140
Bending My [Nm]		80	90
Mass [kg]	Upper assembly	0,25	0,5
	Lower assembly	0,1	0,25
Recommended load [kg] *		16	18
Locking torque VM [Nm]		16	
Locking stroke VH [mm]		0 - 6	
Operating temperature range [°C]		-30 to +120	

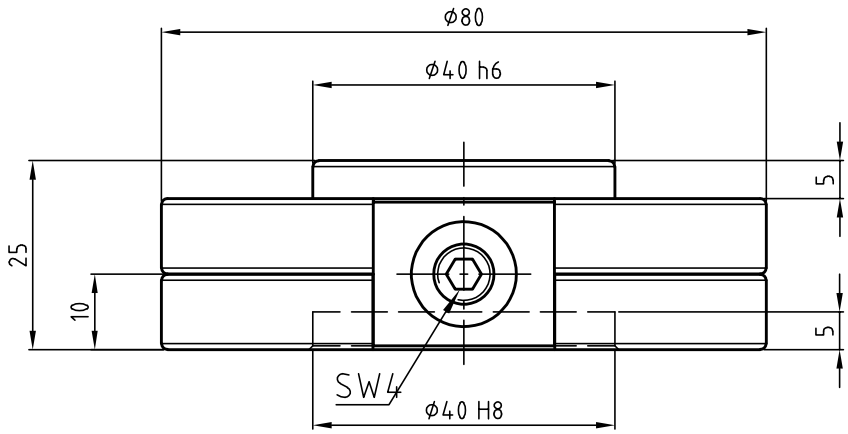
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

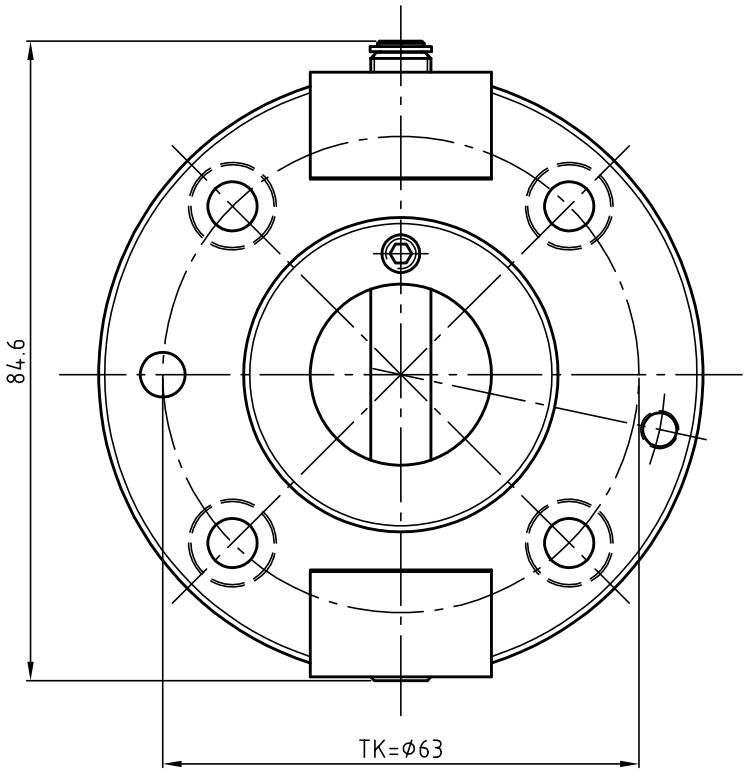


Quick change adapter Ø80, drilled according to ISO…	
G-SWA080-2O	upper assembly, Al, anodized
G-SWA080-2O-N	upper assembly, steel, nitrated
G-SWA080-2U	lower assembly, Al, anodized
G-SWA080-2U-N	lower assembly, steel, nitrated
Replacement axis…	
EG-SWA080-A	for SWA080

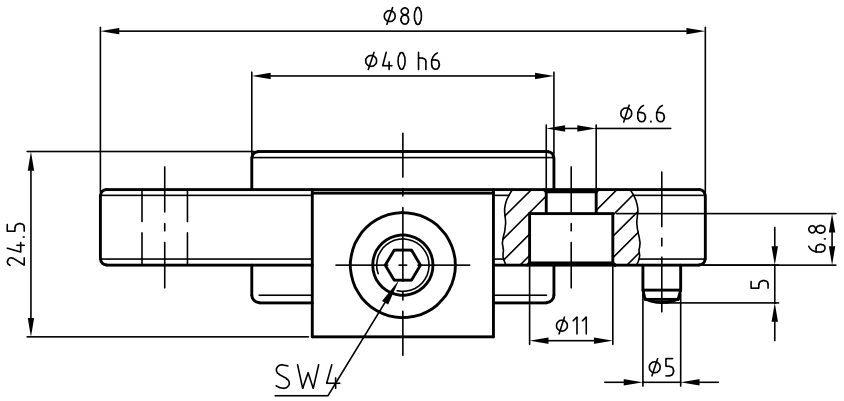


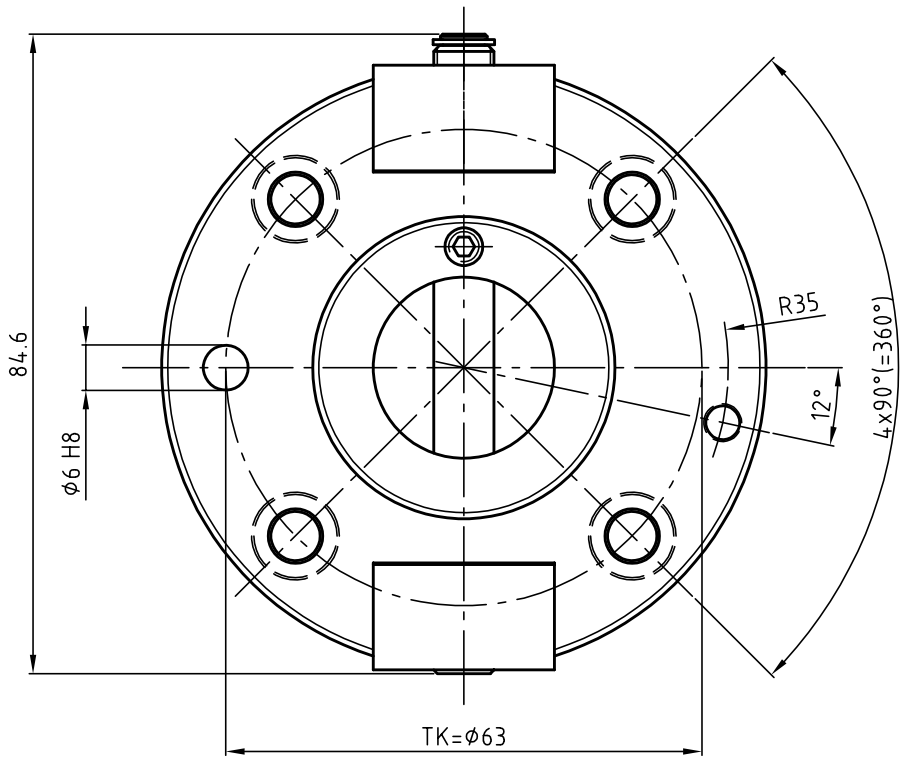
Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin





Datum 10.11.2016	Maßstab 1:1		
Zeichnungsnummer G-SWA080-2Z			GRIP GmbH Handhabungstechnik





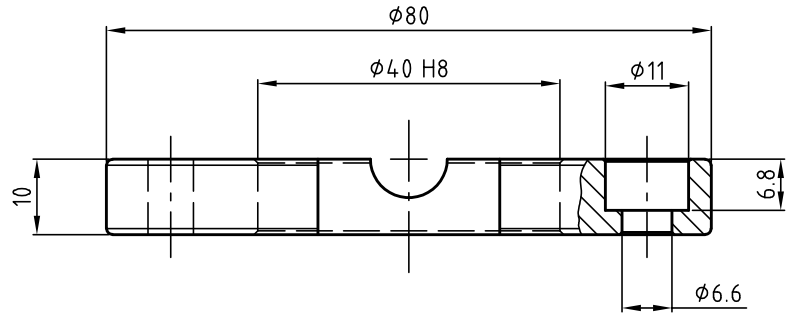
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-SWA080-20
Stahl	G-SWA080-20-S
St. nitriert	G-SWA080-20-N

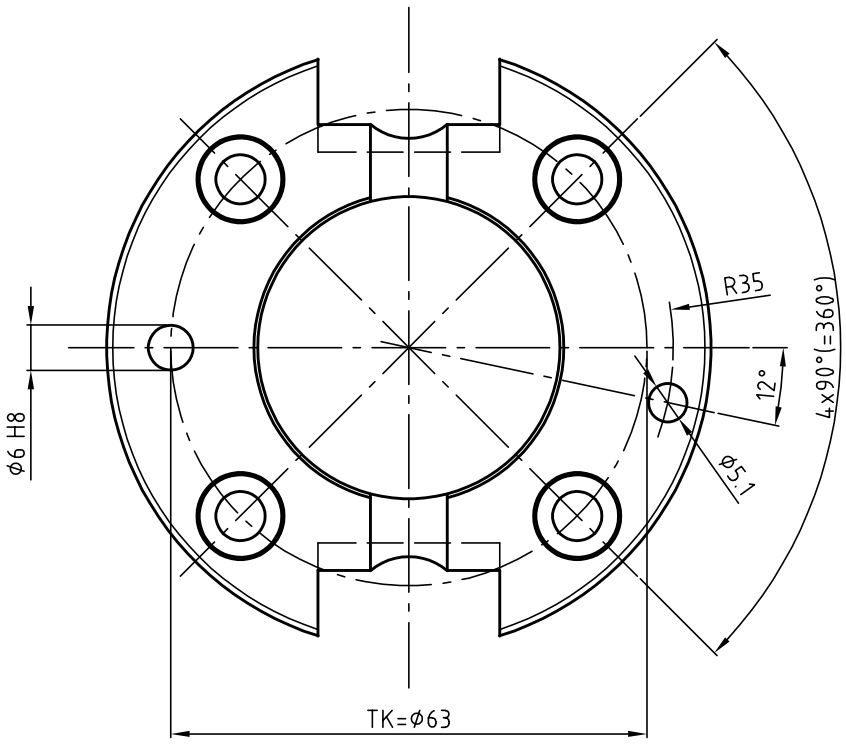
Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

G-SWA080-20

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-SWA080-2U
Stahl	G-SWA080-2U-S
St. nitriert	G-SWA080-2U-N

Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

G-SWA080-2U

GRIP GmbH Handhabungstechnik

G-SWA100

Technical specifications

Operating mode:
By turning the axis, the upper (1) and the lower assembly (2) are locked.
The wedge-shaped flanges brace the system in a form-closed manner.

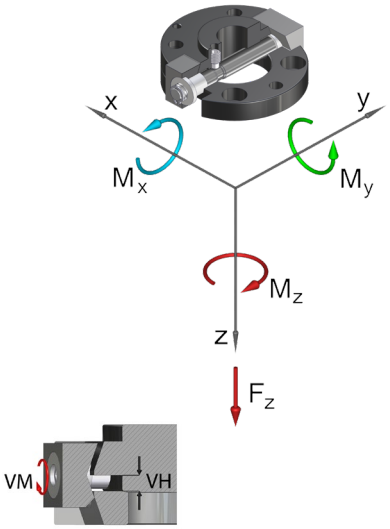
Advantages:
Reduced height to a minimum
Very low interference contours
High repeat accuracy +/- 0,02 mm
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1

1

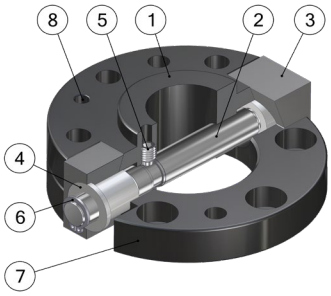
2

Technical specifications		SWA100	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		100 x 30	
Pitch circle diameter [mm]		80	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.500	1.700
Compression -Fz [kN]		219	439
Torsion Mz [Nm]		200	220
Bending Mx [Nm]		160	185
Bending My [Nm]		110	125
Mass [kg]	Upper assembly	0,55	1,1
	Lower assembly	0,2	0,6
Recommended load [kg] *		22	25
Locking torque VM [Nm]		24	
Locking stroke VH [mm]		0 - 10	
Operating temperature range [°C]		-30 to +120	

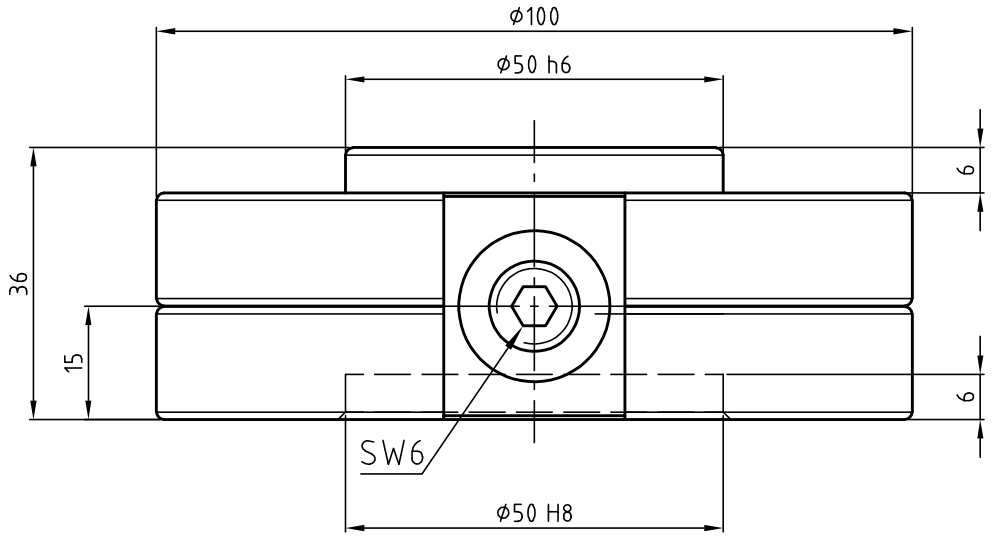
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

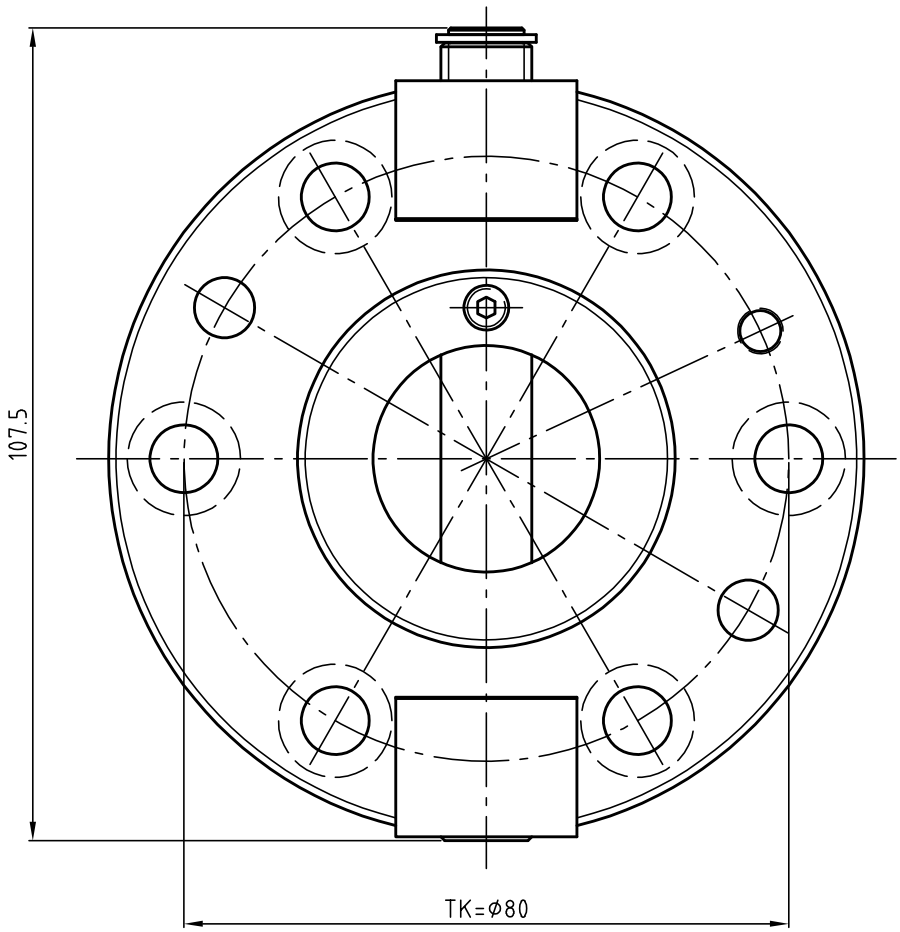


Quick change adapter Ø100, drilled according to ISO…	
G-SWA100-2O	upper assembly, Al, anodized
G-SWA100-2O-N	upper assembly, steel, nitrated
G-SWA100-2U	lower assembly, Al, anodized
G-SWA100-2U-N	lower assembly, steel, nitrated
Replacement axis…	
EG-SWA100-A	for SWA100

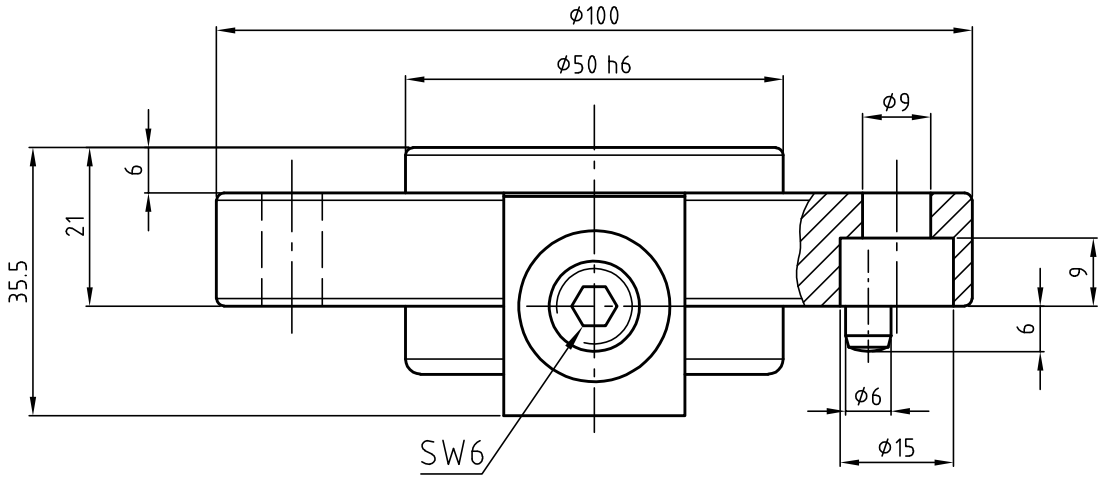


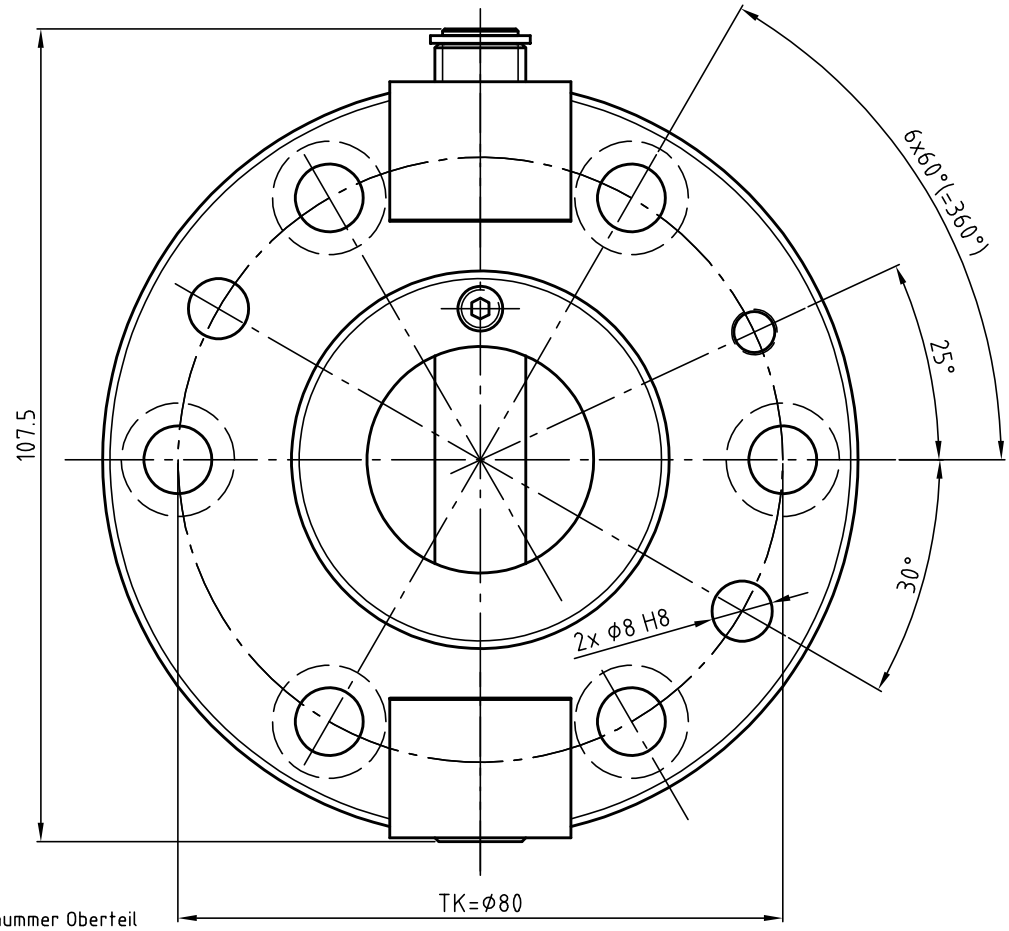
Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin





Datum 10.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SWA100-2Z			





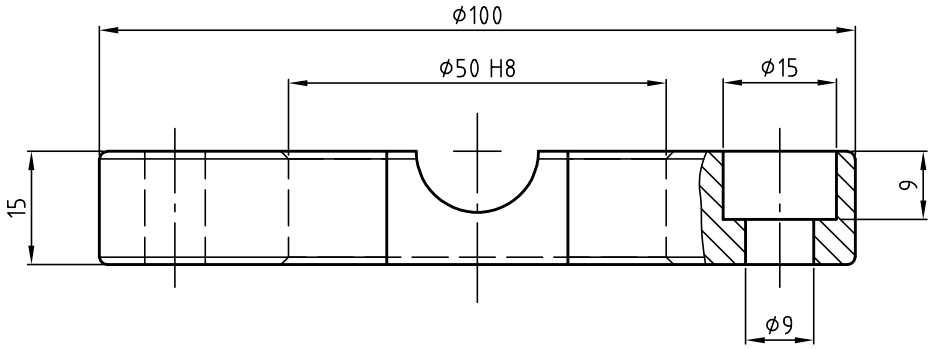
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-SWA100-20
Stahl	G-SWA100-20-S
St. nitriert	G-SWA100-20-N

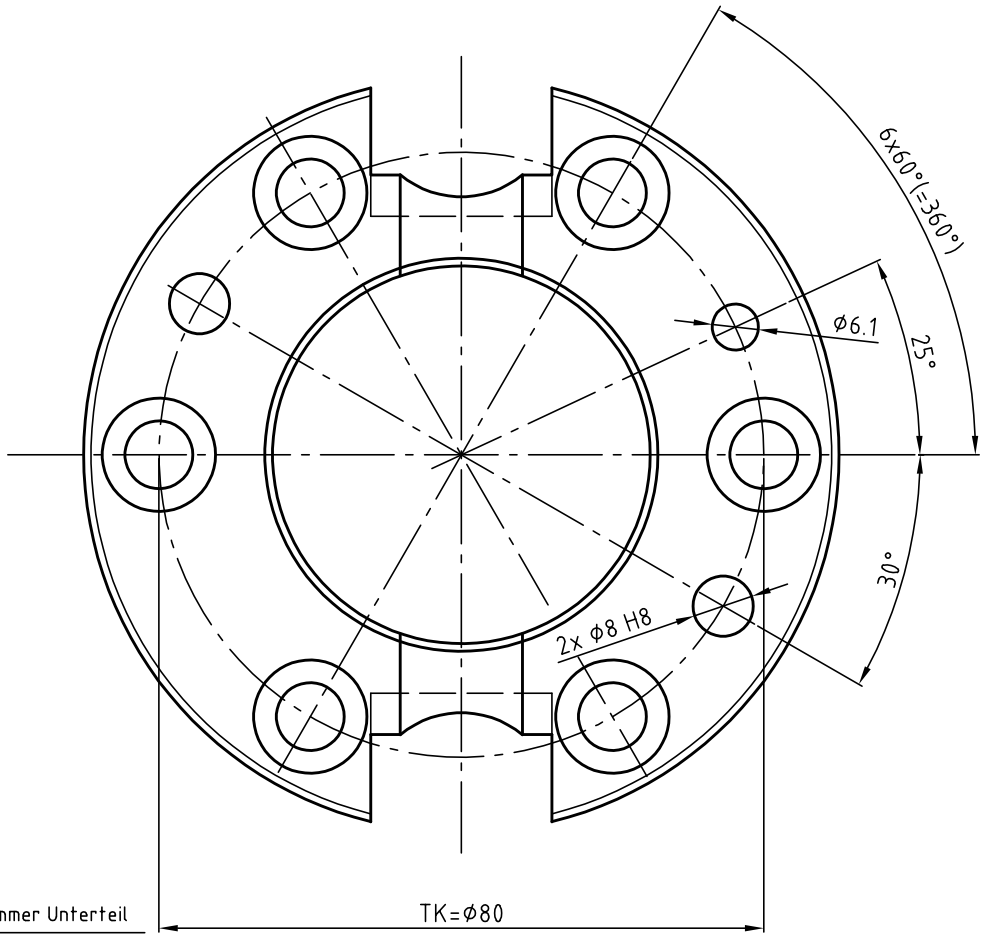
Datum	Maßstab
10.11.2016	1:1

Zeichnungsnummer

G-SWA100-20

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-SWA100-2U
Stahl	G-SWA100-2U-S
St. nitriert	G-SWA100-2U-N

Datum	Maßstab
10.11.2016	1:1

Zeichnungsnummer

G-SWA100-2U

GRIP GmbH Handhabungstechnik

G-SWA125

Technical specifications

Operating mode:
By turning the axis, the upper (1) and the lower assembly (2) are locked.
The wedge-shaped flanges brace the system in a form-closed manner.

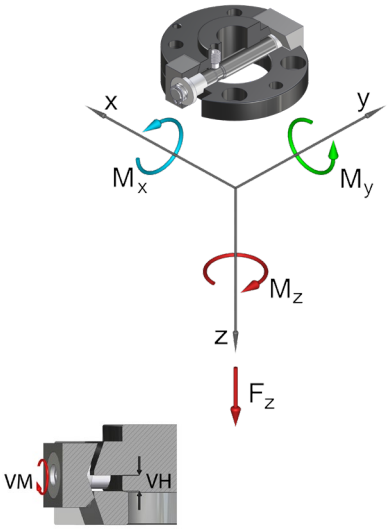
Advantages:
Reduced height to a minimum
Very low interference contours
High repeat accuracy +/- 0,02 mm
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1

1

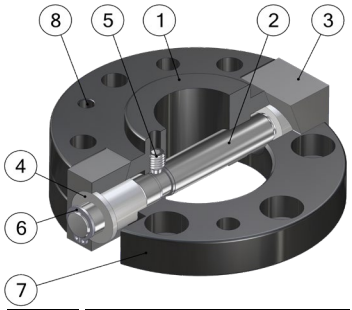
2

Technical specifications		SWA125	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		125 x 30	
Pitch circle diameter [mm]		100	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.800	2.100
Compression -Fz [kN]		377	754
Torsion Mz [Nm]		300	350
Bending Mx [Nm]		220	250
Bending My [Nm]		150	175
Mass [kg]	Upper assembly	0,8	1,6
	Lower assembly	0,35	1
Recommended load [kg] *		30	35
Locking torque VM [Nm]		36	
Locking stroke VH [mm]		0 - 11	
Operating temperature range [°C]		-30 to +120	

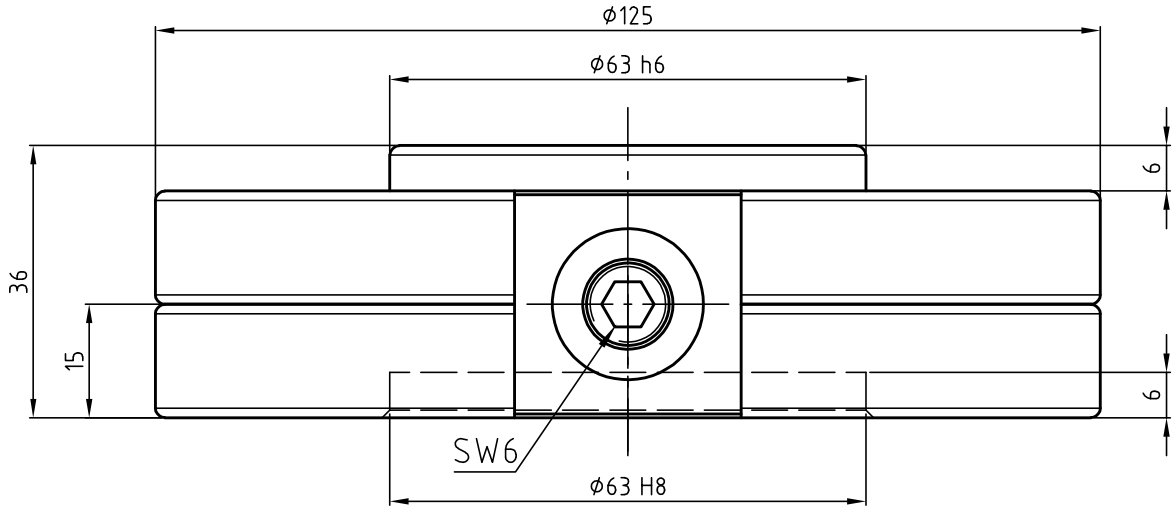
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

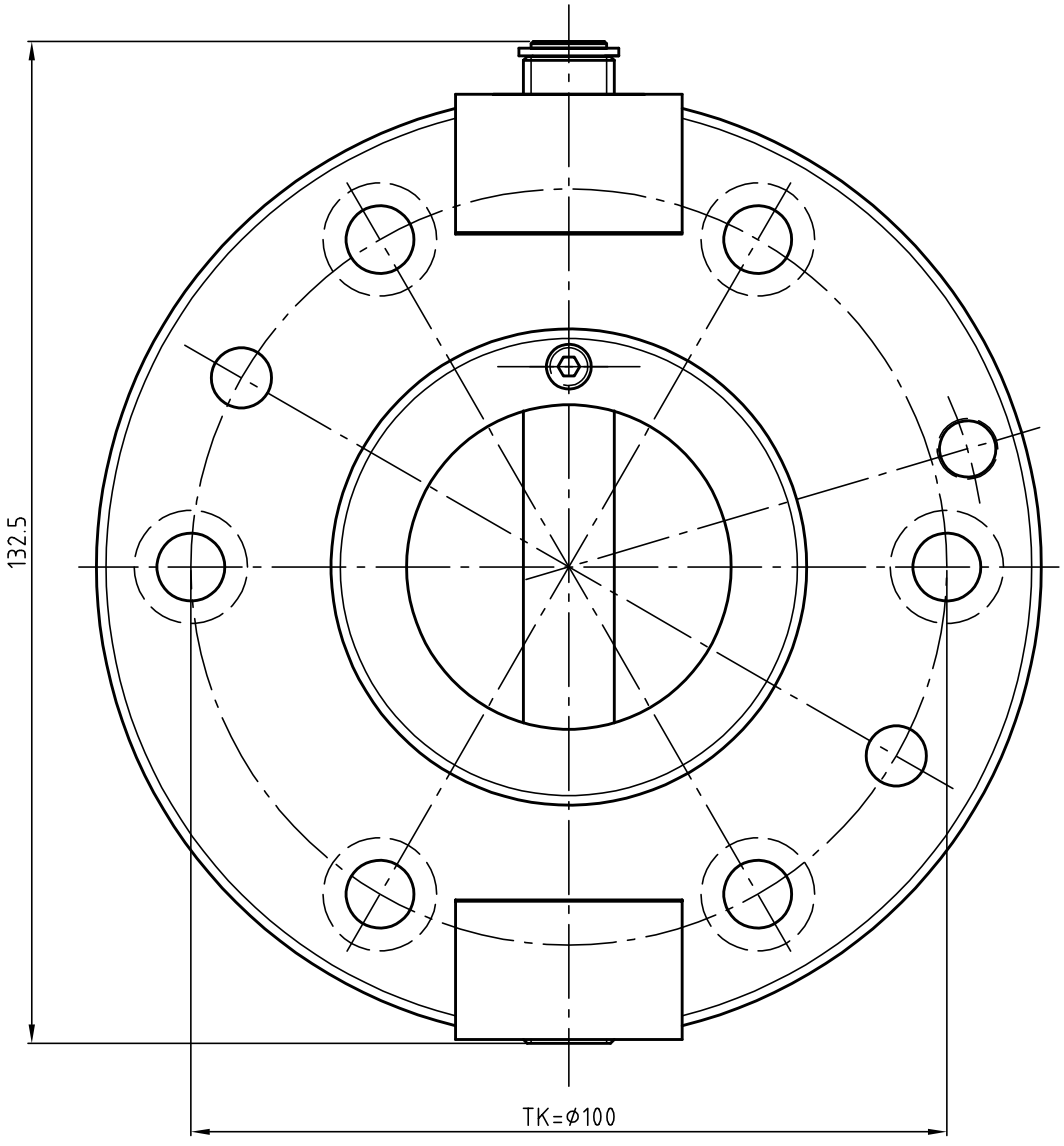


Quick change adapter Ø125, drilled according to ISO…	
G-SWA125-2O	upper assembly, Al, anodized
G-SWA125-2O-N	upper assembly, steel, nitrated
G-SWA125-2U	lower assembly, Al, anodized
G-SWA125-2U-N	lower assembly, steel, nitrated
Replacement axis…	
EG-SWA125-A	for SWA125



Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin



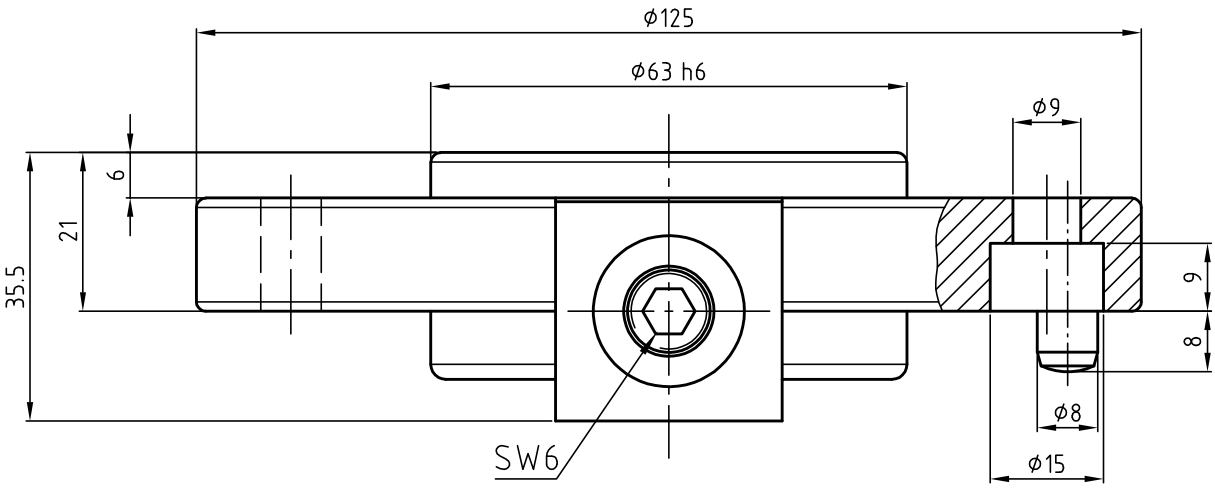


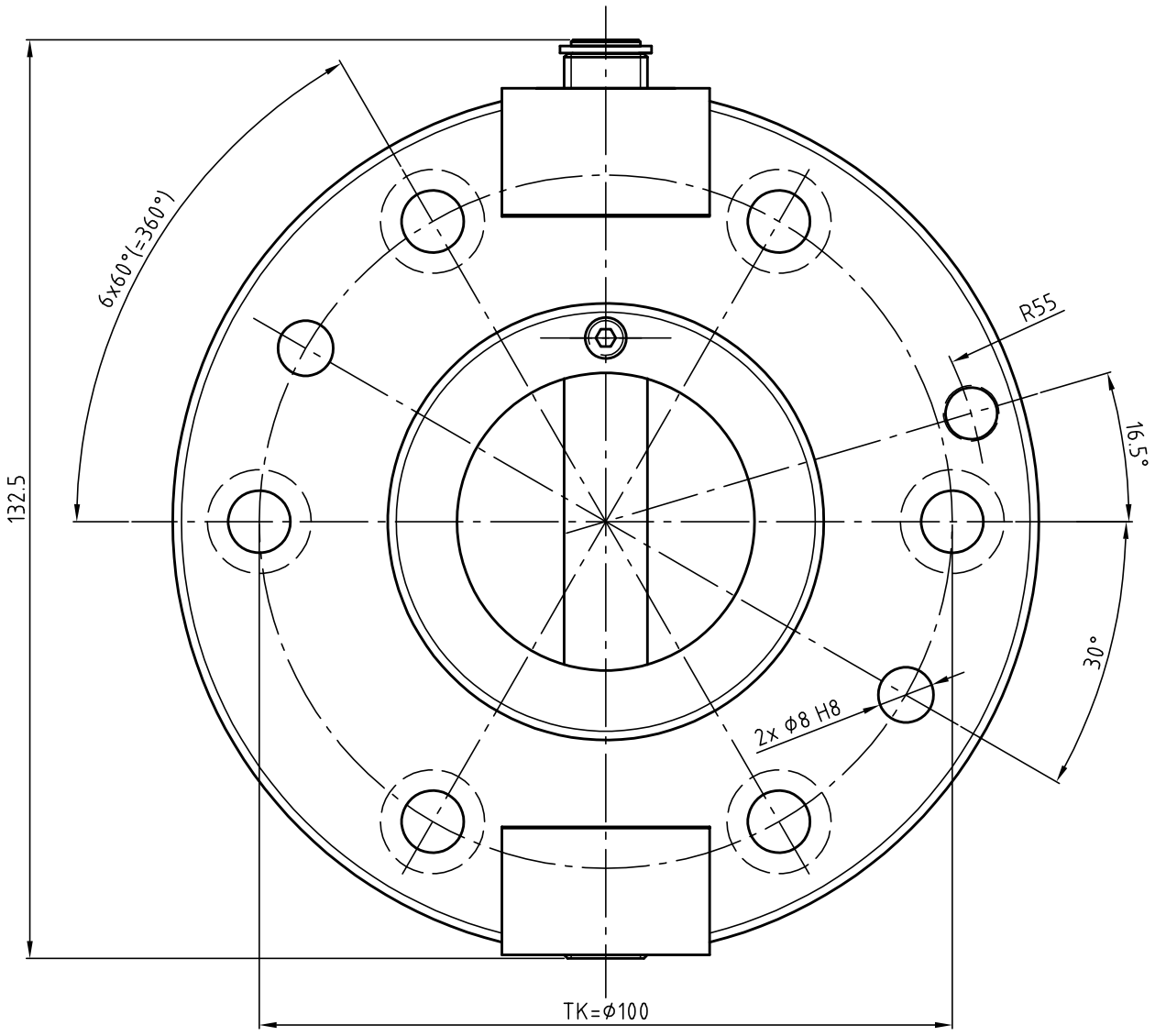
Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

G-SWA125-2Z

GRIP GmbH Handhabungstechnik





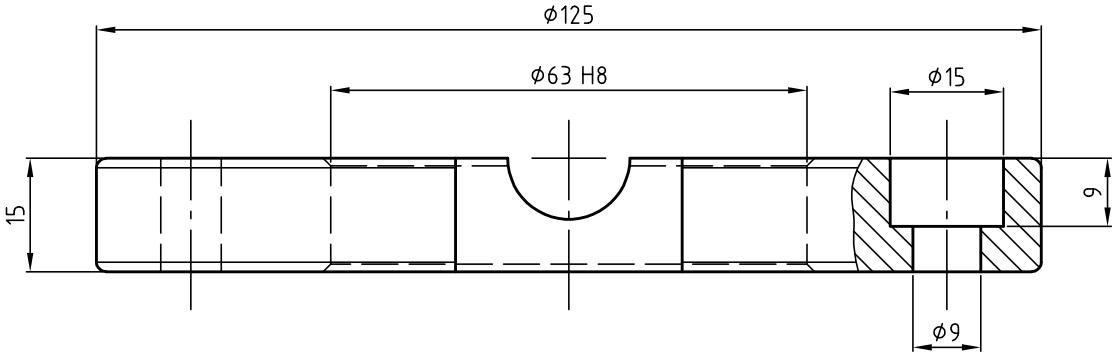
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-SWA125-20
Stahl	G-SWA125-20-S
St. nitriert	G-SWA125-20-N

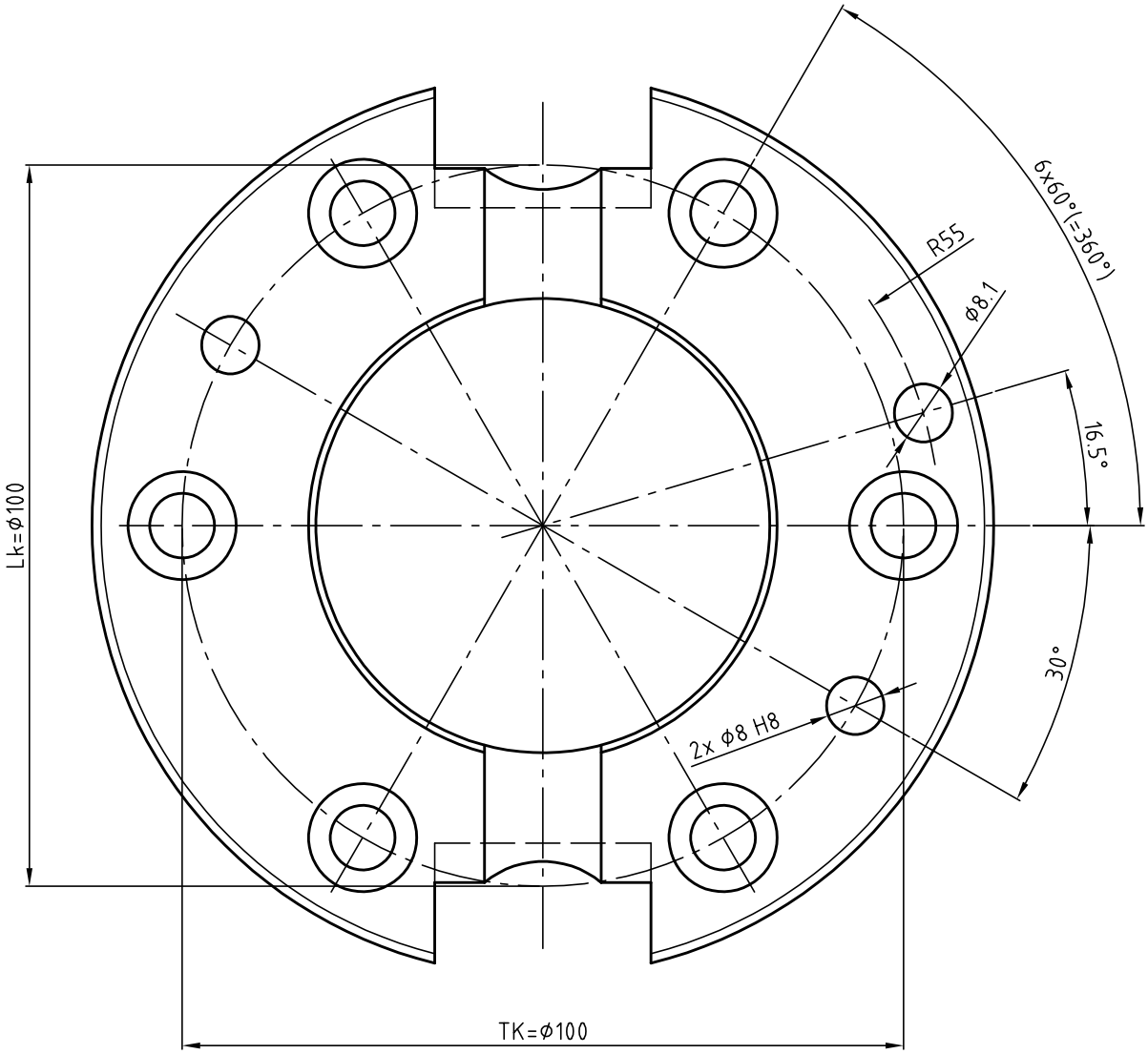
Datum	Maßstab
10.11.2016	1:1

Zeichnungsnummer

G-SWA125-20

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-SWA125-2U
Stahl	G-SWA125-2U-S
St. nitriert	G-SWA125-2U-N

Datum	Maßstab
10.11.2016	1:1

Zeichnungsnummer

G-SWA125-2U

GRIP GmbH Handhabungstechnik

G-SWA160

Technical specifications

Operating mode:
By turning the axis, the upper (1) and the lower assembly (2) are locked.
The wedge-shaped flanges brace the system in a form-closed manner.

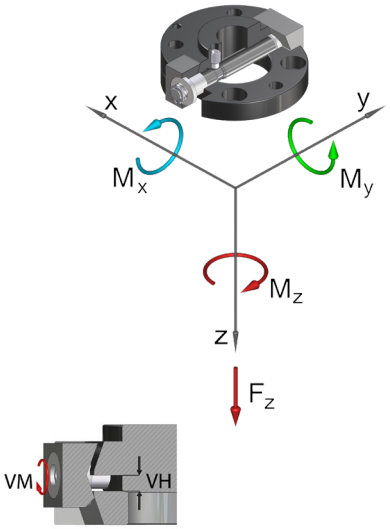
Advantages:
Reduced height to a minimum
Very low interference contours
High repeat accuracy +/- 0,02 mm
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1

1

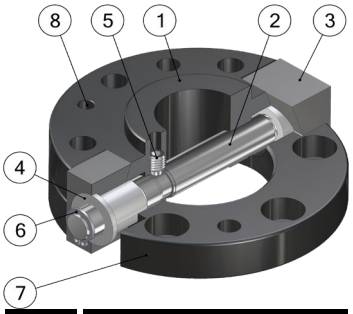
2

Technical specifications		SWA160	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		160 x 40	
Pitch circle diameter [mm]		125	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		2.800	3.300
Compression -Fz [kN]		626	1.252
Torsion Mz [Nm]		460	500
Bending Mx [Nm]		350	410
Bending My [Nm]		280	320
Mass [kg]	Upper assembly	1,75	3,5
	Lower assembly	0,8	2
Recommended load [kg] *		56	62
Locking torque VM [Nm]		40	
Locking stroke VH [mm]		0 - 14	
Operating temperature range [°C]		-30 to +120	

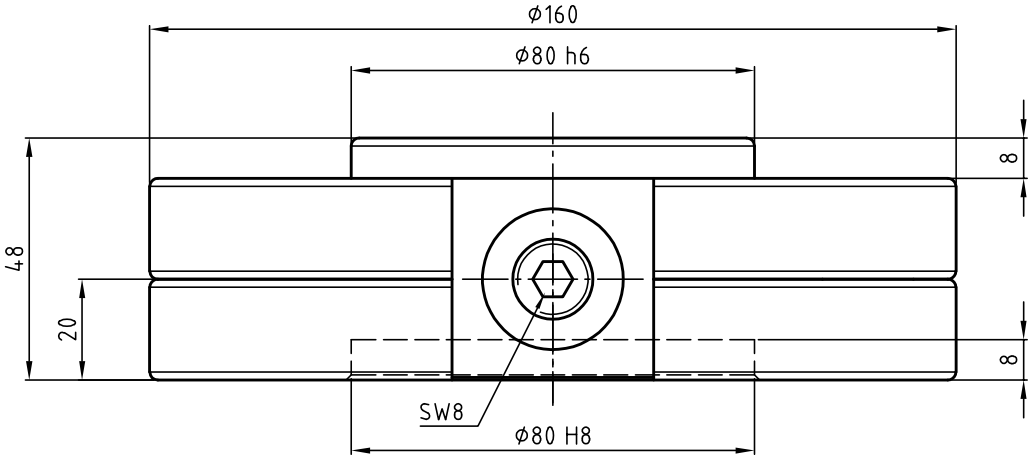
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

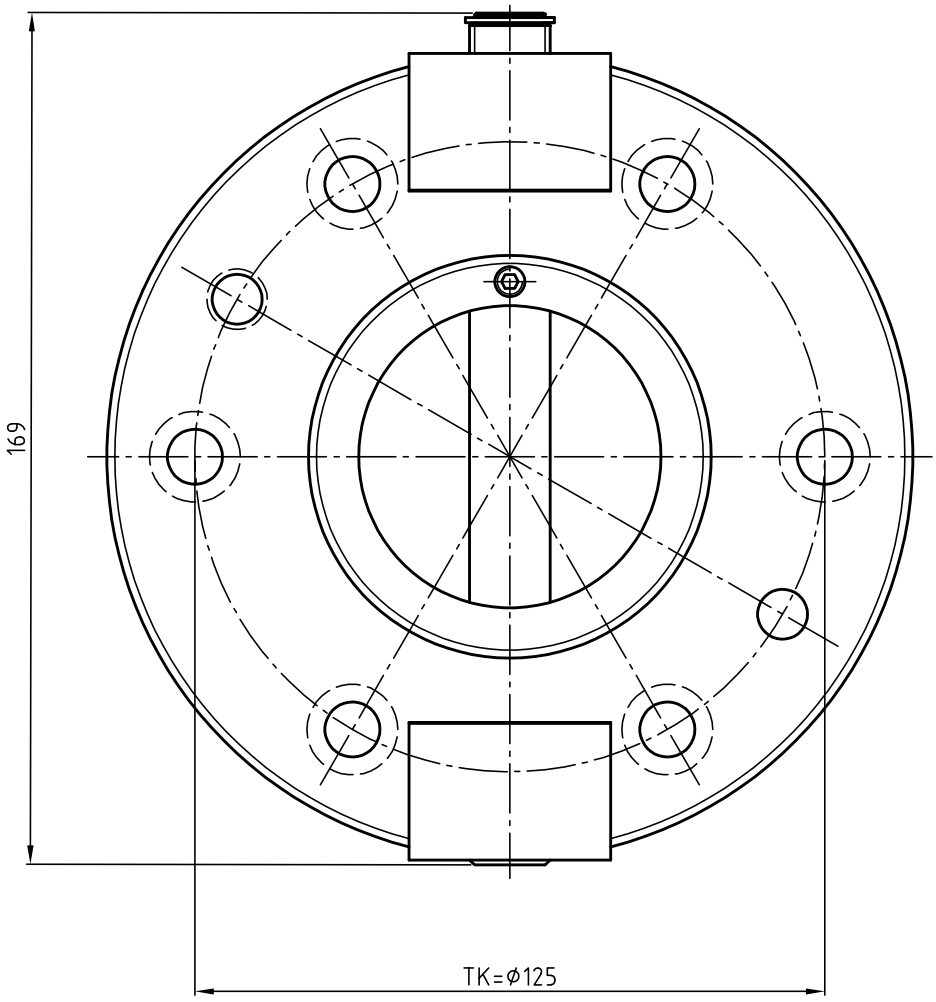


Quick change adapter Ø160, drilled according to ISO…	
G-SWA160-2O	upper assembly, Al, anodized
G-SWA160-2O-N	upper assembly, steel, nitrated
G-SWA160-2U	lower assembly, Al, anodized
G-SWA160-2U-N	lower assembly, steel, nitrated
Replacement axis…	
EG-SWA160-A	for SWA160



Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin



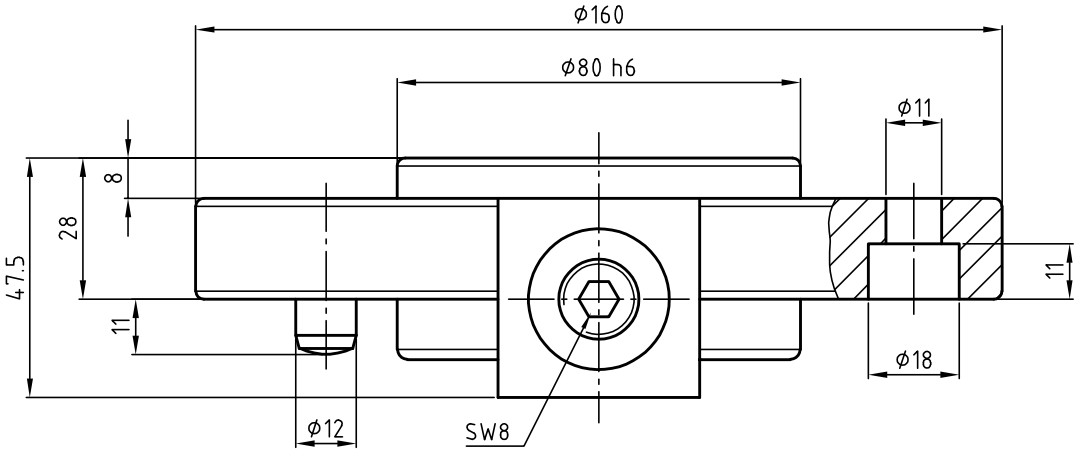


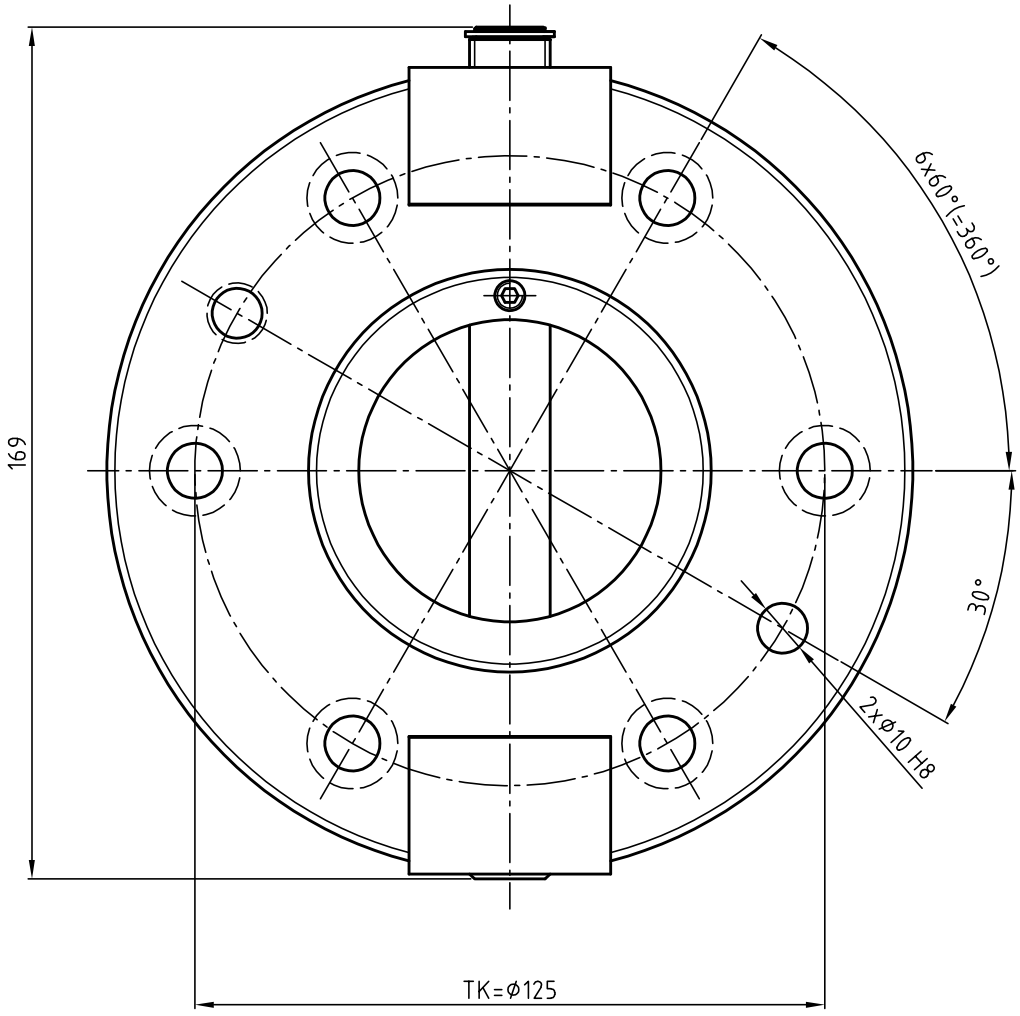
Datum	Maßstab	
10.11.2016	1:1.5	

Zeichnungsnummer

G-SWA160-2Z

GRIP GmbH Handhabungstechnik





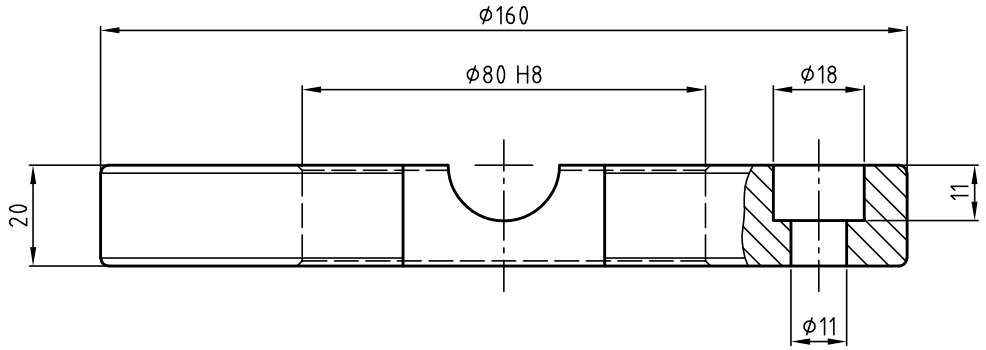
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-SWA160-20
Stahl	G-SWA160-20-S
St. nitriert	G-SWA160-20-N

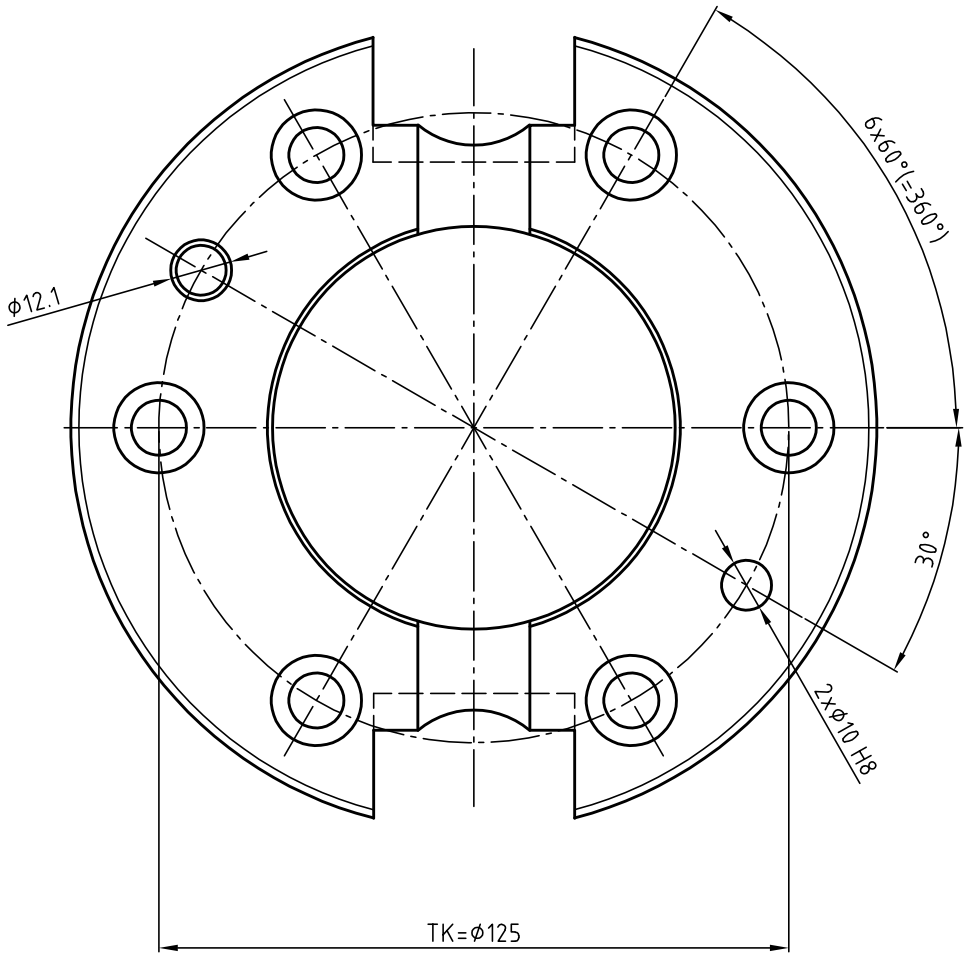
Datum	Maßstab
10.11.2016	1:1.5

Zeichnungsnummer

G-SWA160-20

GRIP GmbH Handhabungstechnik





Grundmaterial	Bestellnummer Unterteil
Al. eloxiert	G-SWA160-2U
Stahl	G-SWA160-2U-S
St. nitriert	G-SWA160-2U-N

Datum	Maßstab	
10.11.2016	1:1.5	

Zeichnungsnummer

G-SWA160-2U

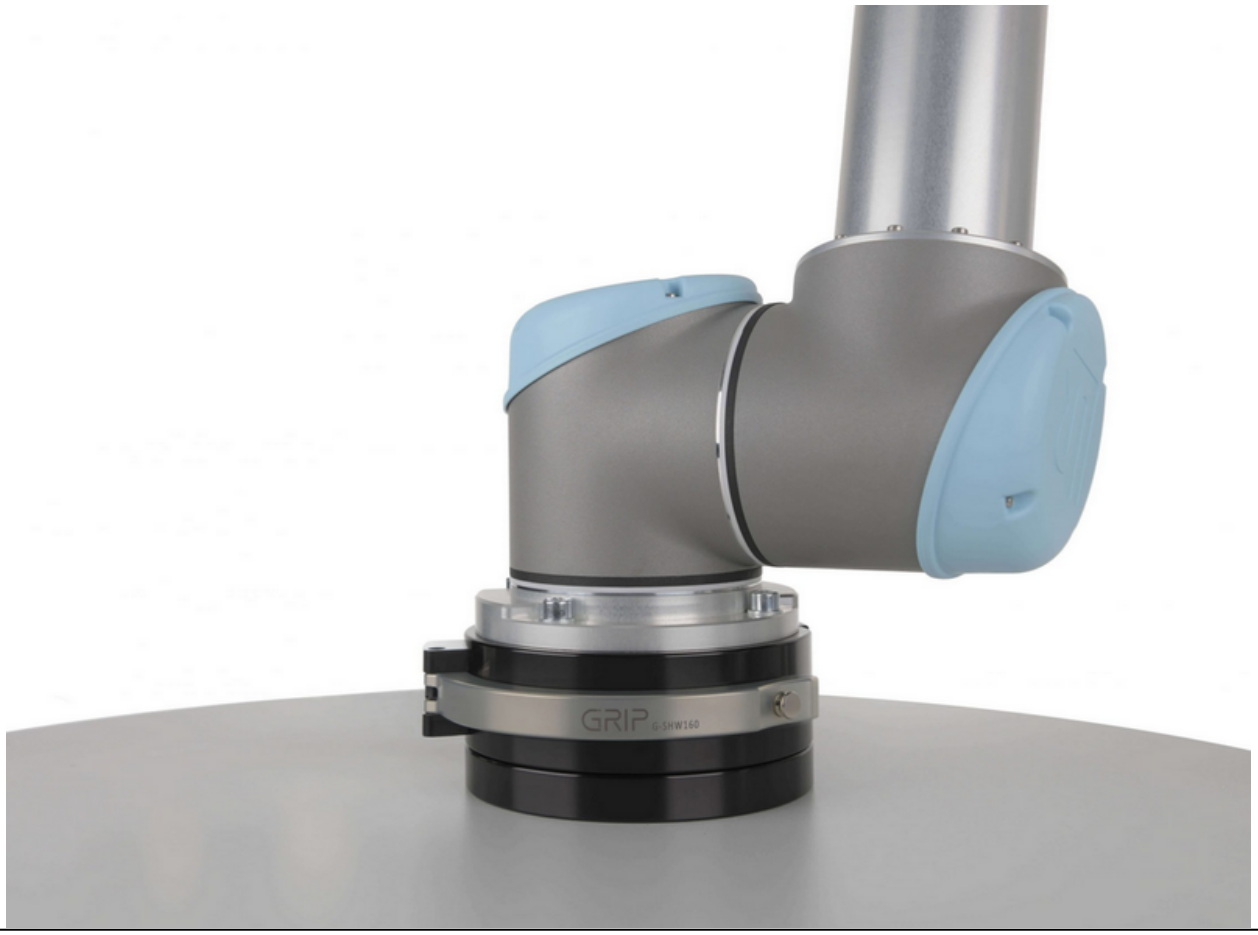
GRIP GmbH Handhabungstechnik

BASE CONNECTOR SHW160

The GRIP Base Connector allows quick and easy removal of the entire robot arm. The robot arm is bolted to a special tool changer which is bolted to a table or cell. This manual tool changer system allows companies to use the same robot in multiple different cells without having to unscrew the robot every time. A simple lever allows the robot to be released from its current position and taken to a new position. The entire process takes only a few seconds. It enables companies to be more flexible with the robots that they have and optimizes the use of their resources.

Base Connector Advantages:

- Allows transfer of entire robot arm
- Optimization of robot cells and resources
- Intuitive to use
- Very strong
- Repeat accuracy < 0.02 mm



Base Connector SHW

The **Base Connector SHW160** is the optimal connection between the robot and its base. It takes only seconds to change out the robot or place it into a different application. The intuitive and safe operation will make your robot more flexible.

The **Base Connector SHW160** is compatible with all light robots / cobots with a max payload of approximately 8 kg and a robot weight of approximately 25 kg. Please inform us of the robot manufacturer to ensure the correct drill hole pattern.

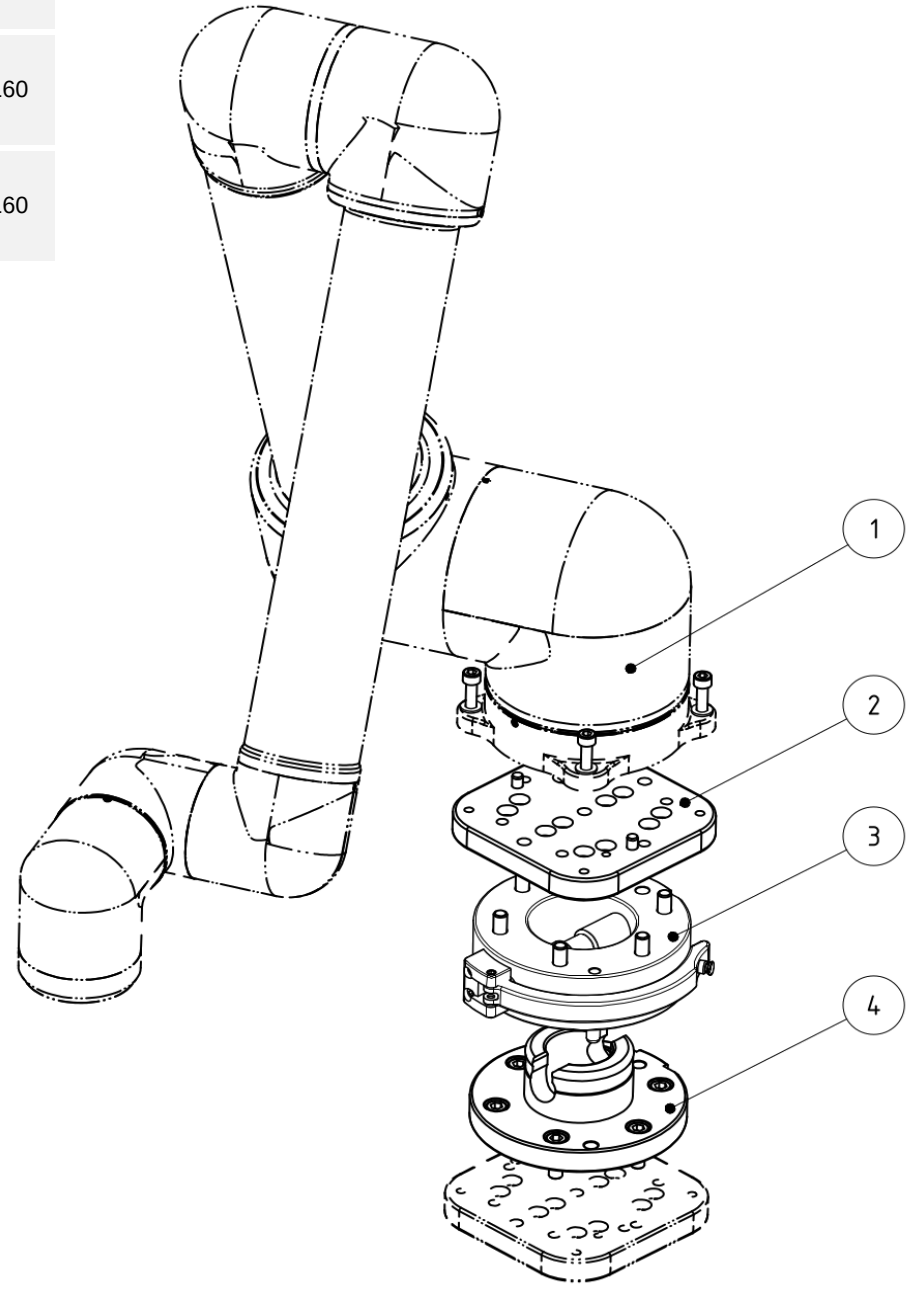
*** In case of extreme loads we recommend the Base Connector SWS200. Please consult us for the best configuration.**

Base Connector SHW160

The **Base Connector SHW160** is the ideal mechanical connection for light robots. The intuitive operation is easy and does not require any tools.

The SHW upper assembly, as depicted in the drawing, is mounted to the base of the robot. The lower assembly is mounted to the work surface.

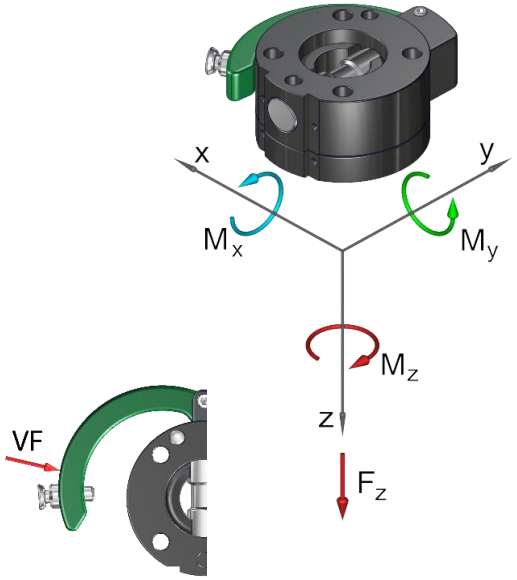
Pos.	Description
1	**Robot**
2	**G-UF158-20** Universal flange Aluminum 158x158x20
3	**G-SHW160-2OE-BC** Base Connector SHW160 Upper assembly
4	**G-SHW160-2UE-BC** Base Connector SHW160 Lower assembly



Operating mode:
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).
Advantages:
Allows removal or installation of the entire robot arm within seconds
Intuitive operation
Can be released and closed with one handle
High repeat accuracy +/- 0.02 mm
Holds up to 5,000 changing cycles
Interface according to DIN EN ISO 9409-1

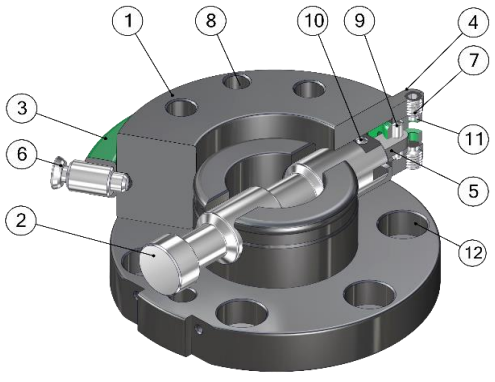
Technical specifications		SHW160
Basic material		Al. anod.
External diameter x height [mm]		160 x 70
Pitch circle diameter [mm]		125
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		2.000
Compression -Fz [kN]		626
Torsion Mz [Nm]		300
Bending Mx, My [Nm]		320
Mass [kg]	upper assembly	2,8
	lower assembly	1,2
Recommended load [kg]		25*
Locking force VF [N]		10 - 100
Locking stroke VH [mm]		0 - 1
Operating temperature range [°C]		-30 to +120

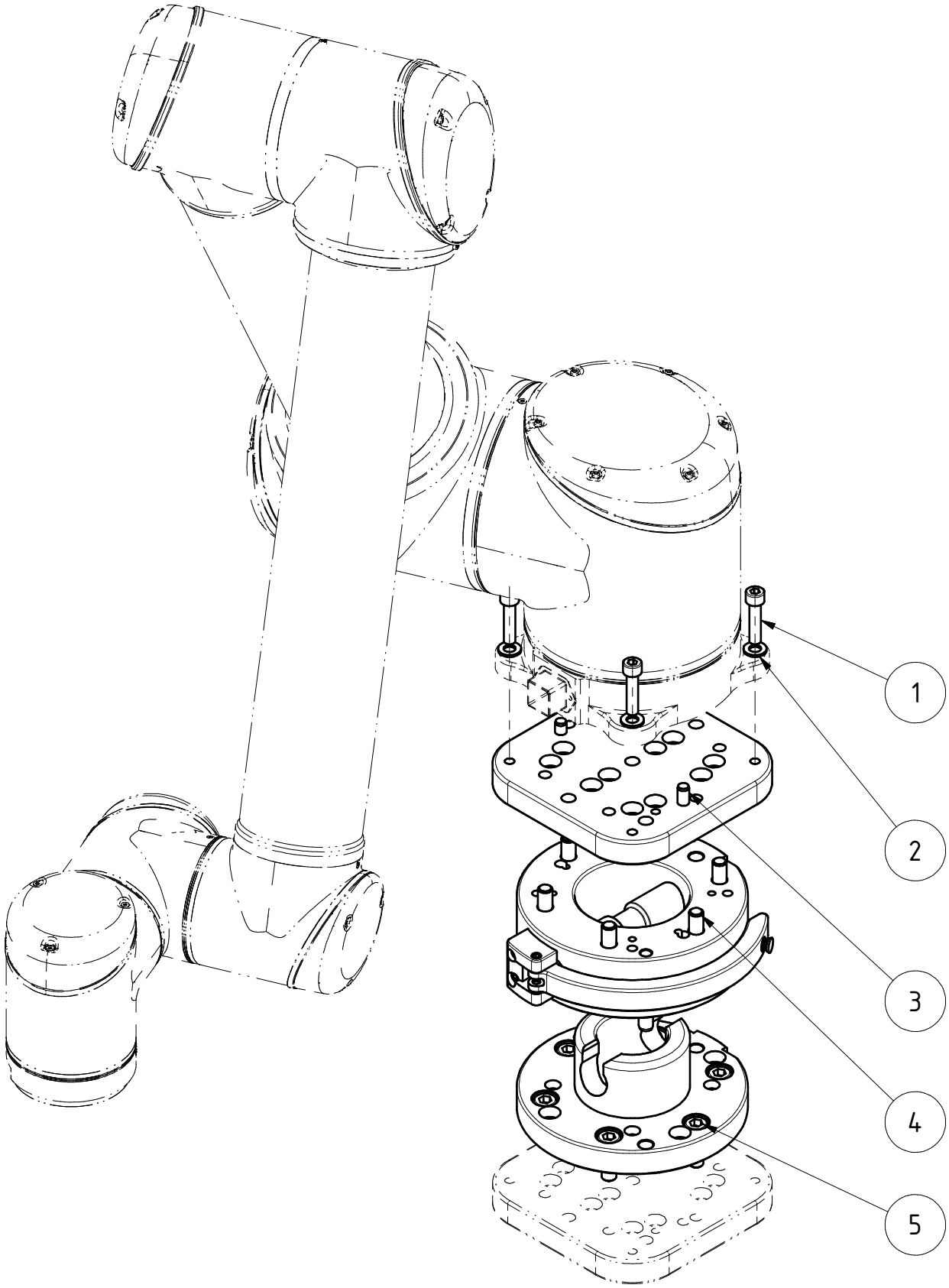
* This guideline applies to the following assumptions:
Acceleration: **3 m/s²**, gravity distance: 5**00 mm**, double safety



Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø160, drilled acc. to ISO…	
G-SHW160-2OE-BC	upper assembly, E-Mount, Al, anodized
G-SHW160-2OE-BC01	upper assembly, E-Mount, Al, anodized, UR
G-SHW160-2UE-BC	lower assembly, E-Mount, Al, anodized
G-SHW160-2UE-BC01	lower assembly, E-Mount, Al, anodized, UR





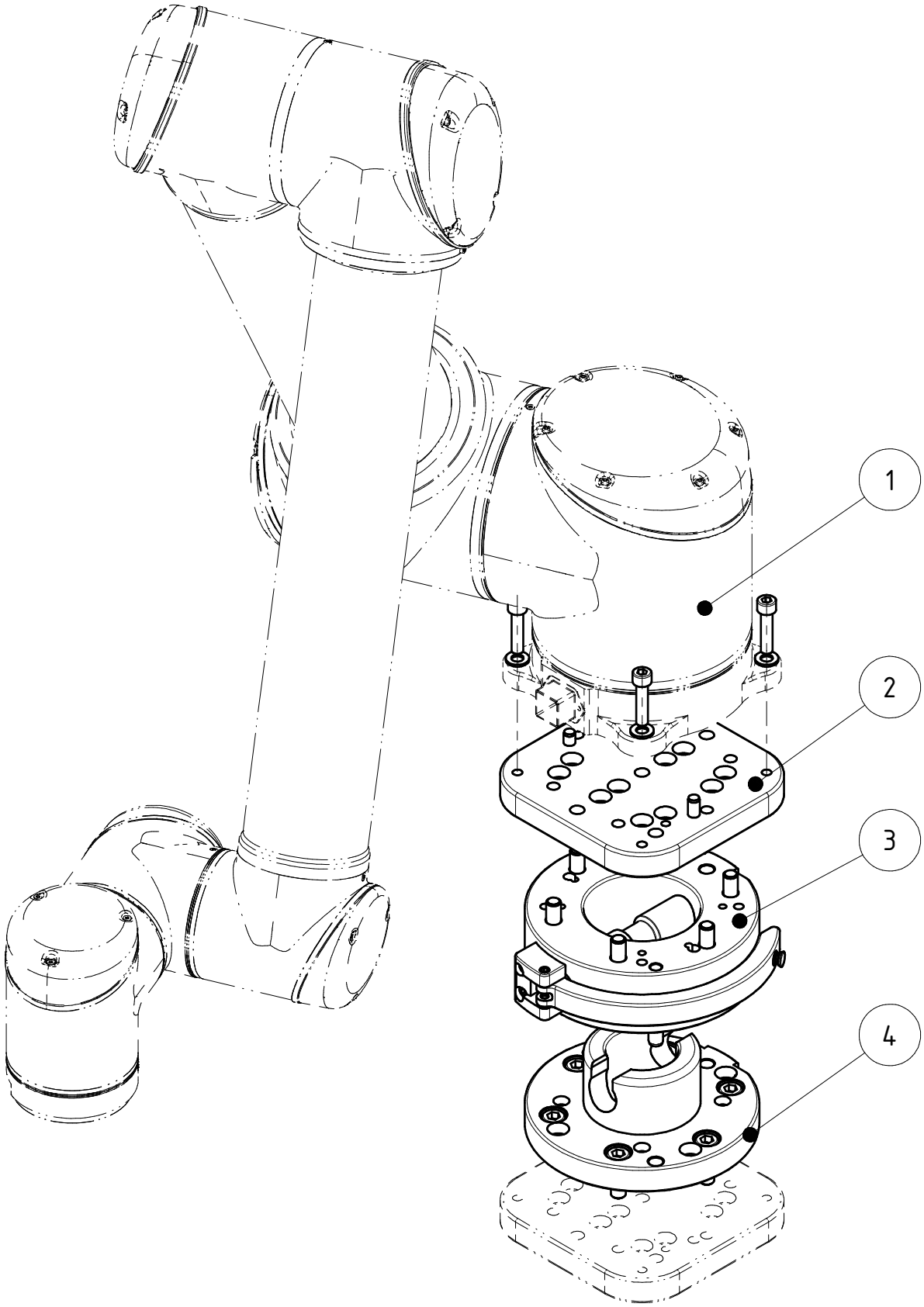
Stückliste			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	4	ISO 4762 - M8 x 35	Innensechskantschraube
2	4	DIN 125 - A 8,4	Unterlegscheibe
3	2	ISO 2338 - 8 m6 x 20	Zylinderstift
4	6	DIN 912 - M10 x 55	Zylinderkopfschraube
5	6	ISO 4762 - M10 x 25	Innensechskantschraube

Datum 04.08.2020 | Maßstab 1:4

Zeichnungsnummer

Base Connector SHW160-Normteile

GRIP GmbH Handhabungstechnik



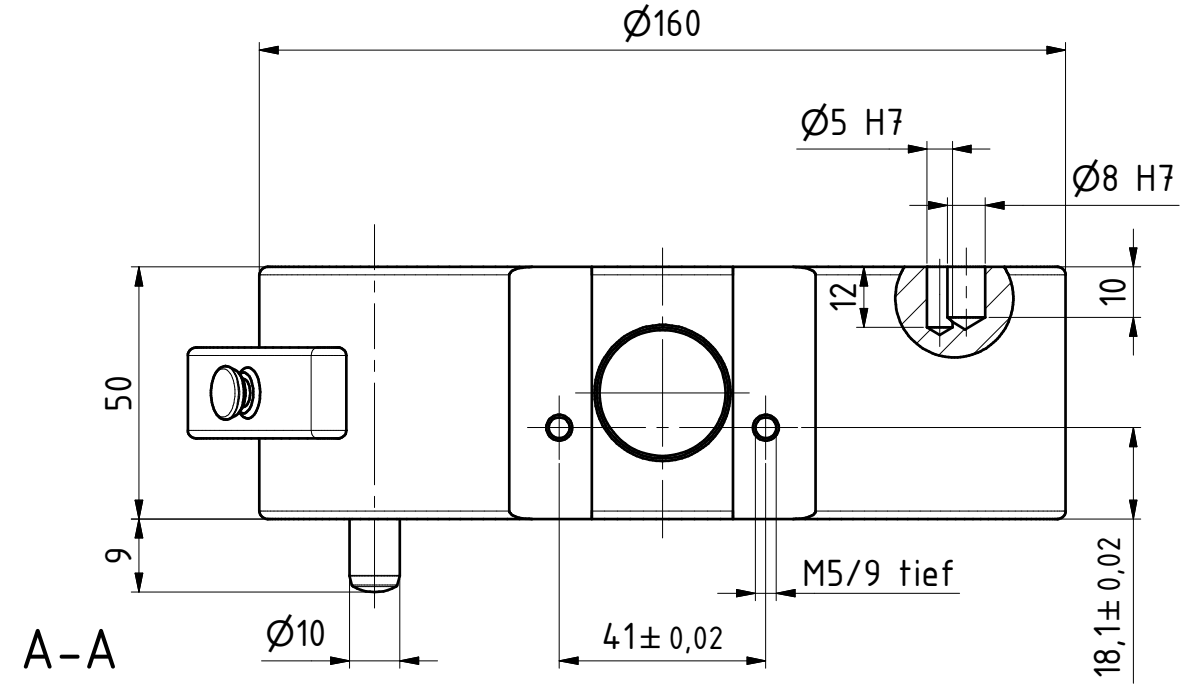
Stückliste			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	UR3/5/10/16	Universal Robot 3/5/10/16
1	1	G-UF158-20	Universalflansch (UR10/16)
3	1	G-SHW160-2OE-BC01	SHW Oberteil
4	1	G-SHW160-2UE-BC01	SHW Unterteil

Datum 04.08.2020 | Maßstab 1:4

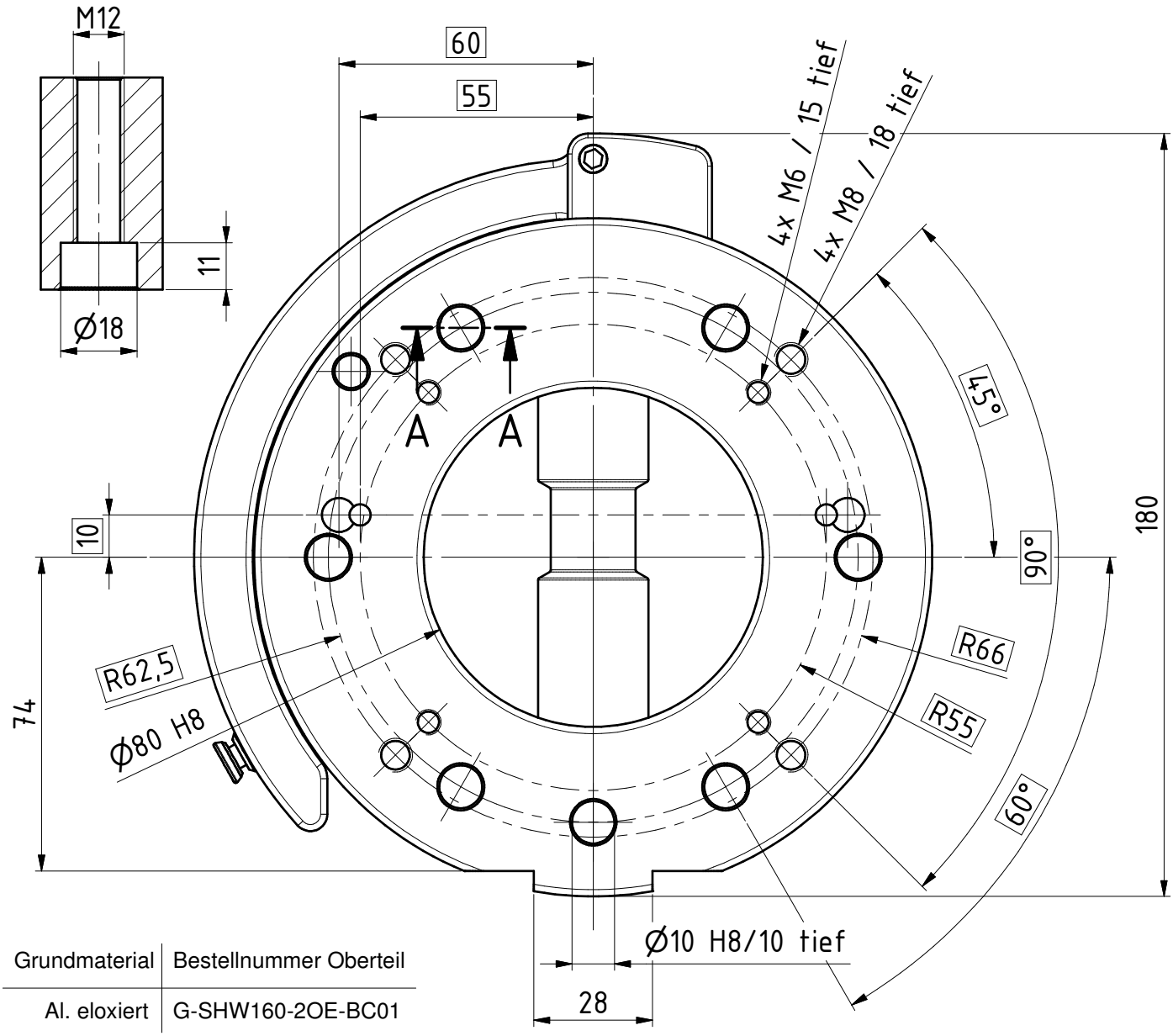
Zeichnungsnummer

Base Connector SHW160

GRIP GmbH Handhabungstechnik



A-A



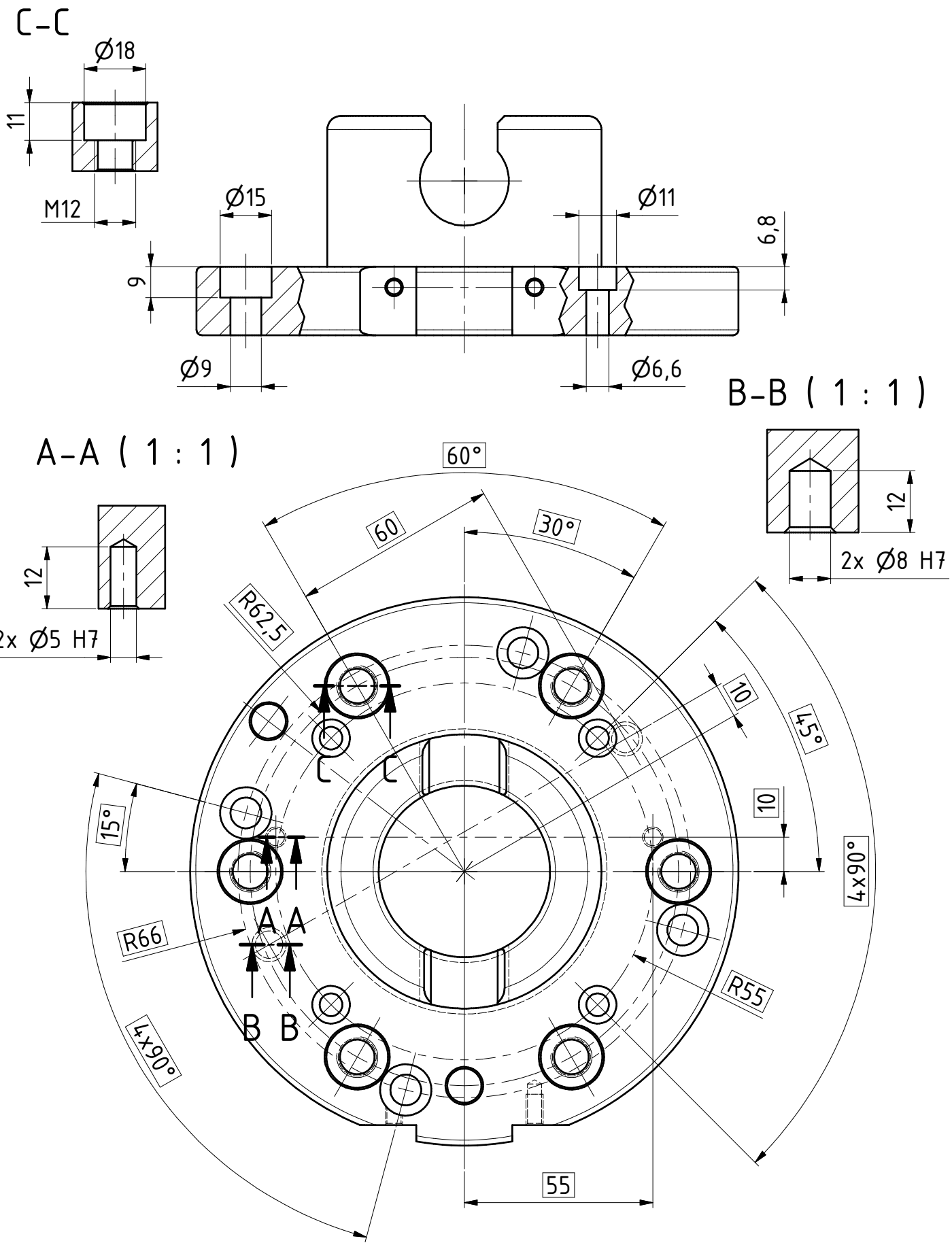
Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-SHW160-2OE-BC01

Datum	Maßstab
04.08.2020	1:1,5

Zeichnungsnummer

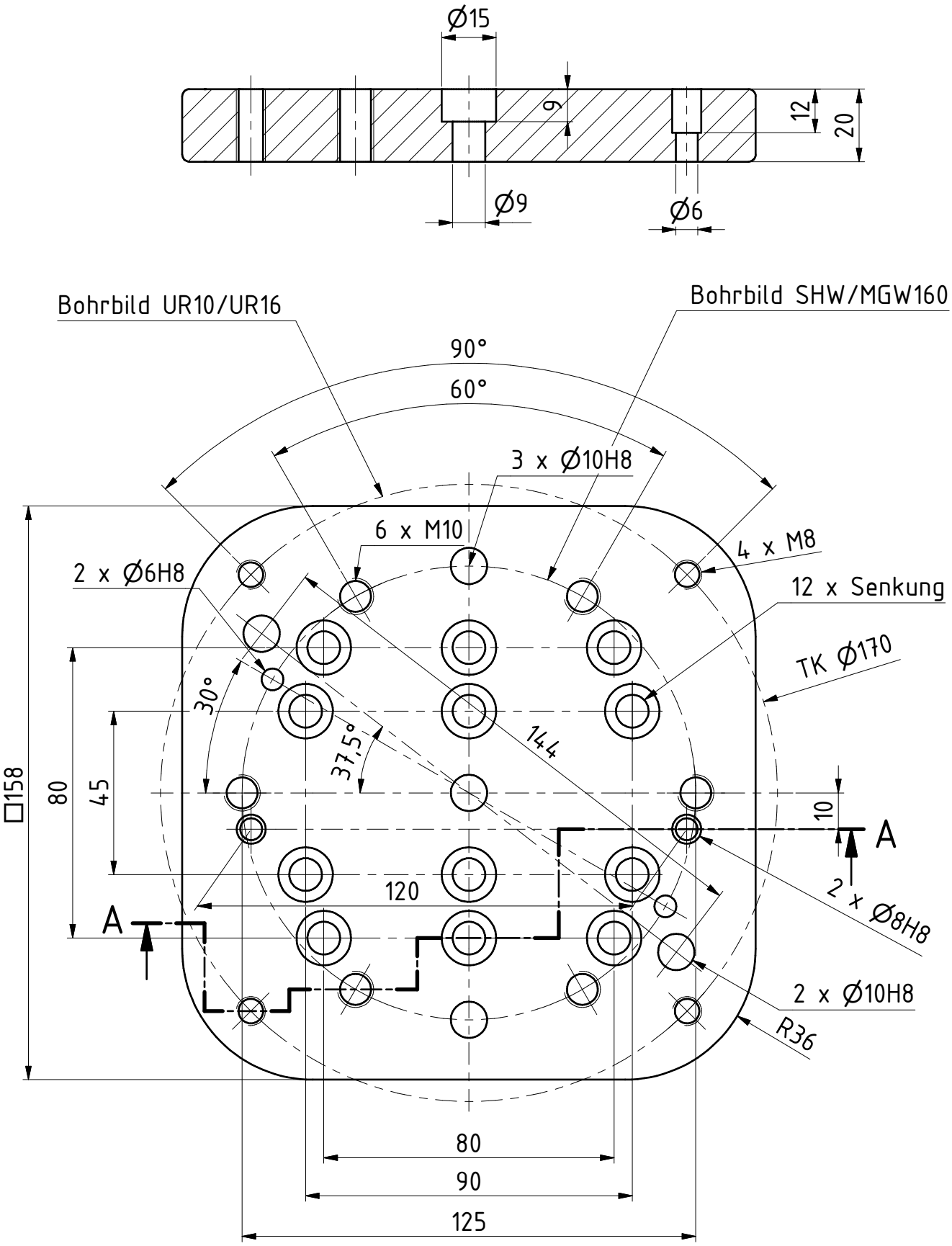
G-SHW160-2OE-BC01

GRIP GmbH Handhabungstechnik



Grundmaterial	Bestellnummer Oberteil
Al. eloxiert	G-SHW160-2UE-BC01

Datum 28.03.2022	Maßstab 1:1,5	
Zeichnungsnummer G-SHW160-2UE-BC01		GRIP GmbH Handhabungstechnik



Material: Aluminium 7075 hochfest, schwarz eloxiert

Datum	Maßstab	
04.04.2020	1:1,5	

Zeichnungsnummer

G-UF158-20

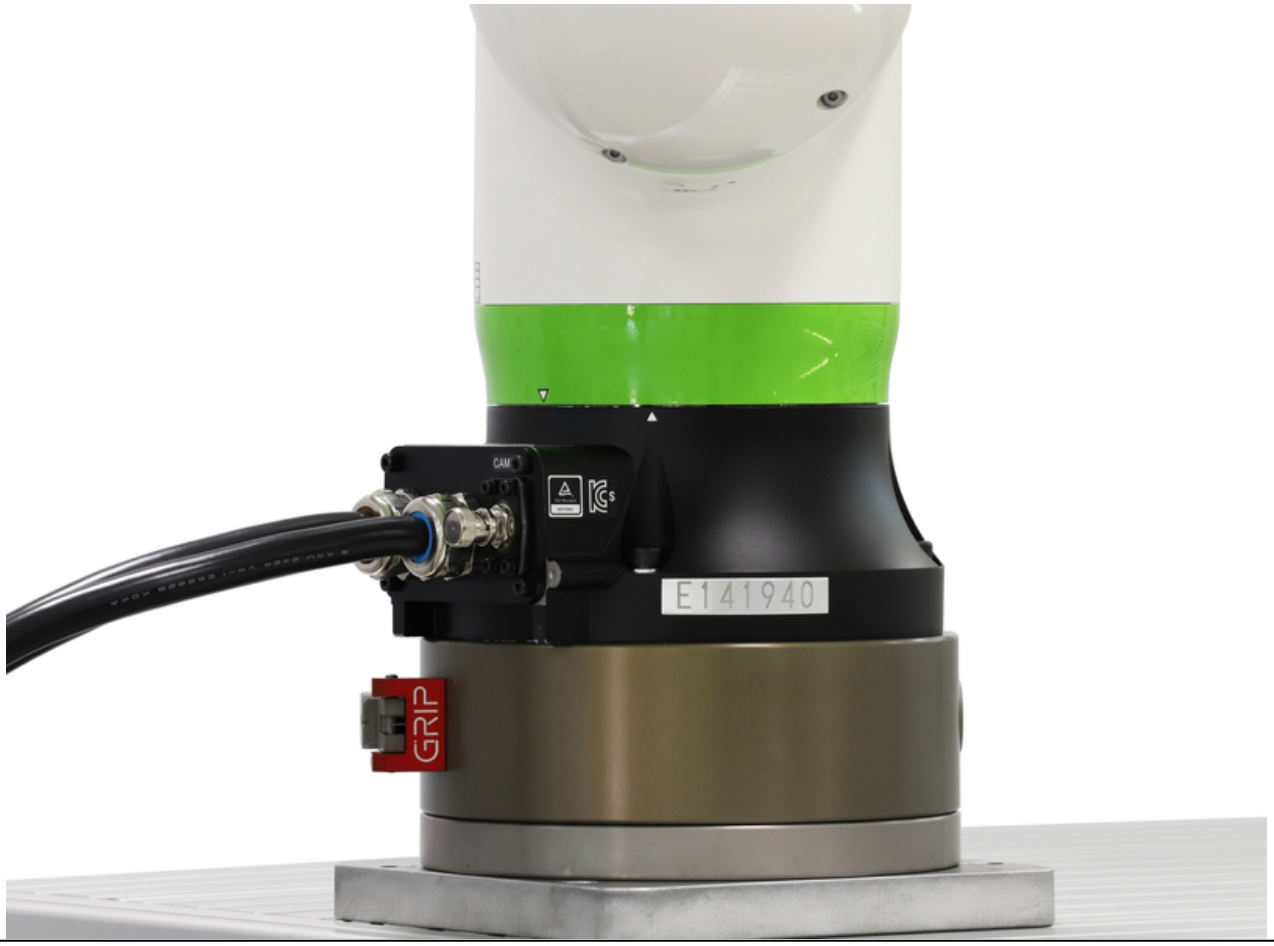
GRIP GmbH Handhabungstechnik

BASE CONNECTOR SWS200

The GRIP Base Connector allows quick and easy removal of the entire robot arm. The robot arm is bolted to a special tool changer which is bolted to a table or cell. This manual tool changer system allows companies to use the same robot in multiple different cells without having to unscrew the robot every time. A simple lever allows the robot to be released from its current position and taken to a new position. The entire process takes only a few seconds. It enables companies to be more flexible with the robots that they have and optimizes the use of their resources.

Base Connector Advantages:

- Allows transfer of entire robot arm
- Optimization of robot cells and resources
- Intuitive to use
- Very strong
- Repeat accuracy < 0.02 mm



Base Connector SWS

The **Base Connector SWS200** is the optimal connection between the robot and its base. It takes only seconds to change out the robot or place it into a different application. The intuitive and safe operation will make your robot more flexible.

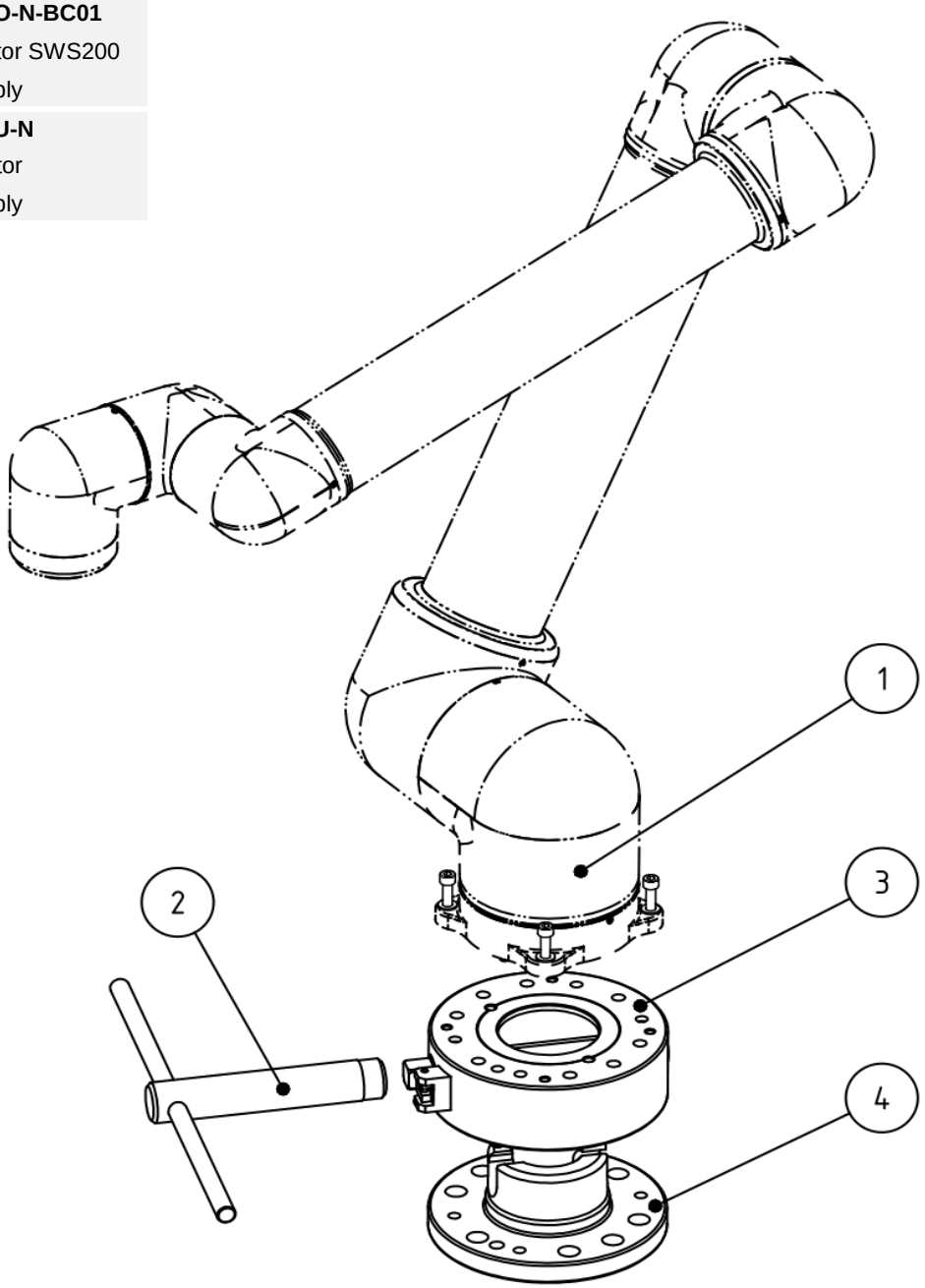
The **Base Connector SWS200** is compatible with all light robots / cobots with a max payload of approximately 16 kg and a robot weight of approximately 50 kg. Please inform us of the robot manufacturer to ensure the correct drill hole pattern.

Base Connector SWS200

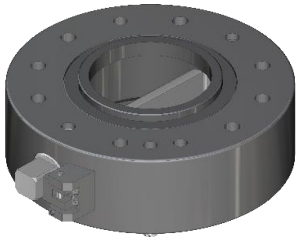
The **Base Connector SWS200** is the ideal mechanical connection for light robots. The intuitive operation is easy and does not require any tools.

The SWS upper assembly, as depicted in the drawing, is mounted to the base of the robot. The lower assembly is mounted to the work surface.

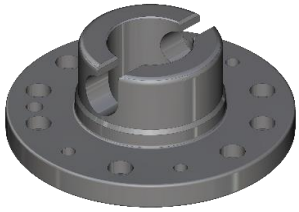
Pos.	Description
1	**Robot**
2	**ZG-VKS160-SW20** Square Socket Key
3	**G-SWS200-2O-N-BC01** Base Connector SWS200 Upper assembly
4	**G-SWS200-2U-N** SWS Connector Lower assembly



Operating mode:
By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner
Advantages:
Without hand lever, thereby low interference contours
High repeat accuracy +/- 0.02 mm
Optional connection of a power coupling MEK for electrical and pneumatical ducts
Holds up to 10,000 changing cycles
During locking, the lower assembly is pulled around the locking stroke
Interface according to DIN EN ISO 9409-1
Low dead weight due to the combination of steel and aluminum



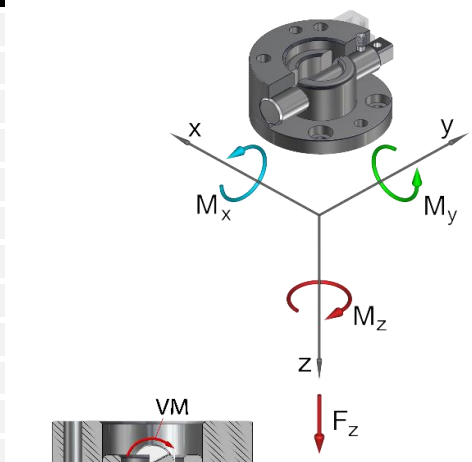
1



2

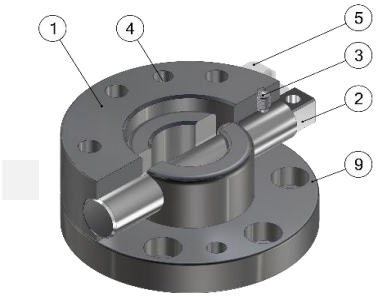
Technical specifications		SWS200
Basic material		steel, nitrated + Al
External diameter x Height [mm]		200 x 85
Pitch circle diameter [mm]		160
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		14.500
Compression -Fz [kN]		1.480
Torsion Mz [Nm]		1.250
Bending Mx, My [Nm]		1.350
Mass [kg]	upper assembly	6,4
	lower assembly	6
Recommended load [kg] *		50
Locking moment VM [Nm]		5 - 35
Locking stroke VH [mm]		0 - 10
Operating temperature range [°C]		-30 to +120

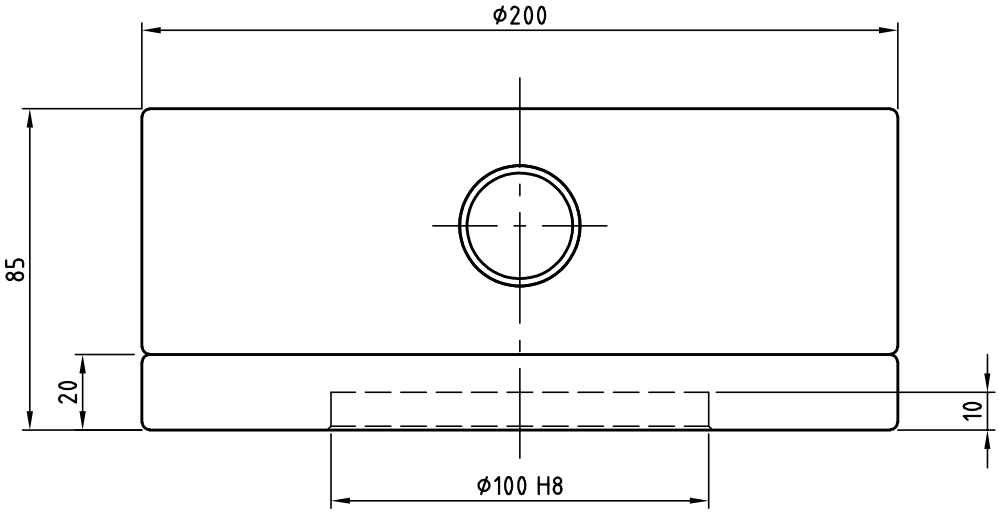
* This guideline applies to the following assumptions:
Acceleration: 3m/s², gravity distance: 1.000 mm, 1,7 times safety

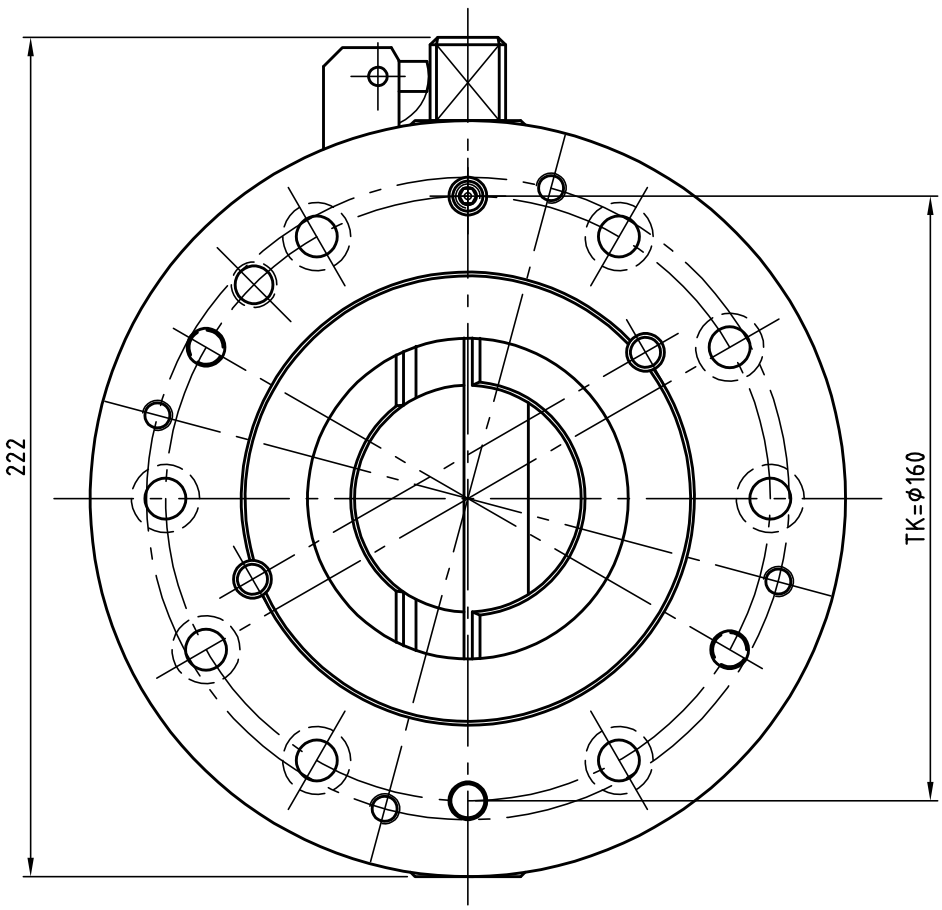


Quick change system Ø200… drilled according to ISO, steel, nitrated, with pre-centring…	
G-SWS200-2O-N-BC01	upper assembly, anti-rotation-protection, UR
G-SWS200-2OEN-BC01	upper assembly, E-Mounting, anti-rotation-prot., UR
G-SWS200-2U-N	lower assembly
G-SWS200-2UEN	lower assembly, E-Mounting
Square socket key…	
ZG-VKS160-SW20	for SW 20

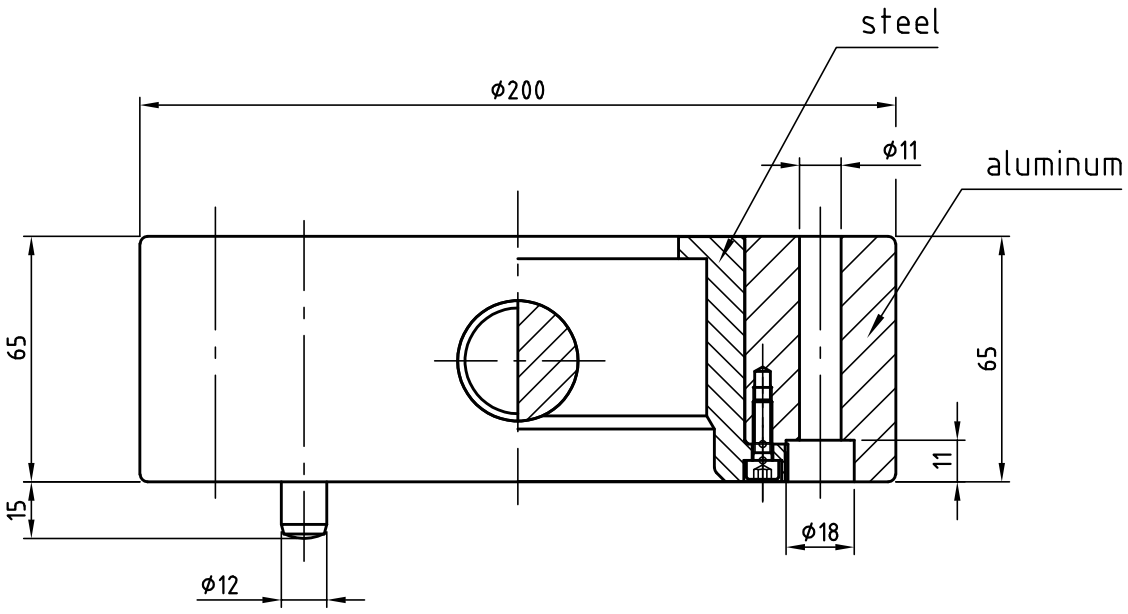
Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock
9	Lower assembly

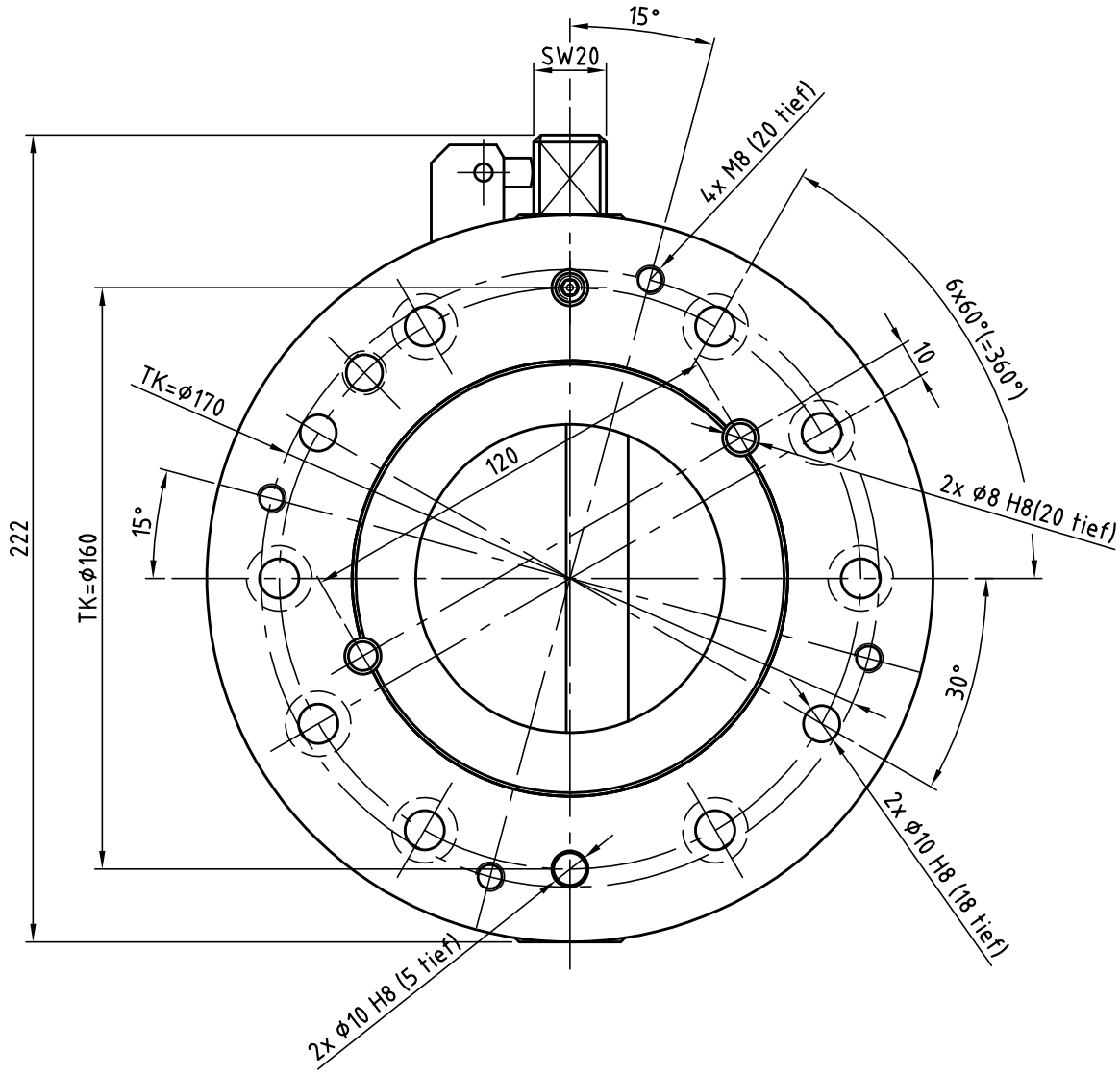






Datum 04.12.2020	Maßstab 1:2		
Zeichnungsnummer G-SWS200-2Z-BC01			GRIP GmbH Handhabungstechnik



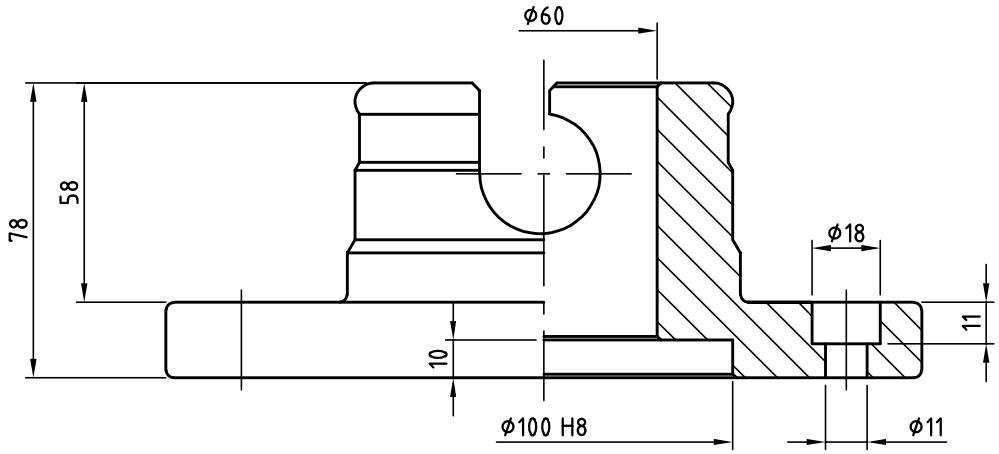


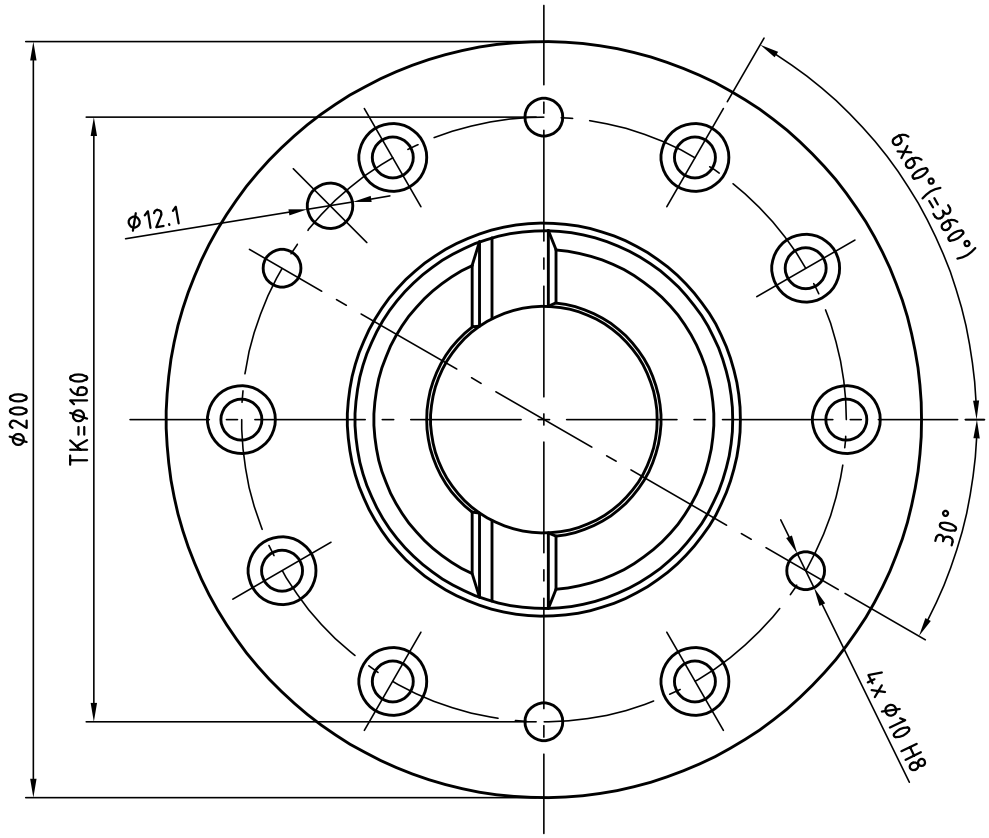
Datum	Maßstab		
04.12.2020	1:2		

Zeichnungsnummer

G-SWS200-20-N-BC01

GRIP GmbH Handhabungstechnik



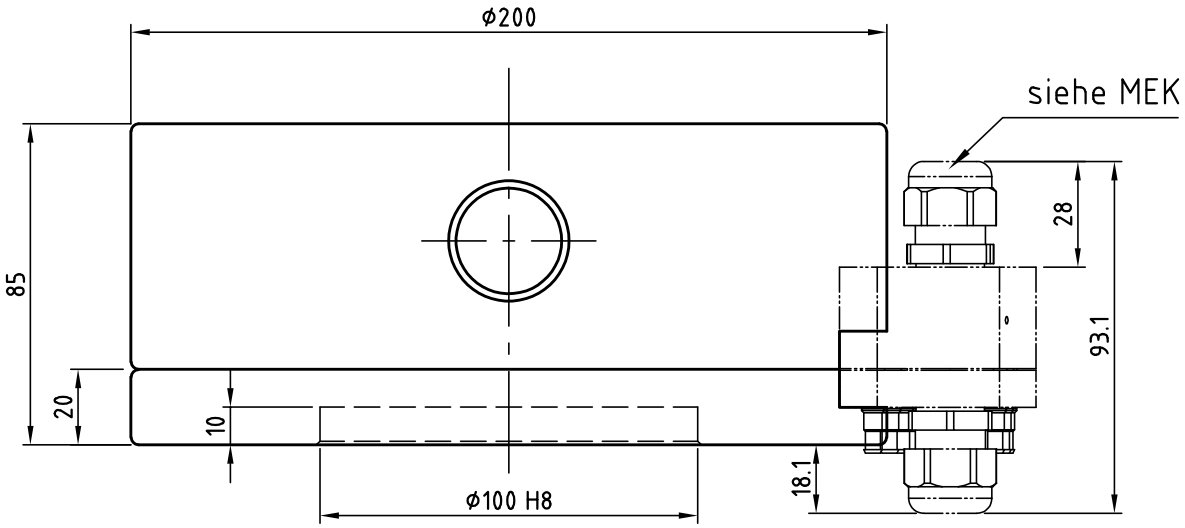


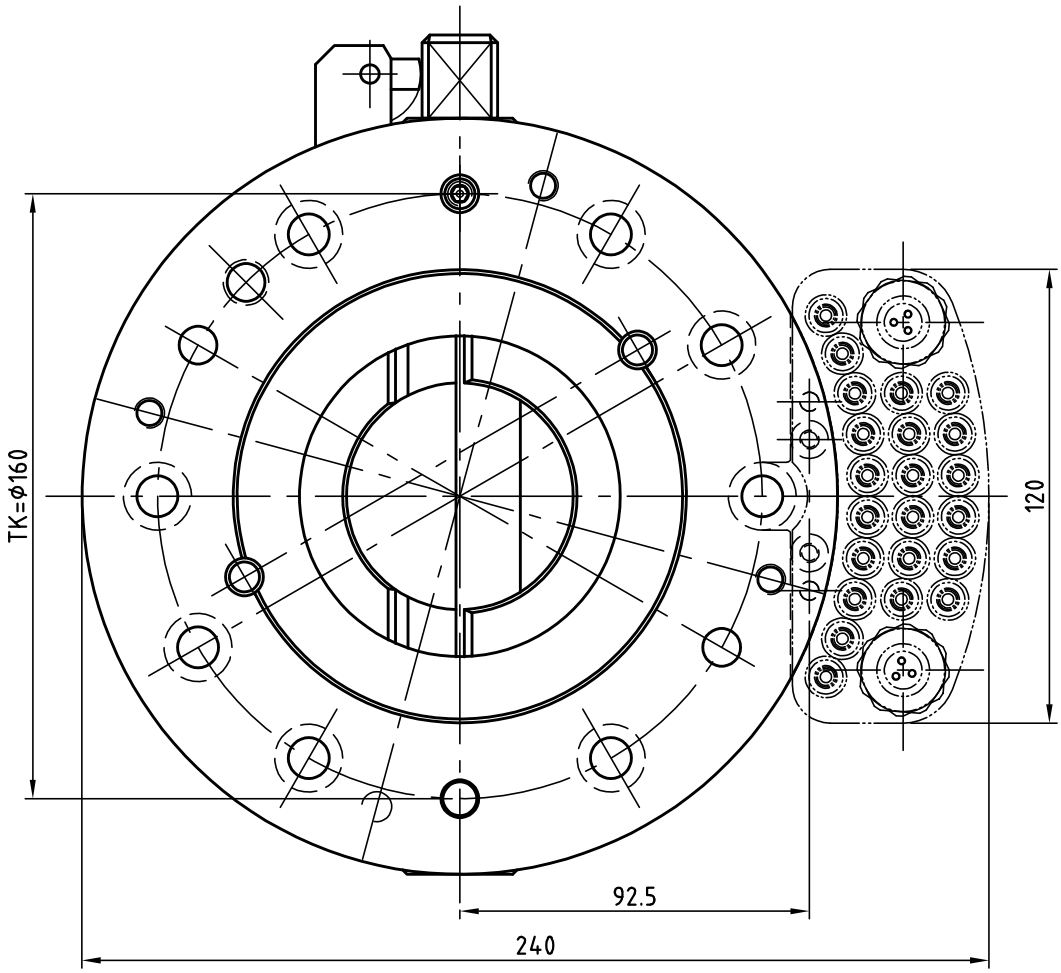
Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

G-SWS200-2U-N

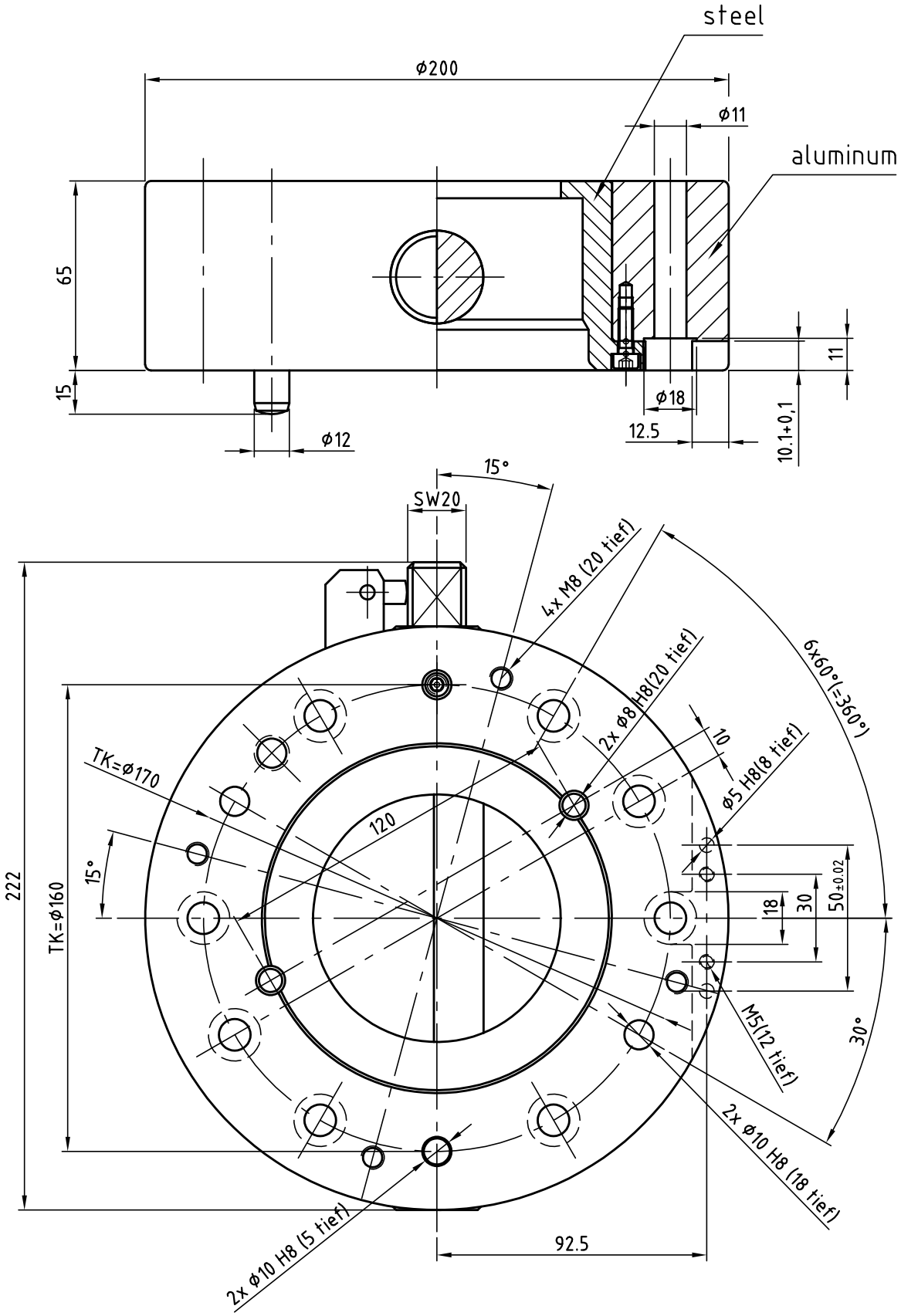
GRIP GmbH Handhabungstechnik



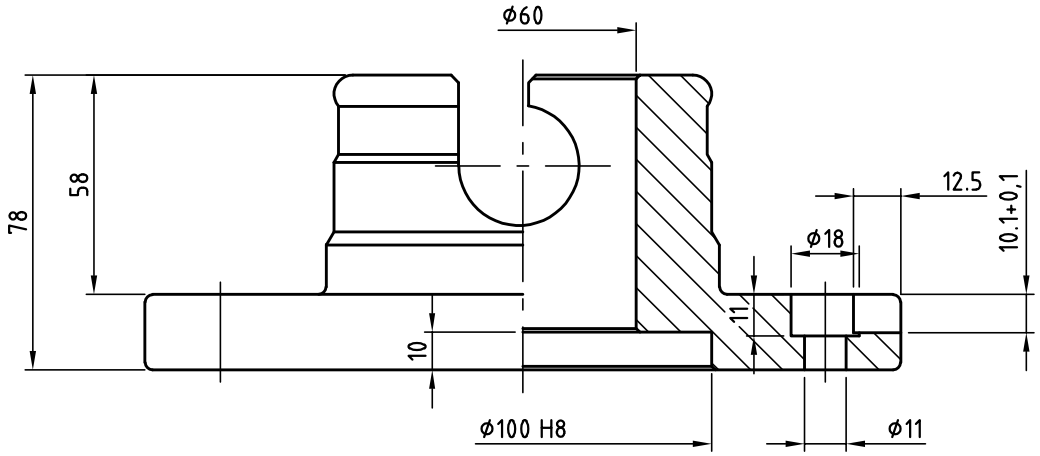


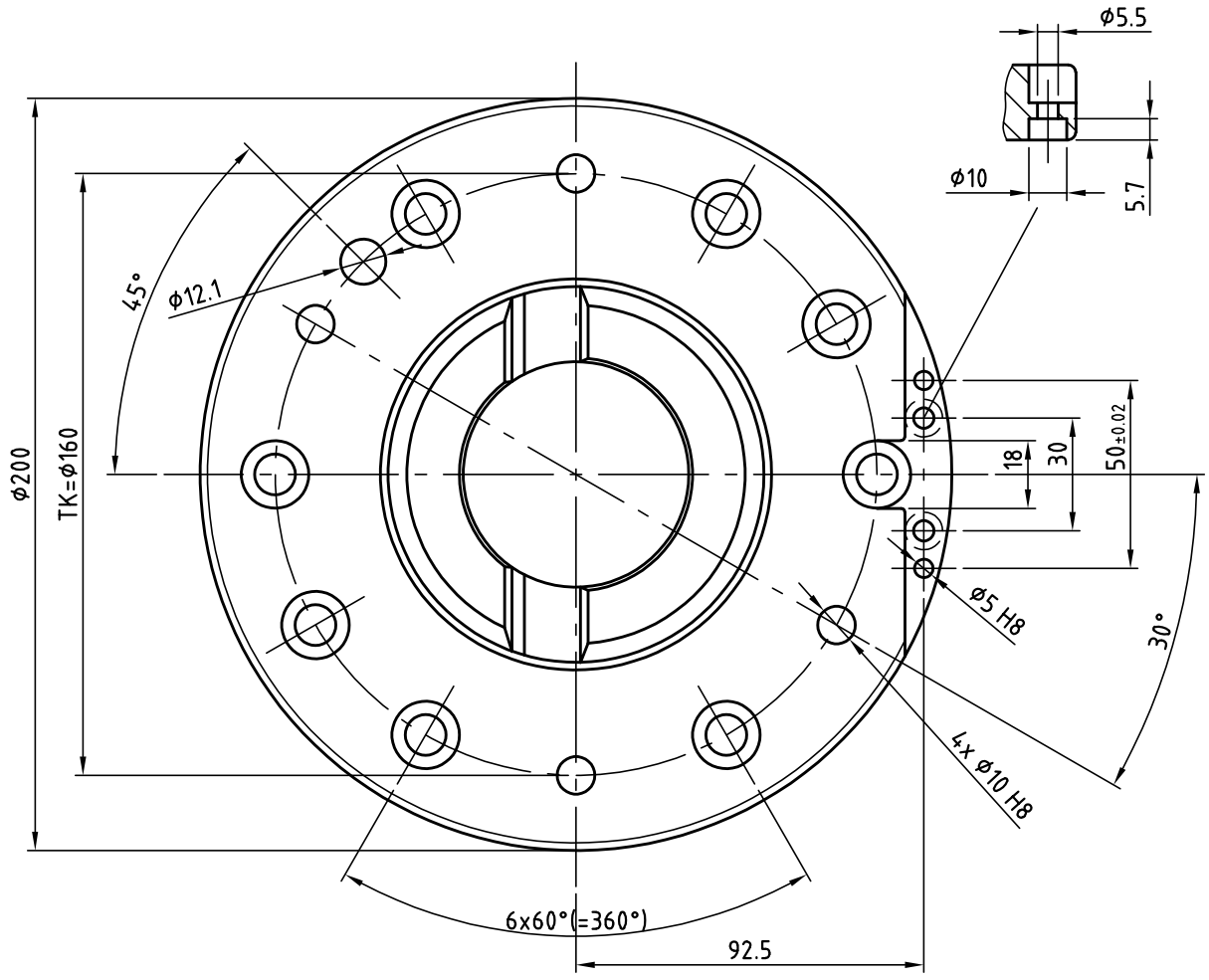
Datum	04.12.2020	Maßstab	1:2	
Zeichnungsnummer				
G-SWS200-2ZE-BC01				

GRIP GmbH Handhabungstechnik



Datum 04.12.2020	Maßstab 1:2		
Zeichnungsnummer G-SWS200-2OEN-BC01			GRIP GmbH Handhabungstechnik





Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

G-SWS200-2UEN

GRIP GmbH Handhabungstechnik

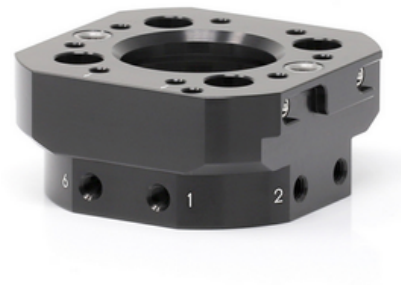
AUTOMATIC TOOL CHANGERS

One connection – 1000 possibilities

- Interface according to DIN EN ISO 9409–1
- Fully automatic tool change
- High repeatability < 0.02 mm
- Durable - withstands more than 1.000.000 tool change cycles
- Withstands high loads at low dead weight
- No external energy such as compressed air or electrical power is required
- Integrated pneumatic grommets
- The robot's own movement activates the locking and unlocking mechanism
- Spring-loaded pin provides additional safety during operation

The Auto Connector is a new type of mechanical coupling system that allows fully automatic tool changing. The system consists of an upper assembly and a lower assembly. A locking mechanism is located in the upper assembly to ensure a precise and form-fitting fit between the upper and lower assemblies. The locking and unlocking mechanism is activated by the robot's own movement. Trays allow multiple tool types to be parked at the end of the arm. No external power source is required for automatic tool change.

AC063



The AC063 automatic tool change is a new type of mechanical coupling system that allows fully automatic tool change. The system consists of an upper assembly and a lower assembly. A locking mechanism is located in the upper assembly to ensure a precise and form-fitting fit between the upper and lower assemblies. The locking and unlocking mechanism is activated by the robot's own movement. Trays allow multiple tool types to be parked at the end of the arm. No external power source is required for automatic tool change.

AC063

The Auto Connector is a fully automatic mechanical end of arm tool changer. The system is composed of an upper assembly and a lower assembly. The upper assembly houses the locking mechanism, which ensures a precise and form-locking fitment between the upper and lower assembly. The locking and unlocking mechanism is activated through the robots own movement. Trays make it possible to park multiple types of end of arm tools. An external energy source is not required for the Auto Connector to perform its automatic tool change.

Auto Connector Advantages:

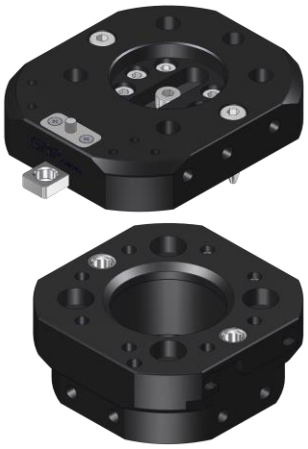
- Fully automatic end of arm tool changer
- Interface according to DIN EN ISO 9409–1
- High repeatability < 0.02 mm
- Durable - withstands over 10.000.000 changing cycles
- Withstands high loads with low dead weight
- The robot's own movement activates the locking and unlocking mechanism
- No external energy such as compressed air or electric are required
- Integrated pneumatic feedthroughs
- Module for electric actuated tools is optional
- Machined out of high strength aluminum and anodized
- A spring actuated pin ensures additional safety during operation

G-AC063

Technical specifications

Operating mode:
The upper assembly (1) and lower assembly (2) are automatically locked and unlocked by the robot's traverse path onto the tray.

Advantages:
Semi-automatic tool changing system
No external locking and unlocking energy required
Self-locking, secured locking mechanism
Withstands high loads with low dead weight
High repeat accuracy +/- 0.02 mm
Withstands over 1.000.000 changing cycles
Optional connection of a power coupling **SEK** for electrical ducts
Six integrated pneumatic ducts
Interface according to DIN EN ISO 9409-1



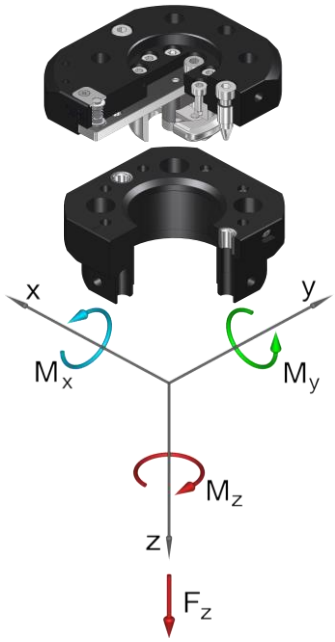
1

2

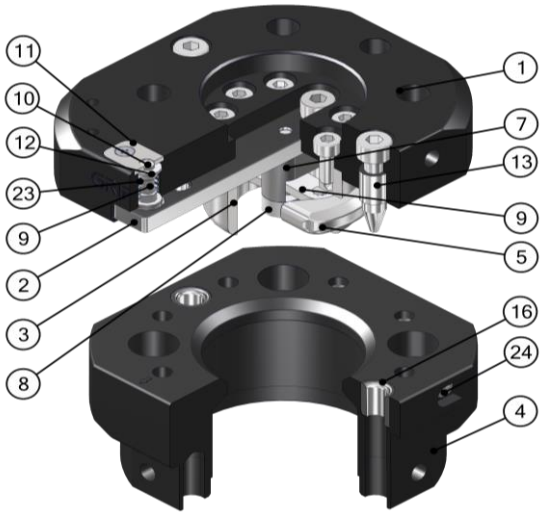
Technical specifications		AC063
Basic material		Al, anod.
Length x width x height [mm]		74 x 63 x 44
Pitch circle diameter [mm]		50
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		1875
Compression -Fz [kN]		65
Torsion Mz [Nm]		69
Bending Mx, My [Nm]		59
Mass [kg]	upper assembly	0,24
	lower assembly	0,15
Recommended load [kg]		15* / 20**
Locking stroke VH [mm]		1,5
Locking force VF [N]		30 - 100
Pneumatic ducts	connection	6 x M5
	max. pressure p [bar]	-1 bis 8

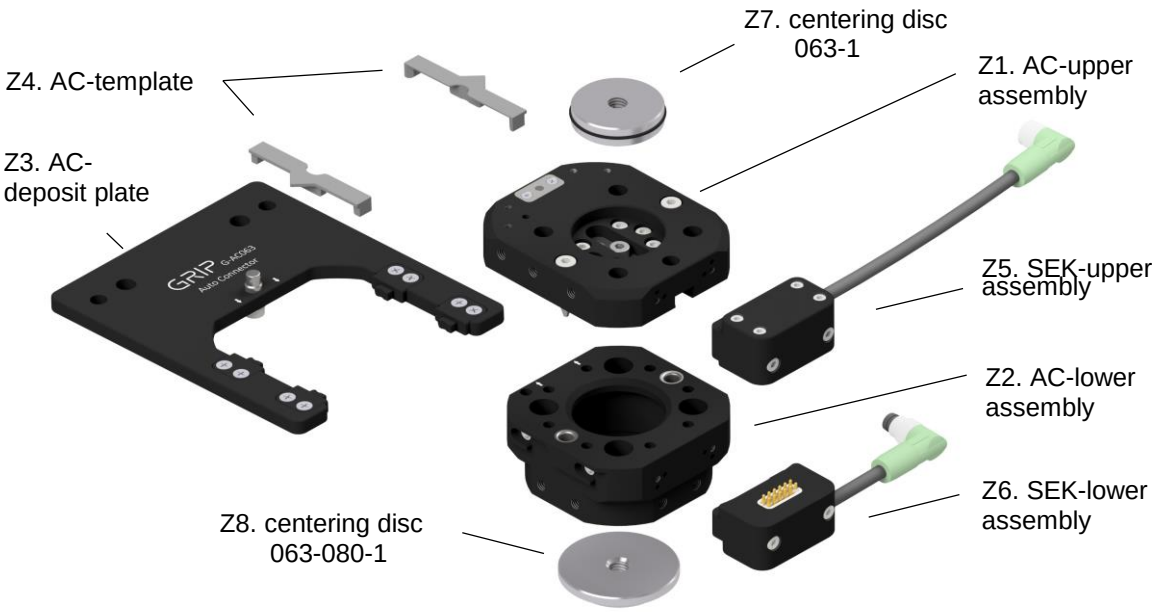
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety

** This guideline applies to the following assumptions:
Acceleration: 5 m/s², gravity distance: 100 mm, double safety

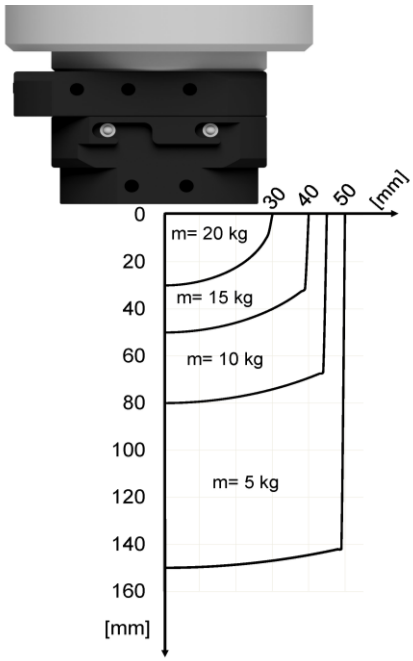


Pos.	Description
1	Upper assembly
2	Slider
3	Tappet
4	Lower assembly
5	Jaw 1
6	Jaw 2 (not visible)
7	Carrier
8	Connecting pin (slider)
9	Connecting pin (jaws)
10	Locking pin
11	Spring cover
12	Spring seat
13	Positioning pin
16	Drill bushing
23	Spring
24	Spring plunger



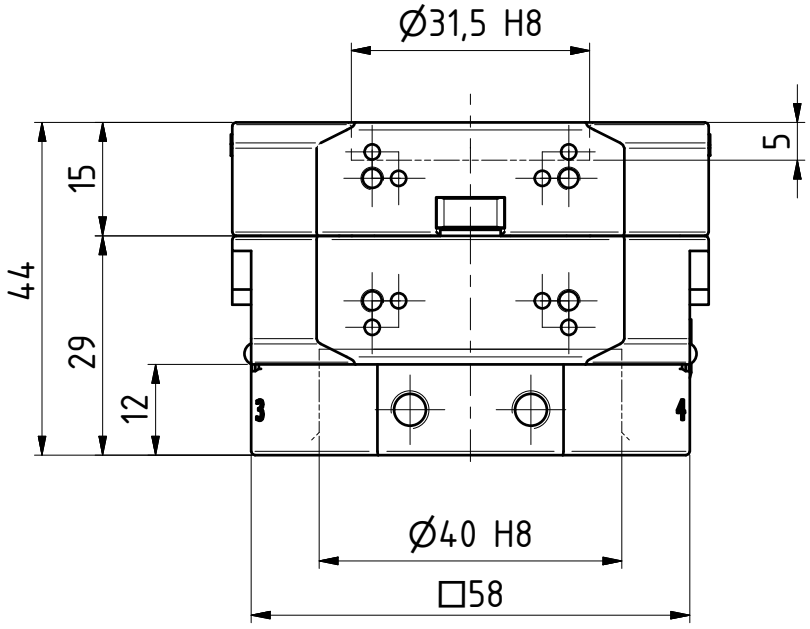


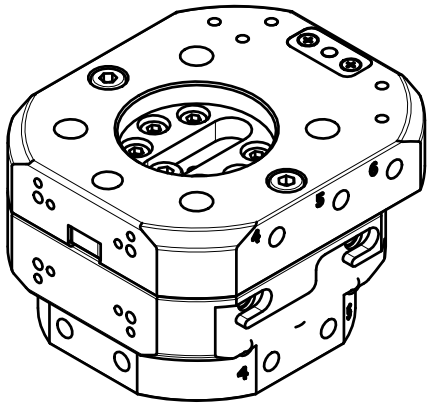
Pos.	Auto Connector Ø63, drilled acc. to ISO…	
Z1.	G-AC063-2OEP	upper assembly, E-Mount, 6 pneumatic ducts, Al, anodized
Z2.	G-AC063-2UEP	lower assembly, E-Mount, 6 pneumatic ducts, Al, anodized
	Accessory Auto Connector Ø63	
Z3.	G-AC063-A1-01	tray for AC063, single, Al, anodized
Z4.	ZG-AC063-A1-S1	programming-template 063 (2x)
Z5.	G-SEK100-O-1FE12-300-M8	electric coupling, upper assembly, plug M8, 8-poles, female
Z6.	G-SEK100-U-1FE12-40-M8	electric coupling, lower assembly, plug M8, 8-poles, male
Z7.	G-ZS063-1	centering disc
Z8.	G-ZS063-080-1	centering disc
	Spare and wear parts Auto Connector Ø63	
17.	EG-AC063-DS	gasket kit (8 x O-ring)
23.	EG-AC063-DF01	spring

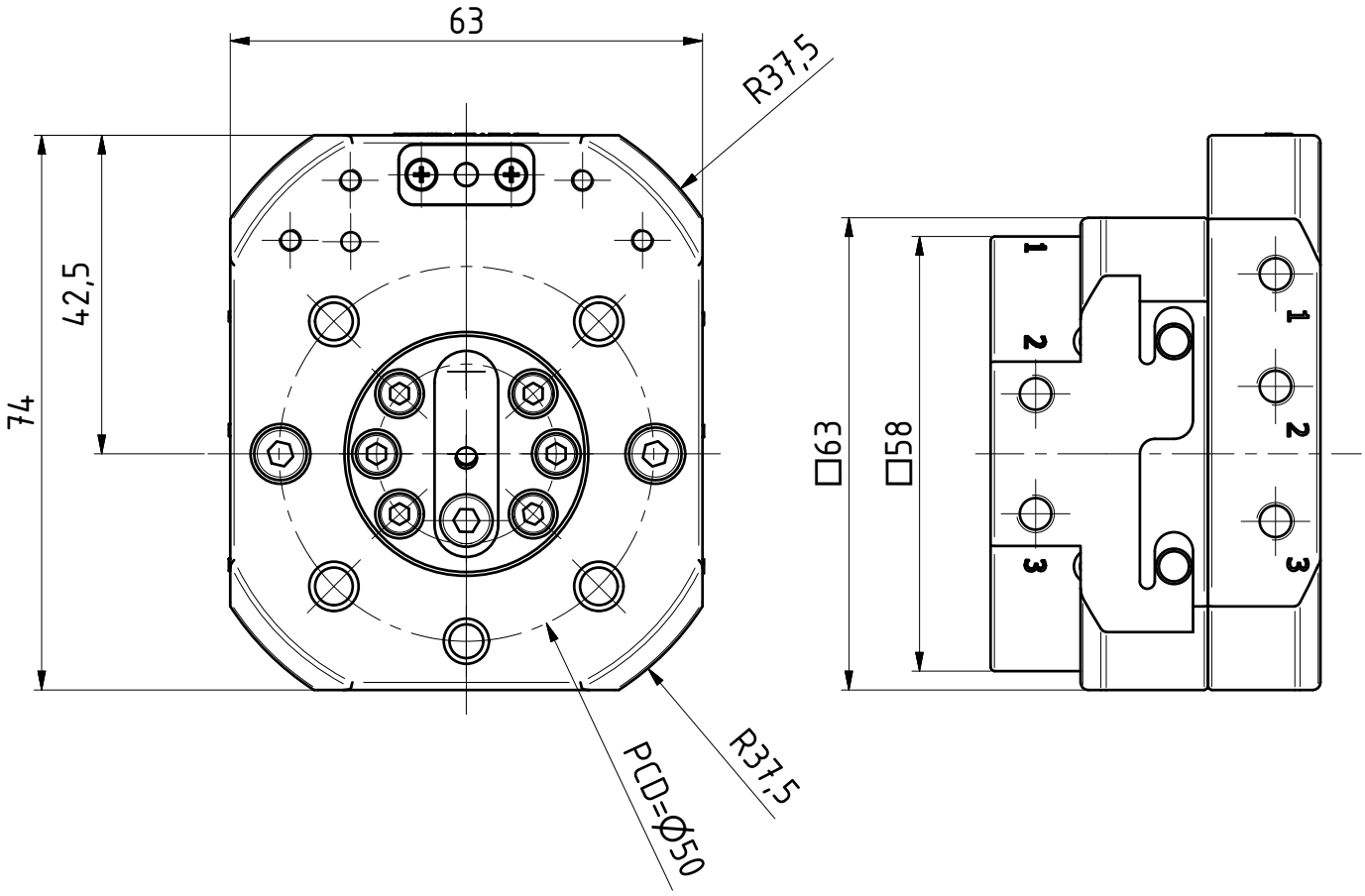


AC063 payload

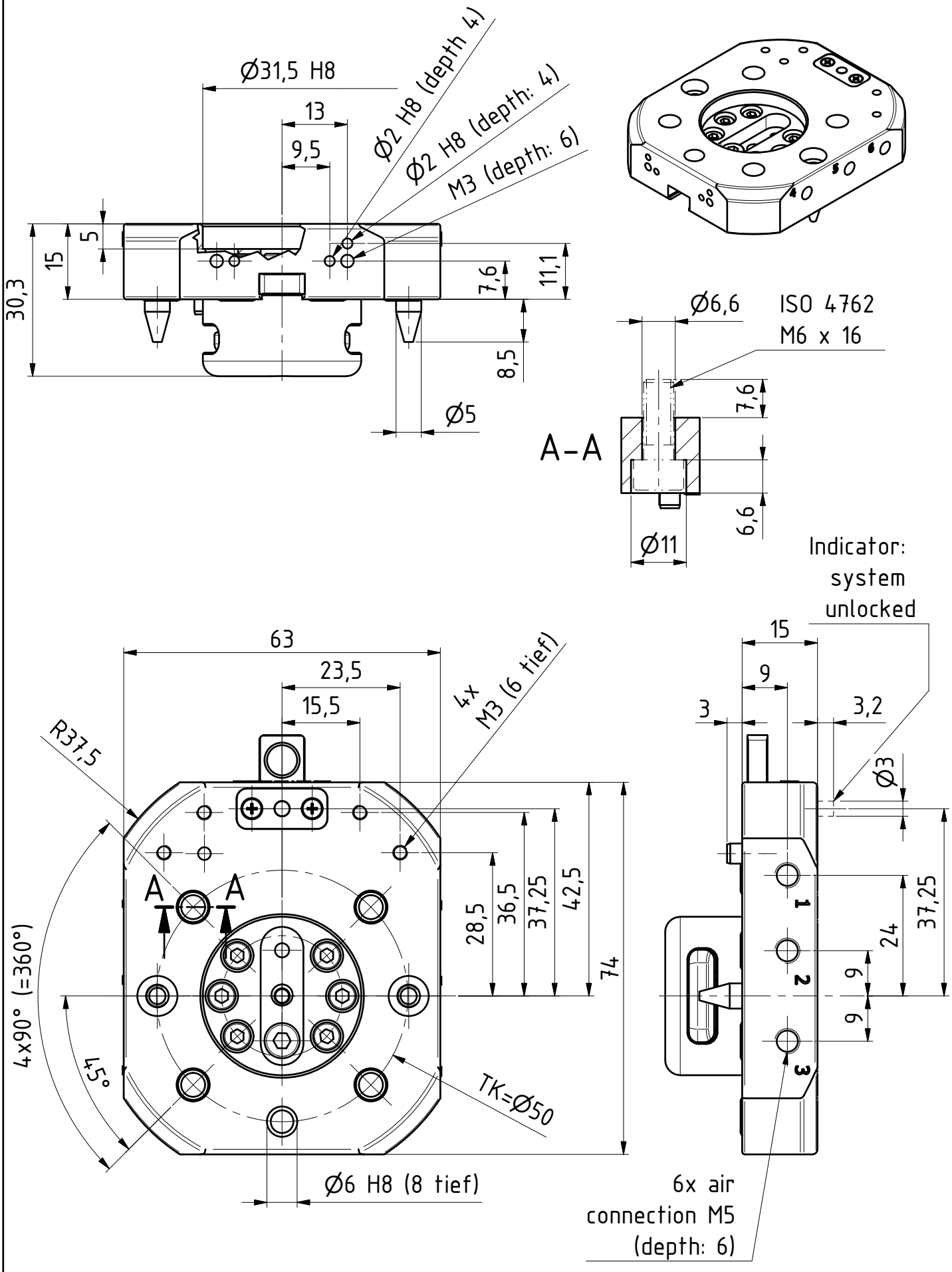
payload as a function of center of mass distance



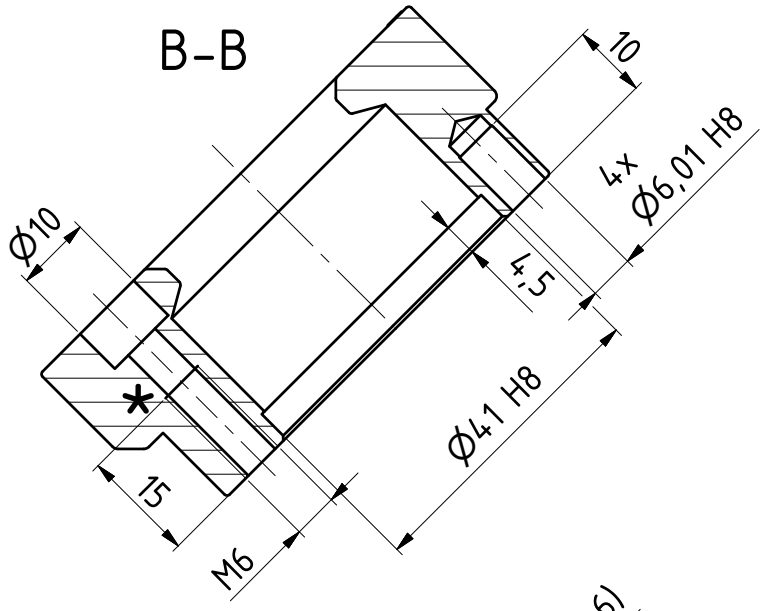


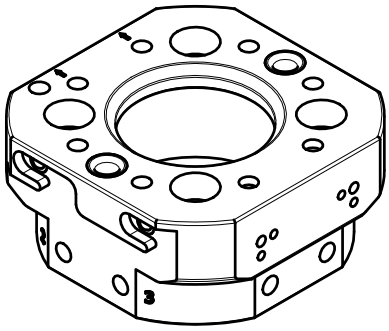


Datum 08.07.21	Maßstab 1 : 1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer 2D G-AC063-2ZEP			



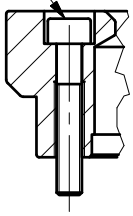
Datum 08.07.21	Maßstab 1 : 1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-AC063-20EP			

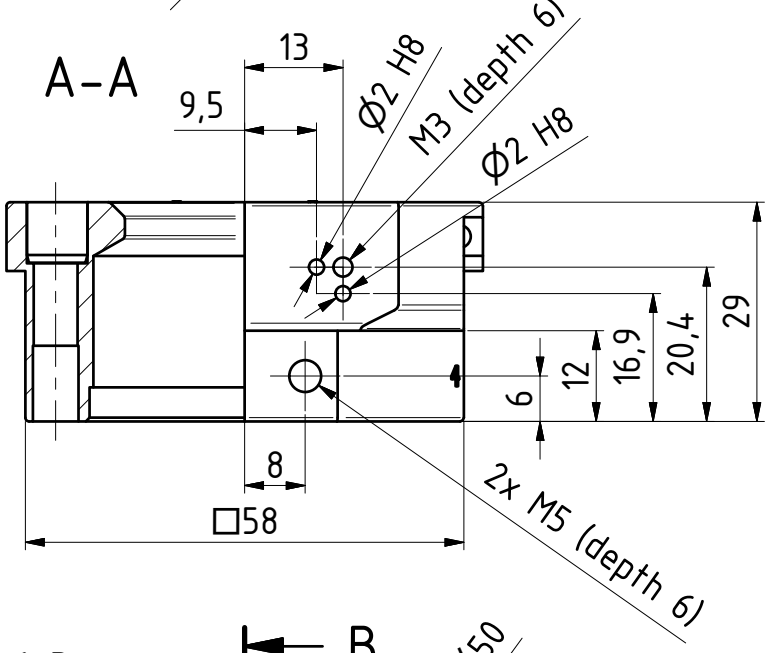




*A

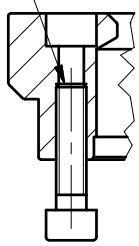
ISO 4762 M5

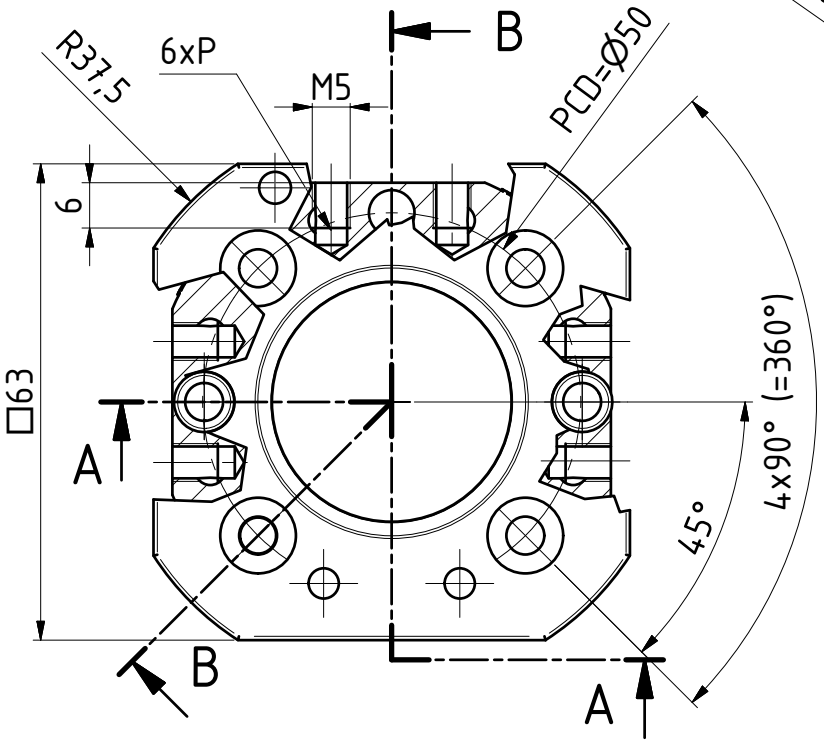


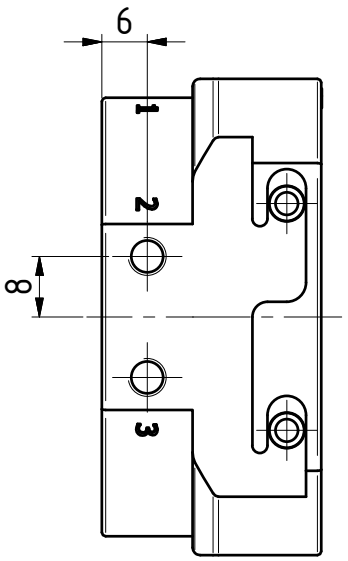


*B

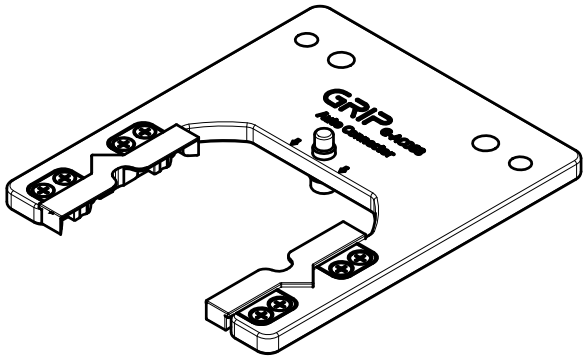
ISO 4762 M6

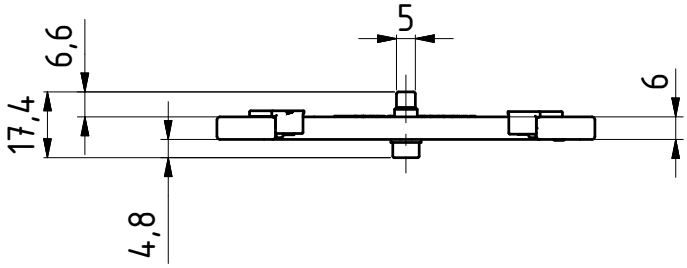


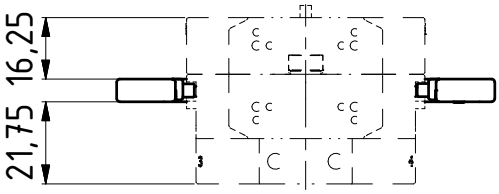


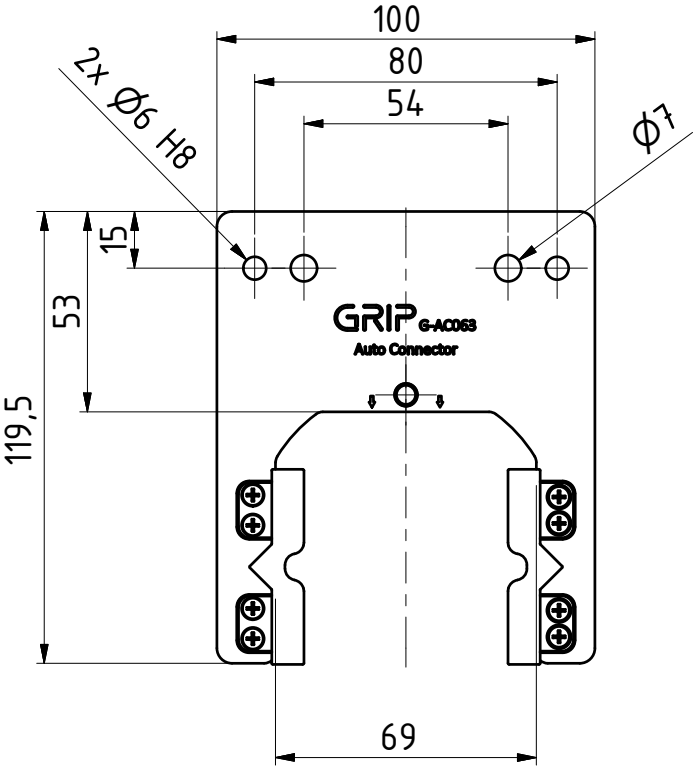


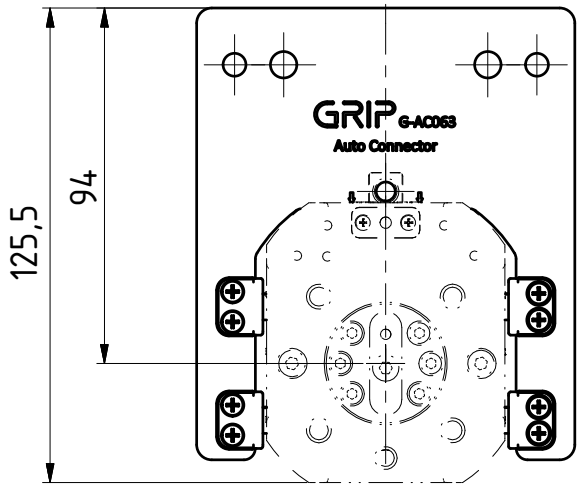
Datum 08.07.21	Maßstab 1 : 1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-AC063-2UEP			



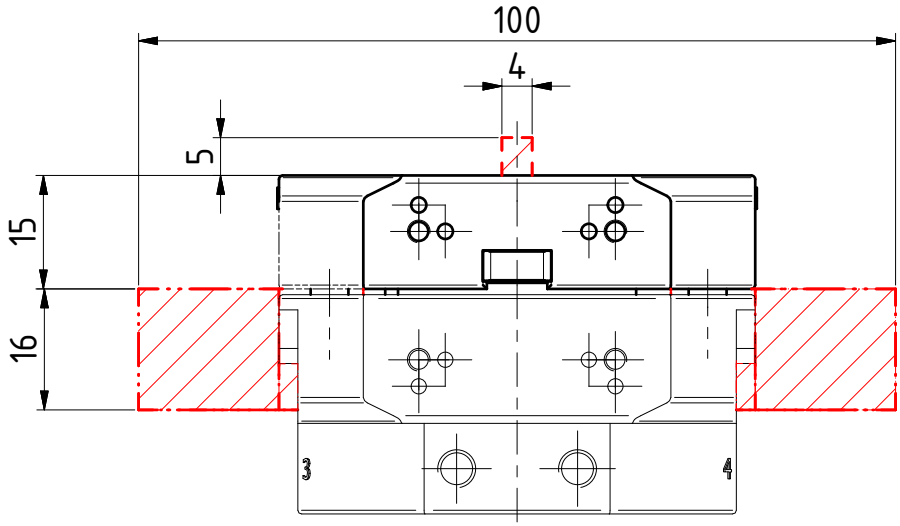


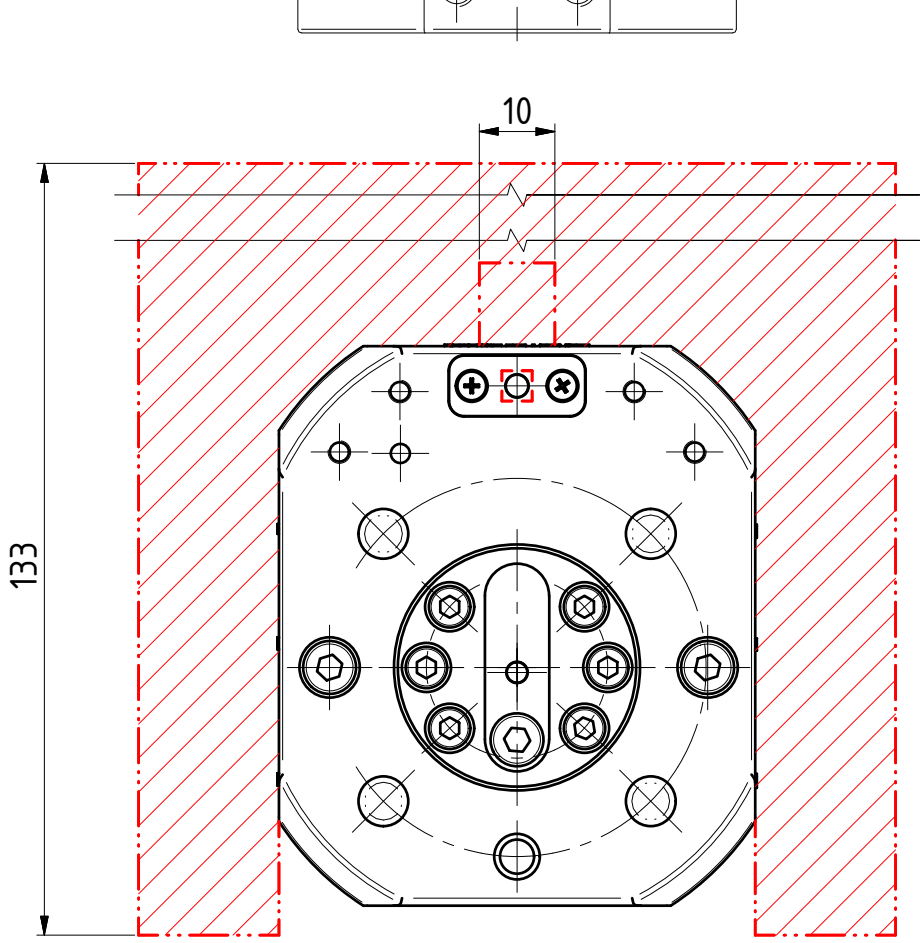


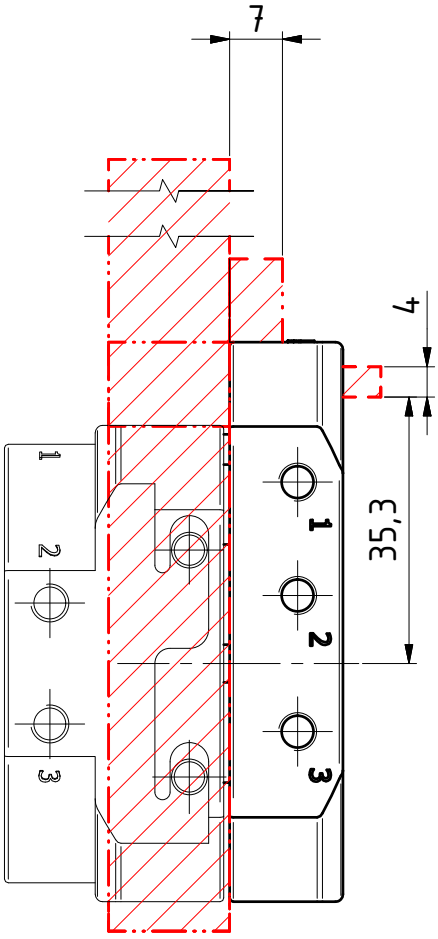


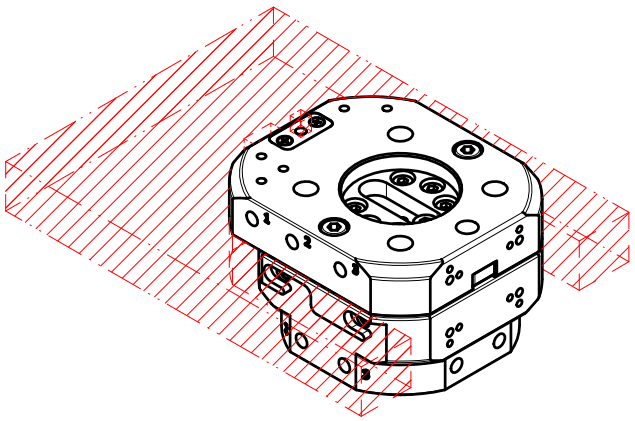


Datum 08.07.21	Maßstab 1 : 2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-AC063-A1-01			









Collision area!

Keep clear!

Do not mount tools in this area.
Risk of collision.

Datum 08.07.21	Maßstab	
Zeichnungsnummer G-AC063 Collision Area		GRIP GmbH Handhabungstechnik

FEEDING THROUGH

Standardized products for feeding through compressed air and electrical signals

Products for the implementation of compressed air and electrical signal transmission.
Our pinnacle in grommets, the DDF Multi Swivel, prevents twisting of air and/or vacuum lines during endless rotational movements, so that rotating tools are elegantly supplied with driving energy.

In addition to our DDF Multi-Swivel, we also offer media transfer modules that are fully compatible with the offered tool-changers: MEK Multi Energy Coupling and SEK Energy Coupling.

SEK Energy Coupling

The SEK Energy Coupling is a SHW Connector accessory that enables the transmission of energy, air and vacuum.

MEK-PM Multi-Energy-Coupling

The MEK-PM Multi-Energy Coupling is a further development of our MEK series. The inlets and outlets for the pneumatic and electrical lines are horizontally arranged. This reduces the height profile of the MEK-PM. Pneumatic hoses can be connected to the coupling by means of push-in fittings (connection M5).

MEK Multi-Energy-Coupling

The MEK Multi-Energy-Coupling is an MGW Connector accessory to that enables the transmission of energy, air and vacuum.

MEK-R Multi-Energy-Coupling

The MEK-R Multi-Energy-Coupling is a further development of our MEK series. The four air feedthroughs are equipped with check valves on the robot side. This allows the MGW-R coupling to be released under activated compressed air. In addition, the electrical contacts on the MEK-R have been replaced with spring contacts.

DDF Multi Swivel

Solution for the rotatable feed-through of 2 to 4 compressed air or vacuum lines.
The compressed air is fed through channels inside the DDF. This prevents twisting of the pneumatic lines during endless rotary movements.

SEK ENERGY COUPLING

The SEK Energy Coupling is a SHW Connector accessory that enables the transmission of energy, air and vacuum.

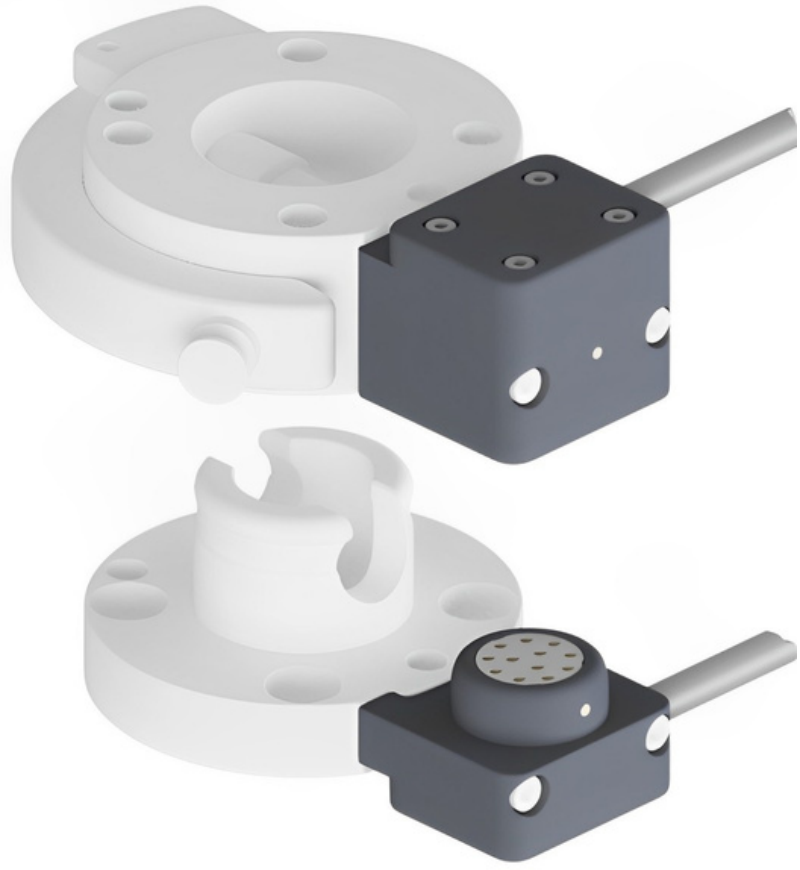
SEK Advantages:

- Extends the mechanical interfaces of the SHW Connector
- Replaces additional plug connections
- Transmits 12x electrical signals from the upper to the lower assembly

The SEK Energy Coupling is a SHW Connector accessory that enables the transmission of energy, air and vacuum.

SIZES

SEK100
SEK100-P
SEK100-FE
SEK125
AP-SEK100-SHW125
AP-SEK100-SHW160

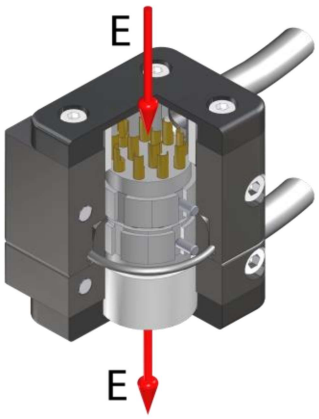


Operating mode:
The SEK upper assembly is mounted on the SHW upper assembly. The SEK lower assembly is mounted on the SHW lower assembly accordingly. The SEK is automatically coupled by the mechanical connection of the exchange system.
Advantages:
Mechanical and electric connections are established simultaneously.
Withstands up to 50,000 changing cycles
Individual wiring
Coding of the interchange parts

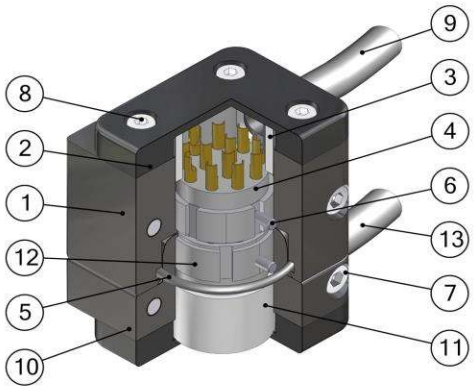
1

2

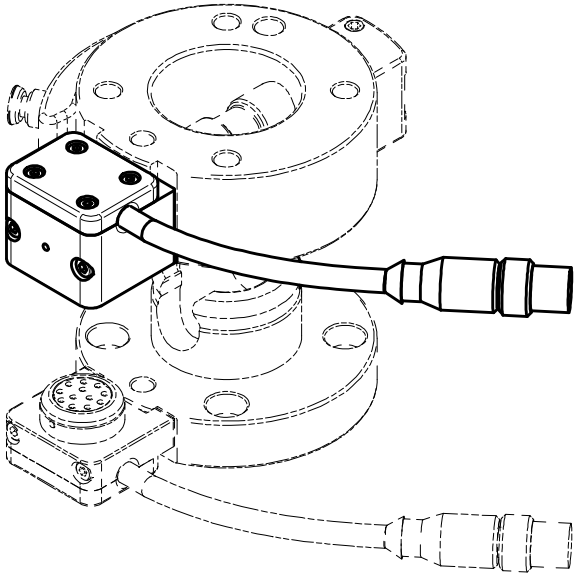
Technical specifications		SEK100
Basic material		Al, anod.
Compatible with		**SHW 063, 080, 100**
Adaptable to		**SHW 125, 160**
Width x depth x height [mm]		34 x 32 x 29,5
No. of poles E		12
Rated current per pole I [A]		9
Rated voltage U [V]		63
Contact resistance per pole R [mΩ]		3
Contact durability (cycles)		50.000
Mass [kg]	upper assembly	0,07
	lower assembly	0,045
Protection class (higher requirement only on request)		IP40
Operating temperature range [°C]		-30 to +120

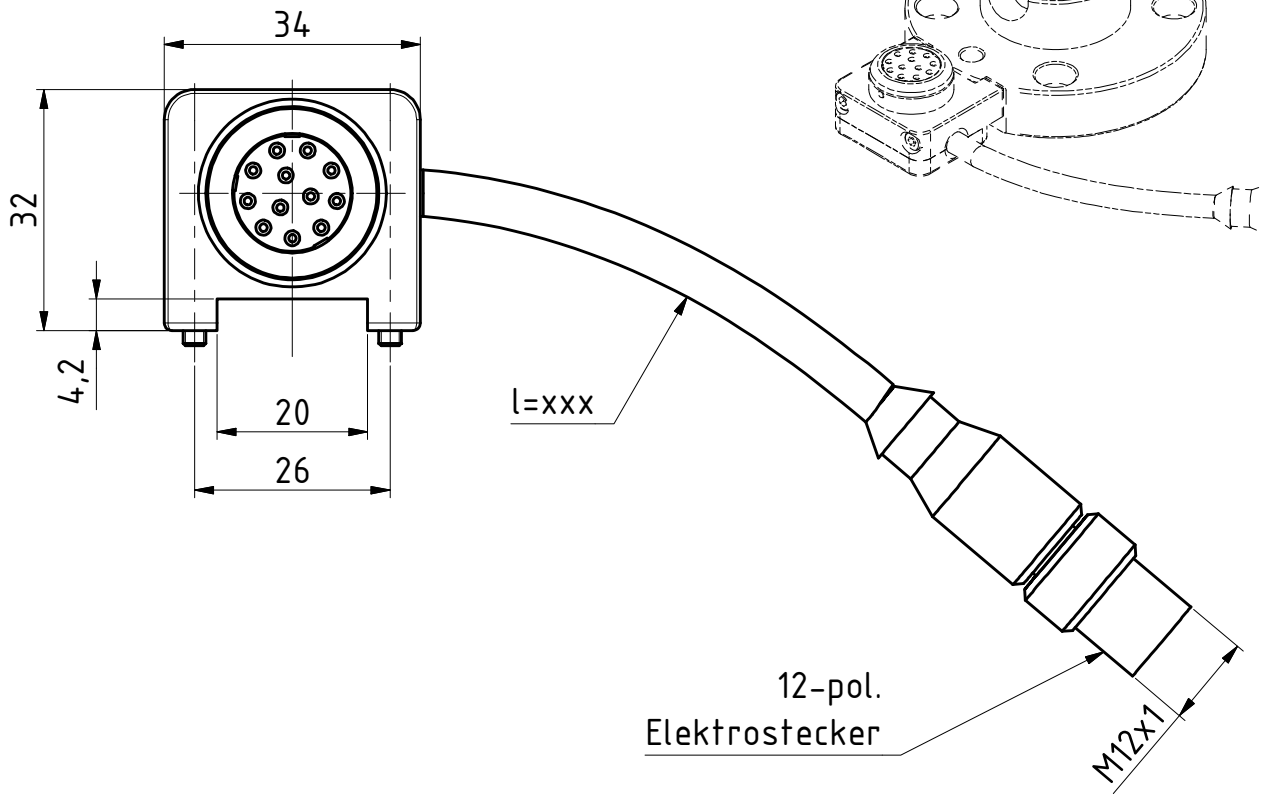


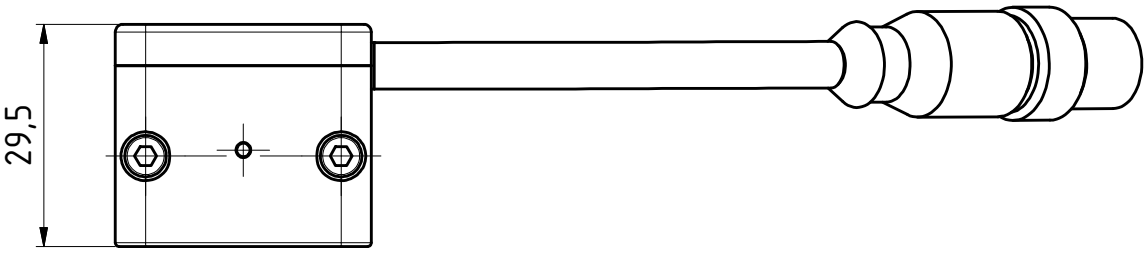
Pos.	Description
1	Upper assembly 1E
2	Cap
3	Distance bush upper assembly
4	Insulating body with pins
5	O-Ring
6	Cylindrical pin
7	Mounting screw
8	Screw for Cap
9	Cable on the robot side
10	Lower assembly 1E
11	Distance bush lower assembly
12	Insulating body with bushings
13	Cable on gripper side

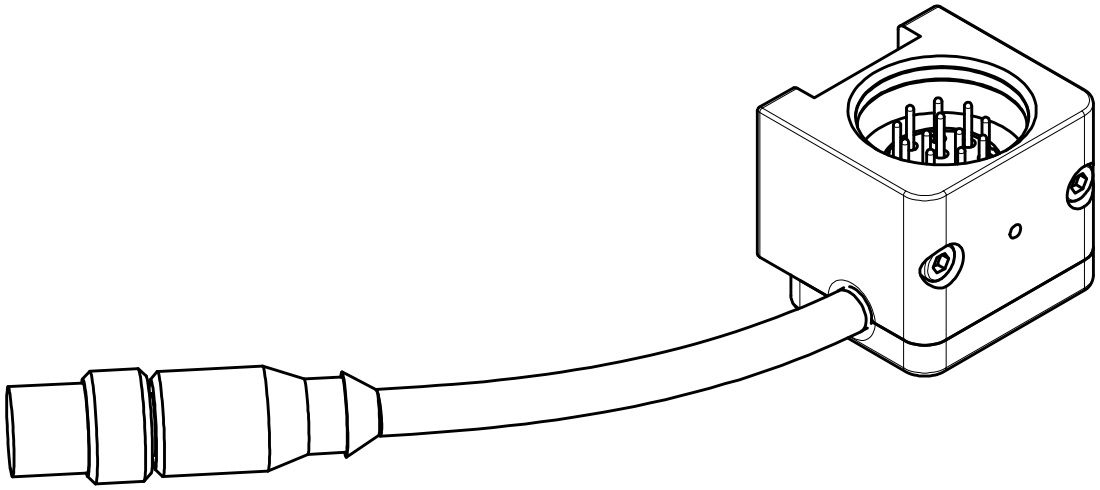


SEK energy feed-through with pneumatic ducts…	
G-SEK100-O-1E12-300-M12	upper assembly, electrical plug, 12 poles, cable L= 300 mm, plug M12x1, 12 poles
G-SEK100-U-1E12-300-M12	lower assembly, electrical bushing, 12 poles, cable L= 300 mm, bushing M12x1, 12 poles
G-SEK100-O-1E12-300-M8	upper assembly, electrical plug, 12 poles, cable L= 300 mm, plug M8, 8 poles
G-SEK100-U-1E12-40-M8	lower assembly, electrical bushing, 12 poles, cable L= 300 mm, bushing M8, 8 poles

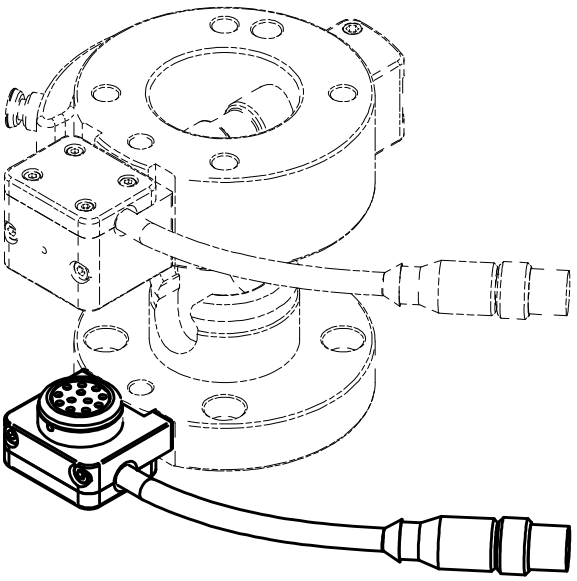


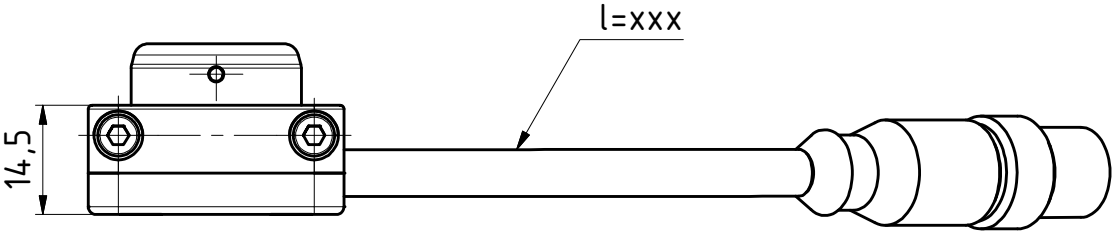


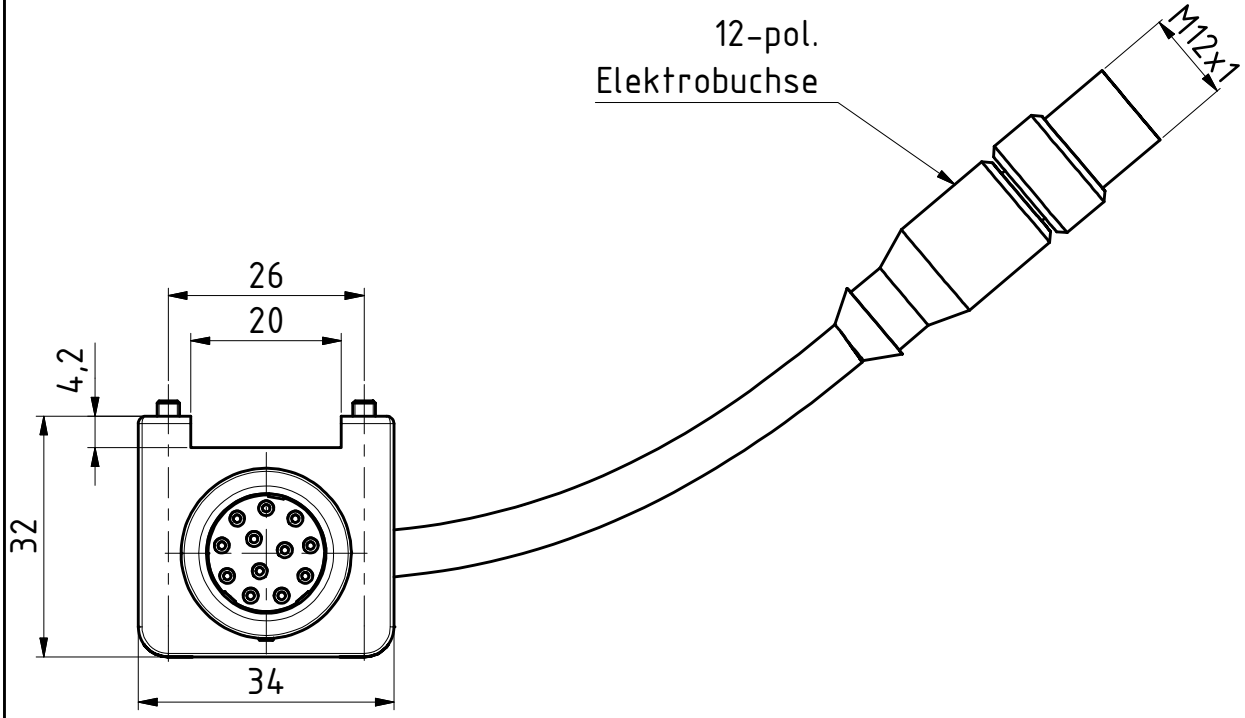


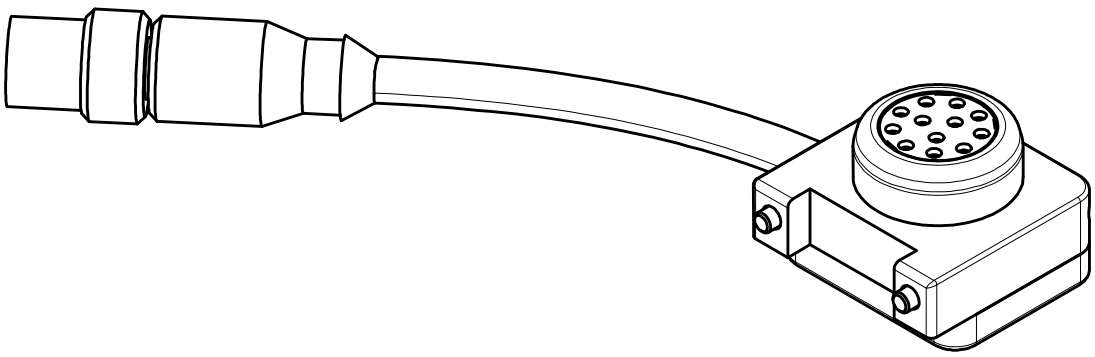


Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SEK100-O-1E12-300-M12			

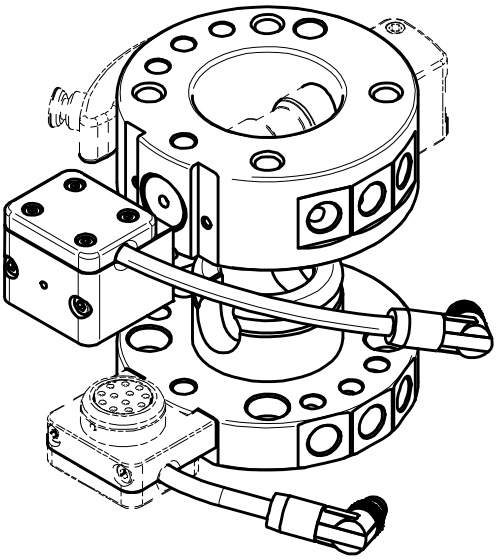


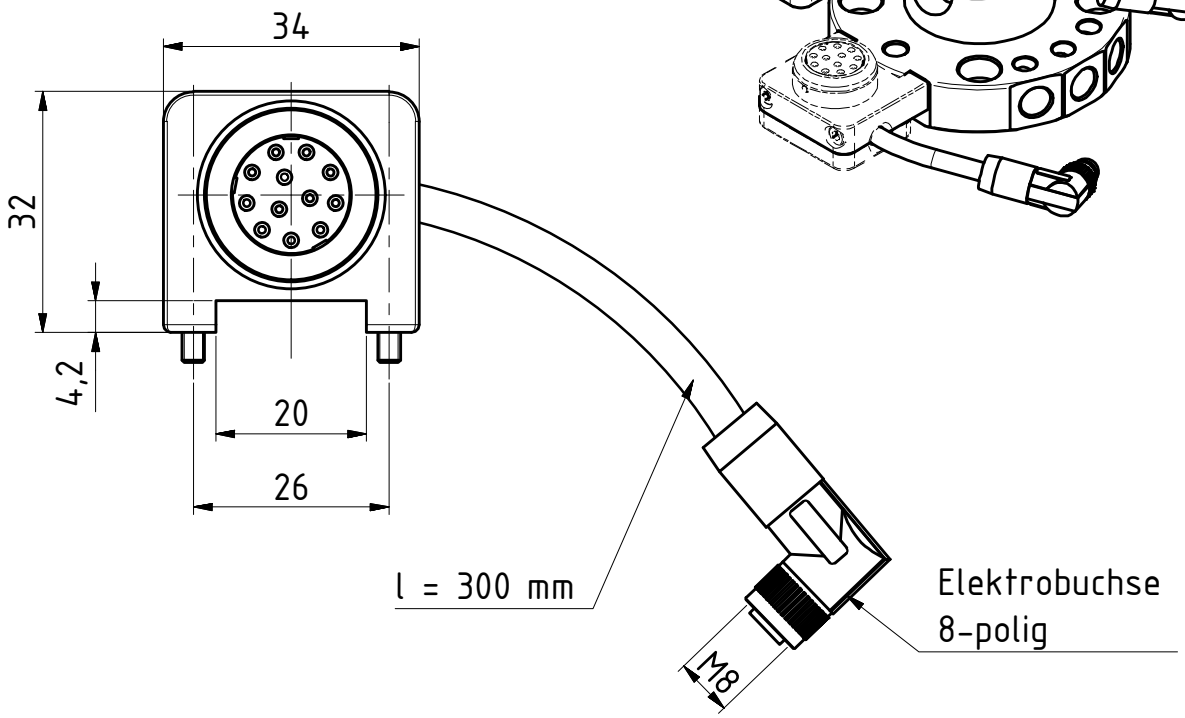


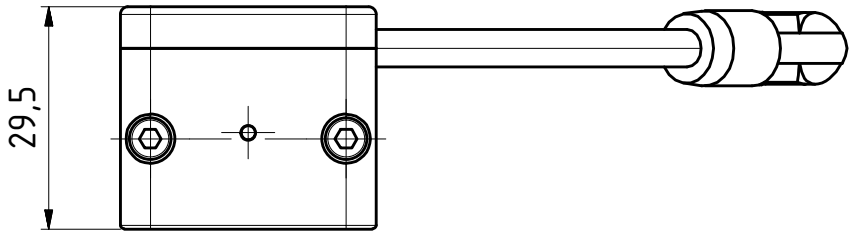


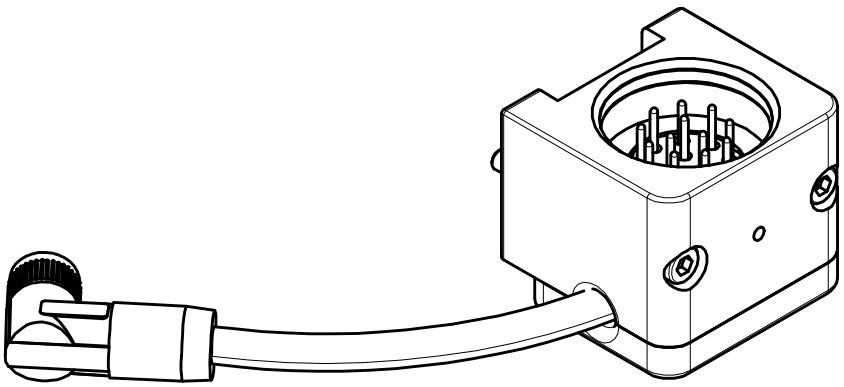


Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SEK100-U-1E12-300-M12			

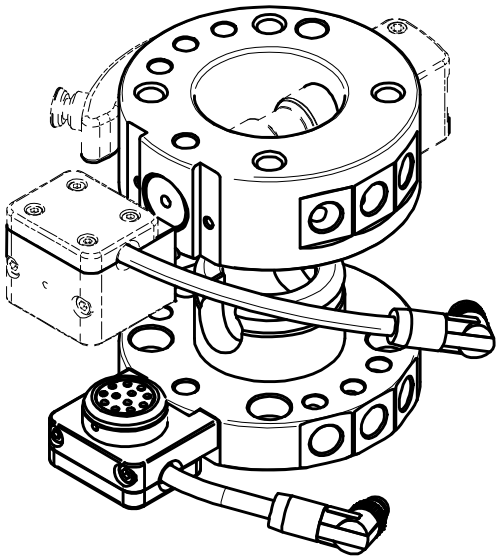


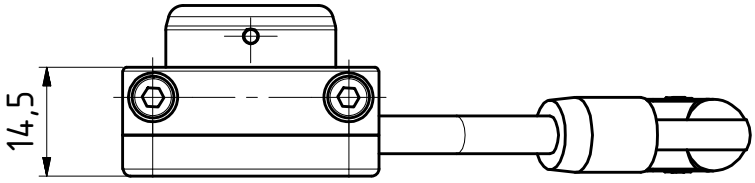


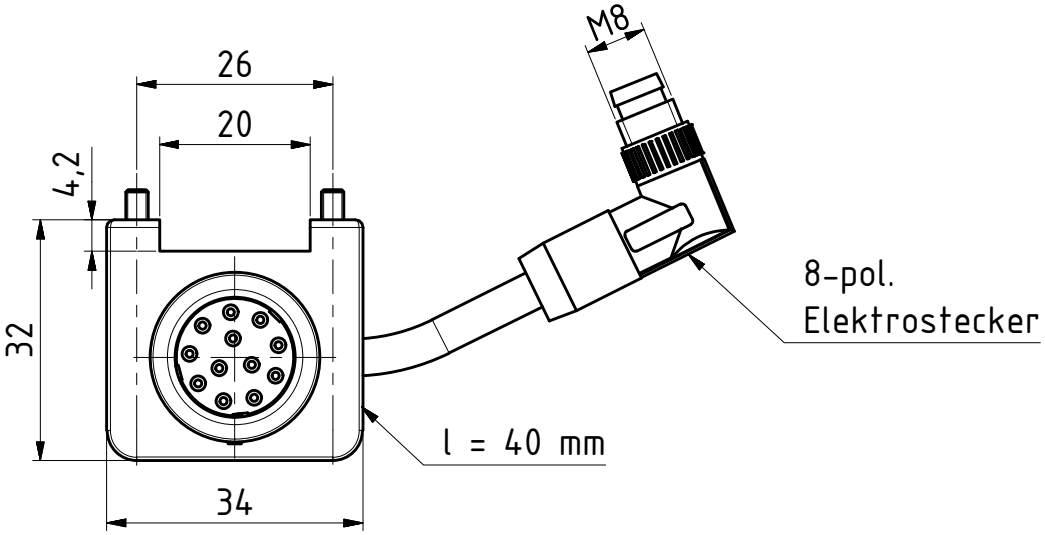


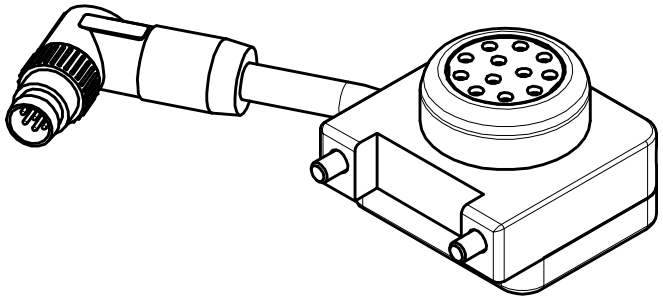


Datum 23.10.19	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SEK100-O-1E12-300-M8			









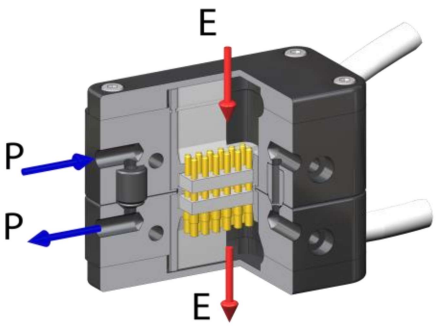
Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SEK100-U-1E12-40-M8			

G-SEK100-P

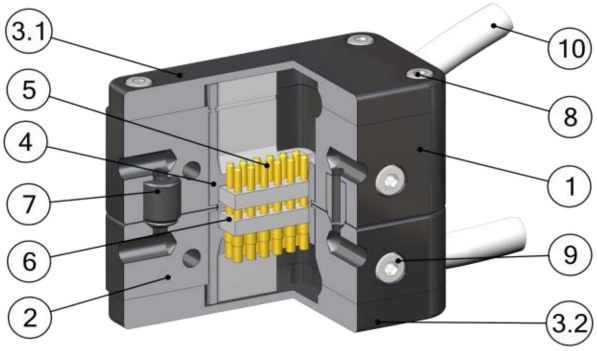
Technical specifications

Operating mode:
The SEK upper assembly is mounted on the SHW upper assembly. The SEK lower assembly is mounted on the SHW lower assembly accordingly. The SEK is automatically coupled by the mechanical connection of the exchange system.
Advantages:
Mechanical, electric and pneumatic connections are established simultaneously.
Withstands up to 1,000,000 changing cycles
Individual wiring and coding of the interchange parts

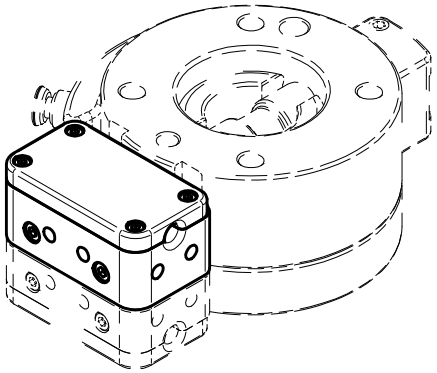
Technical specifications		SEK100-P
Basic material		Al, anod.
Compatible with		**SHW 063, 080, 100 ; AC063**
Adaptable to		**SHW 125, 160**
Width x depth x height [mm]		52 x 33,5 x 45
Signal ducts		12
Rated current I [A]		2
Rated voltage U (max. voltage) [V]		63 (120)
Contact resistance per pole R [mΩ]		20
Number P		6
Cross section A per P [mm²]		6,16
Operating pressure p [bar]		-1 to 8
Nominal width NW [mm]		M5
Contact durability (cycles)		50.000
Mass [kg]	upper assembly	0,09
	lower assembly	0,08
Protection class (higher requirement only on request)		IP40
Operating temperature range [°C]		-30 to +120

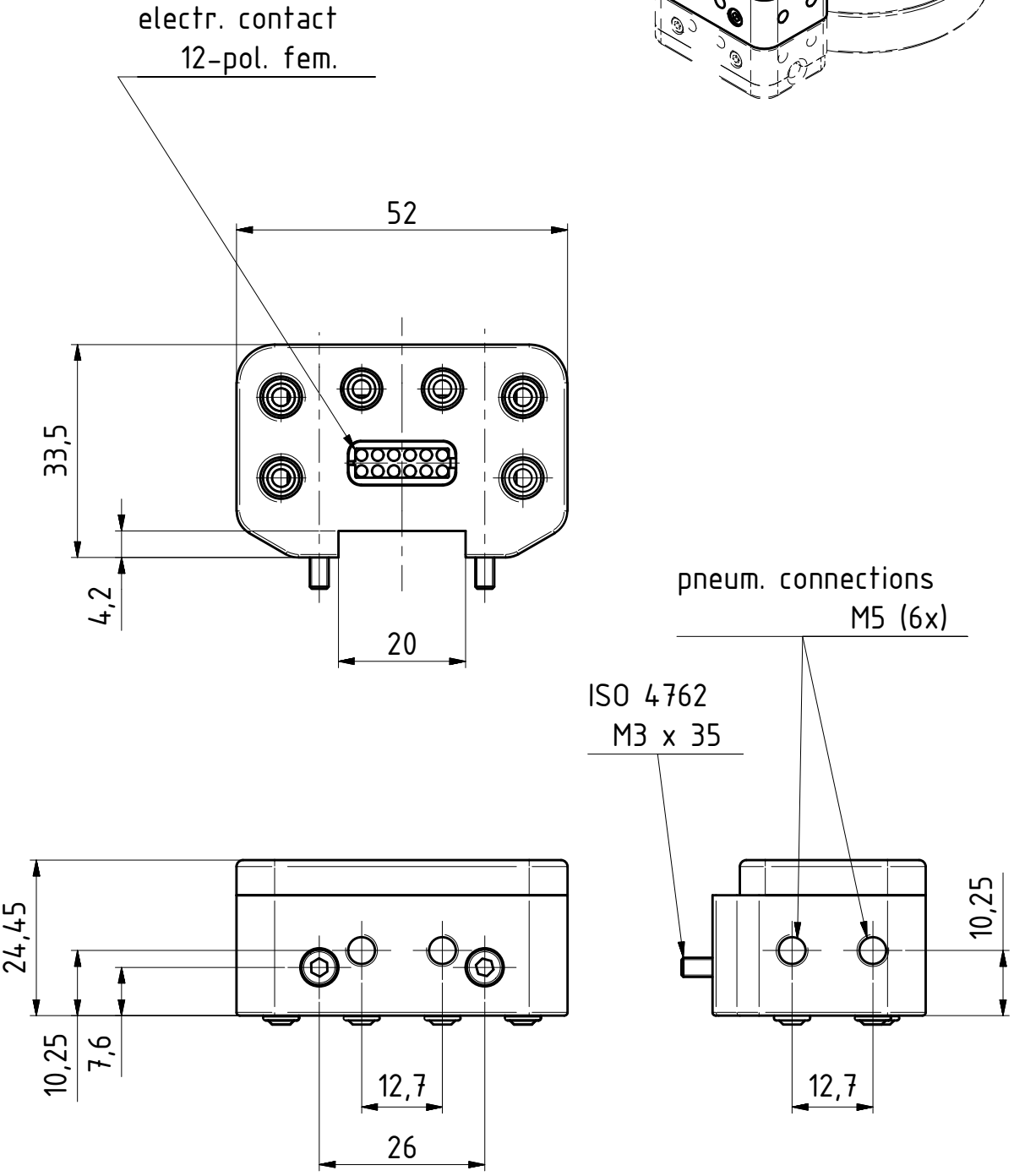


Pos.	Description
1	Upper assembly
2	Lower assembly
3.1	Upper cap
3.2	Lower cap
4	Insulation frame
5	Electric bushings
6	Electric spring pins
7	Pneumatic sealing
8	Screw
9	Mounting screw
10	Cable (optional)

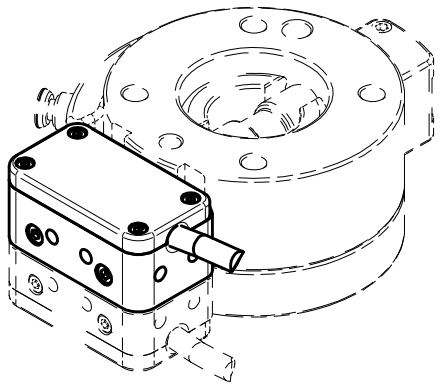


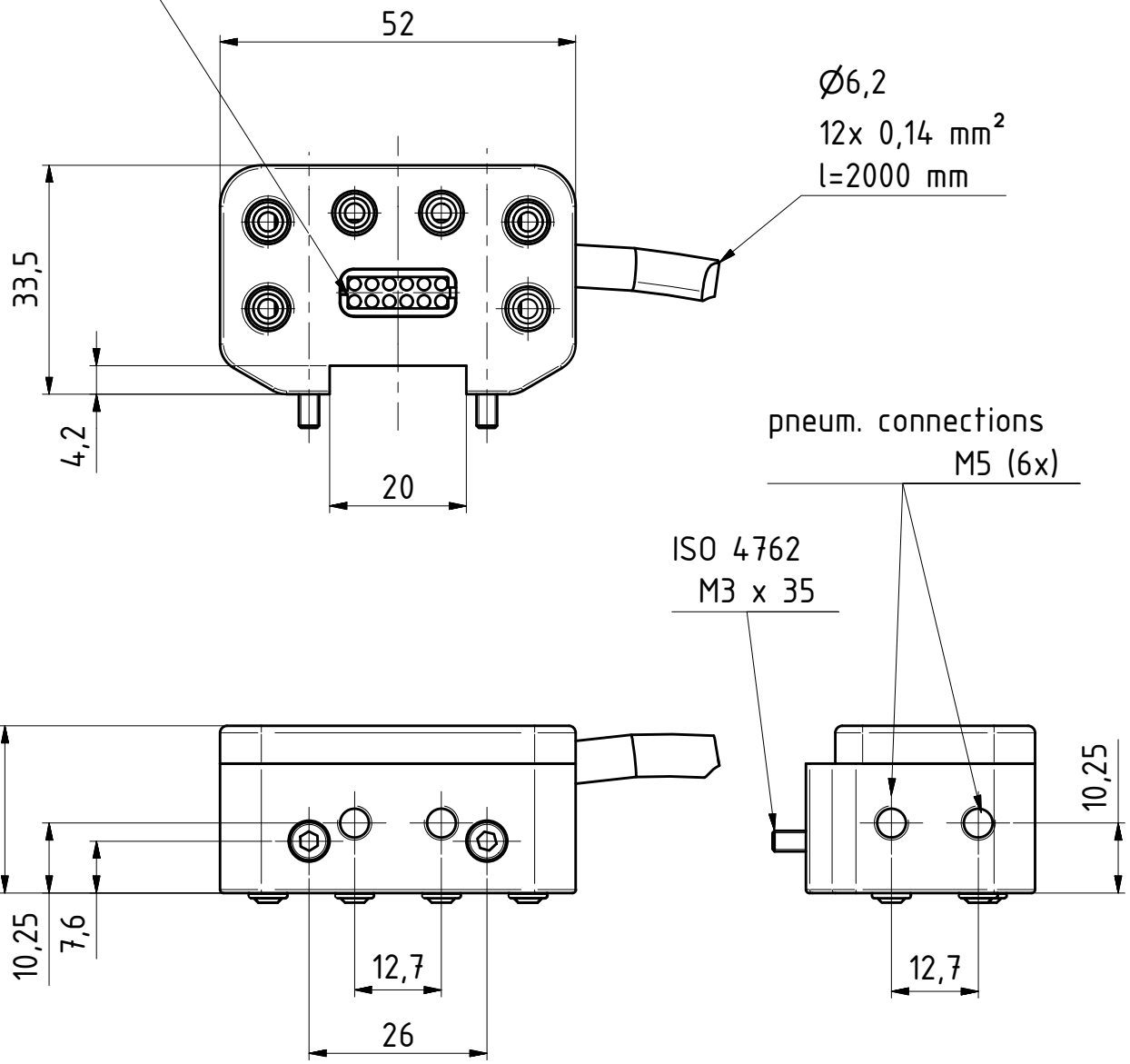
SEK energy feed-through with pneumatic ducts…	
G-SEK100-O-6PM5-1FE12	upper assembly, 6 pneumatic ducts M5, electrical bushings, 12 poles
G-SEK100-O-6PM5-1FE12-2000OE	upper assembly, 6 pneumatic ducts M5, electrical bushings, 12 poles, cable L= 2000 mm, open end
G-SEK100-O-6PM5-1FE12-300-M12	upper assembly, 6 pneumatic ducts M5, electrical bushings, 12 poles, cable L= 300 mm, plug M12
G-SEK100-U-6PM5-1FE12	lower assembly, 6 pneumatic ducts M5, electrical spring pins, 12 poles
G-SEK100-U-6PM5-1FE12-2000OE	lower assembly, 6 pneumatic ducts M5, electrical spring pins, 12 poles, cable L= 2000 mm, open end
G-SEK100-U-6PM5-1FE12-300-M12	lower assembly, 6 pneumatic ducts M5, electrical spring pins, 12 poles, cable L= 300 mm, bushing M12



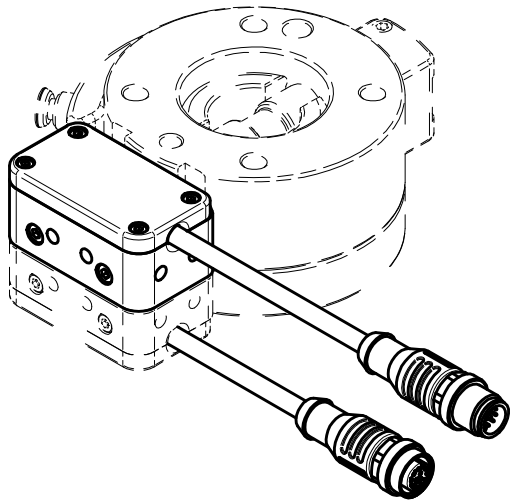


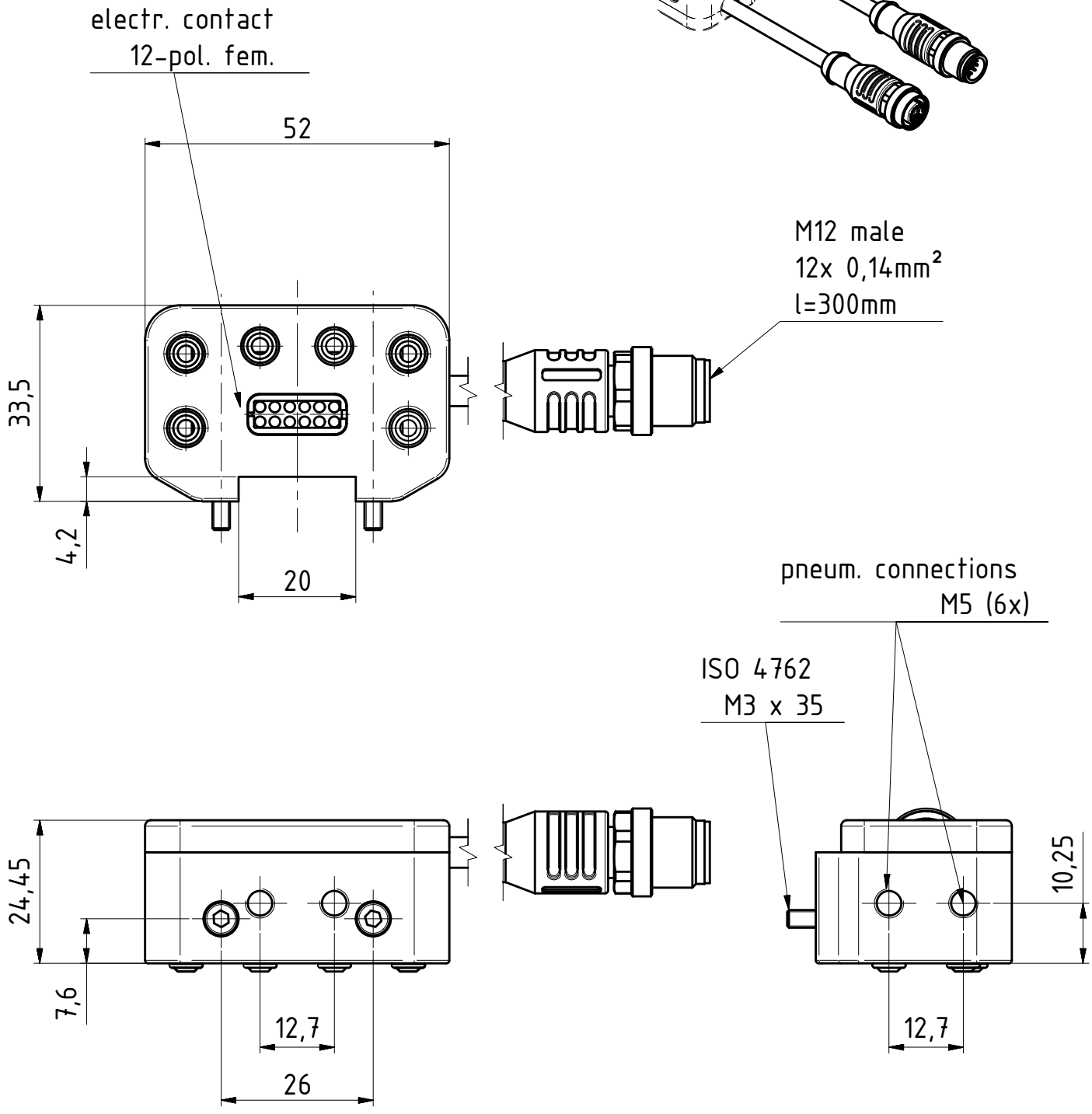
Datum 22.09.22	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-O-6PM5-1FE12		GRIP GmbH Handhabungstechnik





Datum 22.09.22	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-O-6PM5-1FE12-2000E		GRIP GmbH Handhabungstechnik



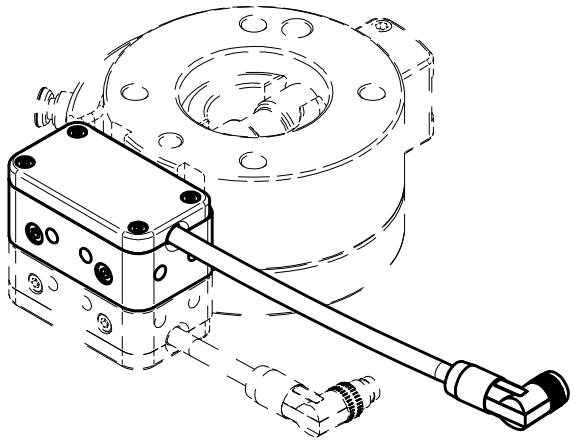


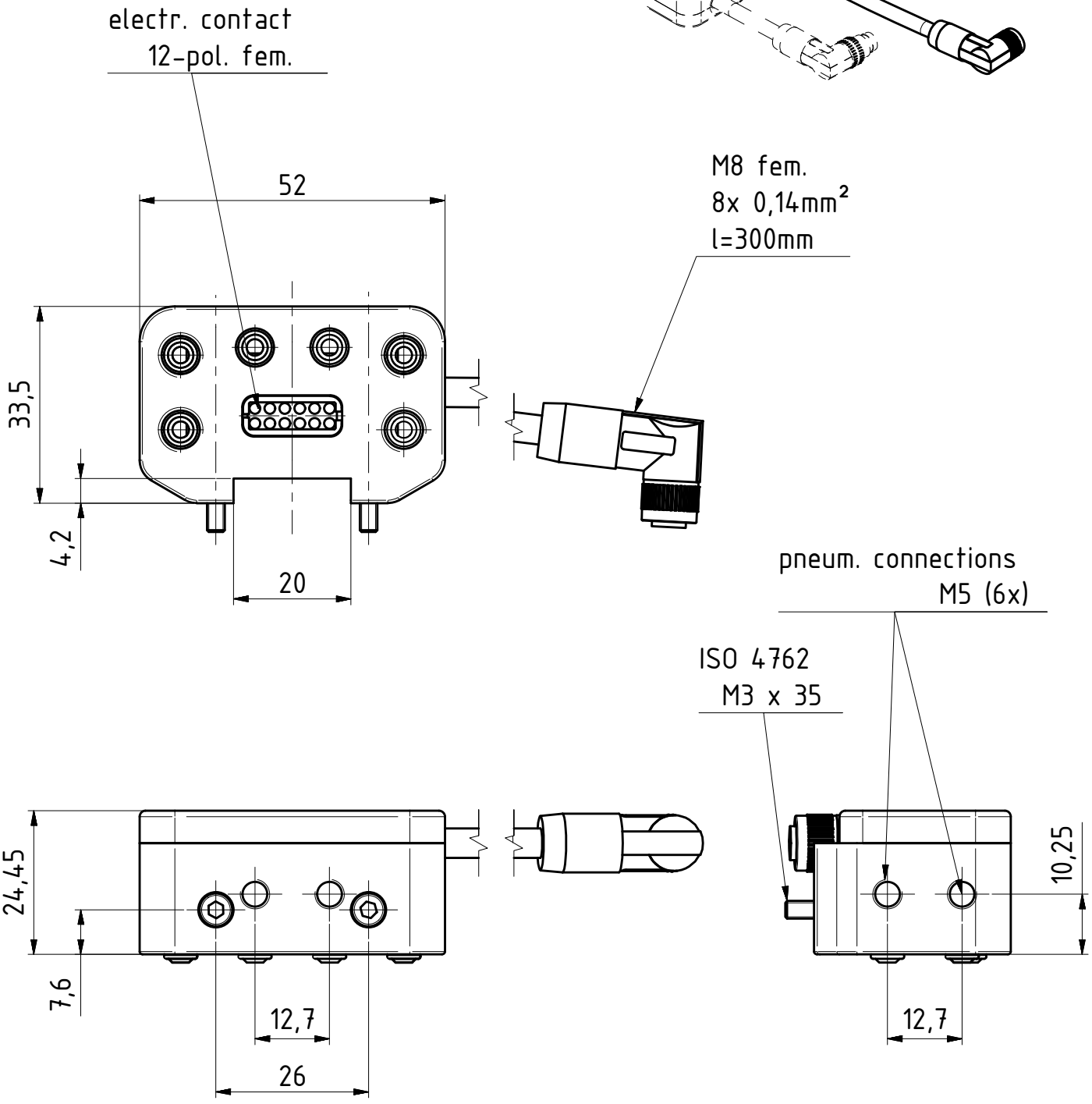
Datum 22.09.22	Maßstab 1 : 1	

Zeichnungsnummer

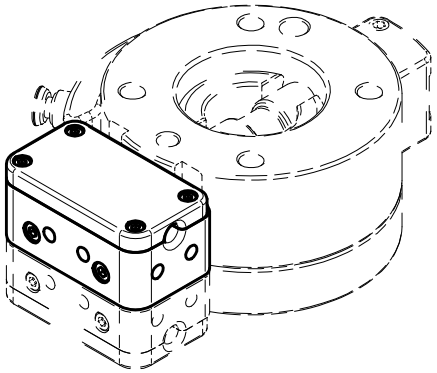
G-SEK100-O-6PM5-1FE12-300-M12

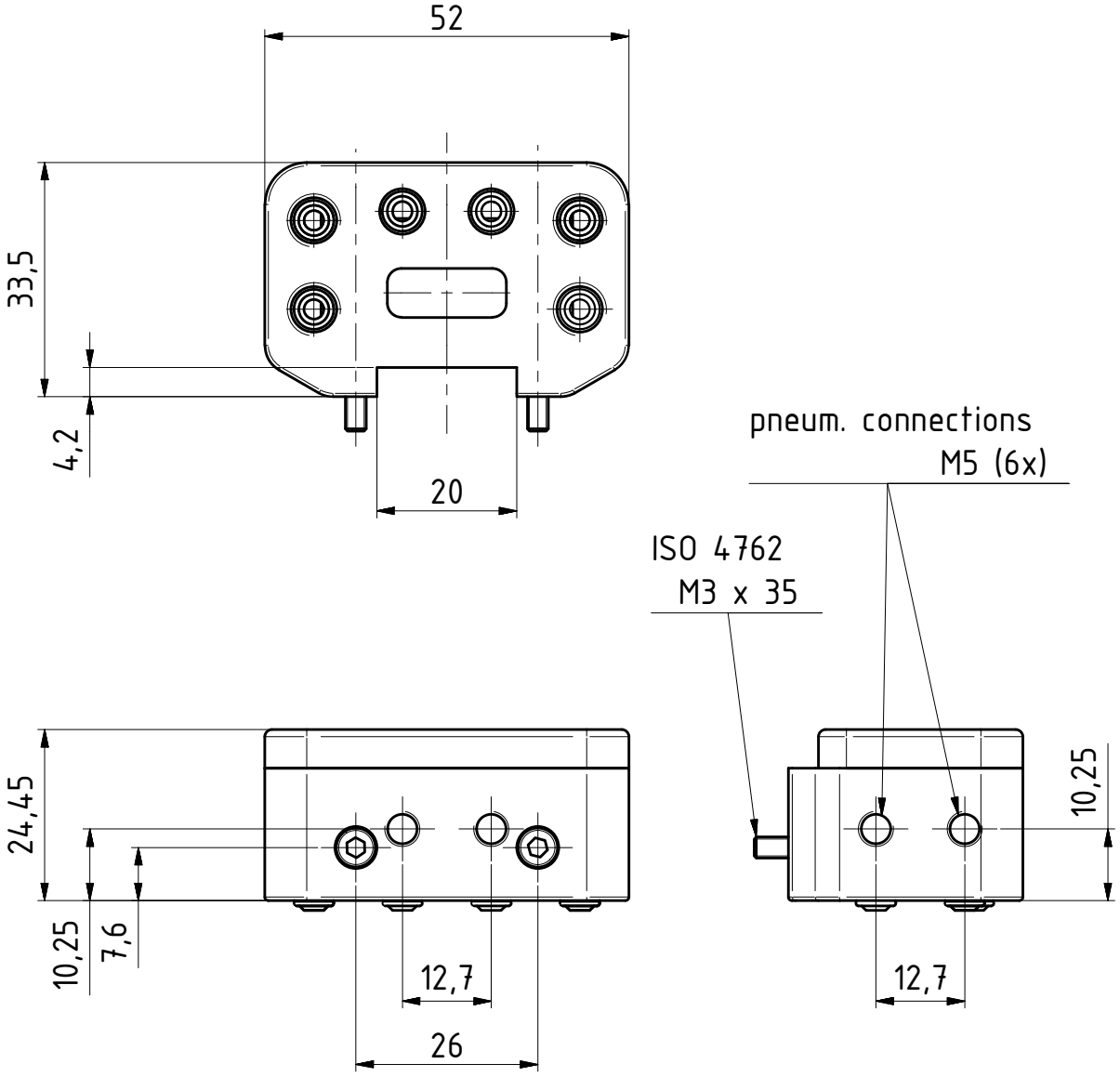
GRIP GmbH Handhabungstechnik



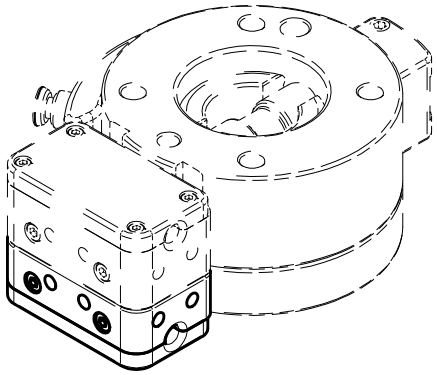


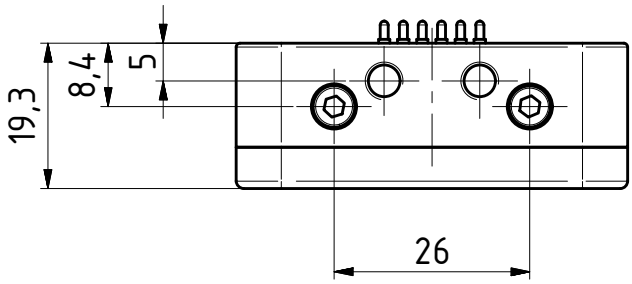
Datum 22.09.22	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-O-6PM5-1FE12-300-M8		GRIP GmbH Handhabungstechnik

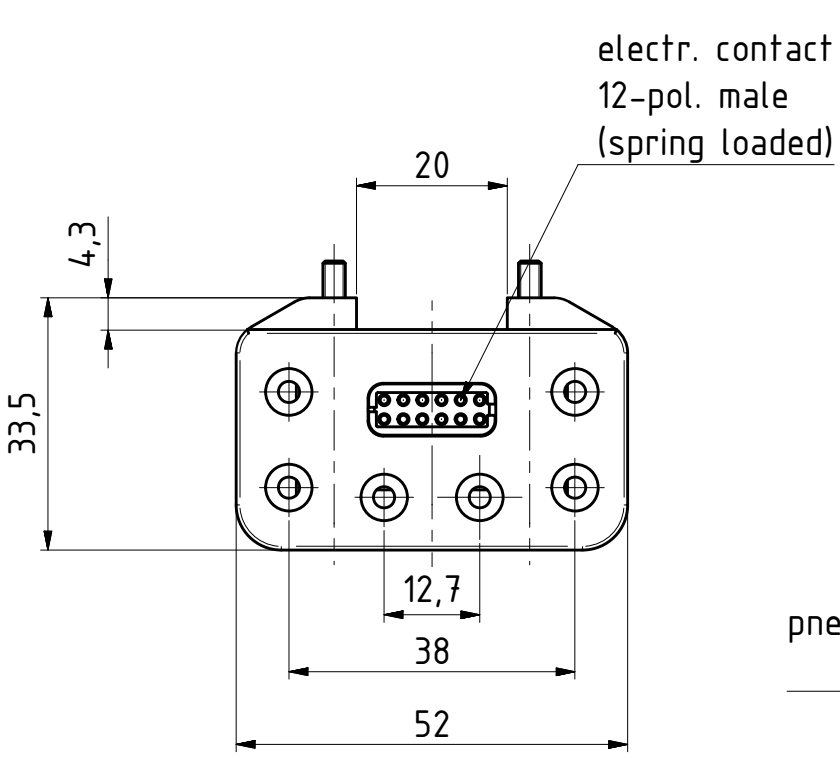


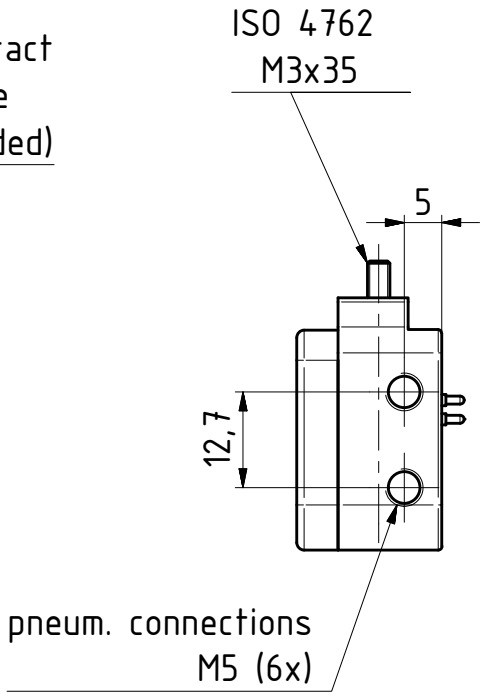


Datum 22.09.22	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-O-6PM5		GRIP GmbH Handhabungstechnik

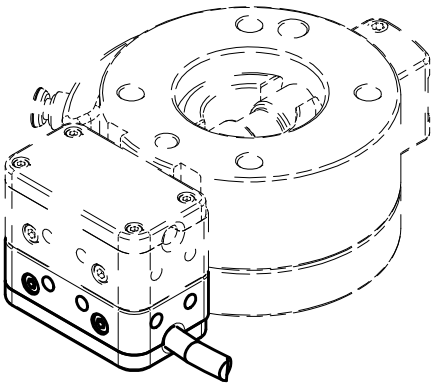


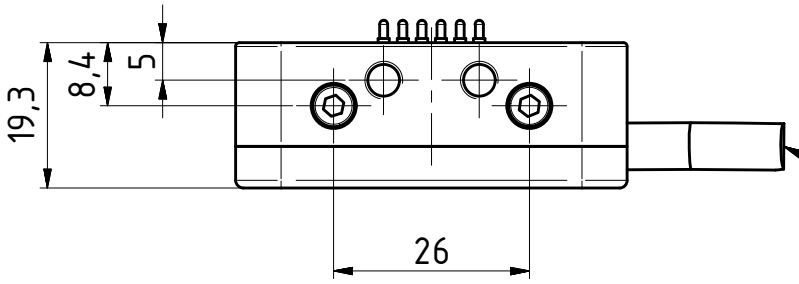


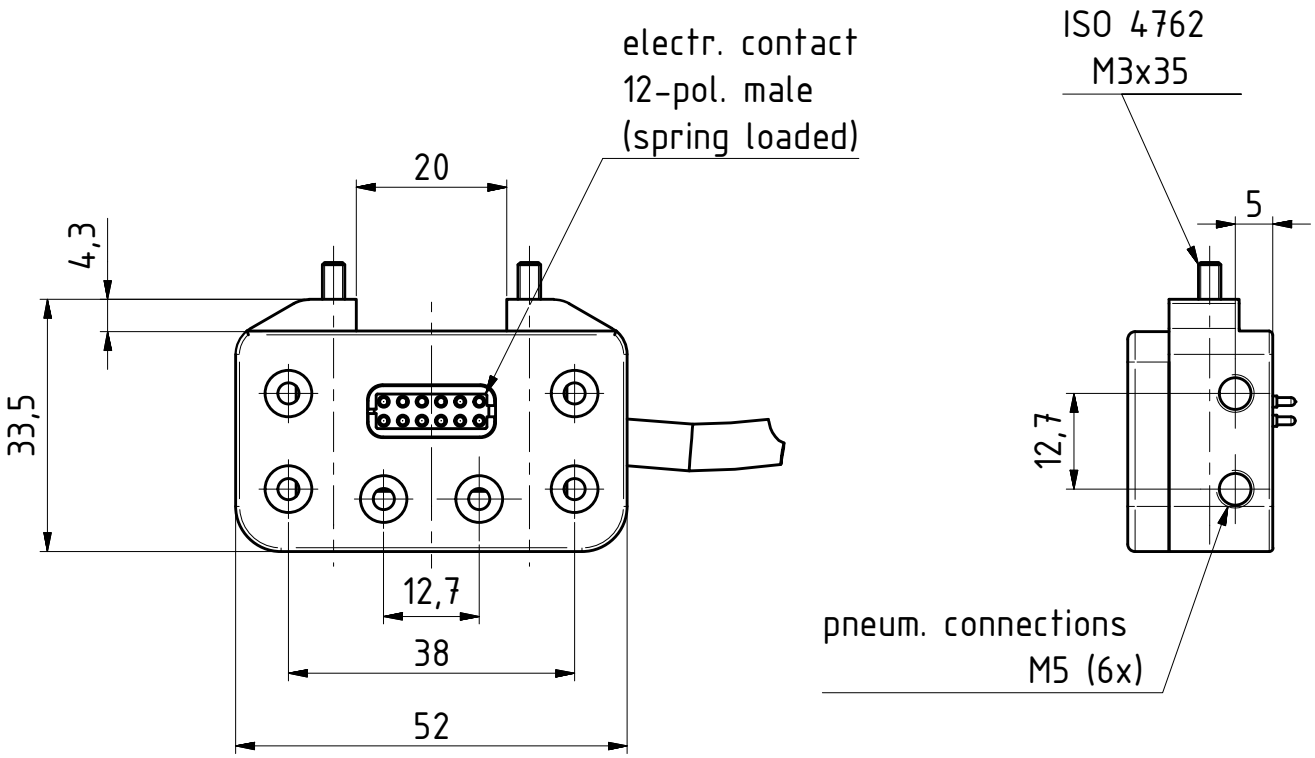




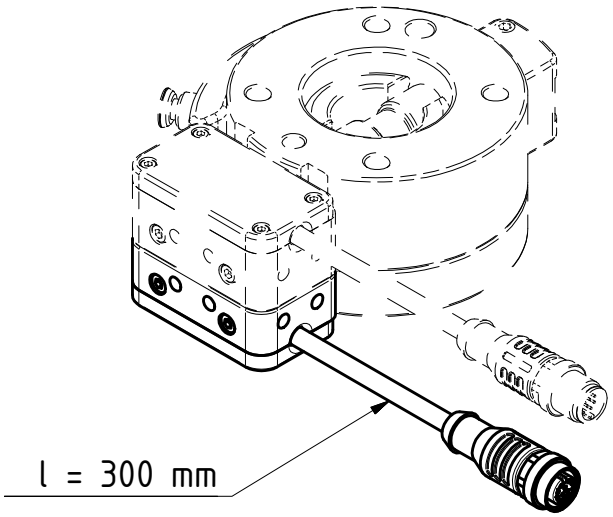
Datum 15.02.22	Maßstab 1 : 1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SEK100-U-6PM5-1FE12			

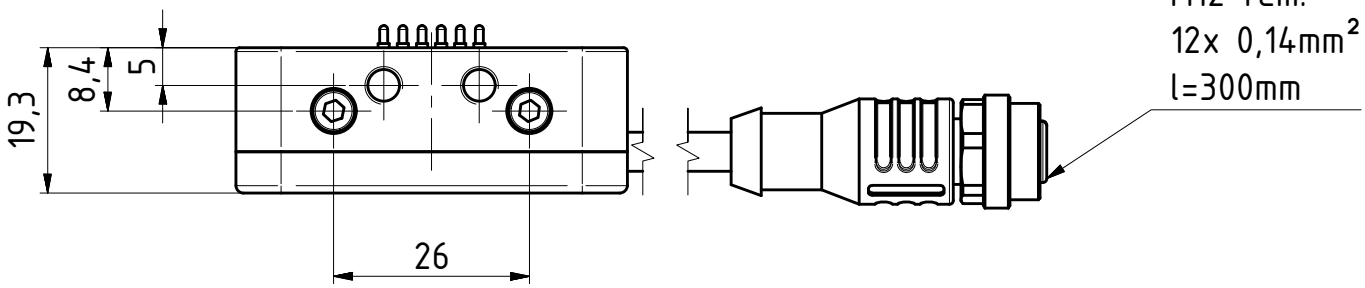


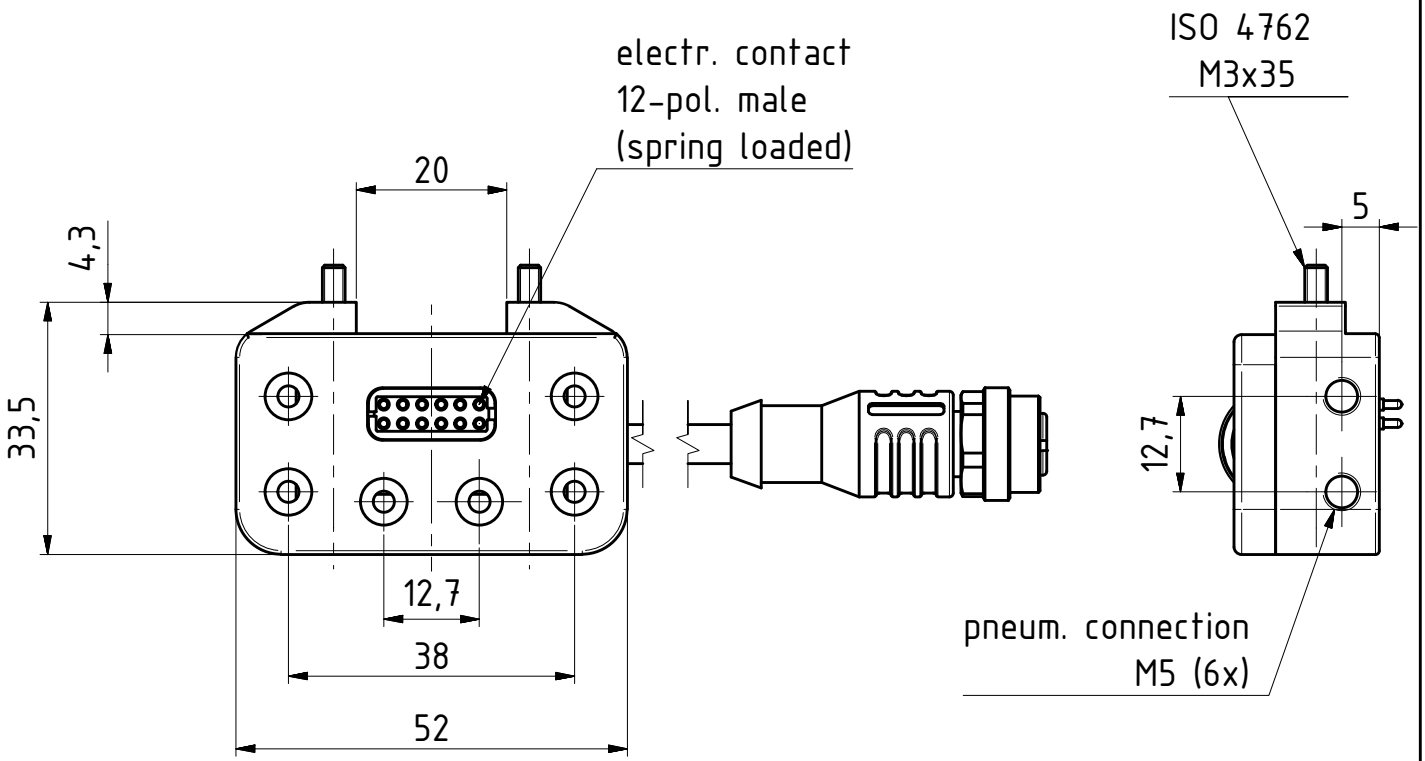




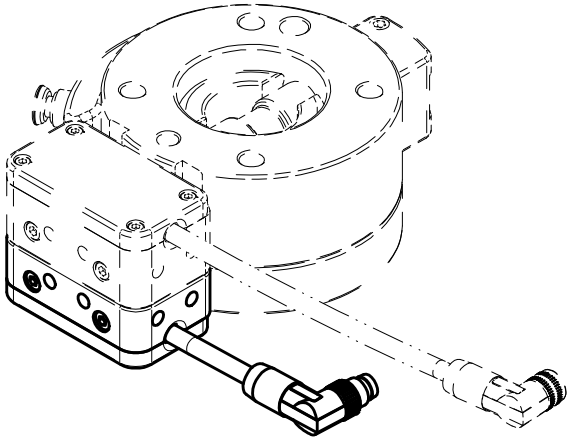
Datum 15.02.22	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-U-6PM5-1FE12-2000-OE		GRIP GmbH Handhabungstechnik

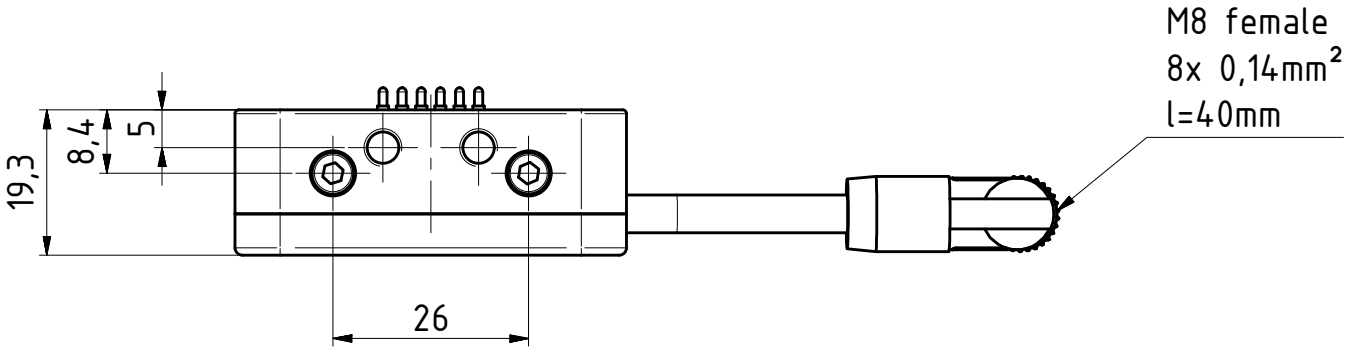


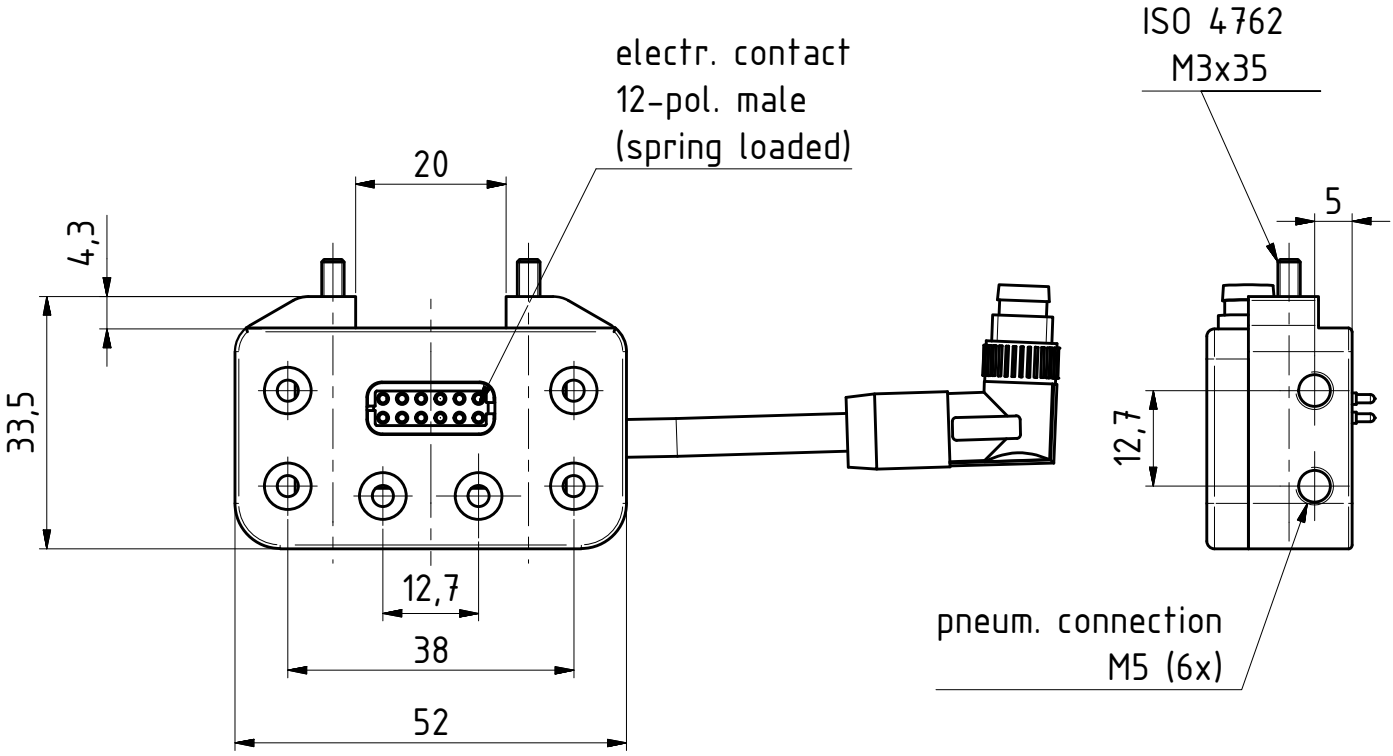




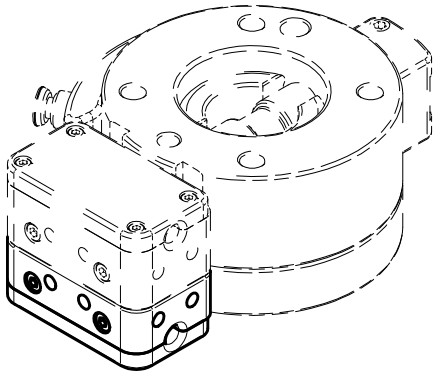
Datum 15.02.22	Maßstab 1 : 1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SEK100-U-6PM5-1FE12-300-M12			

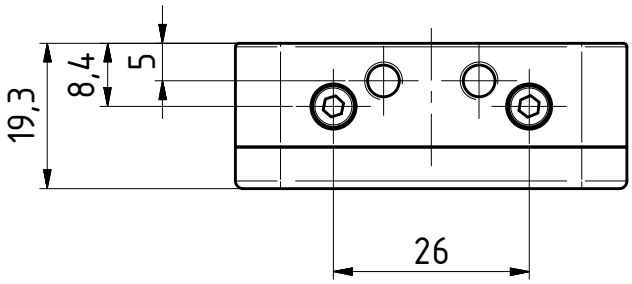


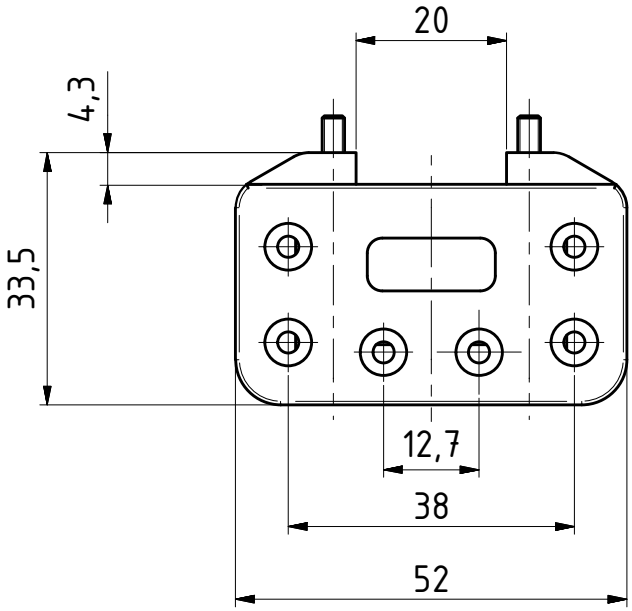


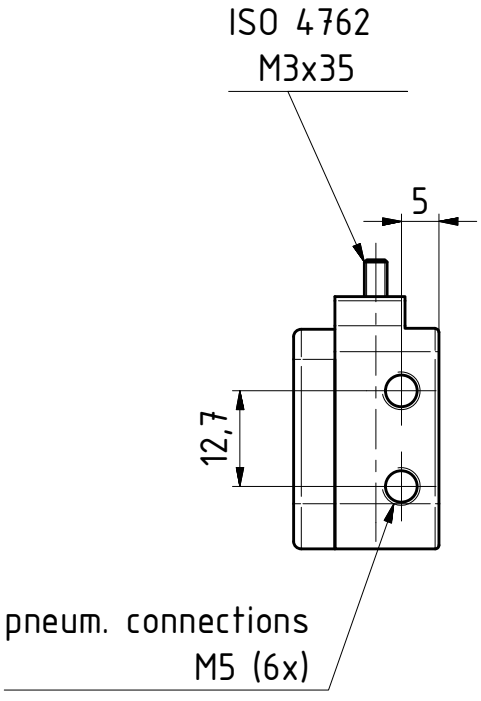


Datum 15.02.22	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-U-6PM5-1FE12-40-M8		GRIP GmbH Handhabungstechnik



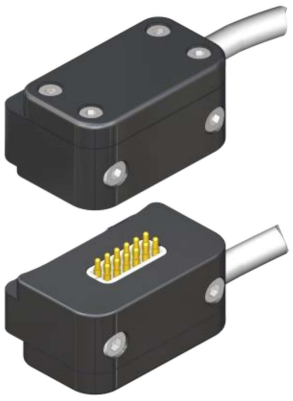




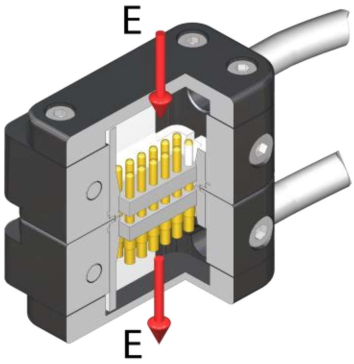


Datum 15.02.22	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-U-6PM5		GRIP GmbH Handhabungstechnik

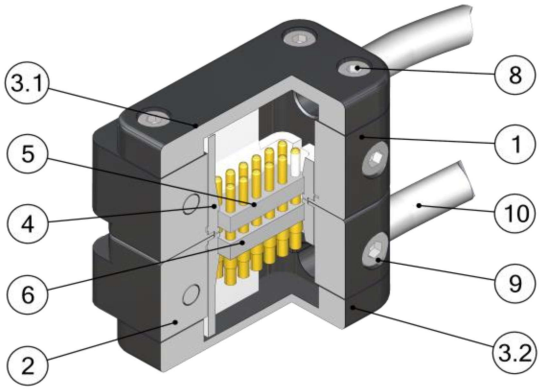
Operating mode:
The SEK upper assembly is mounted on the SHW upper assembly. The SEK lower assembly is mounted on the SHW lower assembly accordingly. The SEK is automatically coupled by the mechanical connection of the exchange system.
Advantages:
Mechanical and electric connections are established simultaneously
Withstands up to 1,000,000 changing cycles
Individual wiring and coding of the interchange parts



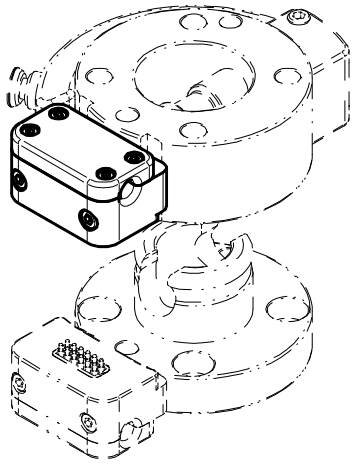
Technical specifications		SEK100-1FE12
Basic material		Al, anod.
Compatible with		**SHW 063, 080, 100 ; AC063**
Adaptable to		**SHW 125, 160**
Width x depth x height [mm]		38 x 25,5 x 40
Signal ducts		12
Rated current I [A]		2
Rated voltage U (max. voltage) [V]		63 (120)
Contact resistance per pole R [mΩ]		20
Contact durability (cycles)		50.000
Mass [kg]	upper assembly	0,04
	lower assembly	0,04
Protection class (higher requirement only on request)		IP40
Operating temperature range [°C]		-30 to +120

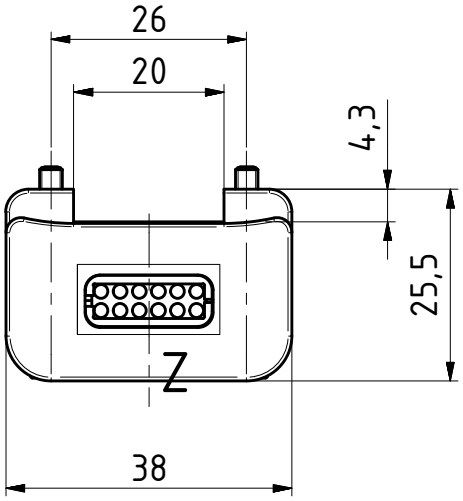


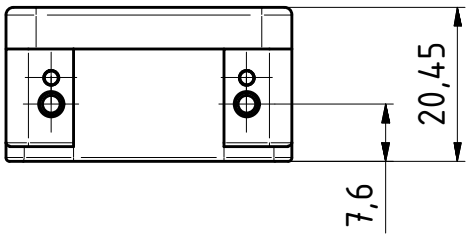
Pos.	Description
1	Upper assembly
2	Lower assembly
3.1	Upper cap
3.2	Lower cap
4	Insulation frame
5	Electric bushings
6	Electric spring pins
8	Screw
9	Mounting screw
10	Cable (optional)



SEK energy feed-through with spring contacts…	
G-SEK100-O-1FE12	upper assembly, electrical bushings, 12 poles, suitable for spring contacts
G-SEK100-O-1FE12-2000OE	upper assembly, electrical bushings, 12 poles, suitable for spring contacts, cable L= 2000 mm, open end
G-SEK100-O-1FE12-300-M12	upper assembly, electrical bushings, 12 poles, suitable for spring contacts, cable L= 300 mm, plug M12
G-SEK100-U-1FE12	lower assembly, electrical spring pins, 12 poles
G-SEK100-U-1FE12-2000OE	lower assembly, electrical spring pins, 12 poles, cable L= 2000 mm, open end
G-SEK100-U-1FE12-300-M12	lower assembly, electrical spring pins, 12 poles, cable L= 300 mm, bushing M12



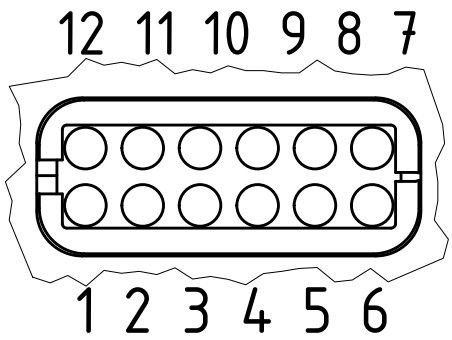




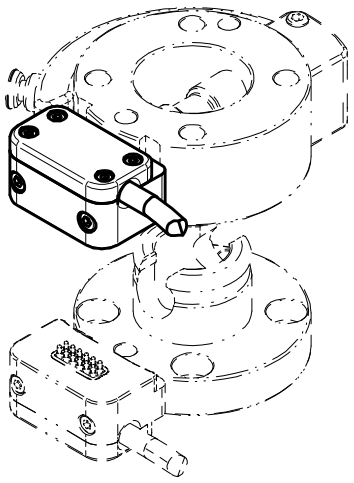
Z

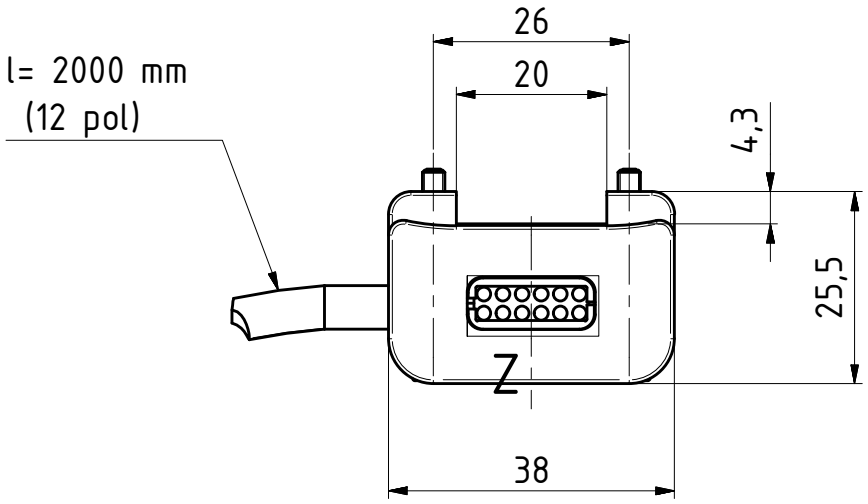
Kontaktleiste

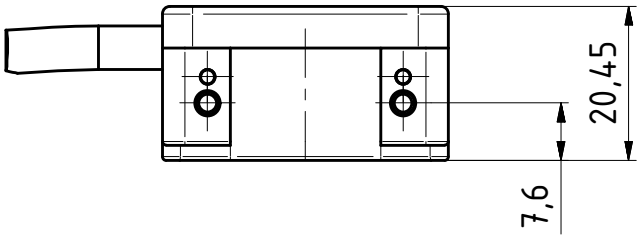
FEB12



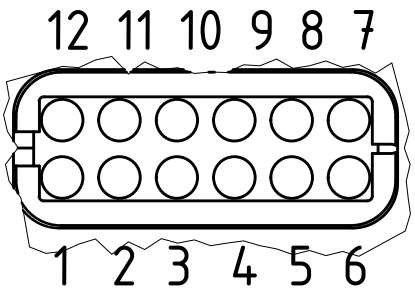
Datum	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-O-1FE12		GRIP GmbH Handhabungstechnik





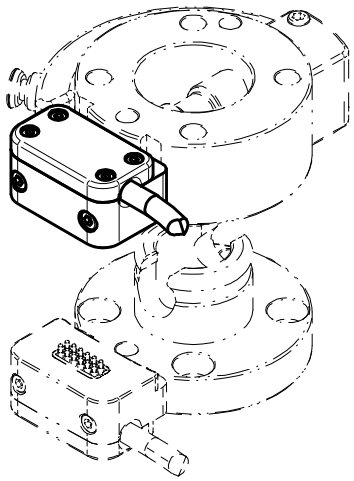


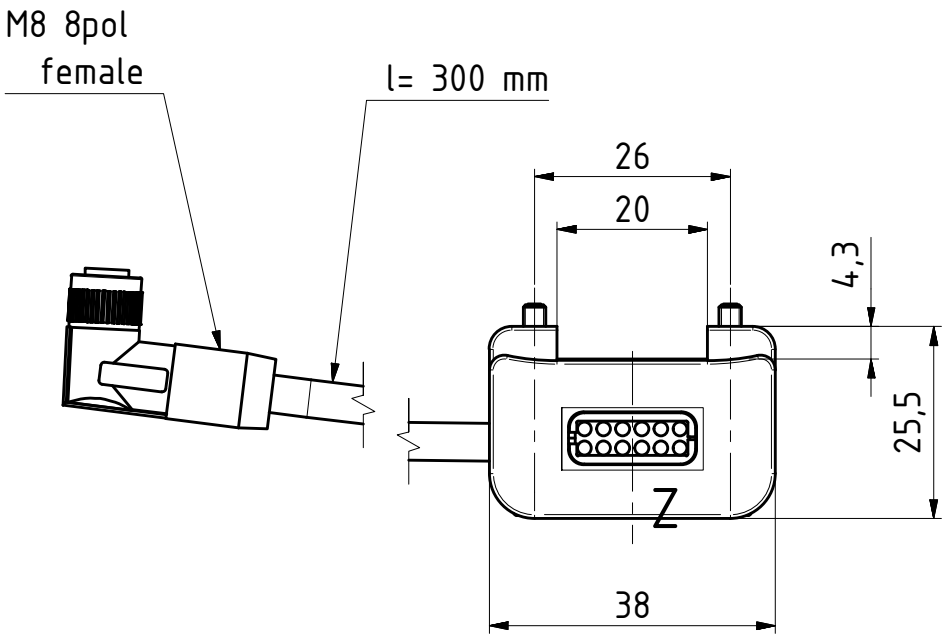
Z
Kontaktleiste
FEB12

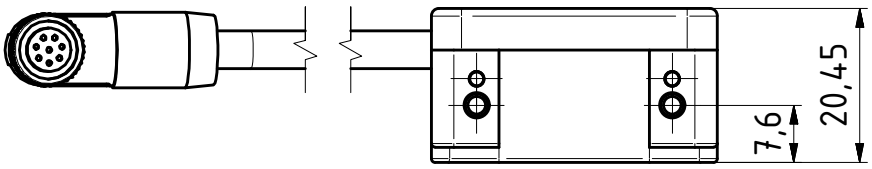


Belegung	
1	weiß
2	braun
3	grün
4	gelb
5	grau
6	rosa
7	blau
8	rot
9	schwarz
10	violett
11	grau/rosa
12	blau/rot

Datum 23.03.21	Maßstab 1 : 1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SEK100-O-1FE12-2000E			



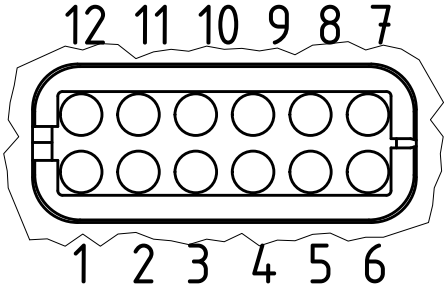




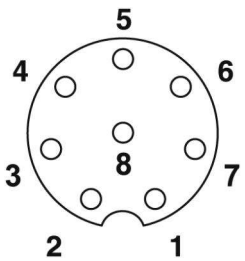
Z

Kontaktleiste

FEB12

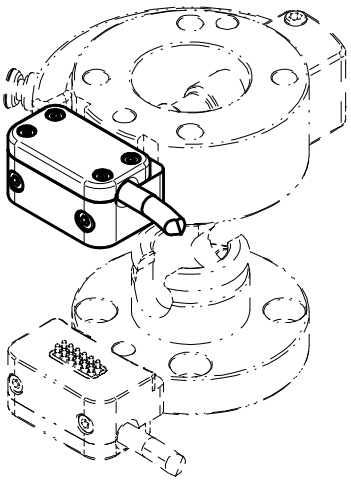


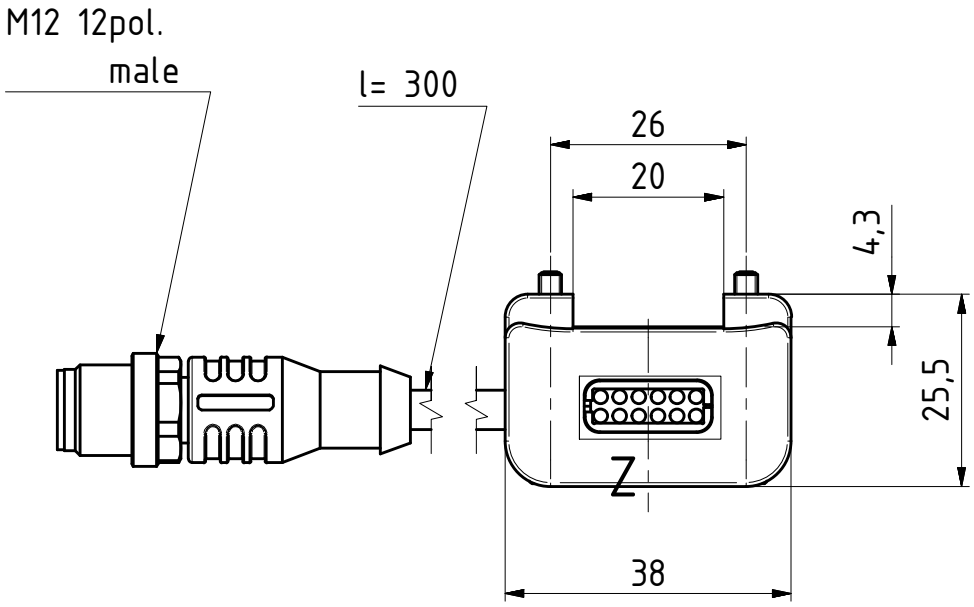
M8 8pol
female

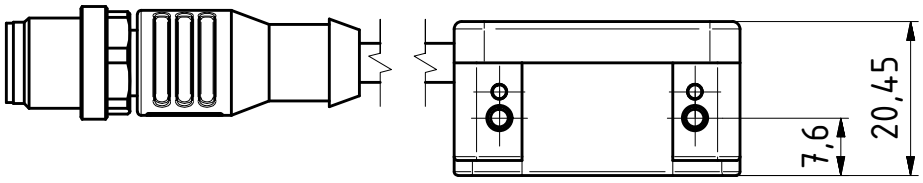


Kontaktbelegung	
PIN	M8 8pol weibl.
1	weiß
2	braun
3	grün
4	gelb
5	grau
6	rosa
7	blau
8	rot
9	---
10	---
11	---
12	---

Datum	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-O-1FE12-300-M8		GRIP GmbH Handhabungstechnik

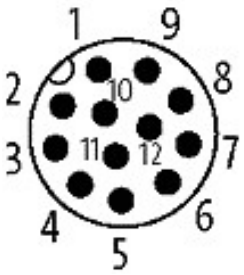






M12 12pol

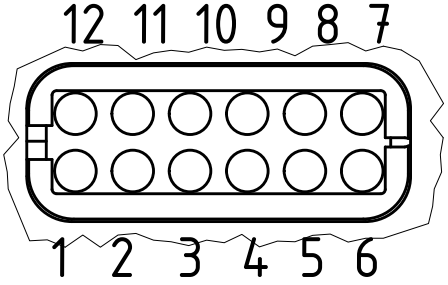
Male



Z

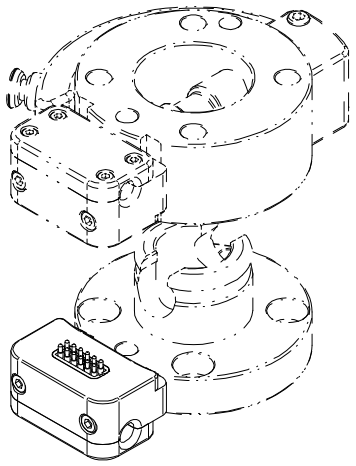
Kontaktleiste

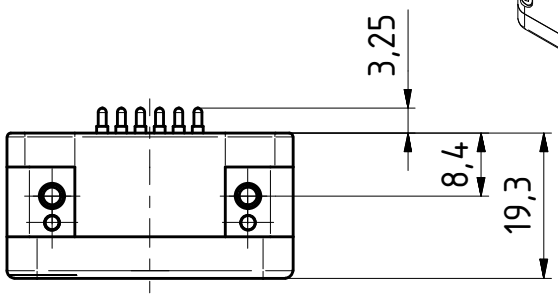
FEB12

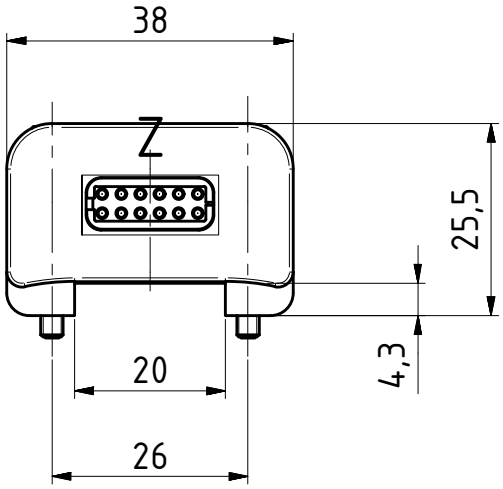


FEB12 female	colour	M12 male
1	white	3
2	brown	1
3	green	4
4	yellow	6
5	grey	8
6	pink	5
7	blue	2
8	red	9
9	black	7
10	violet	10
11	grey/ pink	11
12	blue/ red	12

Datum	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-O-1FE12-300-M12		GRIP GmbH Handhabungstechnik

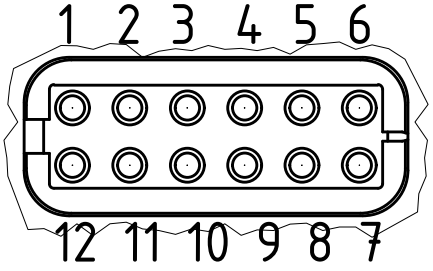




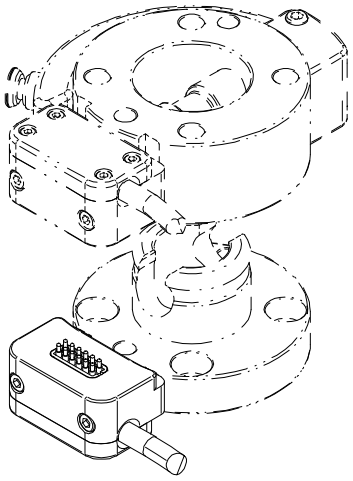


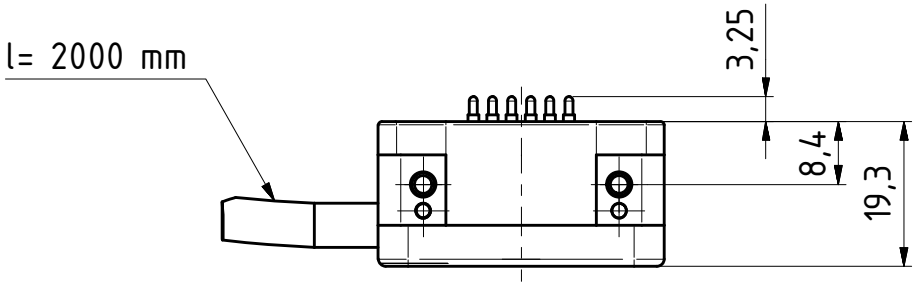
Z (3 : 1)

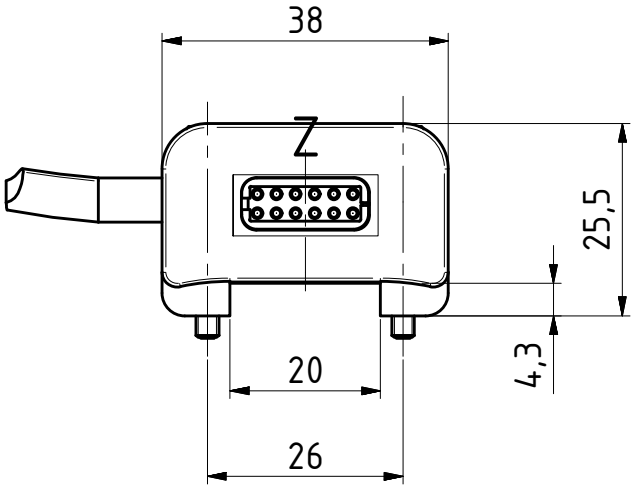
FES12



Datum	Maßstab 1 : 1		
Zeichnungsnummer G-SEK100-U-1FE12			GRIP GmbH Handhabungstechnik



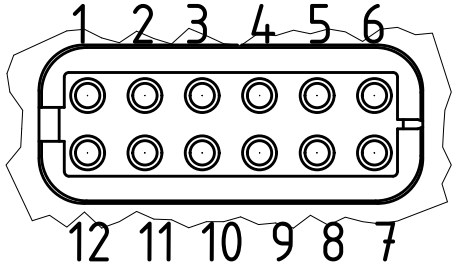




Z

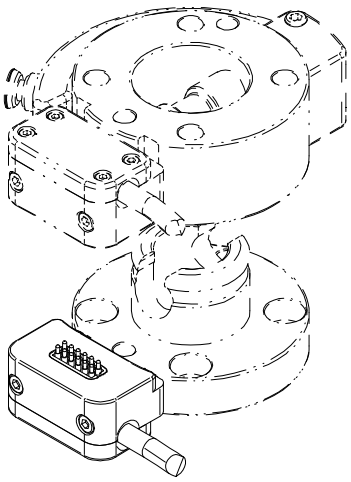
Kontaktleiste

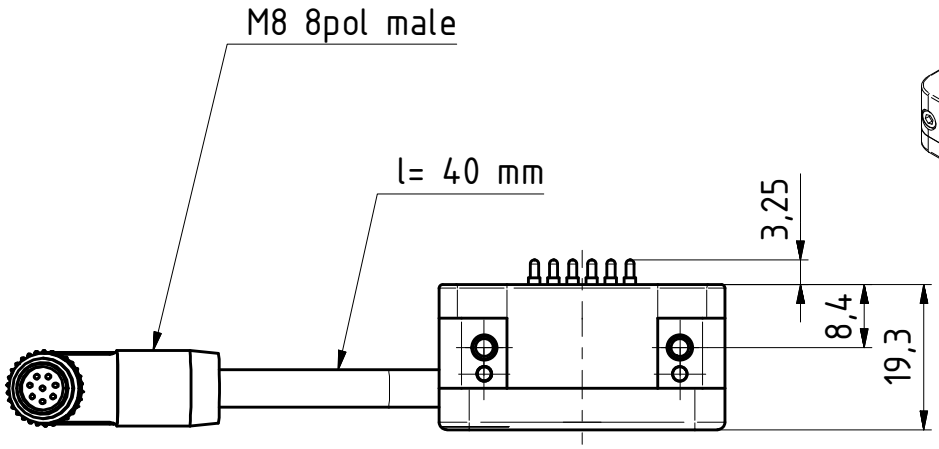
FES12

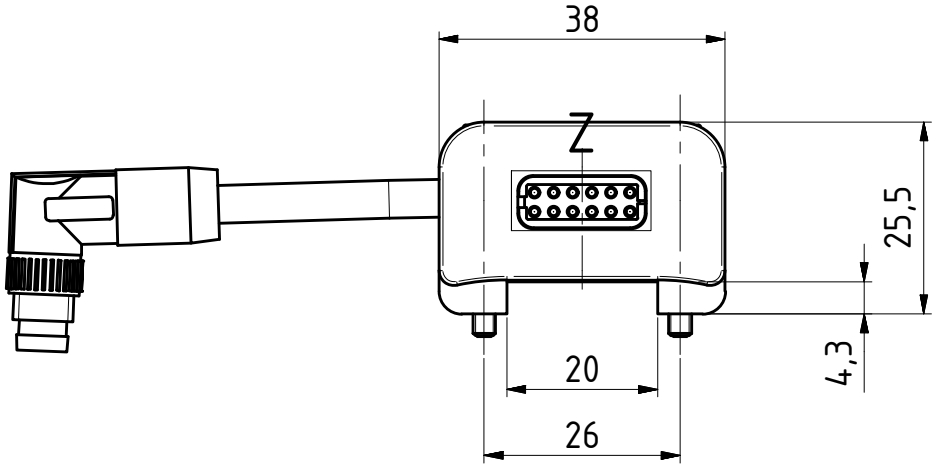


Belegung	
1	weiß
2	braun
3	grün
4	gelb
5	grau
6	rosa
7	blau
8	rot
9	schwarz
10	violett
11	grau/rosa
12	blau/rot

Datum	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-U-1FE12-2000E		GRIP GmbH Handhabungstechnik



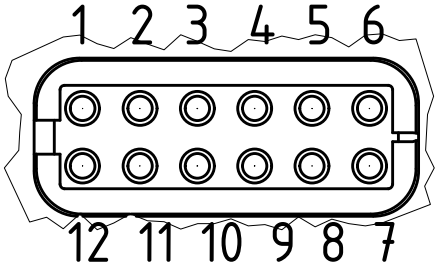




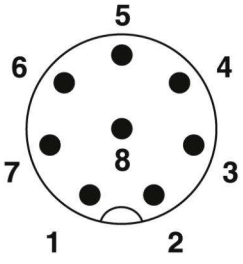
Z

Kontaktleiste

FES12

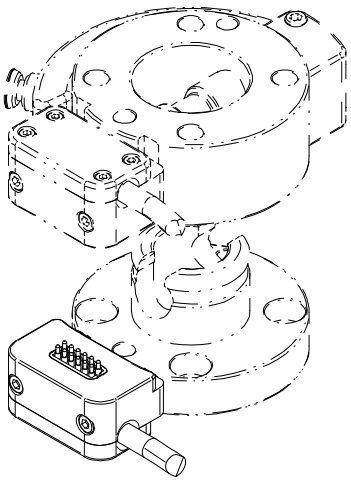


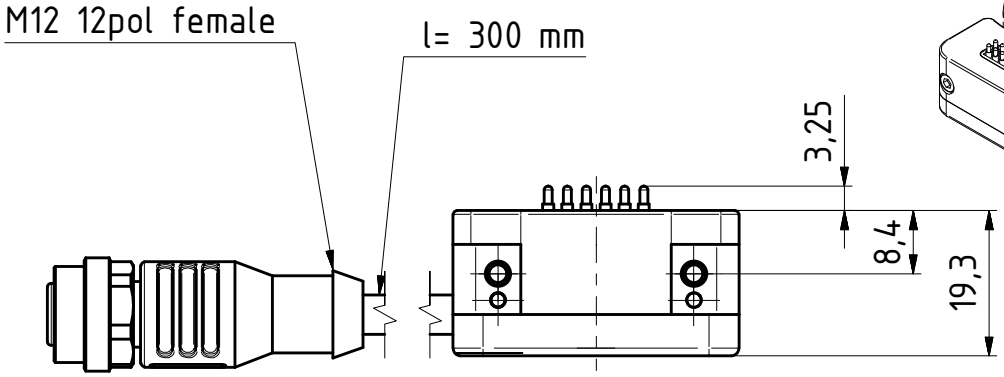
M8 8pol male

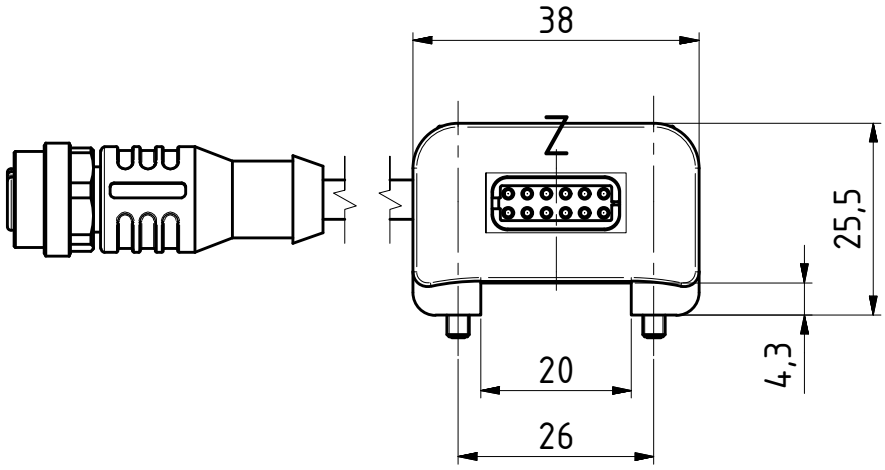


Kontaktbelegung	
PIN	M8 8pol männl.
1	weiß
2	braun
3	grün
4	gelb
5	grau
6	rosa
7	blau
8	rot
9	---
10	---
11	---
12	---

Datum 23.03.21	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-U-1FE12-40-M8		GRIP GmbH Handhabungstechnik

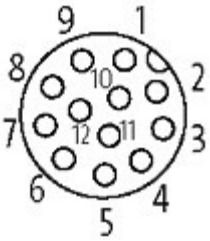




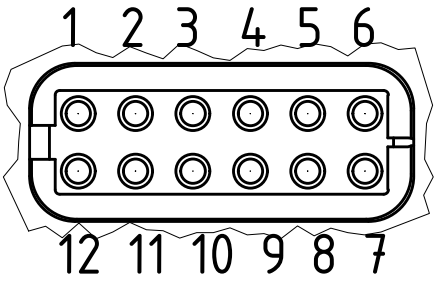


FES12 male	colour	M12 fem.
1	white	3
2	brown	1
3	green	4
4	yellow	6
5	grey	8
6	pink	5
7	blue	2
8	red	9
9	black	7
10	violet	10
11	grey/ pink	11
12	blue/ red	12

M12 12pol
Female



Z
Kontaktleiste
FES12



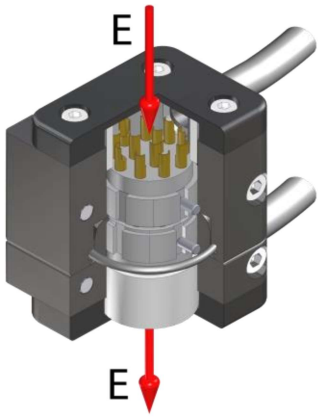
Datum	Maßstab 1 : 1	
Zeichnungsnummer G-SEK100-U-1FE12-300-M12		GRIP GmbH Handhabungstechnik

Operating mode:
The SEK upper assembly is mounted on the SHW upper assembly. The SEK lower assembly is mounted on the SHW lower assembly accordingly. The SEK is automatically coupled by the mechanical connection of the exchange system.
Advantages:
Mechanical and electric connections are established simultaneously.
Withstands up to 50,000 changing cycles
Individual wiring
Coding of the interchange parts

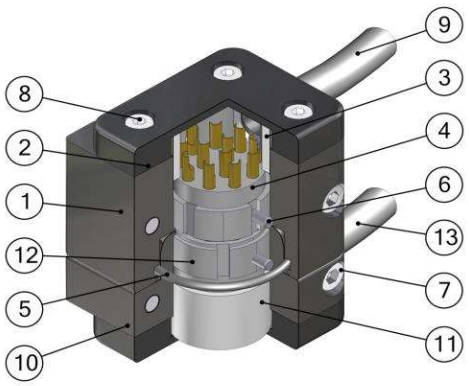
1

2

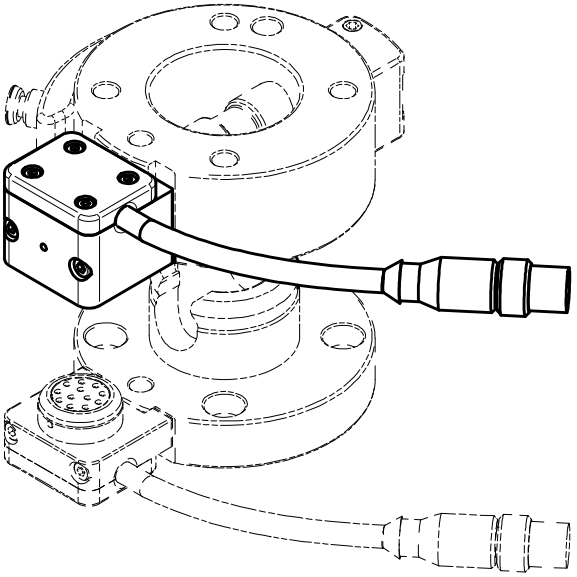
Technical specifications		SEK125
Basic material		Al, anod.
Compatible with		**SHW125**
Width x depth x height [mm]		44 x 32 x 29,5
No. of poles E		12
Rated current per pole I [A]		9
Rated voltage U [V]		63
Contact resistance per pole R [mΩ]		3
Contact durability (cycles)		50.000
Mass [kg]	upper assembly	0,095
	lower assembly	0,057
Protection class (higher requirement only on request)		IP40
Operating temperature range [°C]		-30 to +120

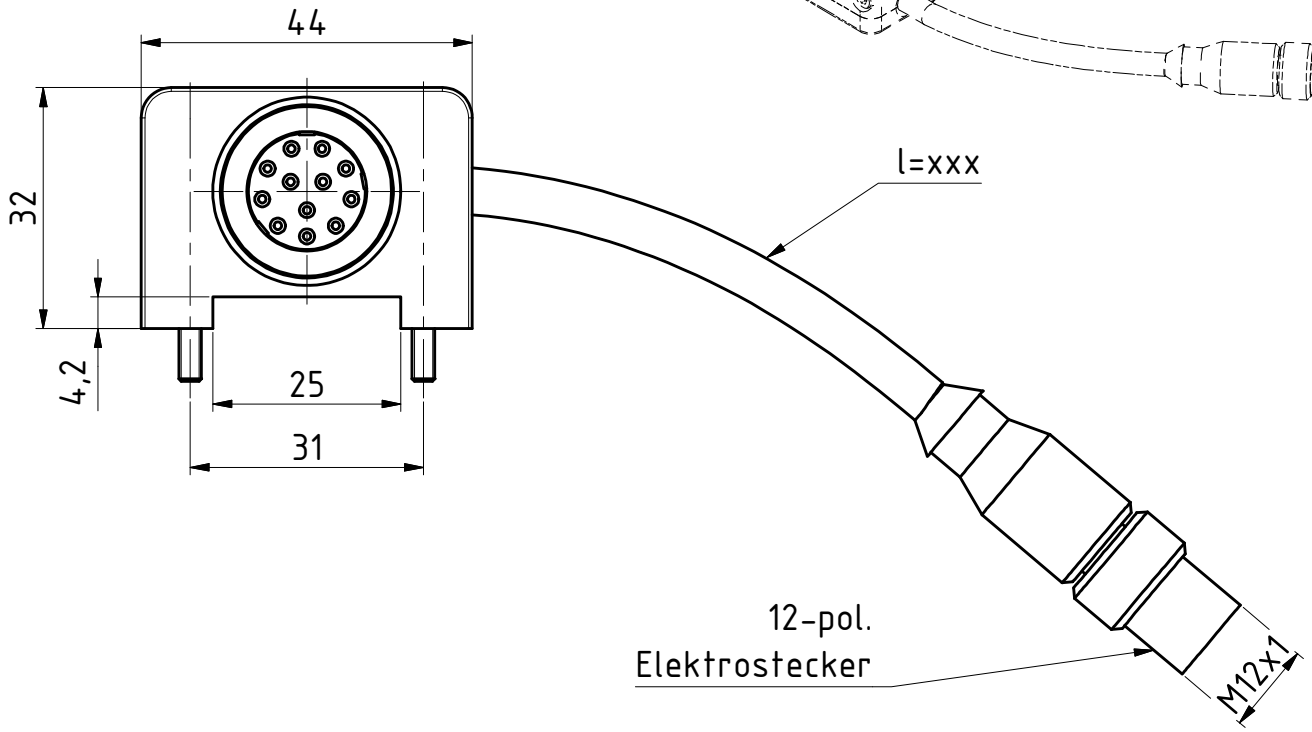


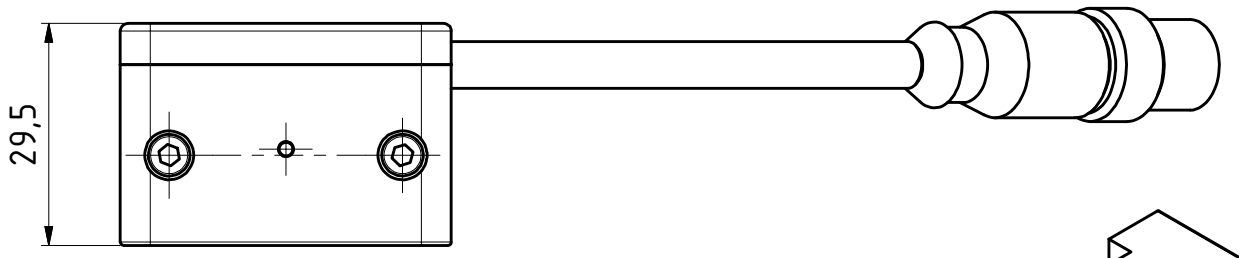
Pos.	Description
1	Upper assembly 1E
2	Cap
3	Distance bush upper assembly
4	Insulating body with pins
5	O-Ring
6	Cylindrical pin
7	Mounting screw
8	Screw for Cap
9	Cable on the robot side
10	Lower assembly 1E
11	Distance bush lower assembly
12	Insulating body with bushings
13	Cable on gripper side

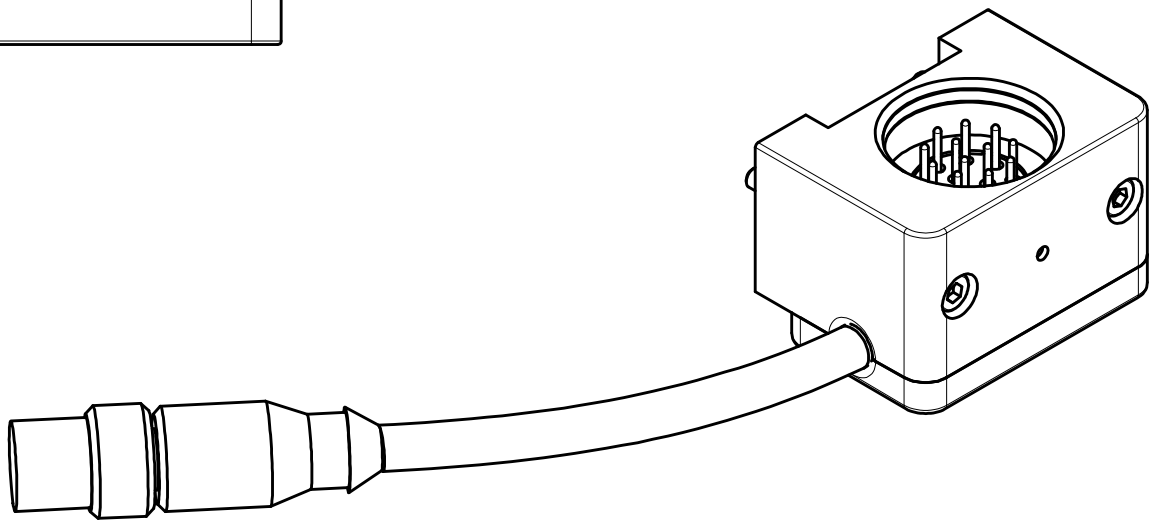


SEK energy feed-through…	
G-SEK125-O-1E12-300-M12	upper assembly, electrical plug, 12 poles, cable L= 300 mm, plug M12x1, 12 poles
G-SEK125-U-1E12-300-M12	lower assembly, electrical bushing, 12 poles, cable L= 300 mm, bushing M12x1, 12 poles

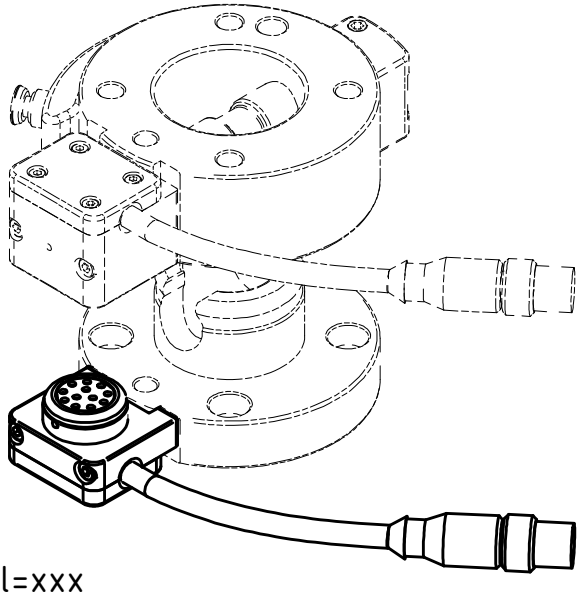


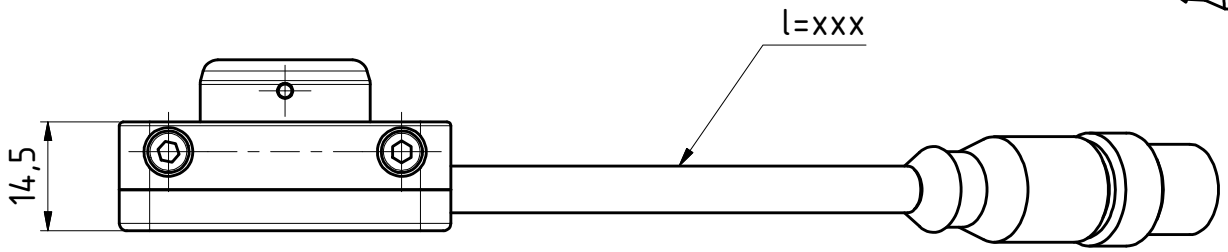


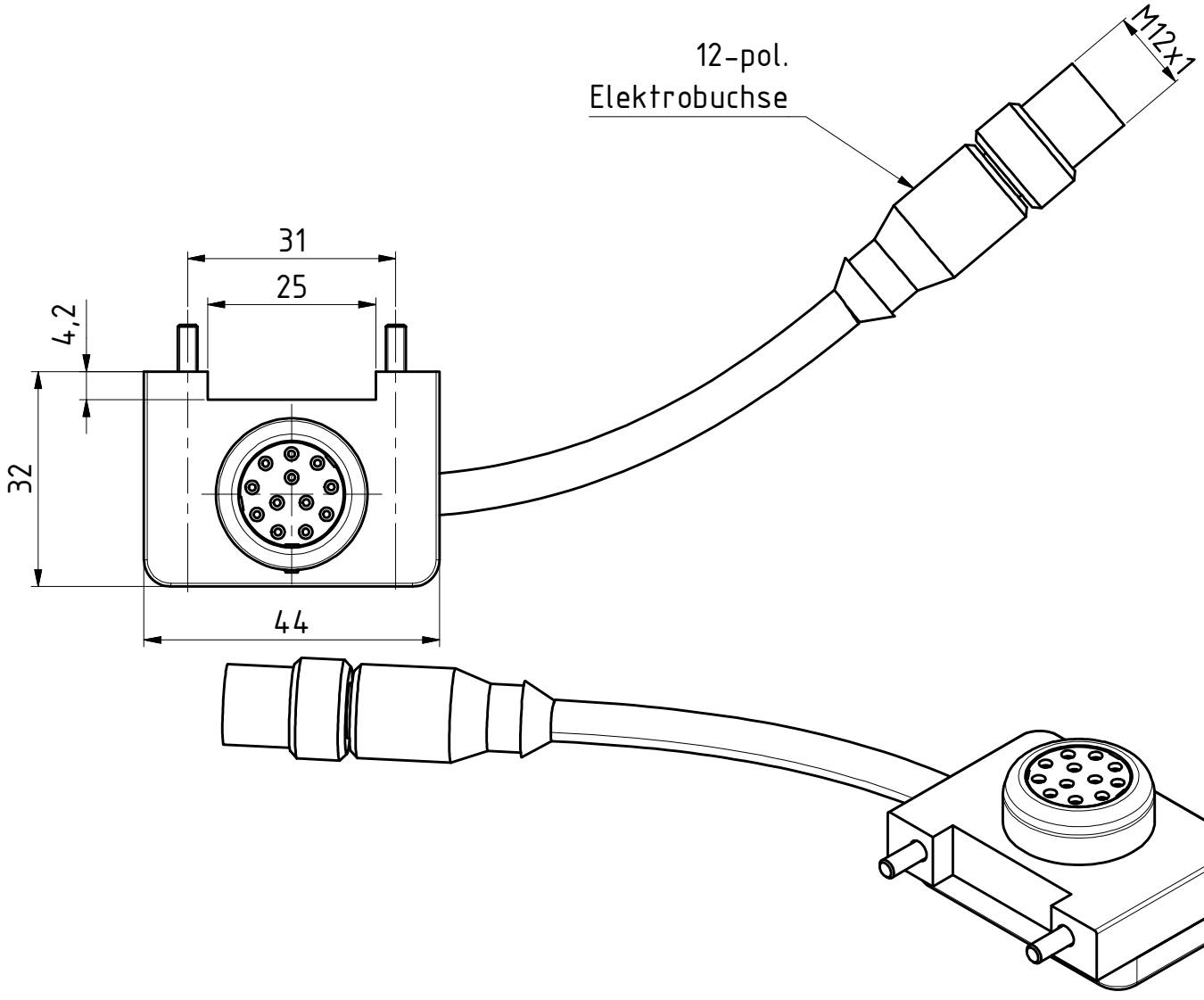




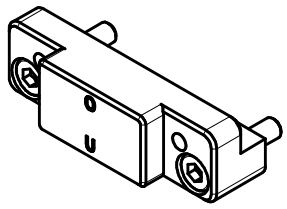
Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SEK125-0-1E12-300-M12			

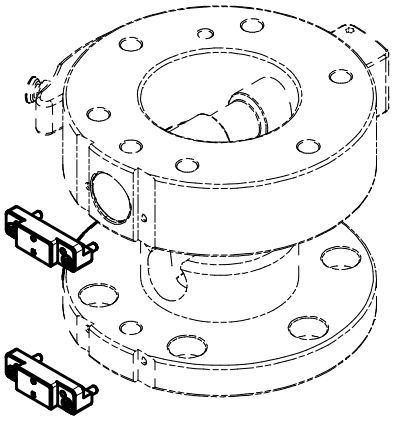


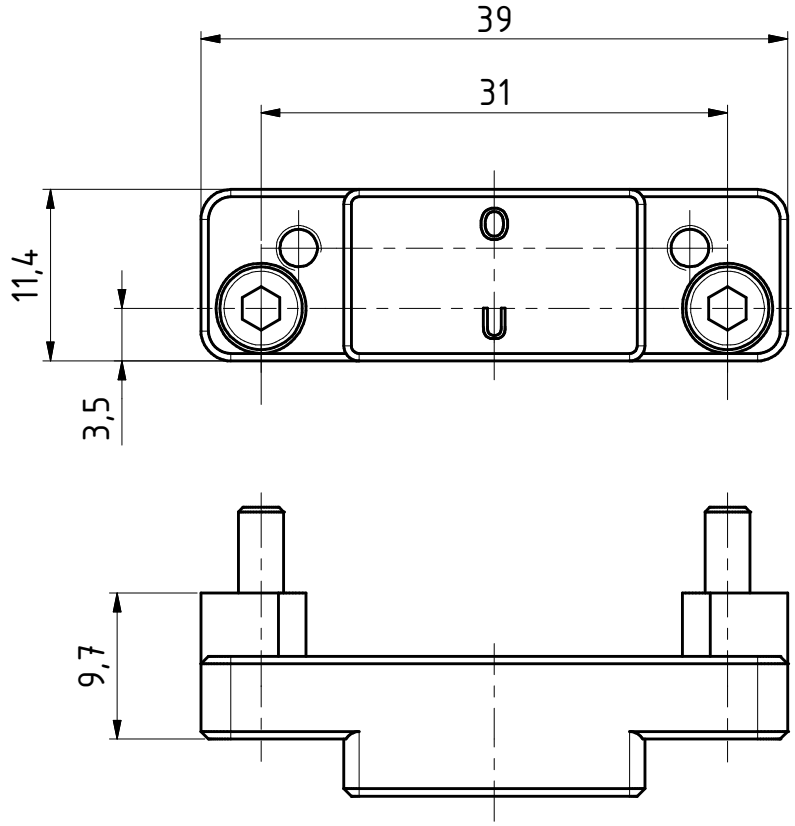


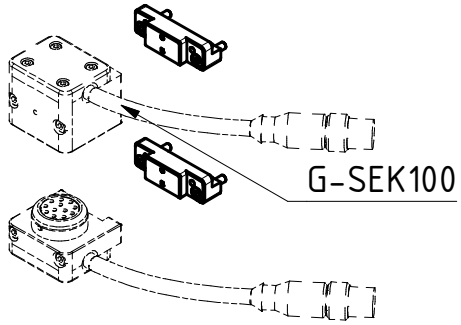


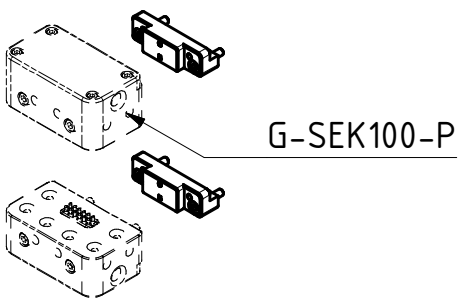
Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-SEK125-U-1E12-300-M12			

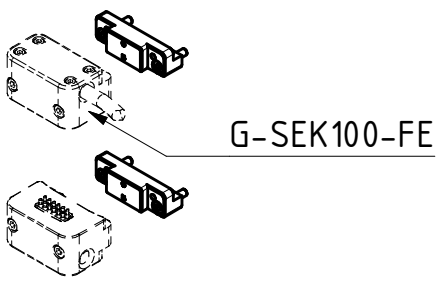




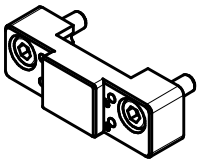


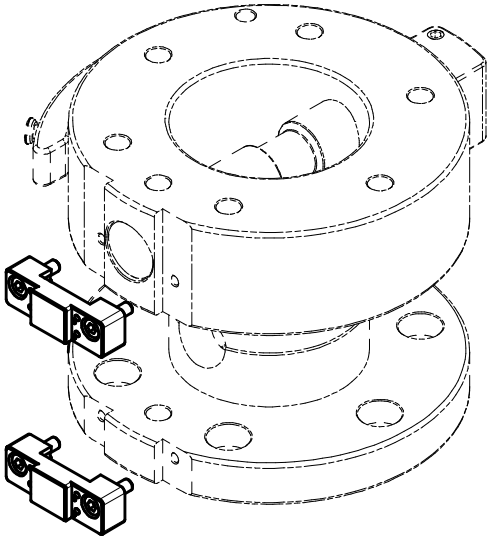


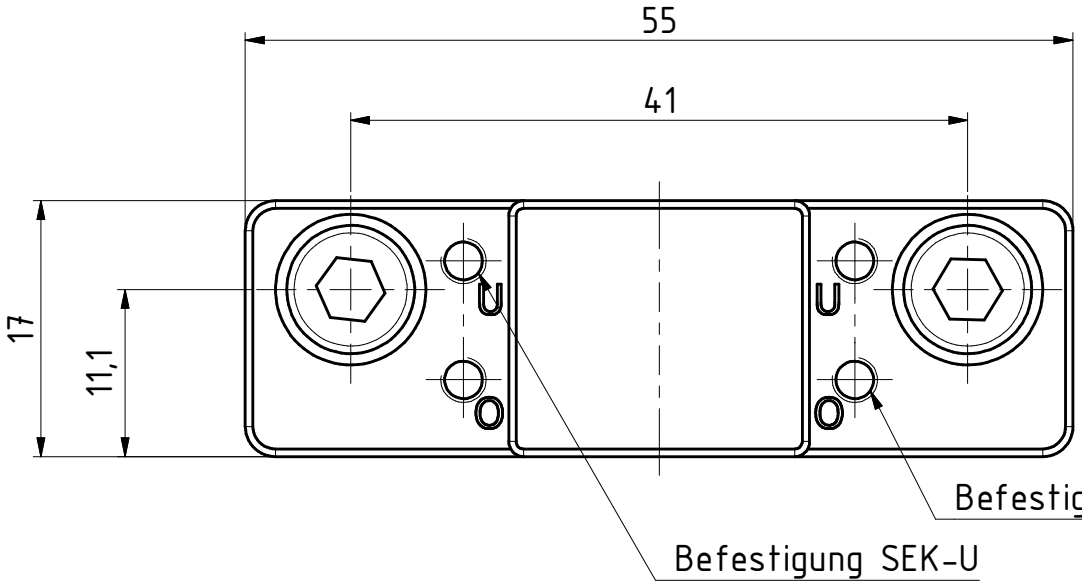


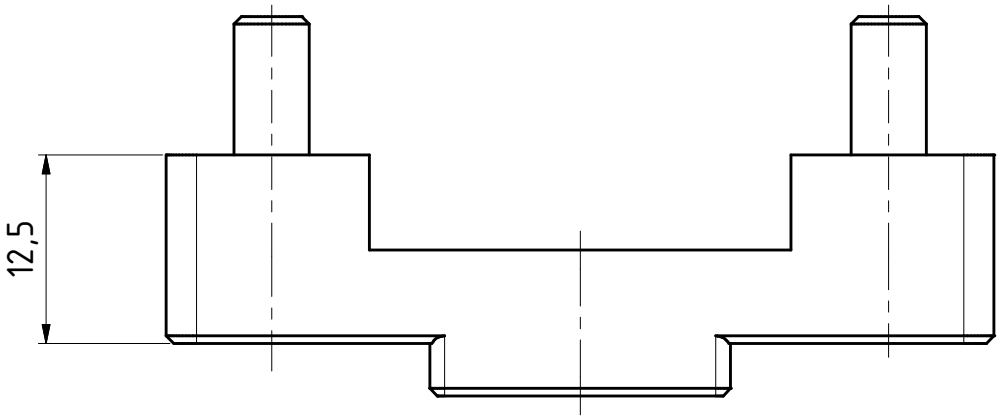


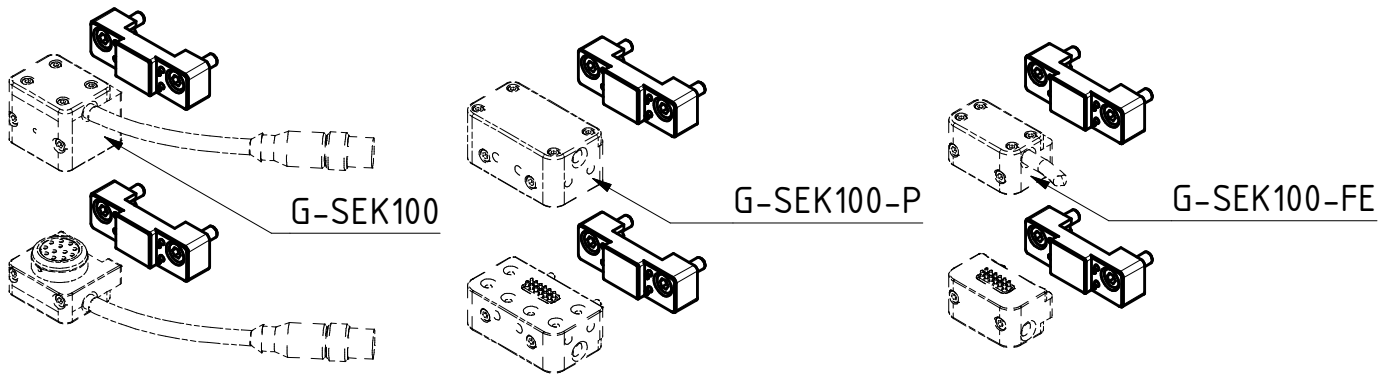
Datum 15.11.2022	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer ZG-AP-SEK100-SHW125			











Datum 14.10.2022	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer ZG-AP-SEK100-SHW160			

MEK-PM MULTI-ENERGY-COUPLING

The MEK-PM Multi-Energy Coupling is a further development of our MEK series. The inlets and outlets for the pneumatic and electrical lines are horizontally arranged. This reduces the height profile of the MEK-PM. Pneumatic hoses can be connected to the coupling by means of push-in fittings (connection M5).

MEK-PM Advantages:

- Horizontally arranged pneumatic and electrical connections
- For metric pneumatic fittings
- Simultaneous mechanical, electrical and pneumatic connection

SIZES

MEK063-PM
MEK080-PM

G-MEK063-3PM5-1E12

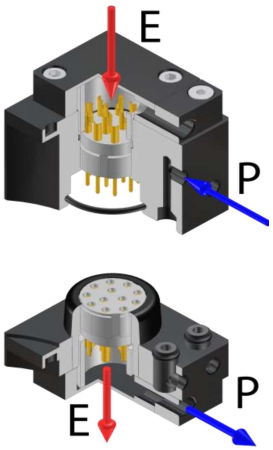
Technical specifications

Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts

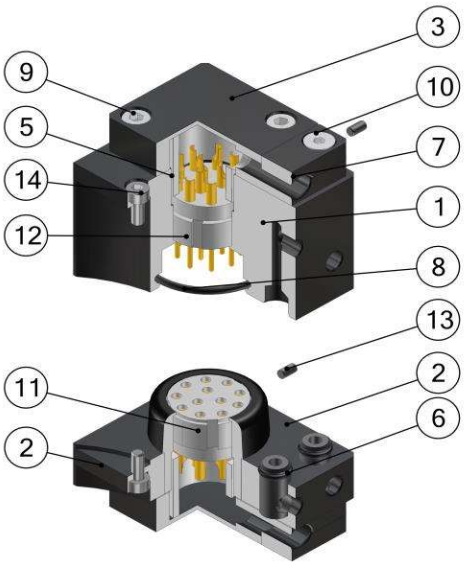
1

2

Technical specifications		MEK063	
Suitable for		MGW063, SWS063	
Pneumatic ducts	number P	3	
	nominal width NW [mm]	M5	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	6
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,11	
	lower assembly	0,06	
Protection class (higher requirement only on request)		IP40	
Operating temperature range [°C]		-30 to +120	



Pos.	Description
1	Upper assembly
2	Lower assembly
3	Cover
5	Distance bushing
6	O-Ring
7	Strain relief
8	O-Ring
9	Socket head screw
10	Countersunk head screw
11	Electrical bushing
12	Electrical plug
13	Cylindrical pin
14	Mounting screw
15	Cable (optional)

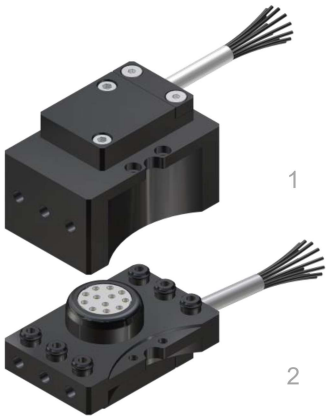


Multi energy coupling Ø63, 6 x air…	
G-MEK063-O-3PM5-1E12	upper assembly, M5 radial, electrical plug 12 poles
G-MEK063-U-3PM5-1E12	lower assembly, M5 radial, electrical bushing 12 poles

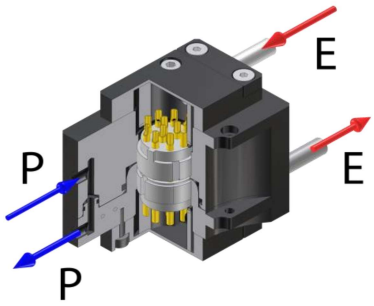
G-MEK063-6PM5-1E12

Technical specifications

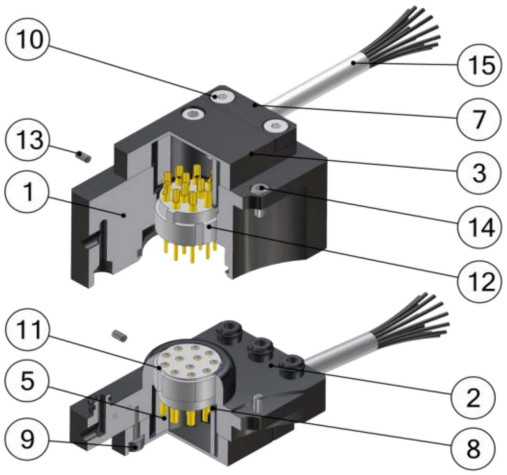
Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts



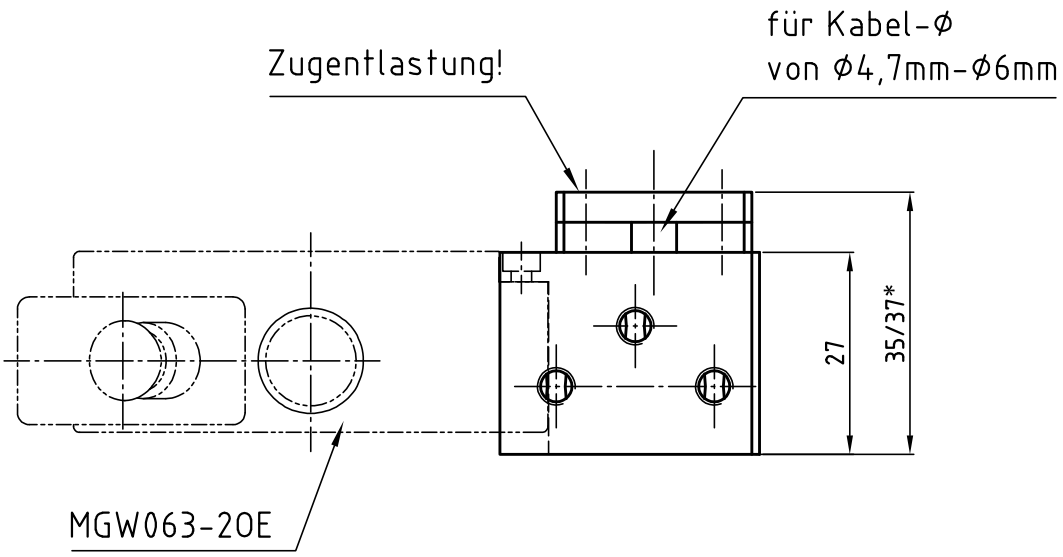
Technical specifications		MEK063	
Suitable for		MGW063, SWS063	
Pneumatic ducts	number P	6	
	nominal width NW [mm]	M5	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	6
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,11	
	lower assembly	0,06	
Protection class (higher requirement only on request)		IP40	
Operating temperature range [°C]		-30 to +120	

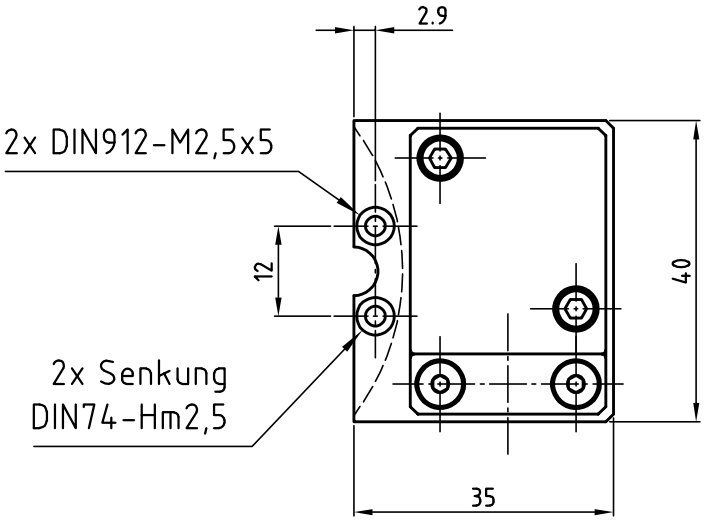


Pos.	Description
1	Upper assembly
2	Lower assembly
3	Cover
5	Distance bushing
6	O-Ring
7	Strain relief
8	O-Ring
9	Socket head screw
10	Countersunk head screw
11	Electrical bushing
12	Electrical plug
13	Cylindrical pin
14	Mounting screw
15	Cable (optional)



Multi energy coupling Ø63…	
G-MEK063-O-6PM5	upper assembly, 6 x air, M5 radial
G-MEK063-U-6PM5	lower assembly, 6 x air, M5 radial
G-MEK063-O-6PM5-1E12	upper assembly, 6 x air, M5 radial, electrical plug 12 poles
G-MEK063-U-6PM5-1E12	lower assembly, 6 x air, M5 radial, electrical bushing 12 poles
G-MEK063-O-6PM5-1E12-M12-300	upper assembly, 6 x air, M5 radial, electrical plug 12 poles, with 300 mm cable, plug M12
G-MEK063-U-6PM5-1E12-M12-300	lower assembly, 6 x air, M5 radial, electrical bushing 12 poles, with 300 mm cable , bushing M12

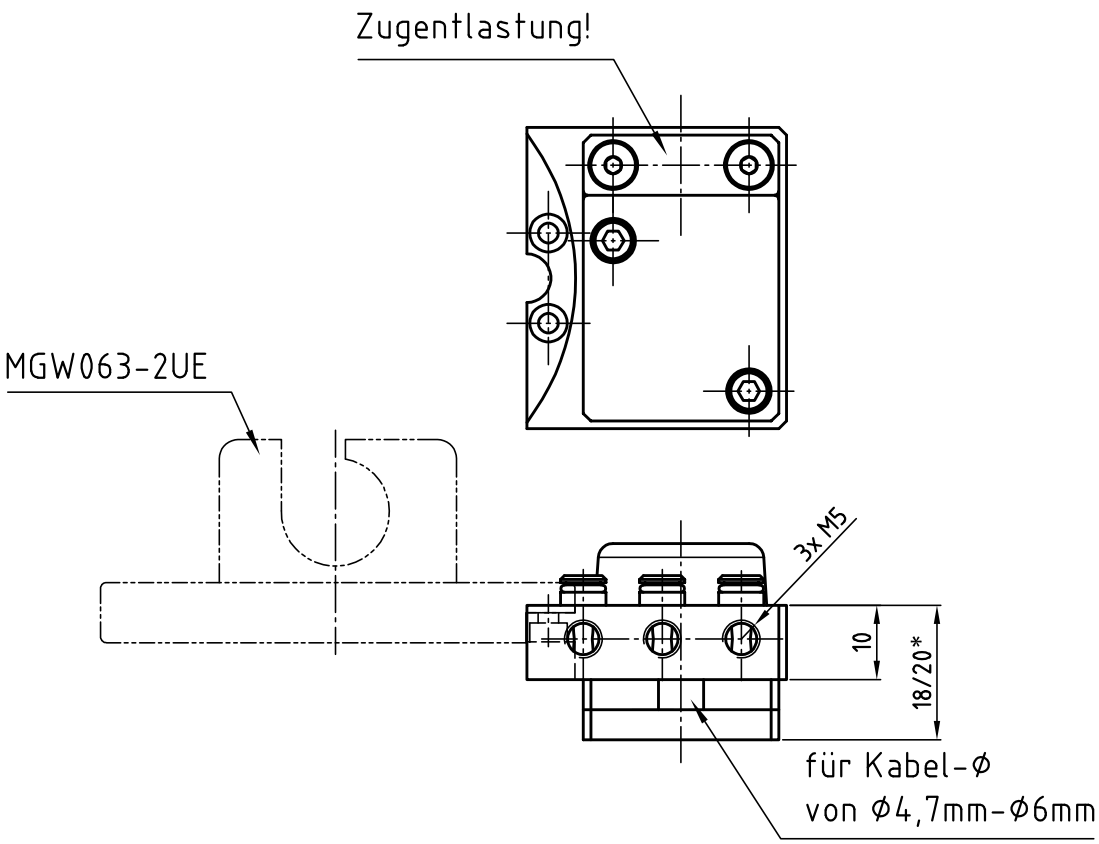


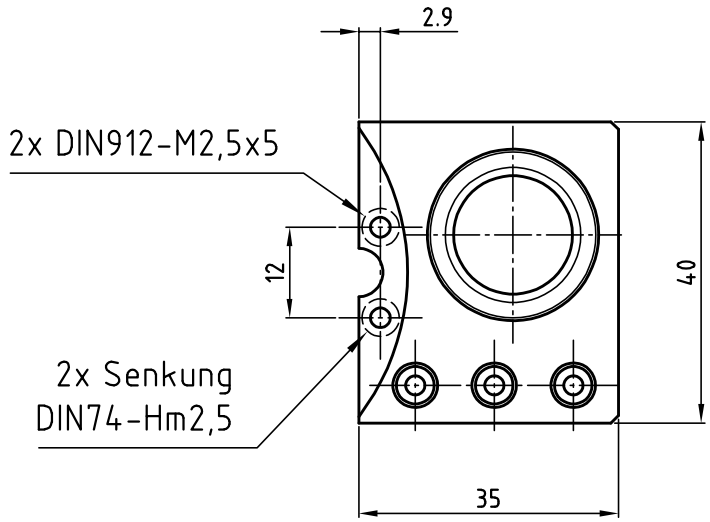


Bestellnummer Oberteil

G-MEK063-O-3PM5-1E12
G-MEK063-O-3PM5-1E6-C*

Datum 22.01.2018	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-MEK063-O-3PM5-1E			

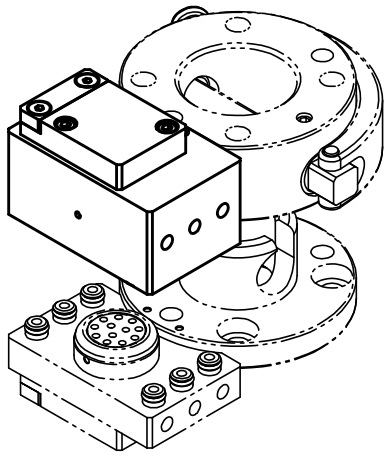


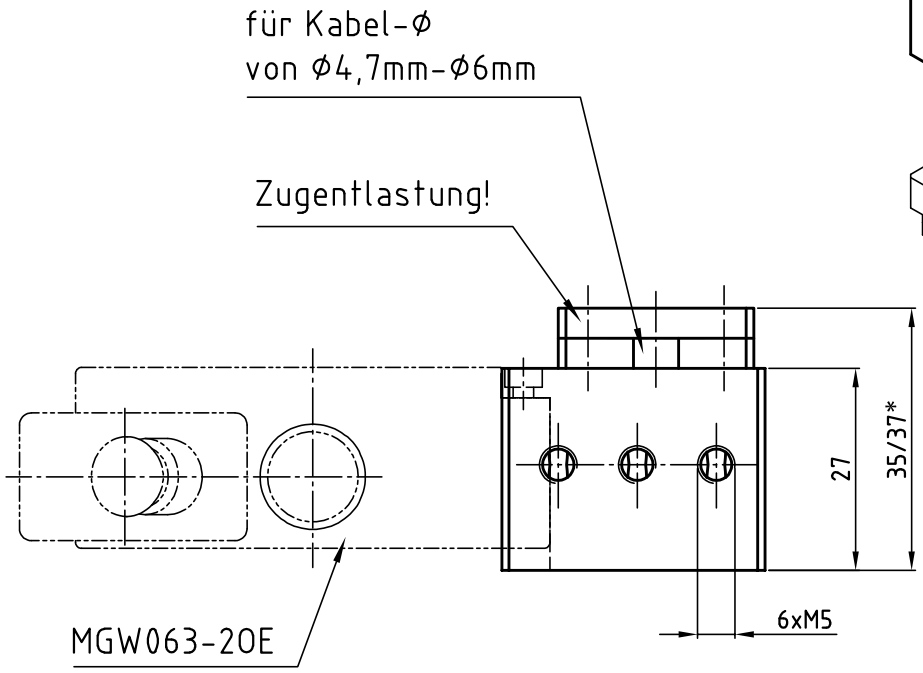


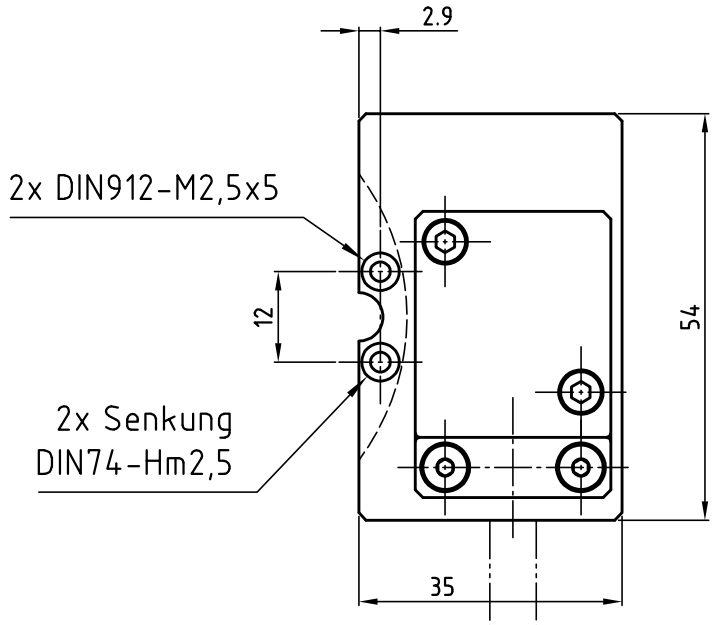
Bestellnummer Unterteil

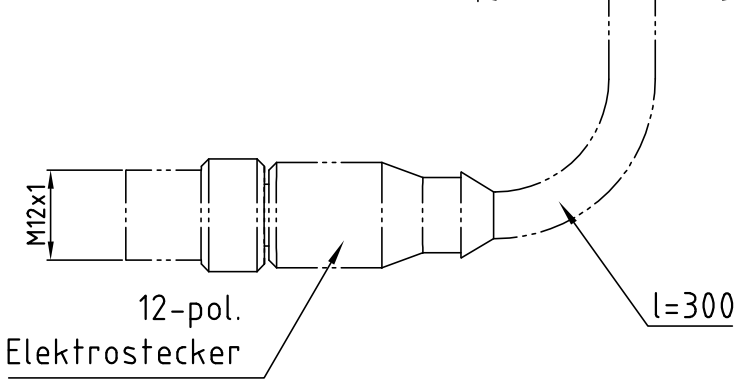
G-MEK063-U-3PM5-1E12
G-MEK063-U-3PM5-1E6-C*

Datum 22.01.2018	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-MEK063-U-3PM5-1E			









Bestellnummer Oberteil

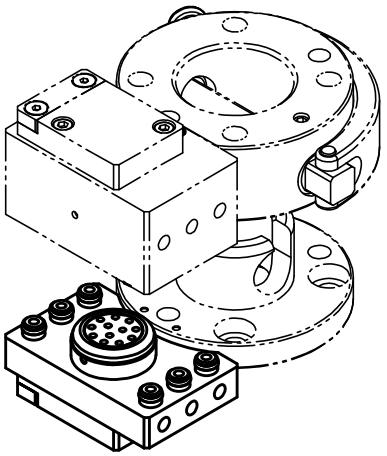
G-MEK063-O-6PM5
G-MEK063-O-6PM5-1E12
G-MEK063-O-6PM5-1E6-C*
G-MEK063-O-6PM5-1E12-M12-300

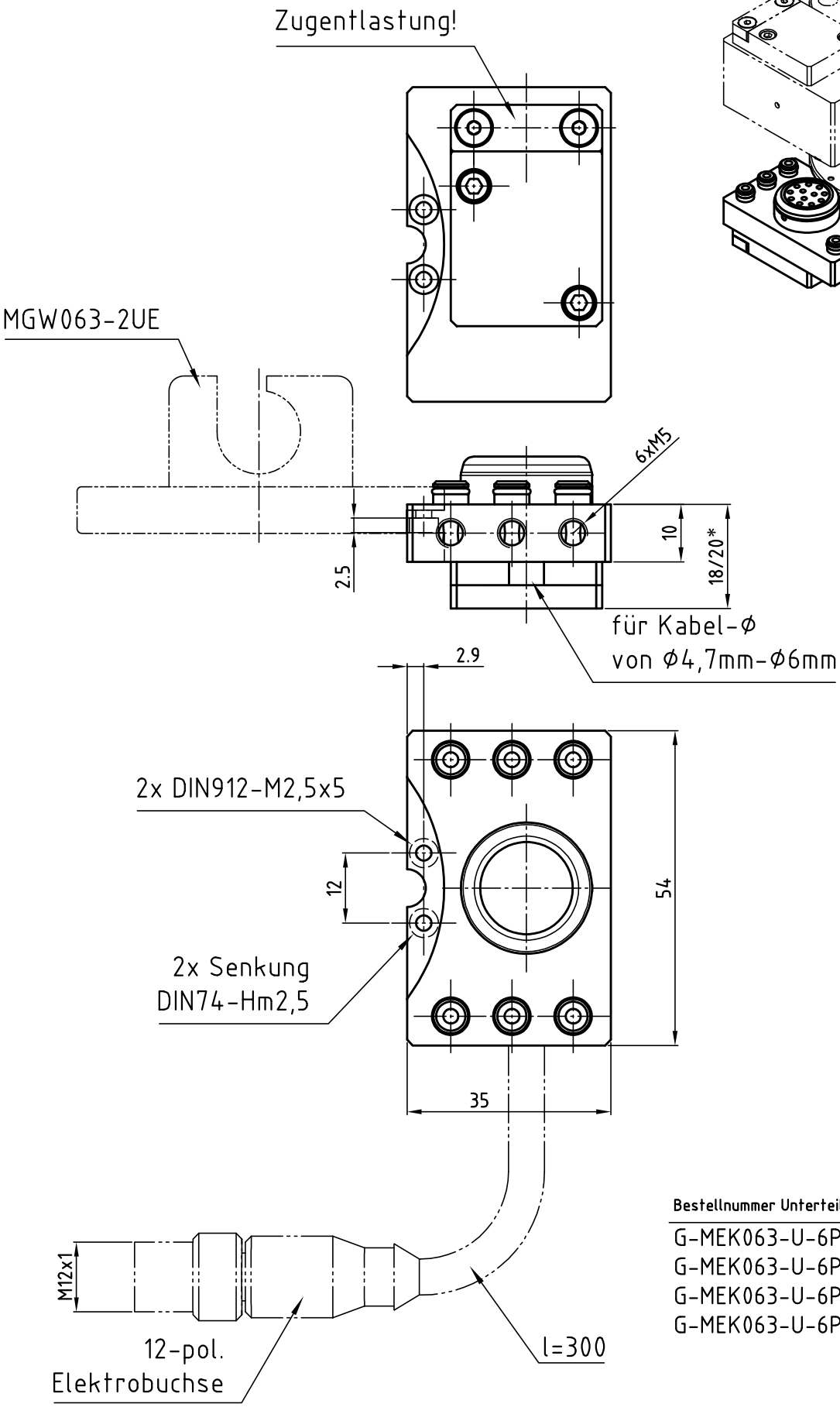
Datum	Maßstab	
22.01.2018	1:1	

Zeichnungsnummer

G-MEK063-O-6PM5-1E

GRIP GmbH Handhabungstechnik





Bestellnummer Unterteil

G-MEK063-U-6PM5
G-MEK063-U-6PM5-1E12
G-MEK063-U-6PM5-1E6-C*
G-MEK063-U-6PM5-1E12-M12-300

Datum	Maßstab
22.01.2018	1:1

Zeichnungsnummer

G-MEK063-U-6PM5-1E

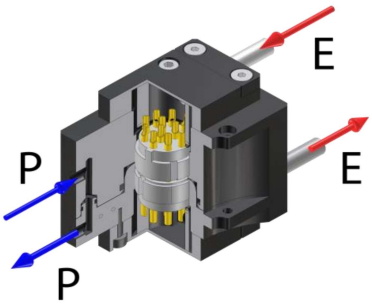
GRIP GmbH Handhabungstechnik

G-MEK080-6PM5-1E12

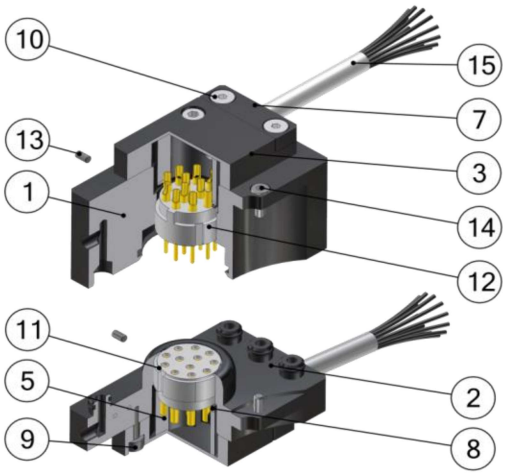
Technical specifications

Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts

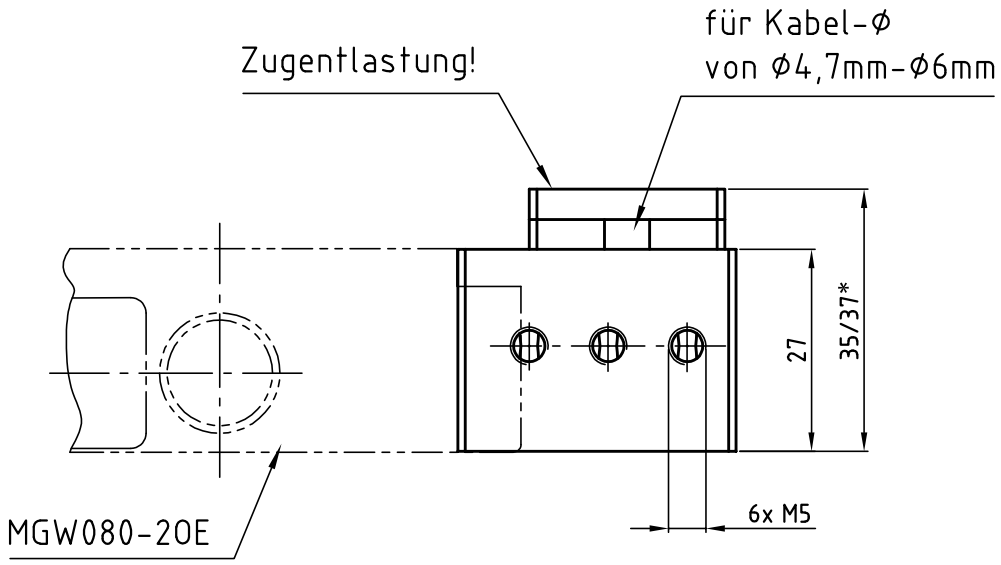
Technical specifications		MEK080	
Suitable for		MGW080, SWS080	
Pneumatic ducts	number P	6	
	nominal width NW [mm]	M5	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	6
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,11	
	lower assembly	0,06	
Protection class (higher requirement only on request)		IP40	
Operating temperature range [°C]		-30 to +120	

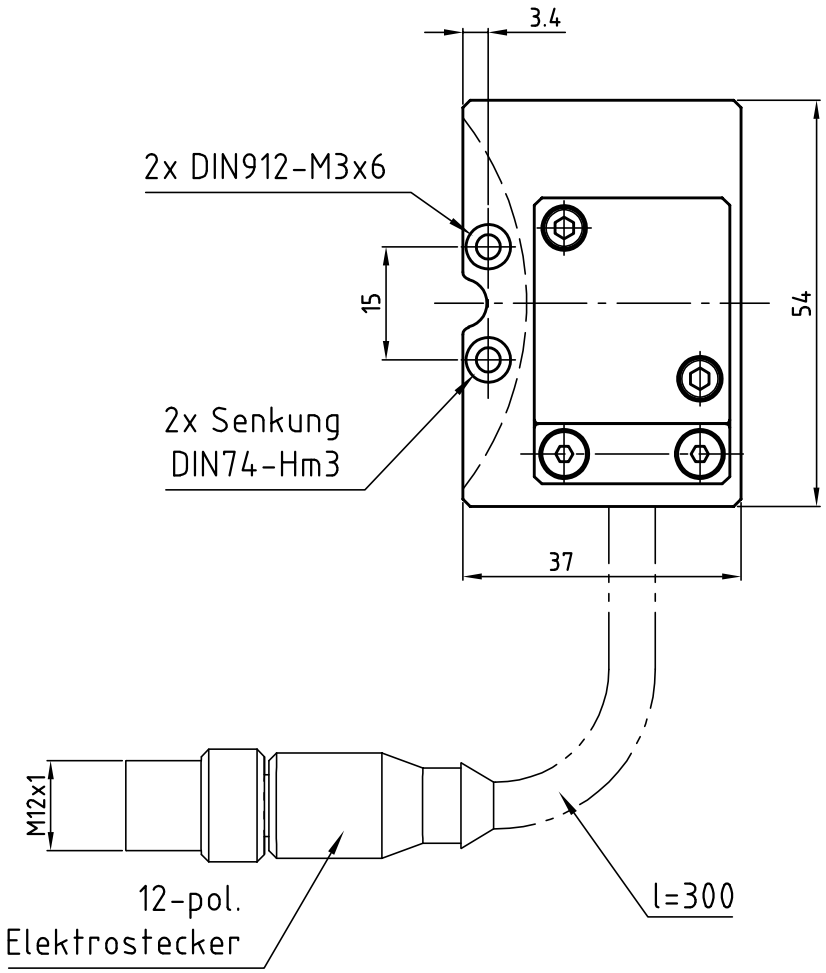


Pos.	Description
1	Upper assembly
2	Lower assembly
3	Cover
5	Distance bushing
6	O-Ring
7	Strain relief
8	O-Ring
9	Socket head screw
10	Countersunk head screw
11	Electrical bushing
12	Electrical plug
13	Cylindrical pin
14	Mounting screw
15	Cable (optional)



Multi energy coupling Ø80…	
G-MEK080-O-6PM5	upper assembly, 6 x air, M5 radial
G-MEK080-U-6PM5	lower assembly, 6 x air, M5 radial
G-MEK080-O-6PM5-1E12	upper assembly, 6 x air, M5 radial, electrical plug 12 poles
G-MEK080-U-6PM5-1E12	lower assembly, 6 x air, M5 radial, electrical bushing 12 poles
G-MEK080-O-6PM5-1E12-M12-300	upper assembly, 6 x air, M5 radial, electrical plug 12 poles, with 300 mm cable, plug M12
G-MEK080-U-6PM5-1E12-M12-300	lower assembly, 6 x air, M5 radial, electrical bushing 12 poles, with 300 mm cable , bushing M12





Bestellnummer Oberteil

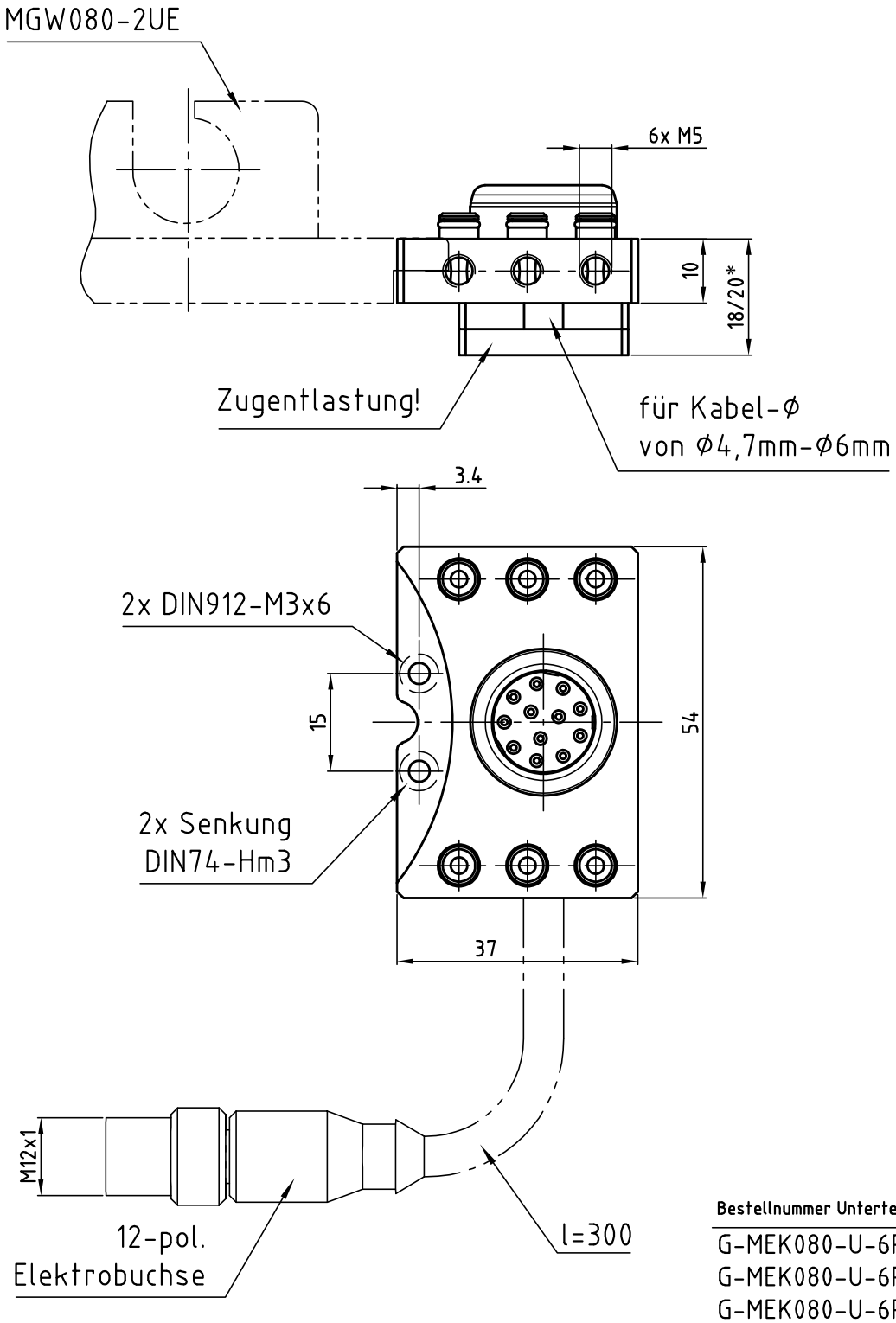
G-MEK080-O-6PM5
G-MEK080-O-6PM5-1E12
G-MEK080-O-6PM5-1E6-C*
G-MEK080-O-6PM5-1E12-M12-300

Datum	Maßstab	
14.06.2018	1:1	

Zeichnungsnummer

G-MEK080-O-6PM5-1E

GRIP GmbH Handhabungstechnik



Bestellnummer Unterteil

G-MEK080-U-6PM5
G-MEK080-U-6PM5-1E12
G-MEK080-U-6PM5-1E6-C*
G-MEK080-U-6PM5-1E12-M12-300

Datum	Maßstab	
14.06.2018	1:1	

Zeichnungsnummer

G-MEK080-U-6PM5-1E

GRIP GmbH Handhabungstechnik

MEK MULTI-ENERGY-COUPLING

The MEK Multi-Energy-Coupling is an MGW Connector accessory to that enables the transmission of energy, air and vacuum.

MEK Multi-Energy-Coupling Advantages:

- Extends the mechanical interfaces MGW
- Replaces additional plug connections
- Transmits compressed air from the upper to the lower assembly
- Conducts vacuum from upper to lower assembly
- Conducts 12x electrical signals from the upper to the lower assembly

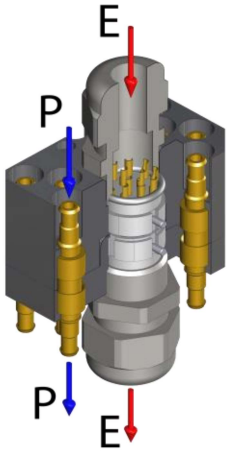
MEK Multi-Energy-Couplings can be modified to meet your needs. Please inquire about special applications.

SIZES

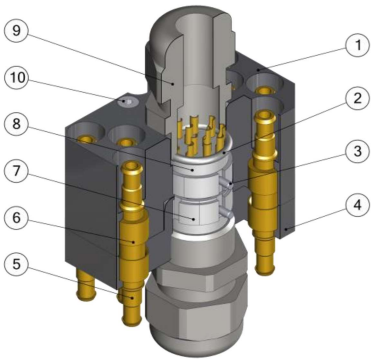
MEK063
MEK080
MEK100
MEK125
MEK160
MEK200

Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts

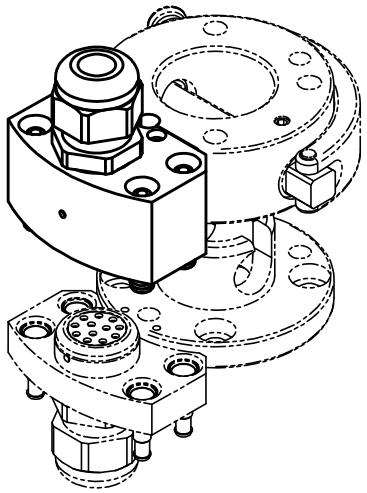
Technical specifications		MEK063	
Suitable for		MGW063, SWS063	
Pneumatic ducts	number P	4 / 8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	6
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,11	
	lower assembly	0,06	
Protection class (higher requirement only on request)		IP40	
Operating temperature range [°C]		-30 to +120	

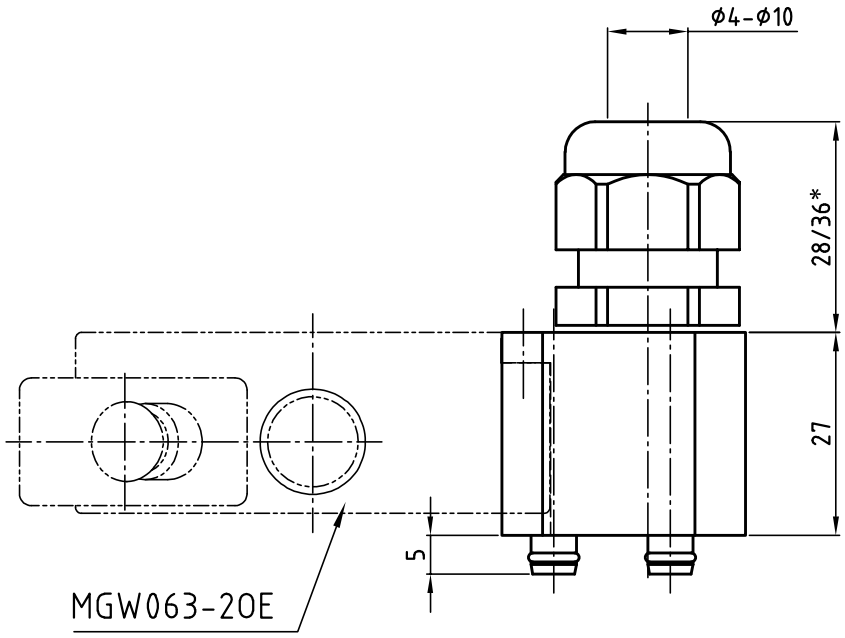


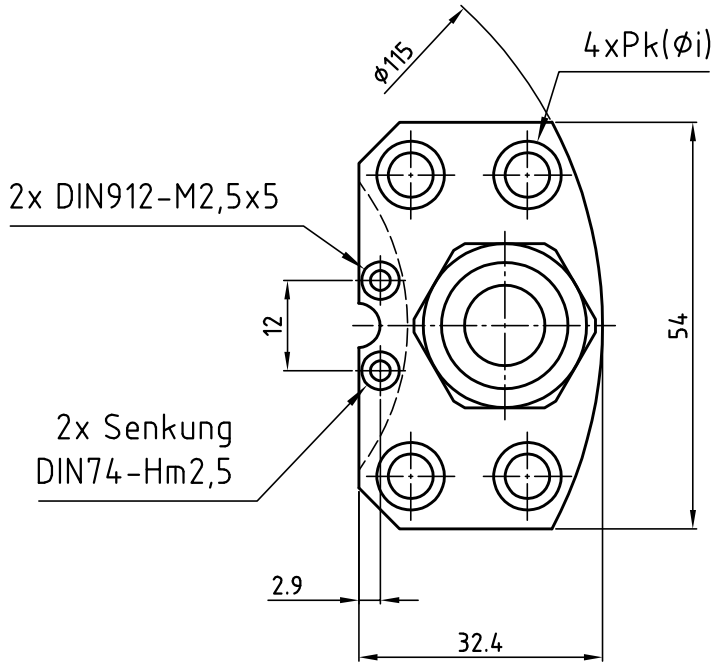
Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Lower assembly
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O



Multi energy coupling Ø63…	
G-MEK063-O-4PK2-1E12	upper assembly, 4 x air, ID = 2 mm, electrical plug 12 poles
G-MEK063-O-4PK2-1E6-C	upper assembly, 4 x air, ID = 2 mm, electrical plug 6 poles
G-MEK063-O-4PK3-1E12	upper assembly, 4 x air, ID = 3 mm, electrical plug 12 poles
G-MEK063-O-4PK3-1E6-C	upper assembly, 4 x air, ID = 3 mm, electrical plug 6 poles
G-MEK063-O-4PK4-1E12	upper assembly, 4 x air, ID = 4 mm, electrical plug 12 poles
G-MEK063-O-4PK4-1E6-C	upper assembly, 4 x air, ID = 4 mm, electrical plug 6 poles
G-MEK063-O-8PK2-1E12	upper assembly, 8 x air, ID = 2 mm, electrical plug 12 poles
G-MEK063-O-8PK2-1E6-C	upper assembly, 8 x air, ID = 2 mm, electrical plug 6 poles
G-MEK063-O-8PK3-1E12	upper assembly, 8 x air, ID = 3 mm, electrical plug 12 poles
G-MEK063-O-8PK3-1E6-C	upper assembly, 8 x air, ID = 3 mm, electrical plug 6 poles
G-MEK063-O-8PK4-1E12	upper assembly, 8 x air, ID = 4 mm, electrical plug 12 poles
G-MEK063-O-8PK4-1E6-C	upper assembly, 8 x air, ID = 4 mm, electrical plug 6 poles
G-MEK063-U-4PK2-1E12	lower assembly, 4 x air, ID = 2 mm, electrical bushing 12 poles
G-MEK063-U-4PK2-1E6-C	lower assembly, 4 x air, ID = 2 mm, electrical bushing 6 poles
G-MEK063-U-4PK3-1E12	lower assembly, 4 x air, ID = 3 mm, electrical bushing 12 poles
G-MEK063-U-4PK3-1E6-C	lower assembly, 4 x air, ID = 3 mm, electrical bushing 6 poles
G-MEK063-U-4PK4-1E12	lower assembly, 4 x air, ID = 4 mm, electrical bushing 12 poles
G-MEK063-U-4PK4-1E6-C	lower assembly, 4 x air, ID = 4 mm, electrical bushing 6 poles
G-MEK063-U-8PK2-1E12	lower assembly, 8 x air, ID = 2 mm, electrical bushing 12 poles
G-MEK063-U-8PK2-1E6-C	lower assembly, 8 x air, ID = 2 mm, electrical bushing 6 poles
G-MEK063-U-8PK3-1E12	lower assembly, 8 x air, ID = 3 mm, electrical bushing 12 poles
G-MEK063-U-8PK3-1E6-C	lower assembly, 8 x air, ID = 3 mm, electrical bushing 6 poles
G-MEK063-U-8PK4-1E12	lower assembly, 8 x air, ID =4 mm, electrical bushing 12 poles
G-MEK063-U-8PK4-1E6-C	lower assembly, 8 x air, ID =4 mm, electrical bushing 6 poles





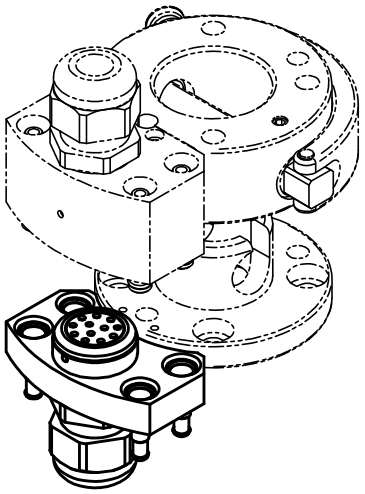


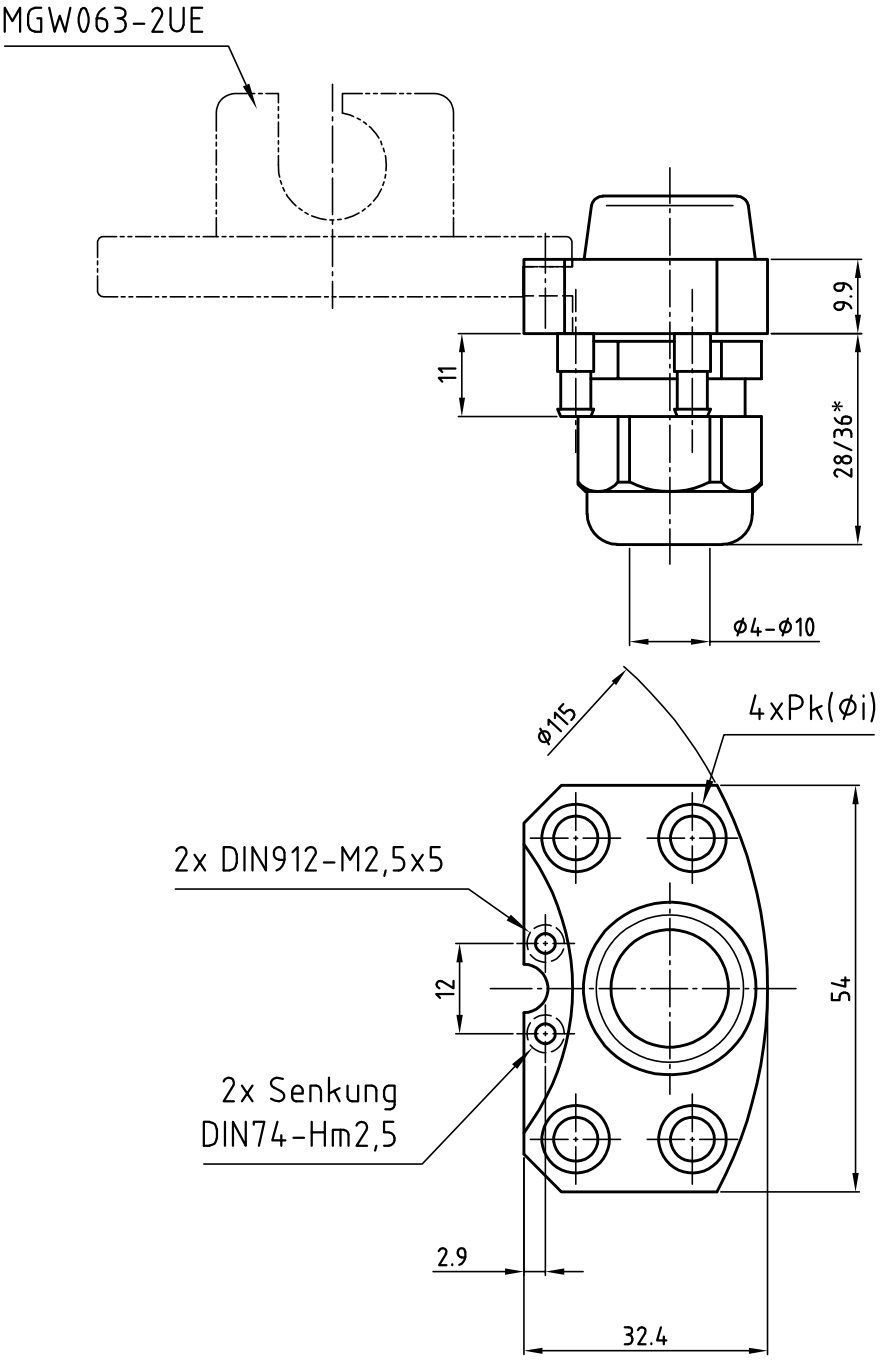
Bestellnummer Oberteil

G-MEK063-O-4Pk2-1E12
G-MEK063-O-4Pk3-1E12
G-MEK063-O-4Pk4-1E12

G-MEK063-O-4Pk2-1E6-C*
G-MEK063-O-4Pk3-1E6-C*
G-MEK063-O-4Pk4-1E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK063-O-4P-1E		GRIP GmbH Handhabungstechnik





Bestellnummer Unterteil

G-MEK063-U-4Pk2-1E12
G-MEK063-U-4Pk3-1E12
G-MEK063-U-4Pk4-1E12

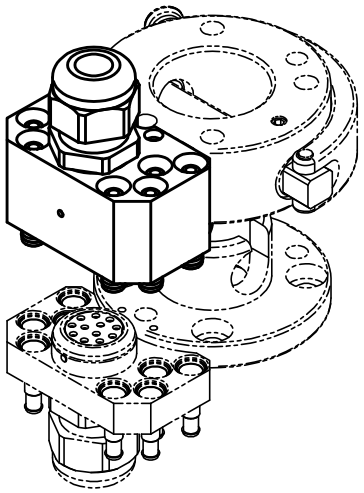
G-MEK063-U-4Pk2-1E6-C*
G-MEK063-U-4Pk3-1E6-C*
G-MEK063-U-4Pk4-1E6-C*

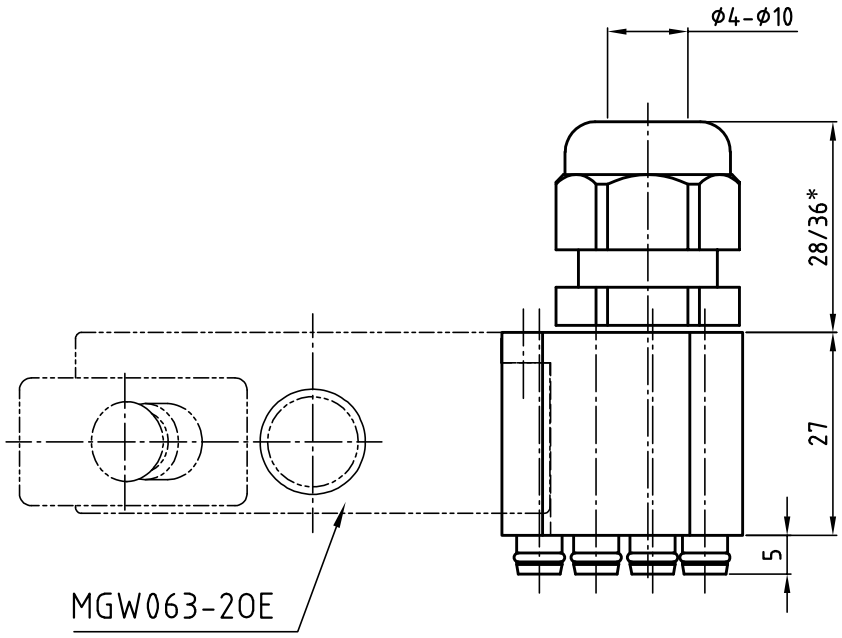
Datum	Maßstab	
10.11.2016	1:1	

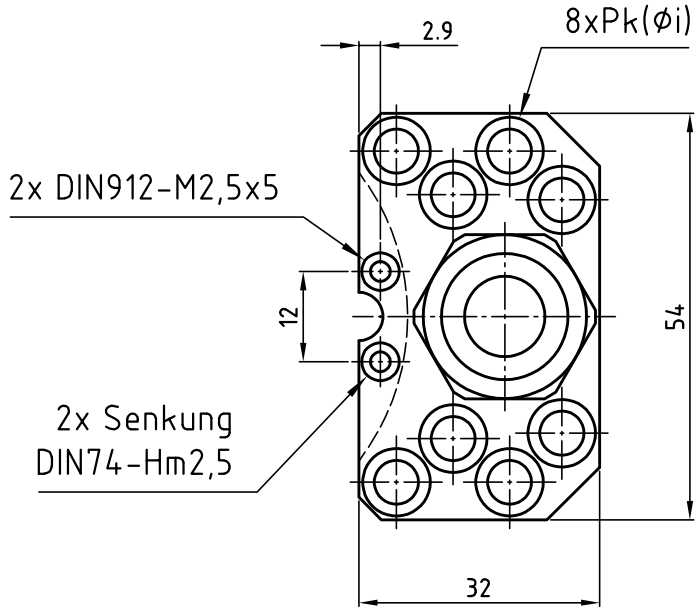
Zeichnungsnummer

G-MEK063-U-4P-1E

GRIP GmbH Handhabungstechnik





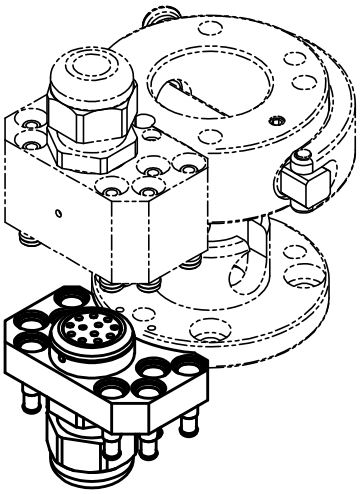


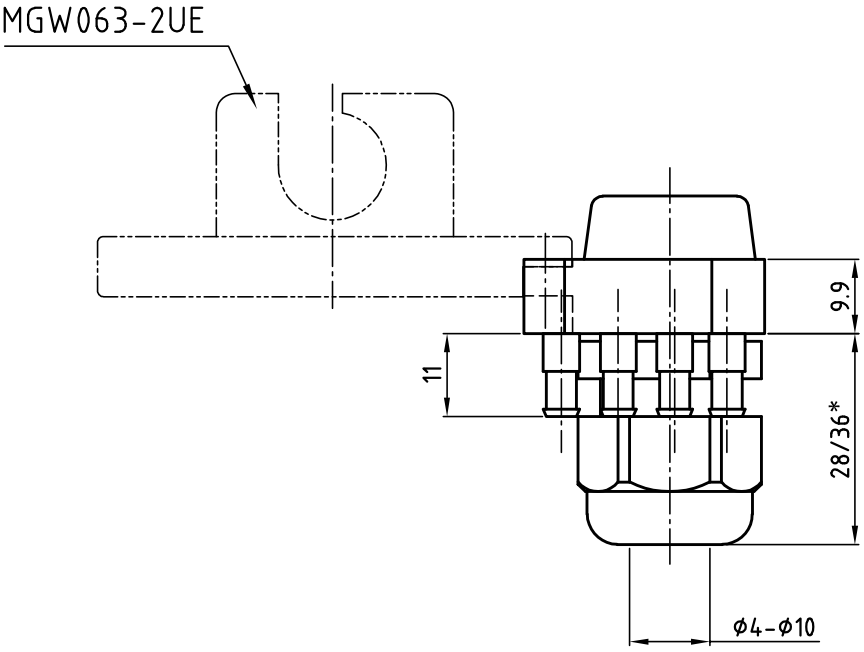
Bestellnummer Oberteil

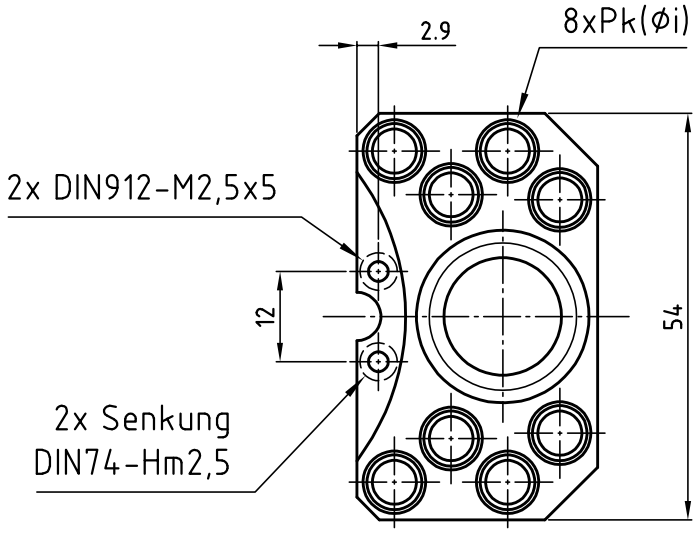
G-MEK063-O-8Pk2-1E12
G-MEK063-O-8Pk3-1E12
G-MEK063-O-8Pk4-1E12

G-MEK063-O-8Pk2-1E6-C*
G-MEK063-O-8Pk3-1E6-C*
G-MEK063-O-8Pk4-1E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK063-O-8P-1E		GRIP GmbH Handhabungstechnik







Bestellnummer Unterteil

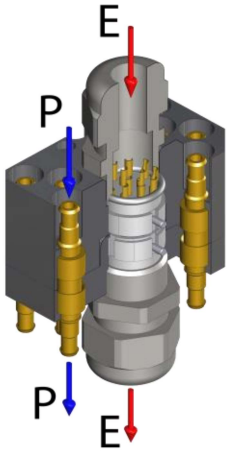
G-MEK063-U-8Pk2-1E12
G-MEK063-U-8Pk3-1E12
G-MEK063-U-8Pk4-1E12

G-MEK063-U-8Pk2-1E6-C*
G-MEK063-U-8Pk3-1E6-C*
G-MEK063-U-8Pk4-1E6-C*

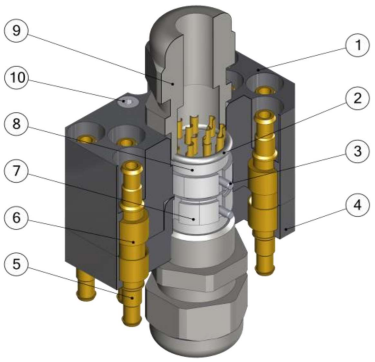
Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK063-U-8P-1E		GRIP GmbH Handhabungstechnik

Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts

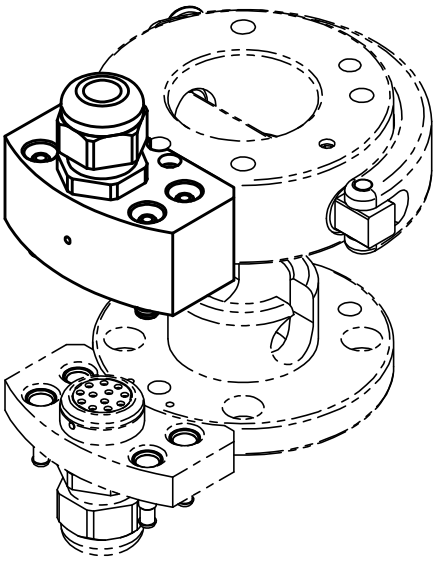
Technical specifications		MEK080	
Suitable for		MGW080, SWS080	
Pneumatic ducts	number P	4 / 8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	6
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,15	
	lower assembly	0,07	
Protection class (higher requirement only on request)		IP40	
Operating temperature range [°C]		-30 to +120	

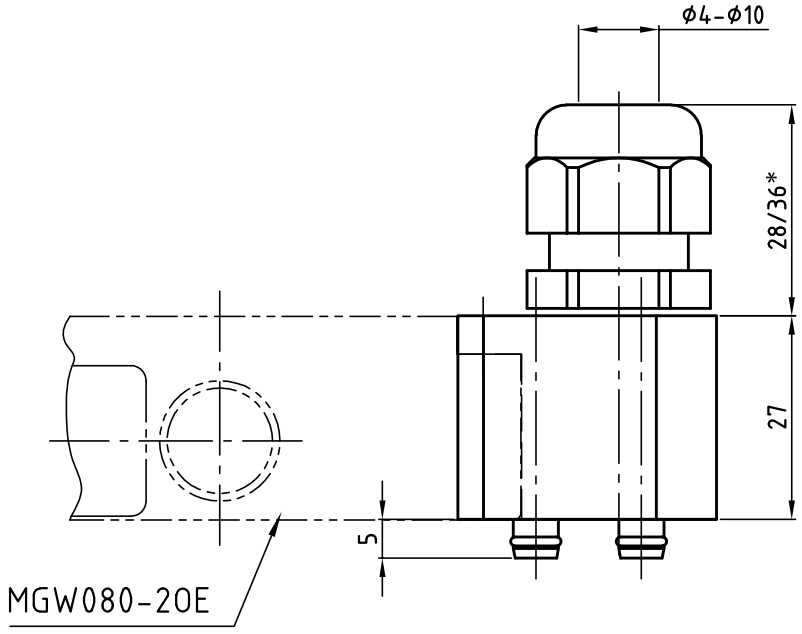


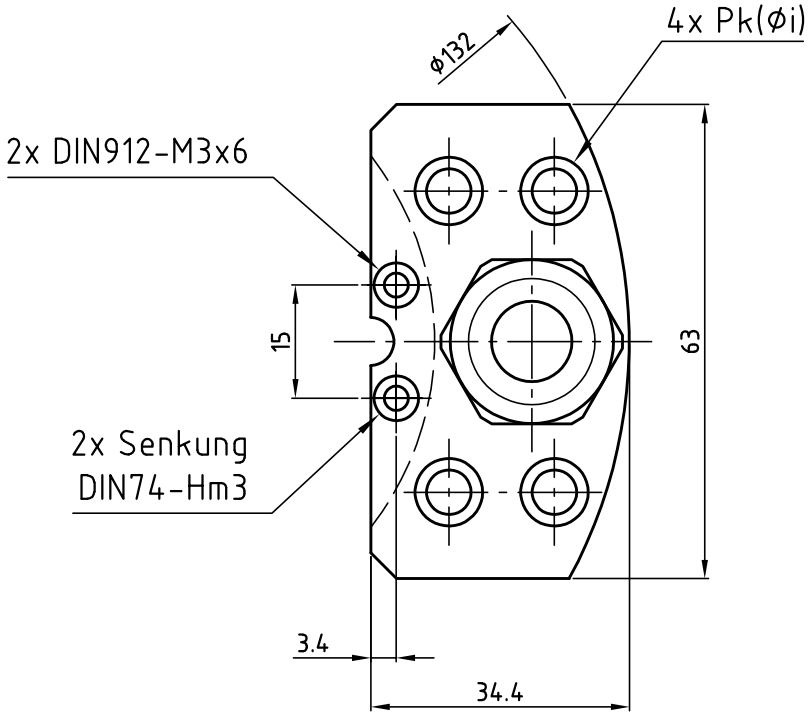
Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Lower assembly
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O



Multi energy coupling Ø80…	
G-MEK080-O-4PK2-1E12	upper assembly, 4 x air, ID = 2 mm, electrical plug 12 poles
G-MEK080-O-4PK2-1E6-C	upper assembly, 4 x air, ID = 2 mm, electrical plug 6 poles
G-MEK080-O-4PK3-1E12	upper assembly, 4 x air, ID = 3 mm, electrical plug 12 poles
G-MEK080-O-4PK3-1E6-C	upper assembly, 4 x air, ID = 3 mm, electrical plug 6 poles
G-MEK080-O-4PK4-1E12	upper assembly, 4 x air, ID = 4 mm, electrical plug 12 poles
G-MEK080-O-4PK4-1E6-C	upper assembly, 4 x air, ID = 4 mm, electrical plug 6 poles
G-MEK080-O-8PK2-1E12	upper assembly, 8 x air, ID = 2 mm, electrical plug 12 poles
G-MEK080-O-8PK2-1E6-C	upper assembly, 8 x air, ID = 2 mm, electrical plug 6 poles
G-MEK080-O-8PK3-1E12	upper assembly, 8 x air, ID = 3 mm, electrical plug 12 poles
G-MEK080-O-8PK3-1E6-C	upper assembly, 8 x air, ID = 3 mm, electrical plug 6 poles
G-MEK080-O-8PK4-1E12	upper assembly, 8 x air, ID = 4 mm, electrical plug 12 poles
G-MEK080-O-8PK4-1E6-C	upper assembly, 8 x air, ID = 4 mm, electrical plug 6 poles
G-MEK080-U-4PK2-1E12	lower assembly, 4 x air, ID = 2 mm, electrical bushing 12 poles
G-MEK080-U-4PK2-1E6-C	lower assembly, 4 x air, ID = 2 mm, electrical bushing 6 poles
G-MEK080-U-4PK3-1E12	lower assembly, 4 x air, ID = 3 mm, electrical bushing 12 poles
G-MEK080-U-4PK3-1E6-C	lower assembly, 4 x air, ID = 3 mm, electrical bushing 6 poles
G-MEK080-U-4PK4-1E12	lower assembly, 4 x air, ID = 4 mm, electrical bushing 12 poles
G-MEK080-U-4PK4-1E6-C	lower assembly, 4 x air, ID = 4 mm, electrical bushing 6 poles
G-MEK080-U-8PK2-1E12	lower assembly, 8 x air, ID = 2 mm, electrical bushing 12 poles
G-MEK080-U-8PK2-1E6-C	lower assembly, 8 x air, ID = 2 mm, electrical bushing 6 poles
G-MEK080-U-8PK3-1E12	lower assembly, 8 x air, ID = 3 mm, electrical bushing 12 poles
G-MEK080-U-8PK3-1E6-C	lower assembly, 8 x air, ID = 3 mm, electrical bushing 6 poles
G-MEK080-U-8PK4-1E12	lower assembly, 8 x air, ID =4 mm, electrical bushing 12 poles
G-MEK080-U-8PK4-1E6-C	lower assembly, 8 x air, ID =4 mm, electrical bushing 6 poles





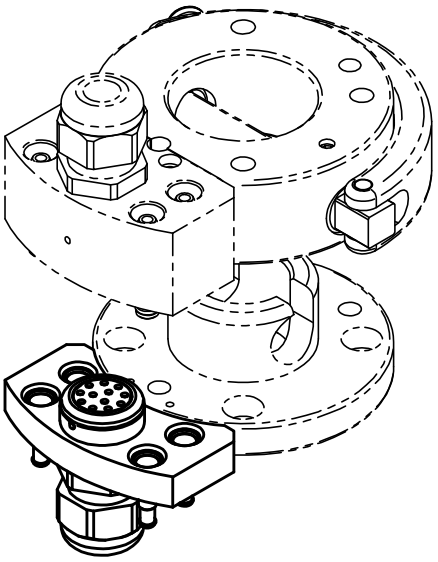


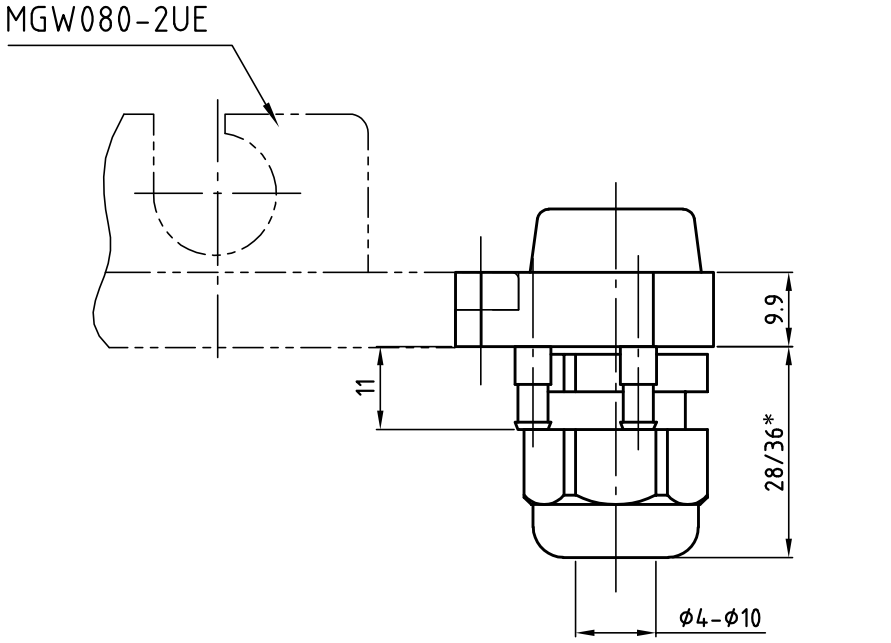
Bestellnummer Oberteil

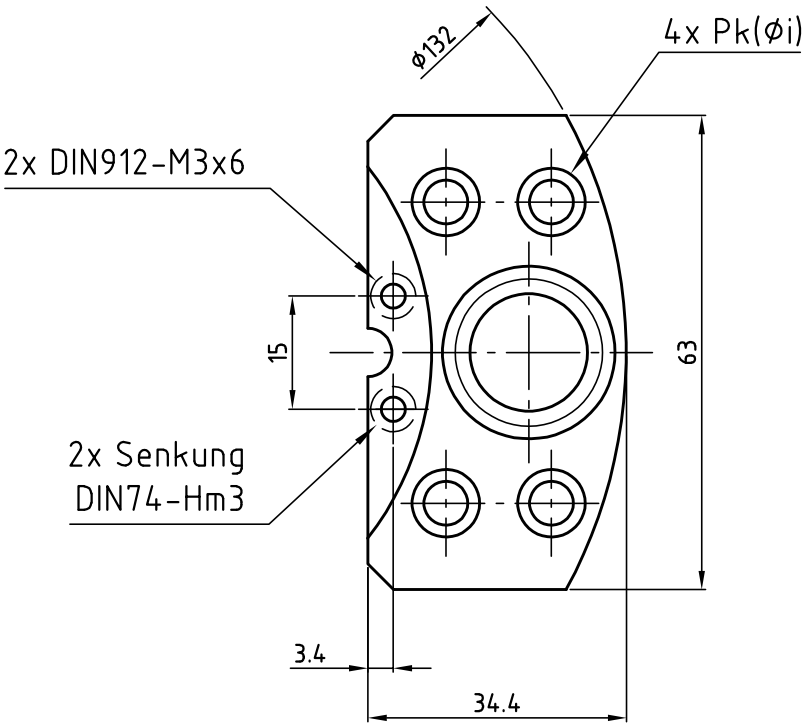
G-MEK080-O-4Pk2-1E12
G-MEK080-O-4Pk3-1E12
G-MEK080-O-4Pk4-1E12

G-MEK080-O-4Pk2-1E6-C*
G-MEK080-O-4Pk3-1E6-C*
G-MEK080-O-4Pk4-1E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK080-O-4P-1E		GRIP GmbH Handhabungstechnik





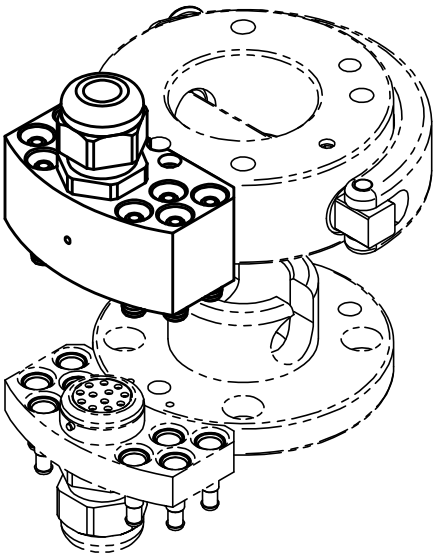


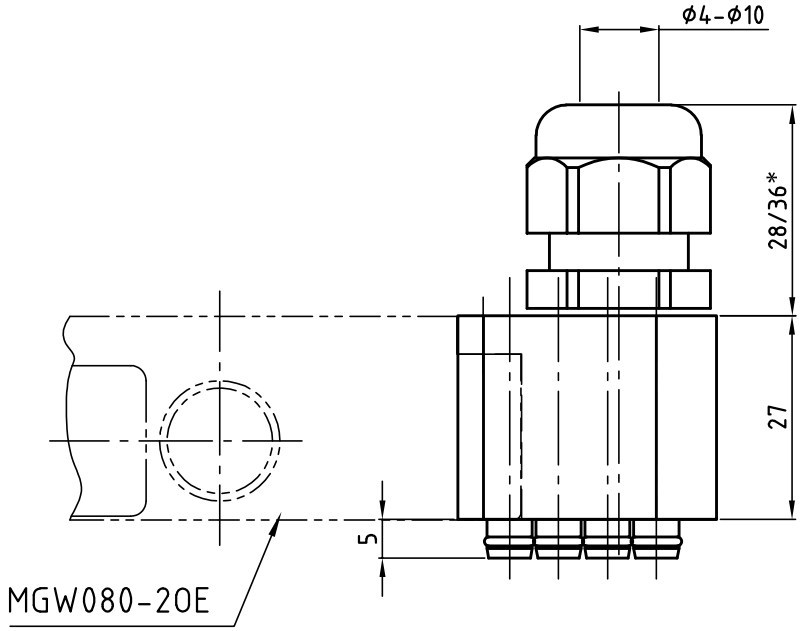
Bestellnummer Unterteil

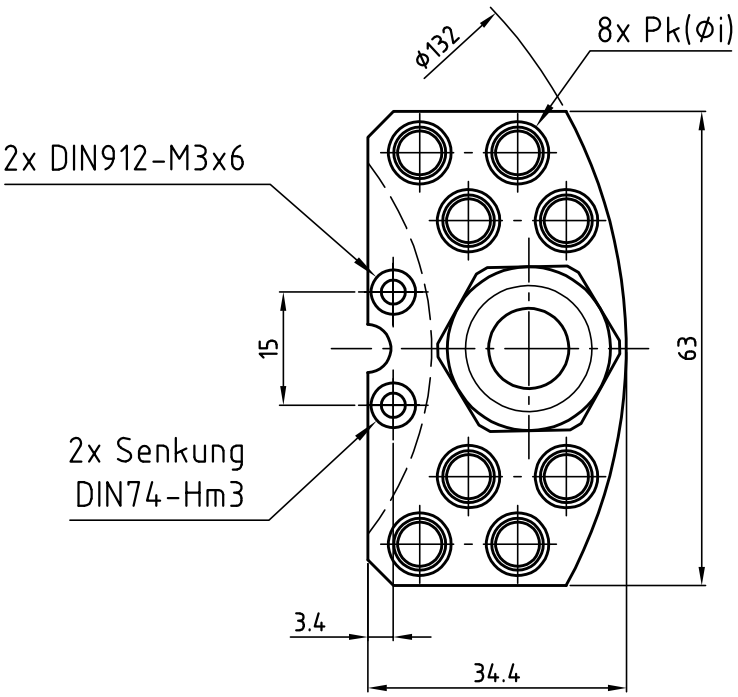
G-MEK080-U-4Pk2-1E12
G-MEK080-U-4Pk3-1E12
G-MEK080-U-4Pk4-1E12

G-MEK080-U-4Pk2-1E6-C*
G-MEK080-U-4Pk3-1E6-C*
G-MEK080-U-4Pk4-1E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK080-U-4P-1E		GRIP GmbH Handhabungstechnik







Bestellnummer Oberteil

G-MEK080-O-8Pk2-1E12
G-MEK080-O-8Pk3-1E12
G-MEK080-O-8Pk4-1E12

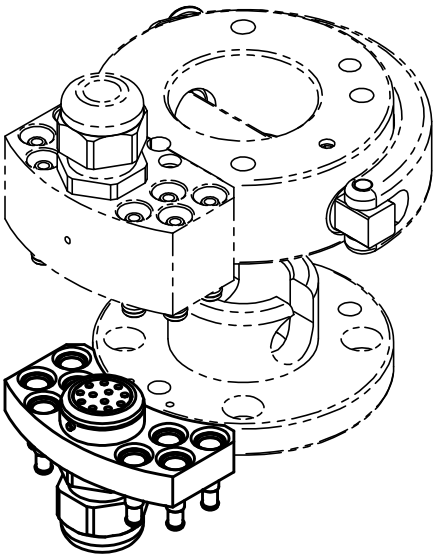
G-MEK080-O-8Pk2-1E6-C*
G-MEK080-O-8Pk3-1E6-C*
G-MEK080-O-8Pk4-1E6-C*

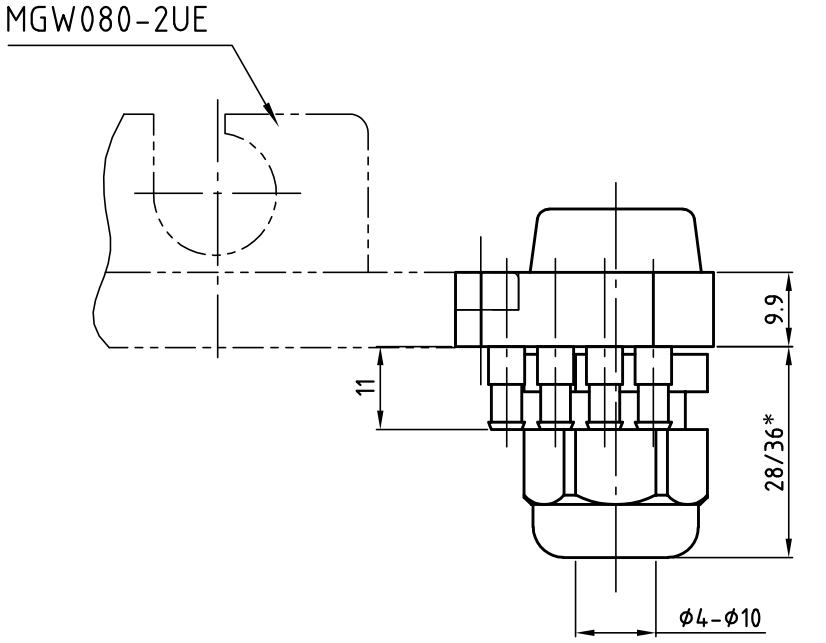
Datum	Maßstab	
10.11.2016	1:1	

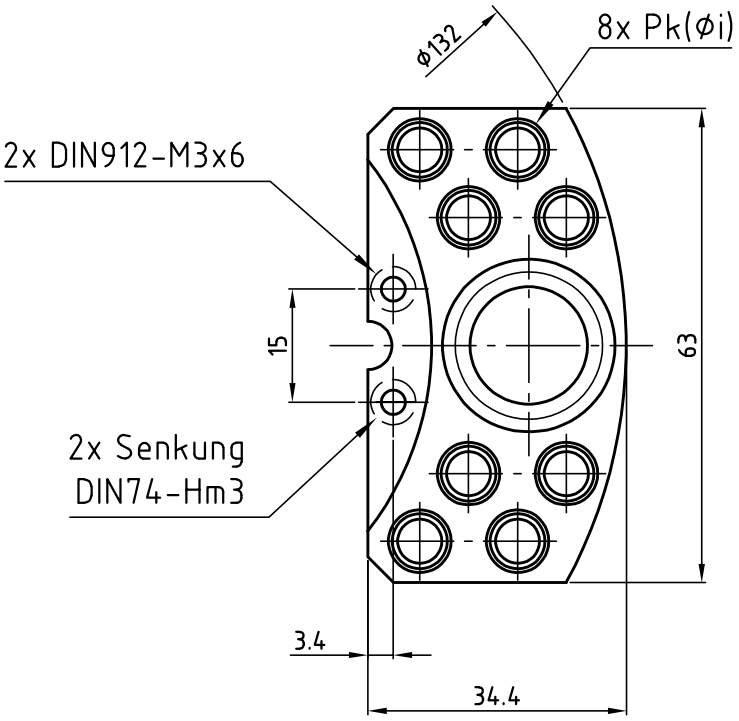
Zeichnungsnummer

G-MEK080-O-8P-1E

GRIP GmbH Handhabungstechnik







Bestellnummer Unterteil

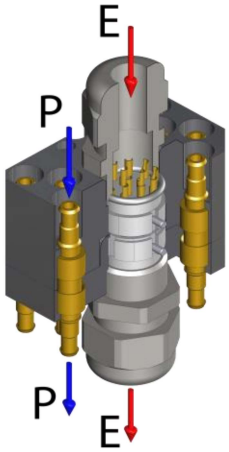
G-MEK080-U-8Pk2-1E12
G-MEK080-U-8Pk3-1E12
G-MEK080-U-8Pk4-1E12

G-MEK080-U-8Pk2-1E6-C*
G-MEK080-U-8Pk3-1E6-C*
G-MEK080-U-8Pk4-1E6-C*

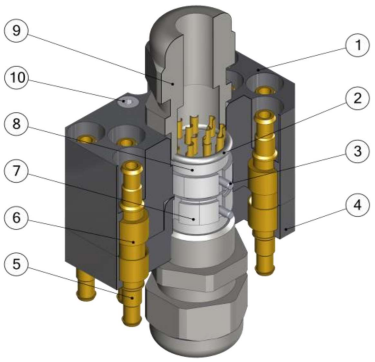
Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK080-U-8P-1E		GRIP GmbH Handhabungstechnik

Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts

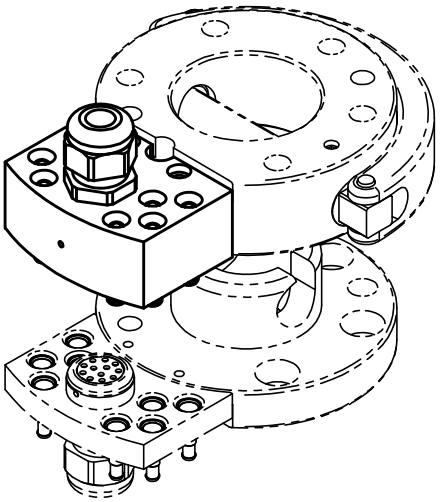
Technical specifications		MEK100	
Suitable for		MGW100, SWS100	
Pneumatic ducts	number P	8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	6
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,2	
	lower assembly	0,13	
Protection class (higher requirement only on request)		IP40	
Operating temperature range [°C]		-30 to +120	

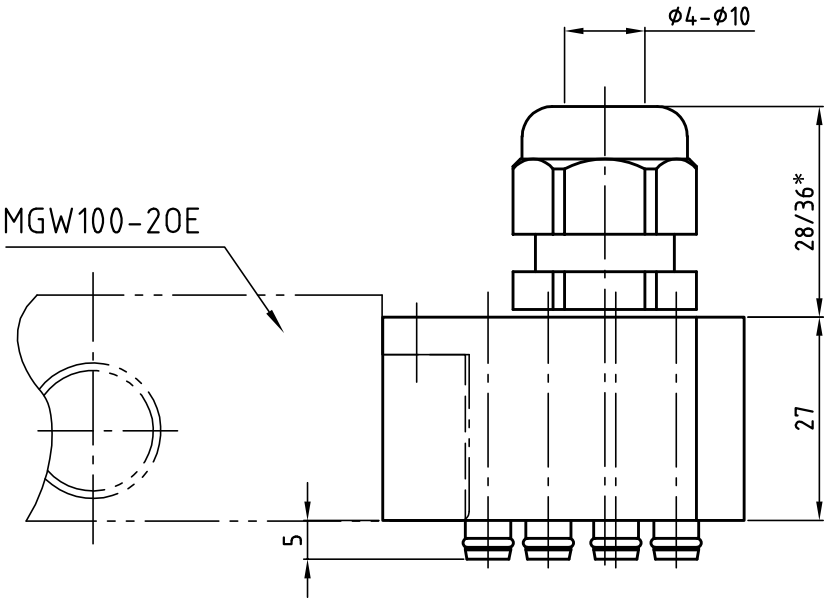


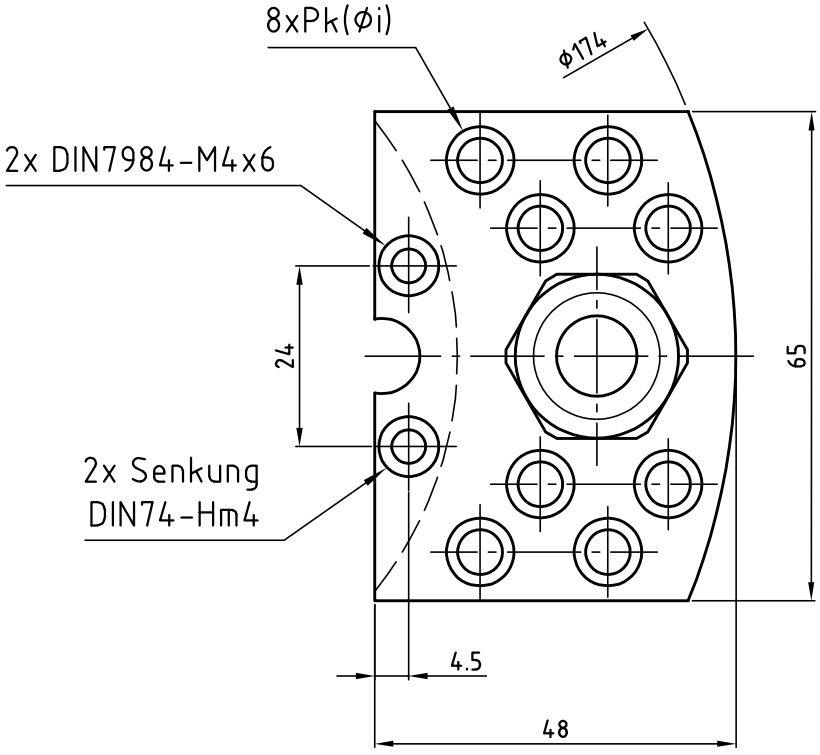
Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Lower assembly
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O



Multi energy coupling Ø100, 8 x air…	
G-MEK100-O-8PK2-1E12	upper assembly, ID = 2 mm, electrical plug 12 poles
G-MEK100-O-8PK2-1E6-C	upper assembly, ID = 2 mm, electrical plug 6 poles
G-MEK100-O-8PK3-1E12	upper assembly, ID = 3 mm, electrical plug 12 poles
G-MEK100-O-8PK3-1E6-C	upper assembly, ID = 3 mm, electrical plug 6 poles
G-MEK100-O-8PK4-1E12	upper assembly, ID = 4 mm, electrical plug 12 poles
G-MEK100-O-8PK4-1E6-C	upper assembly, ID = 4 mm, electrical plug 6 poles
G-MEK100-U-8PK2-1E12	lower assembly, ID = 2 mm, electrical bushing 12 poles
G-MEK100-U-8PK2-1E6-C	lower assembly, ID = 2 mm, electrical bushing 6 poles
G-MEK100-U-8PK3-1E12	lower assembly, ID = 3 mm, electrical bushing 12 poles
G-MEK100-U-8PK3-1E6-C	lower assembly, ID = 3 mm, electrical bushing 6 poles
G-MEK100-U-8PK4-1E12	lower assembly, ID =4 mm, electrical bushing 12 poles
G-MEK100-U-8PK4-1E6-C	lower assembly, ID =4 mm, electrical bushing 6 poles





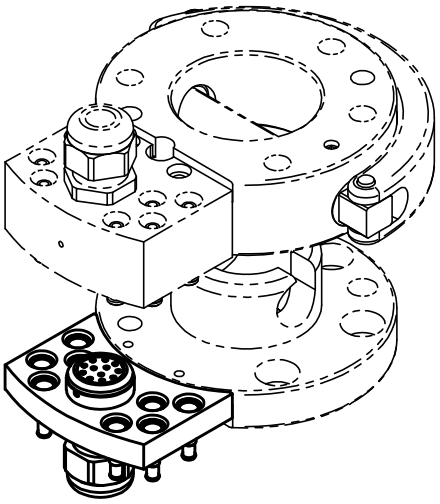


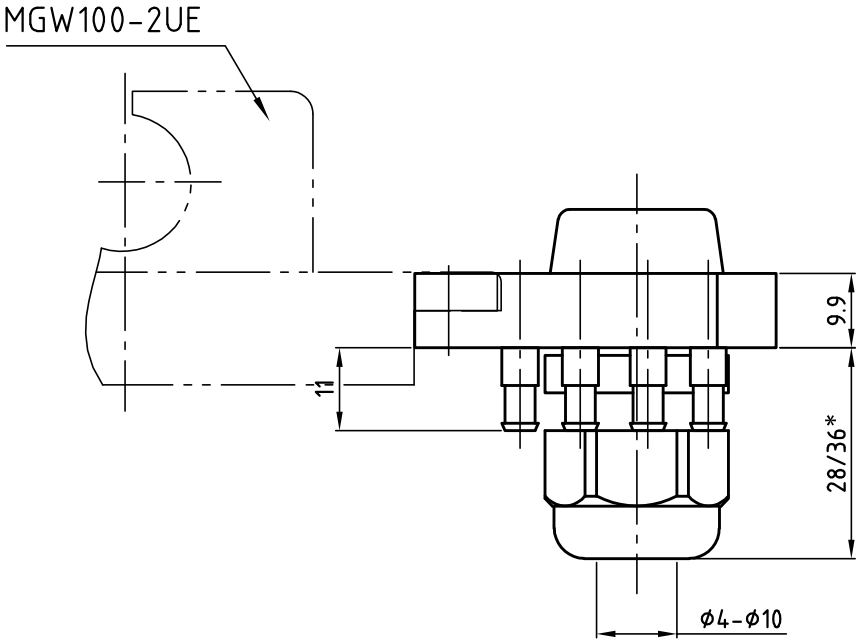
Bestellnummer Oberteil

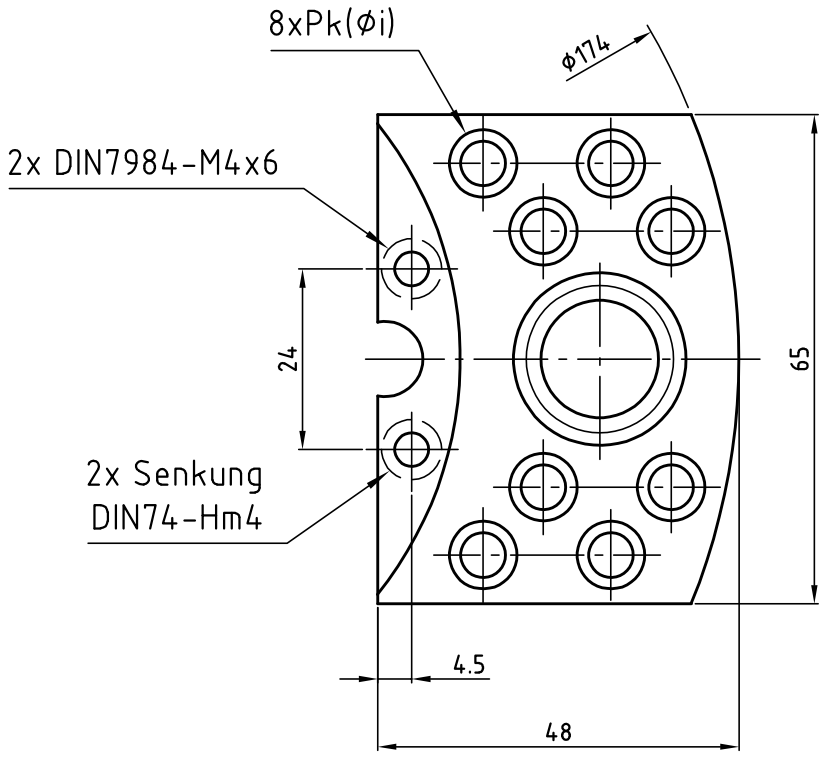
G-MEK100-O-8Pk2-1E12
G-MEK100-O-8Pk3-1E12
G-MEK100-O-8Pk4-1E12

G-MEK100-O-8Pk2-1E6-C*
G-MEK100-O-8Pk3-1E6-C*
G-MEK100-O-8Pk4-1E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK100-O-8P-1E		GRIP GmbH Handhabungstechnik







Bestellnummer Unterteil

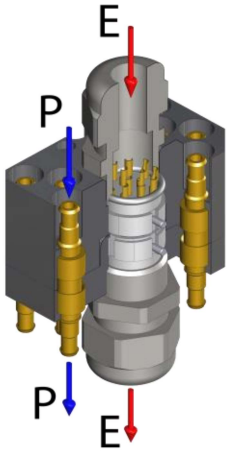
G-MEK100-U-8Pk2-1E12
G-MEK100-U-8Pk3-1E12
G-MEK100-U-8Pk4-1E12

G-MEK100-U-8Pk2-1E6-C*
G-MEK100-U-8Pk3-1E6-C*
G-MEK100-U-8Pk4-1E6-C*

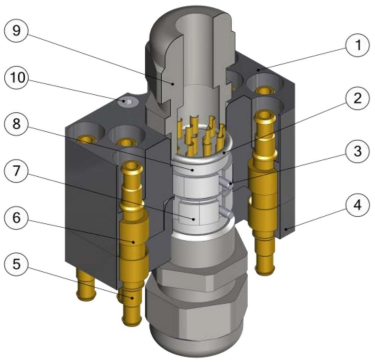
Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK100-U-8P-1E		GRIP GmbH Handhabungstechnik

Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts

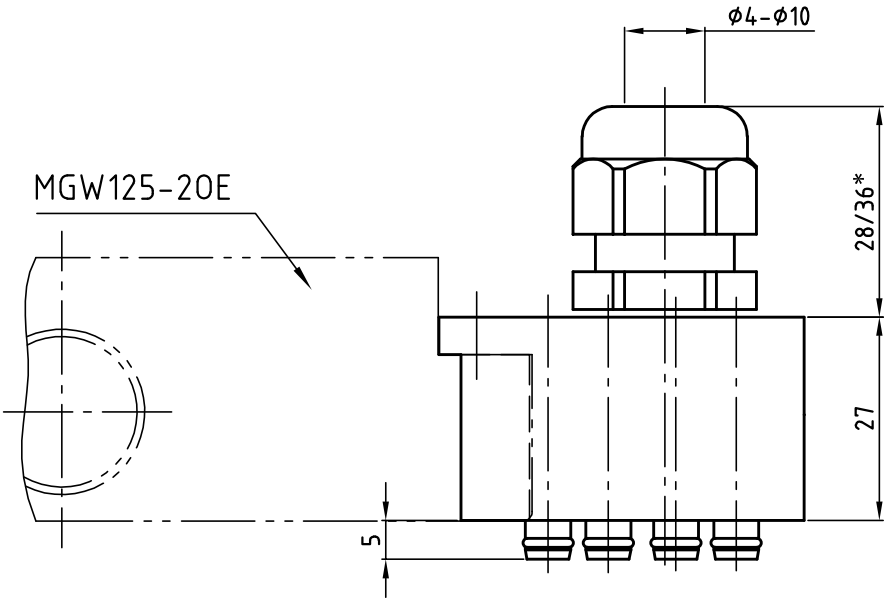
Technical specifications		MEK125	
Suitable for		MGW125, SWS125	
Pneumatic ducts	number P	8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	6
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,3	
	lower assembly	0,15	
Protection class (higher requirement only on request)		IP40	
Operating temperature range [°C]		-30 to +120	

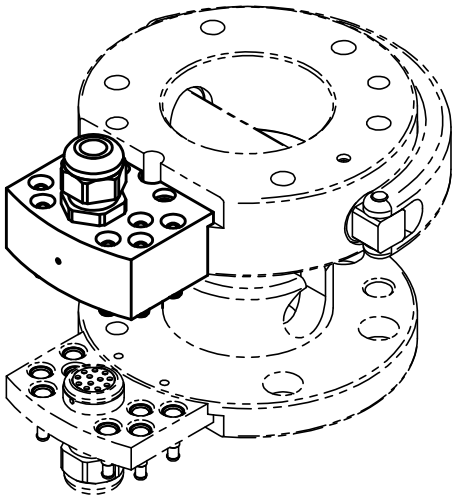


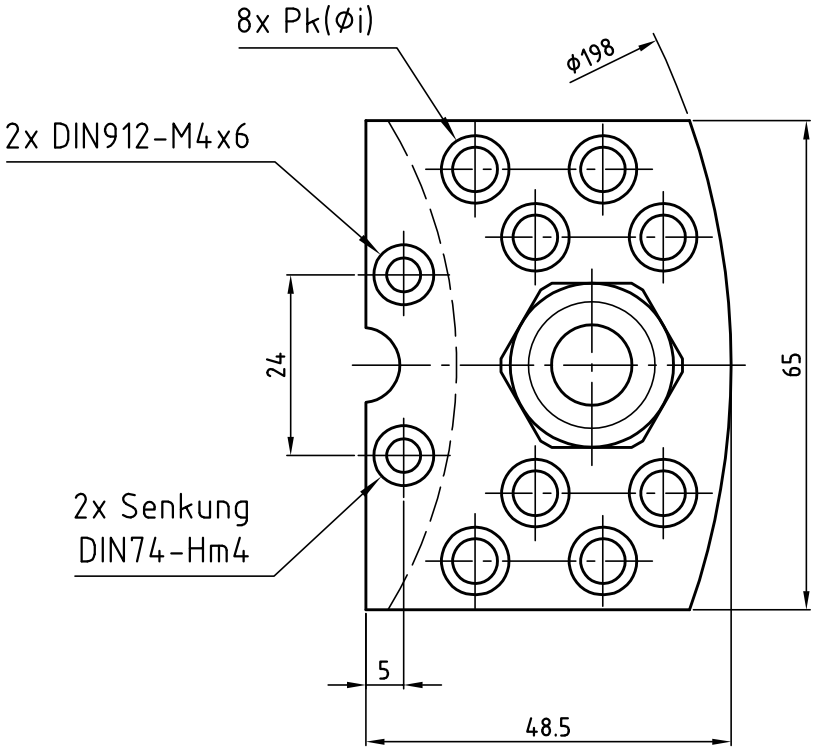
Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Lower assembly
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O



Multi energy coupling Ø125, 8 x air…	
G-MEK125-O-8PK2-1E12	upper assembly, ID = 2 mm, electrical plug 12 poles
G-MEK125-O-8PK2-1E6-C	upper assembly, ID = 2 mm, electrical plug 6 poles
G-MEK125-O-8PK3-1E12	upper assembly, ID = 3 mm, electrical plug 12 poles
G-MEK125-O-8PK3-1E6-C	upper assembly, ID = 3 mm, electrical plug 6 poles
G-MEK125-O-8PK4-1E12	upper assembly, ID = 4 mm, electrical plug 12 poles
G-MEK125-O-8PK4-1E6-C	upper assembly, ID = 4 mm, electrical plug 6 poles
G-MEK125-U-8PK2-1E12	lower assembly, ID = 2 mm, electrical bushing 12 poles
G-MEK125-U-8PK2-1E6-C	lower assembly, ID = 2 mm, electrical bushing 6 poles
G-MEK125-U-8PK3-1E12	lower assembly, ID = 3 mm, electrical bushing 12 poles
G-MEK125-U-8PK3-1E6-C	lower assembly, ID = 3 mm, electrical bushing 6 poles
G-MEK125-U-8PK4-1E12	lower assembly, ID =4 mm, electrical bushing 12 poles
G-MEK125-U-8PK4-1E6-C	lower assembly, ID =4 mm, electrical bushing 6 poles





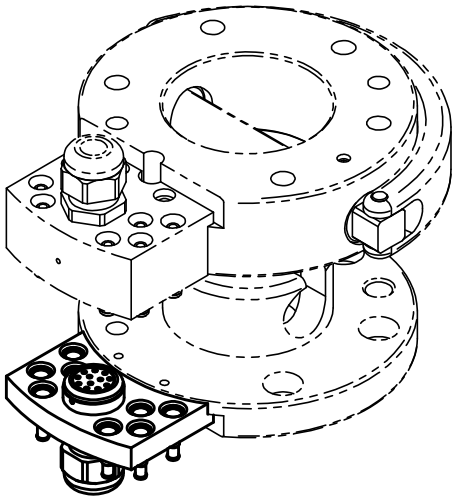


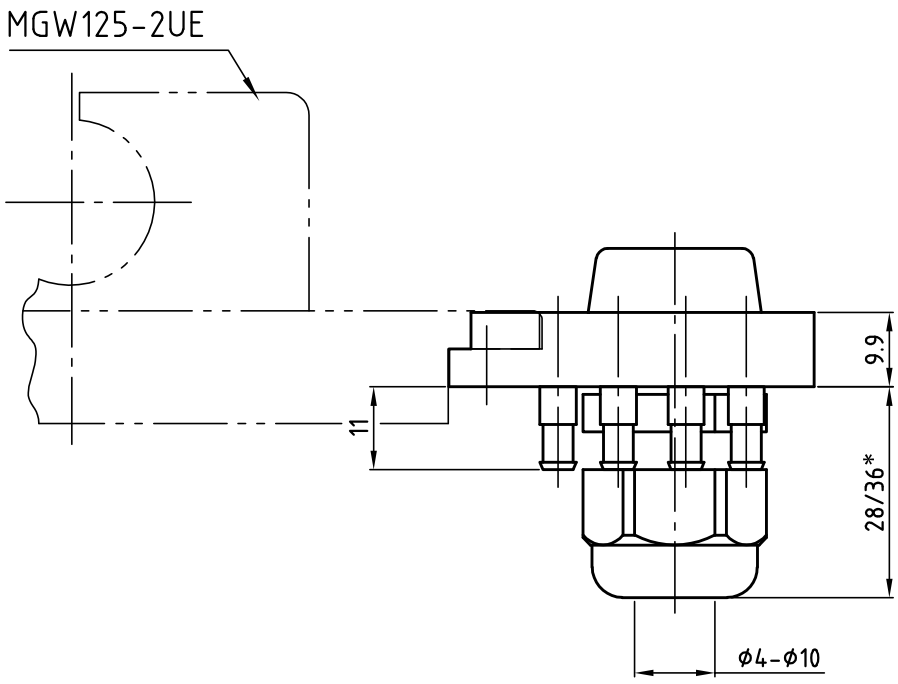
Bestellnummer Oberteil

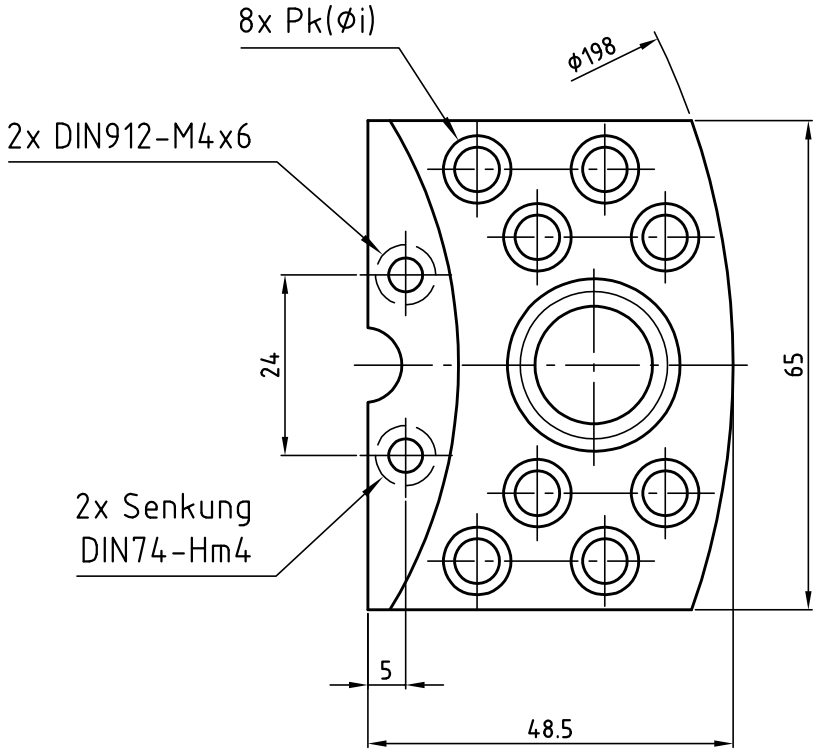
G-MEK125-0-8Pk2-1E12
G-MEK125-0-8Pk3-1E12
G-MEK125-0-8Pk4-1E12

G-MEK125-0-8Pk2-1E6-C*
G-MEK125-0-8Pk3-1E6-C*
G-MEK125-0-8Pk4-1E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK125-0-8P-1E		GRIP GmbH Handhabungstechnik







Bestellnummer Unterteil

G-MEK125-U-8Pk2-1E12
G-MEK125-U-8Pk3-1E12
G-MEK125-U-8Pk4-1E12

G-MEK125-U-8Pk2-1E6-C*
G-MEK125-U-8Pk3-1E6-C*
G-MEK125-U-8Pk4-1E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK125-U-8P-1E		GRIP GmbH Handhabungstechnik

G-MEK160-8P-2E

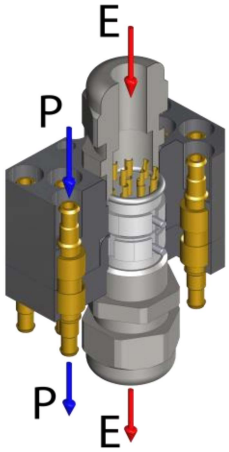
Technical specifications

Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts

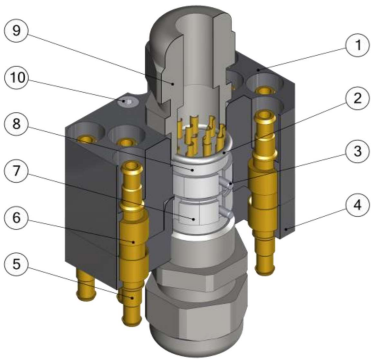
1

2

Technical specifications		MEK160-8P-2E	
Suitable for		MGW160, SWS160	
Pneumatic ducts	number P	8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	2 x 12	2 x 6
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,3	
	lower assembly	0,2	
Protection class (higher requirement only on request)		IP40	
Operating temperature range [°C]		-30 to +120	



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Lower assembly
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O



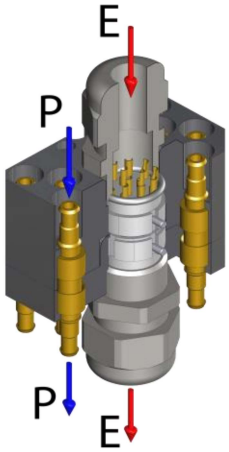
Multi energy coupling Ø160-8P-2E, 8 x air…	
G-MEK160-O-8PK4-2E12	upper assembly, ID = 4 mm, 2 x electrical plug 12 poles
G-MEK160-O-8PK4-2E6-C	upper assembly, ID = 4 mm, 2 x electrical plug 6 poles
G-MEK160-U-8PK4-2E12	lower assembly, ID = 4 mm, 2 x electrical bushing 12 poles
G-MEK160-U-8PK4-2E6-C	lower assembly, ID = 4 mm, 2 x electrical bushing 6 poles

G-MEK160-8P-1E

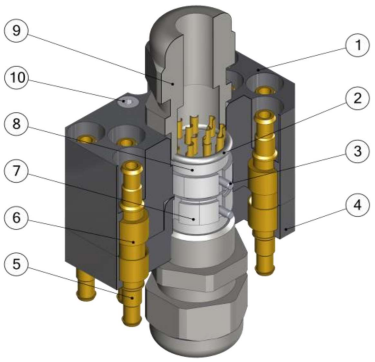
Technical specifications

Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts

Technical specifications		MEK160-8P-1E	
Suitable for		MGW160, SWS160	
Pneumatic ducts	number P	8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	6
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,2	
	lower assembly	0,12	
Protection class (higher requirement only on request)		IP40	
Operating temperature range [°C]		-30 to +120	



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Lower assembly
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O



Multi energy coupling Ø160-8P-1E, 8 x air…	
G-MEK160-O-8PK4-1E12	upper assembly, ID = 4 mm, electrical plug 12 poles
G-MEK160-O-8PK4-1E6-C	upper assembly, ID = 4 mm, electrical plug 12 poles
G-MEK160-U-8PK4-1E12	lower assembly, ID = 4 mm, electrical bushing 12 poles
G-MEK160-U-8PK4-1E6-C	lower assembly, ID = 4 mm, electrical bushing 12 poles

G-MEK160-4G38-1E

Technical specifications

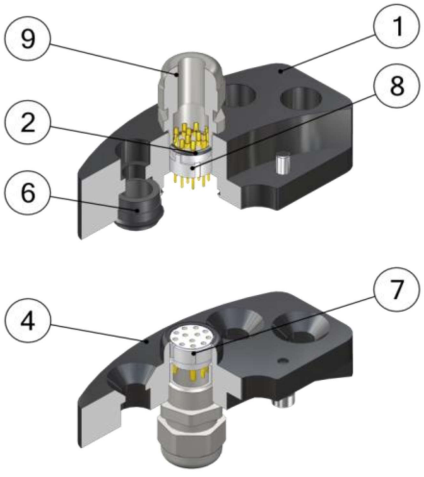
Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts

1

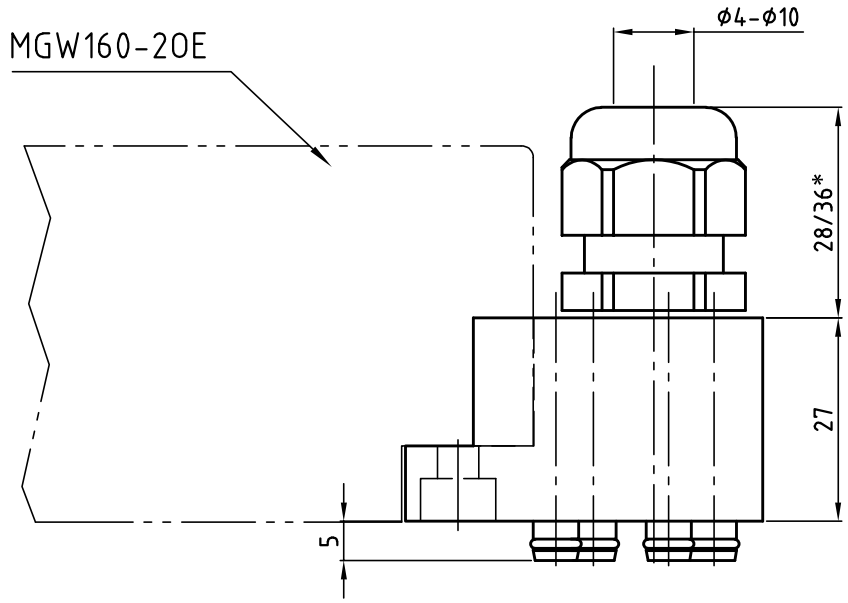
2

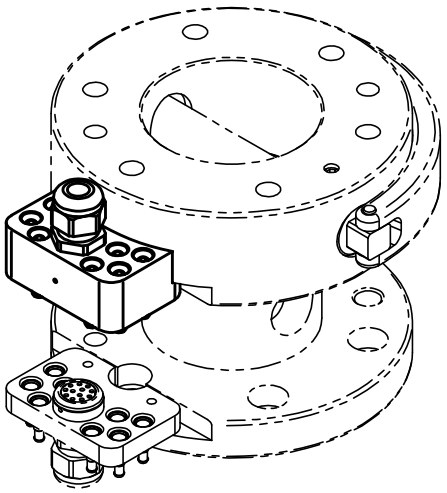
Technical specifications		MEK160-4G3/8-E
Suitable for		MGW160, SWS160
Pneumatic ducts	number P	4
	nominal width NW [mm]	G3/8
	operating pressure p [bar]	-1 to 8
Electrical ducts	no. of poles E	1 x 12
	rated current per pole I [A]	9
	rated voltage U [V]	63
	contact resistance per pole R [mΩ]	3
	contact durability (cycles)	50.000
Mass [kg]	upper assembly	0,35
	lower assembly	0,17
Protection class (higher requirement only on request)		IP40
Operating temperature range [°C]		-30 to +120

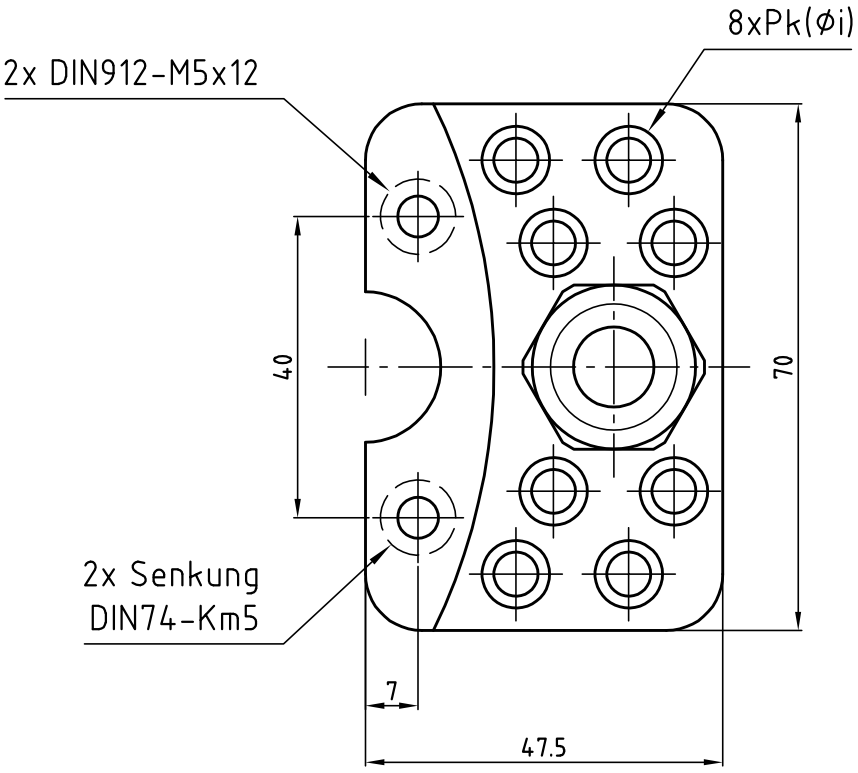
Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Lower assembly
6	Moulded seal
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11



Multi energy coupling Ø160-4G3/8-1E12	
G-MEK160-O-4G3/8-1E12	upper assembly, 4 x air, G3/8 radial, 1 x electrical plug 12 poles
G-MEK160-U-4G3/8-1E12	lower assembly, 4 x air, G3/8 radial, 1 x electrical bushing 12 poles





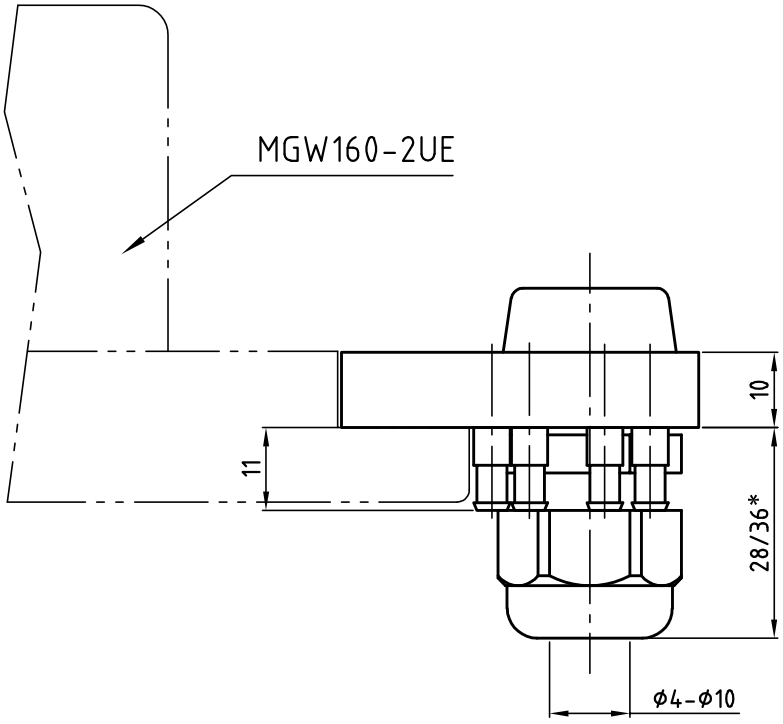


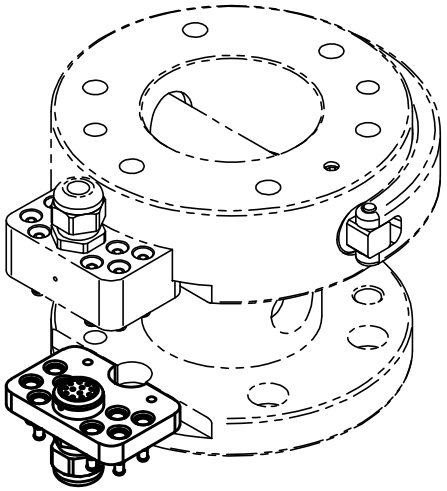
Bestellnummer Oberteil

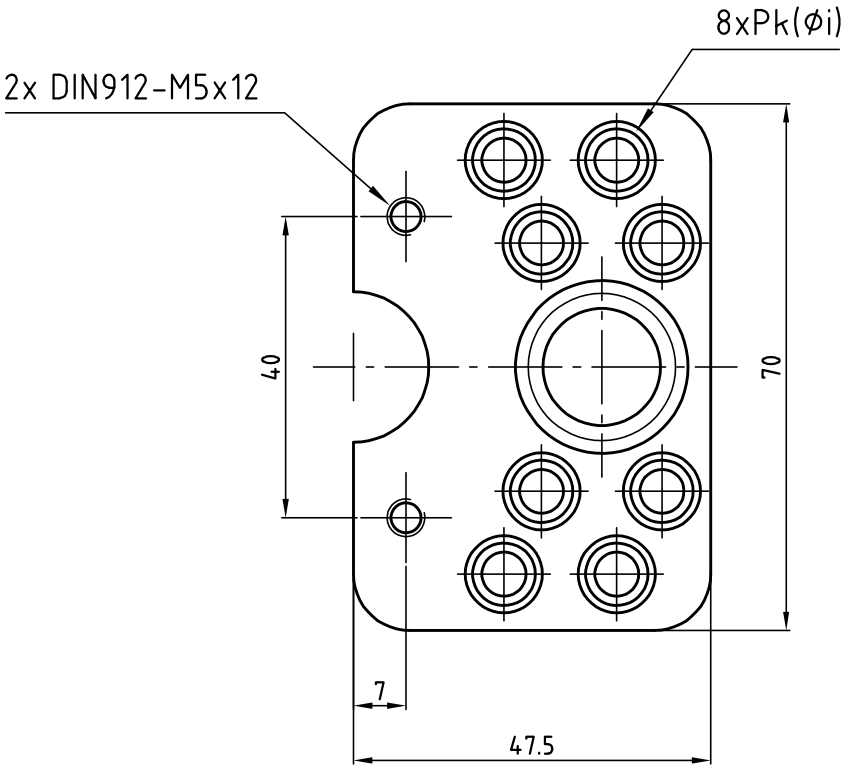
G-MEK160-O-8Pk2-1E12
G-MEK160-O-8Pk3-1E12
G-MEK160-O-8Pk4-1E12

G-MEK160-O-8Pk2-1E6-C*
G-MEK160-O-8Pk3-1E6-C*
G-MEK160-O-8Pk4-1E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK160-O-8P-1E		GRIP GmbH Handhabungstechnik





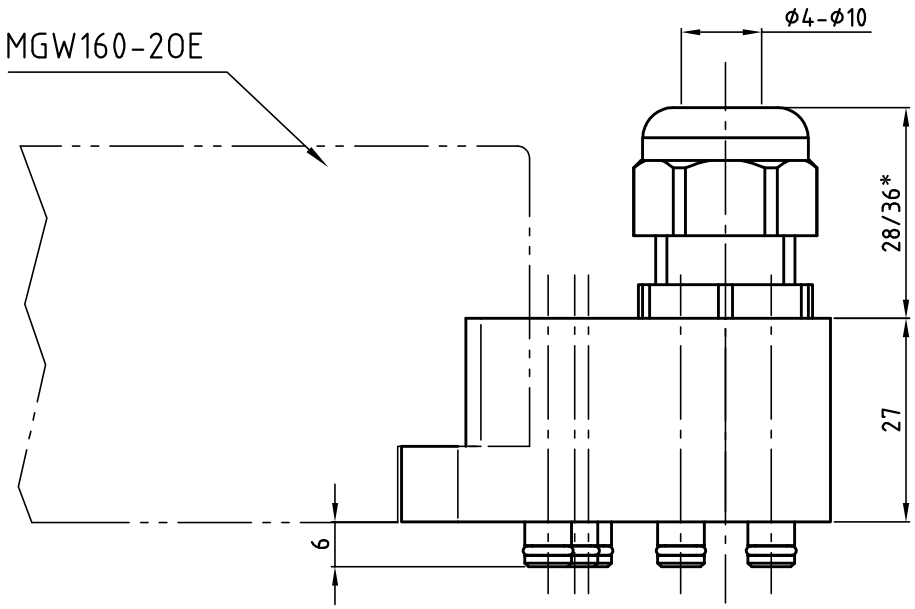


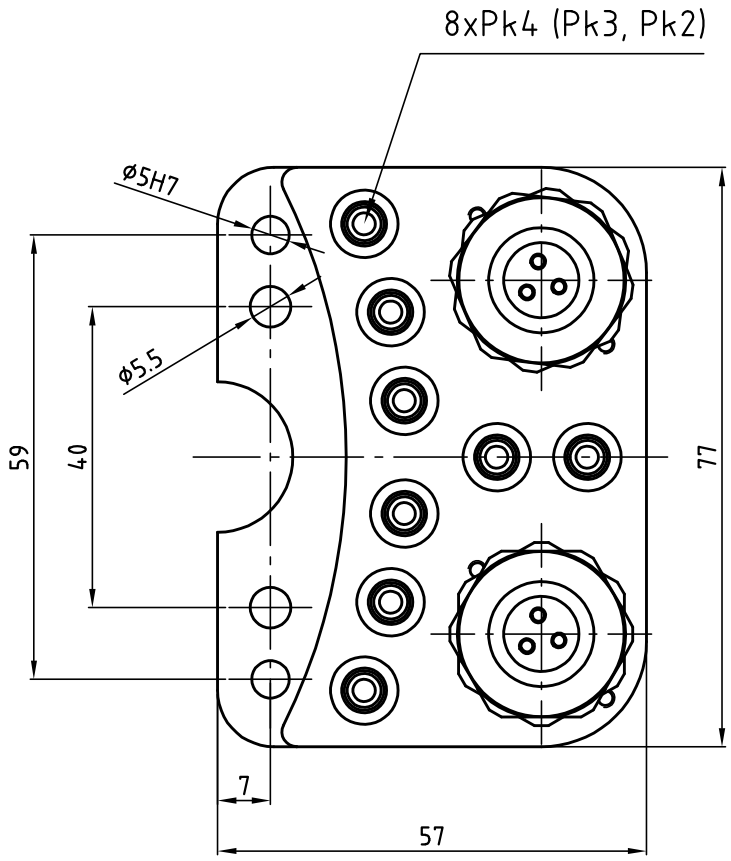
Bestellnummer Unterteil

G-MEK125-U-8Pk2-1E12
G-MEK125-U-8Pk3-1E12
G-MEK125-U-8Pk4-1E12

G-MEK125-U-8Pk2-1E6-C*
G-MEK125-U-8Pk3-1E6-C*
G-MEK125-U-8Pk4-1E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK160-U-8P-1E		GRIP GmbH Handhabungstechnik



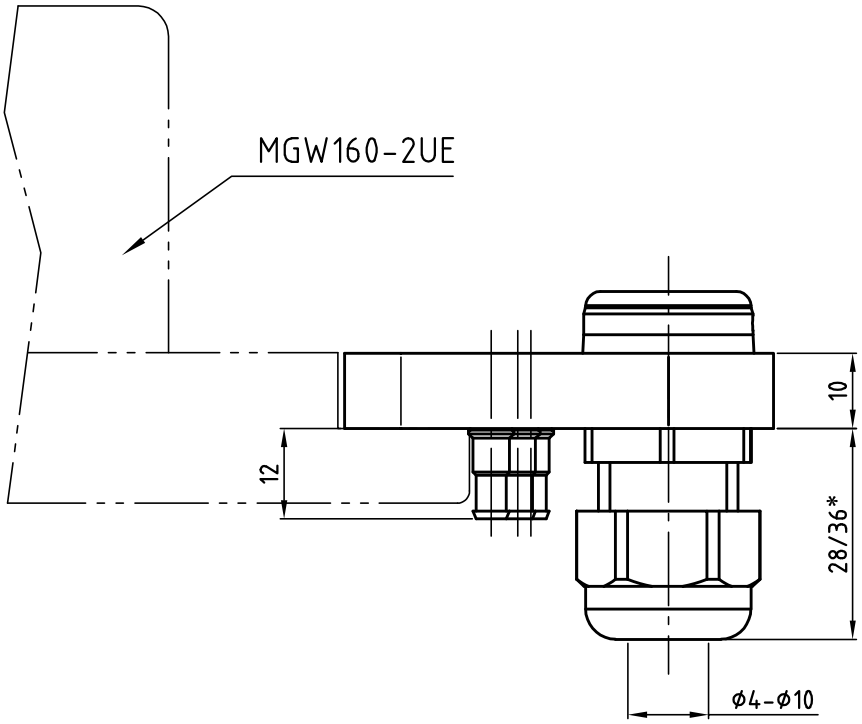


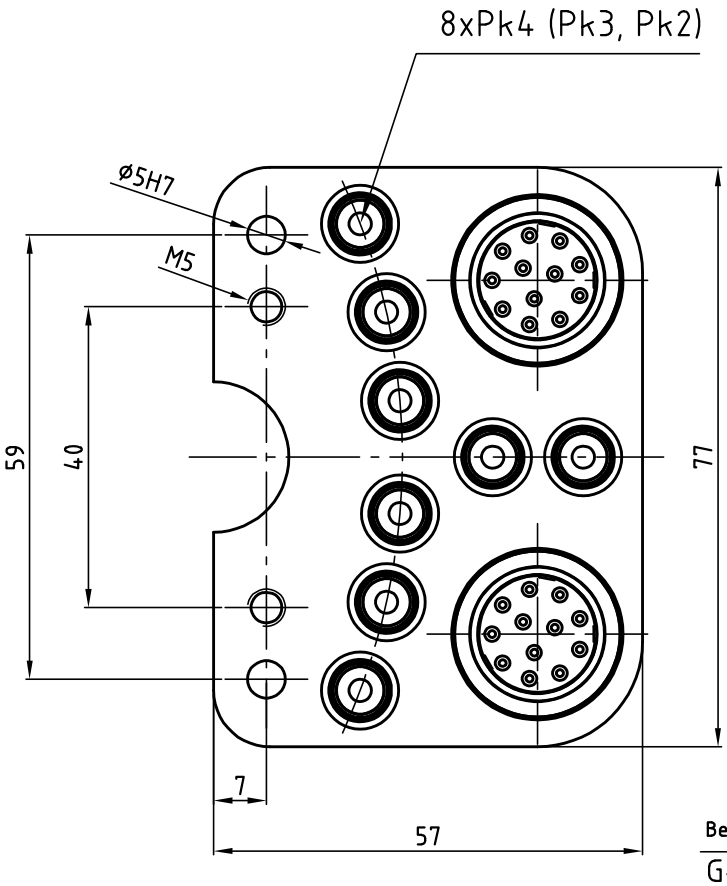
Bestellnummer Oberteil

G-MEK160-O-8Pk2-2E12
G-MEK160-O-8Pk3-2E12
G-MEK160-O-8Pk4-2E12

G-MEK160-O-8Pk2-2E6-C*
G-MEK160-O-8Pk3-2E6-C*
G-MEK160-O-8Pk4-2E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK160-O-8P-2E		GRIP GmbH Handhabungstechnik



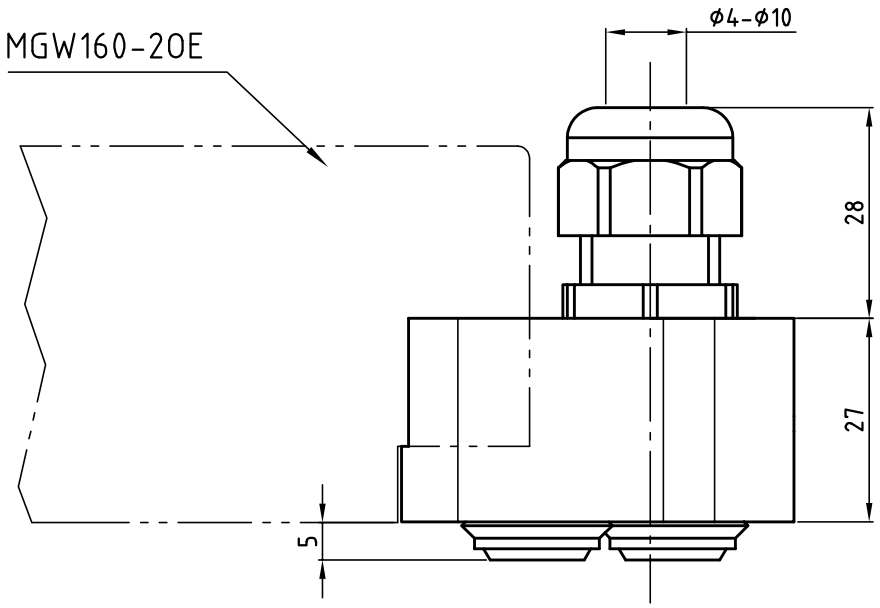


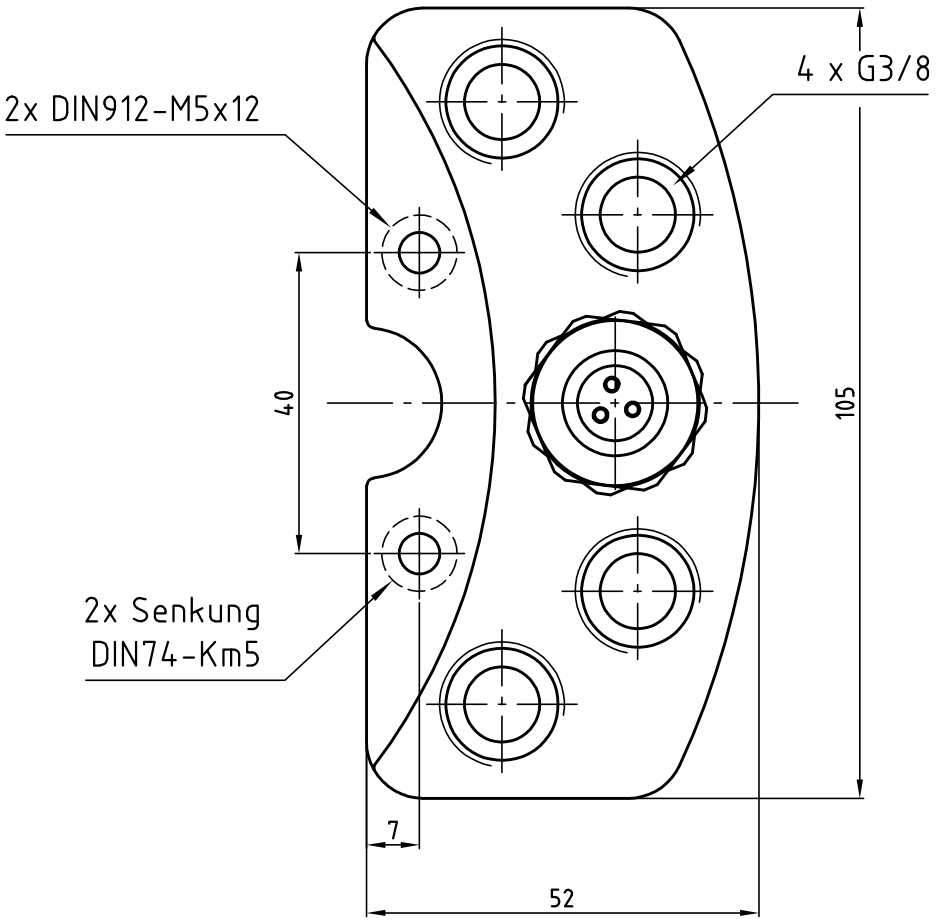
Bestellnummer Unterteil

G-MEK160-U-8Pk2-2E12
G-MEK160-U-8Pk3-2E12
G-MEK160-U-8Pk4-2E12

G-MEK160-U-8Pk2-2E6-C*
G-MEK160-U-8Pk3-2E6-C*
G-MEK160-U-8Pk4-2E6-C*

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-MEK160-U-8P-2E		GRIP GmbH Handhabungstechnik

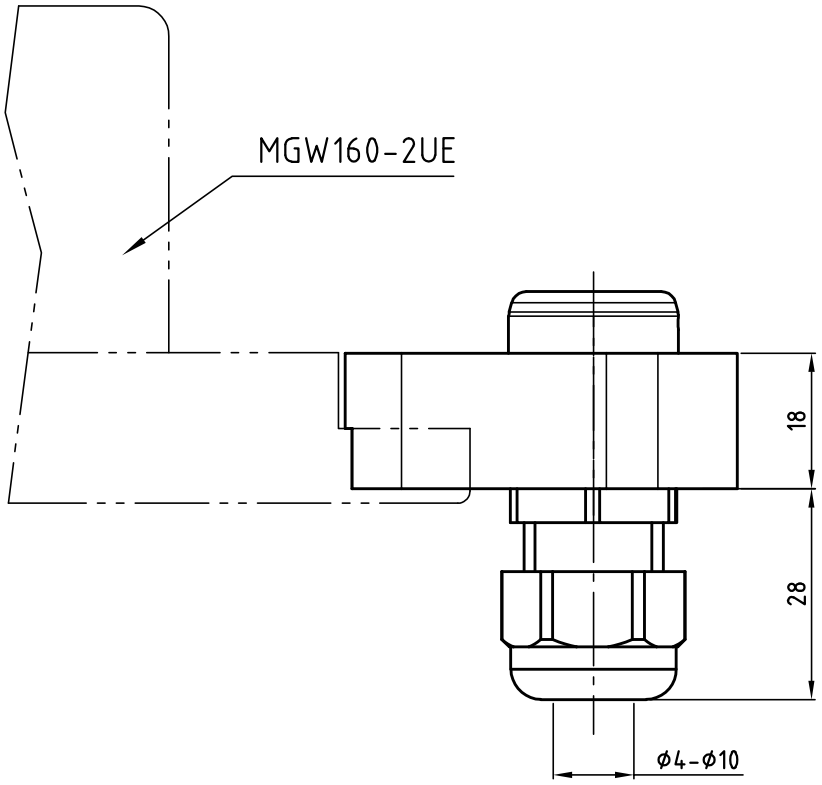


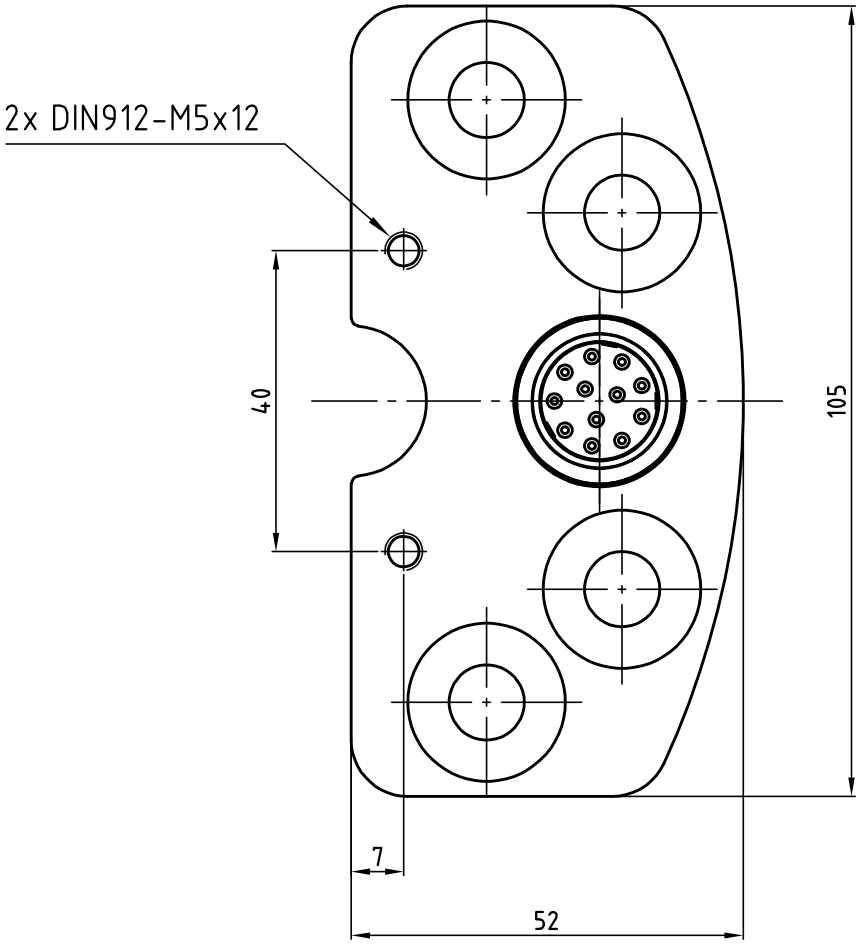


Bestellnummer Oberteil

G-MEK160-O-4G3/8-1E12

Datum 10.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-MEK160-O-4G3/8-1E			





Bestellnummer Unterteil

G-MEK160-U-4G3/8-1E12

Datum 10.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-MEK160-U-4G3/8-1E			

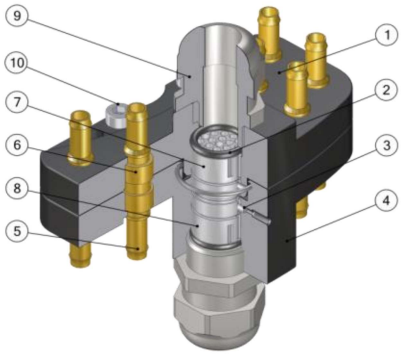
G-MEK200-8P-1E

Technical specifications

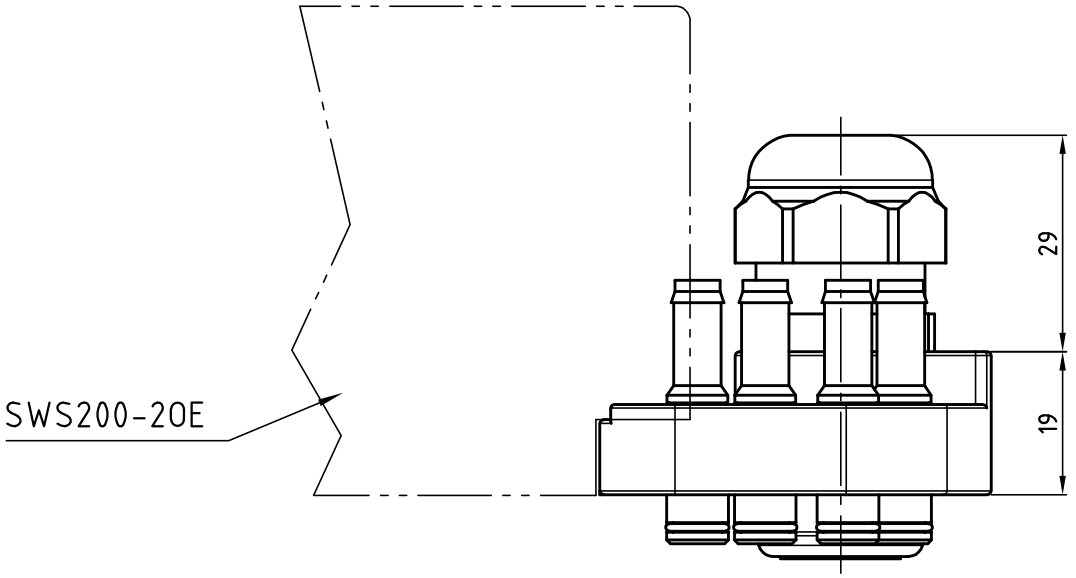
Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts

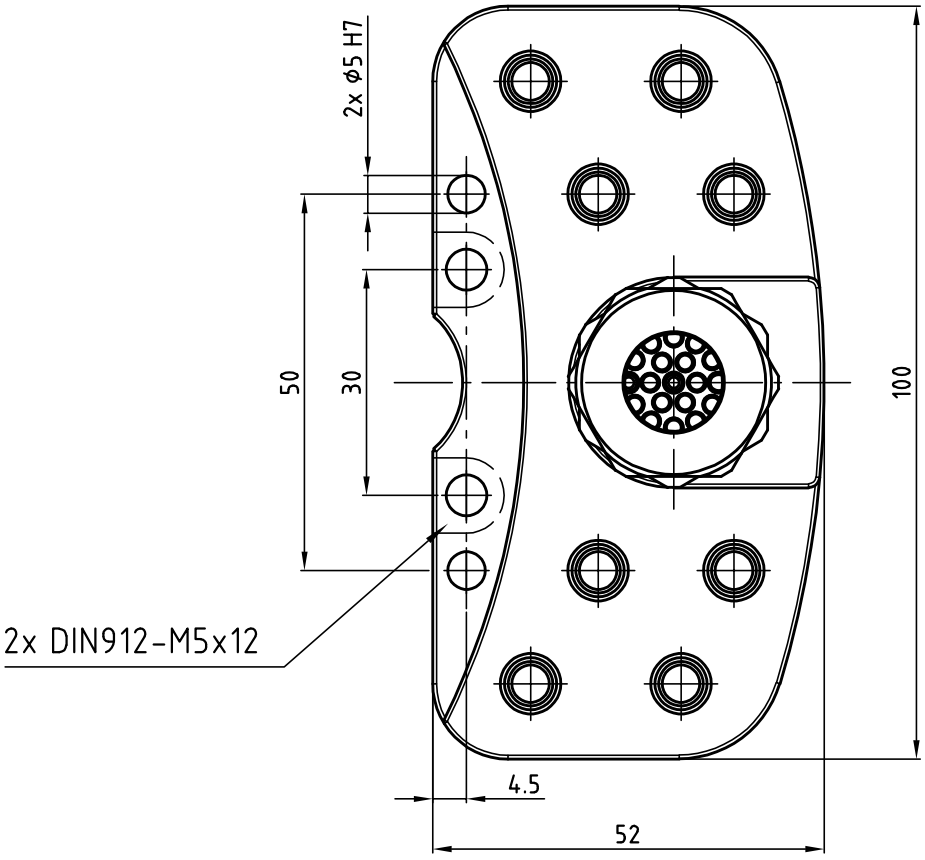
Technical specifications		MEK200
Suitable for		SWS200
Pneumatic ducts	number P	8
	nominal width NW [mm]	PK6
	operating pressure p [bar]	-1 to 8
Electrical ducts	no. of poles E	1 x 19
	rated current per pole I [A]	7
	rated voltage U [V]	63
	contact resistance per pole R [mΩ]	3
	contact durability (cycles)	50.000
Mass [kg]	upper assembly	0,24
	lower assembly	0,23
Protection class (higher requirement only on request)		IP40
Operating temperature range [°C]		-30 to +120

Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Lower assembly
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland M20
10	Mounting screw O



Multi energy coupling Ø200, 8 x air…	
G-MEK200-O-8Pk6-1E19C-M20	upper assembly, ID = 6 mm, 1 x electrical bushing, 19 poles
G-MEK200-U-8Pk6-1E19C-M20	lower assembly, ID = 6 mm, 1 x electrical plug, 19 poles



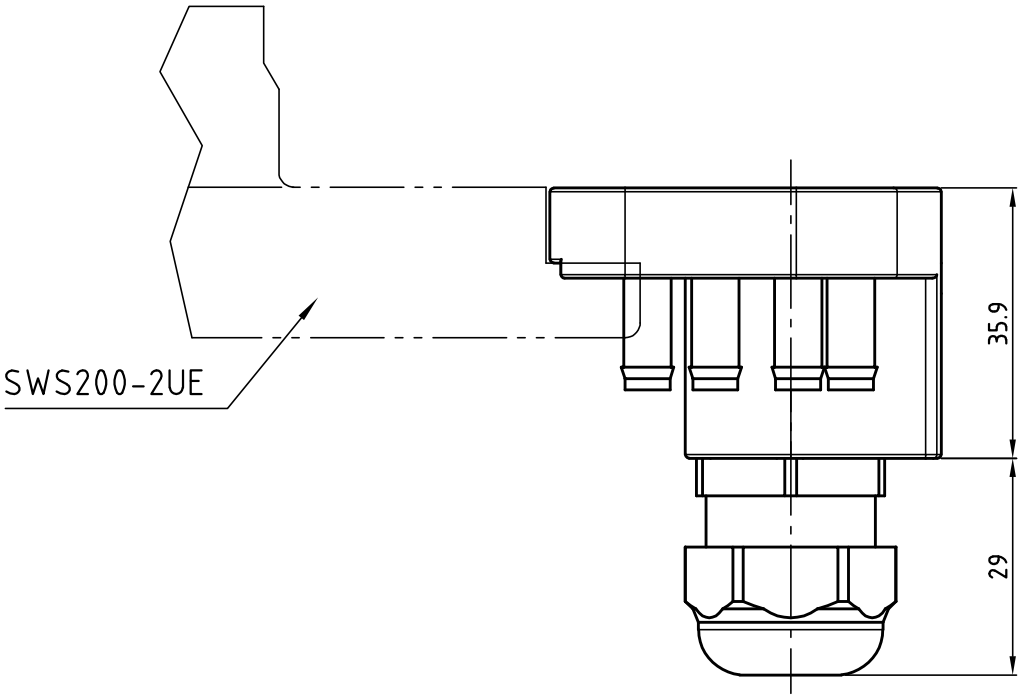


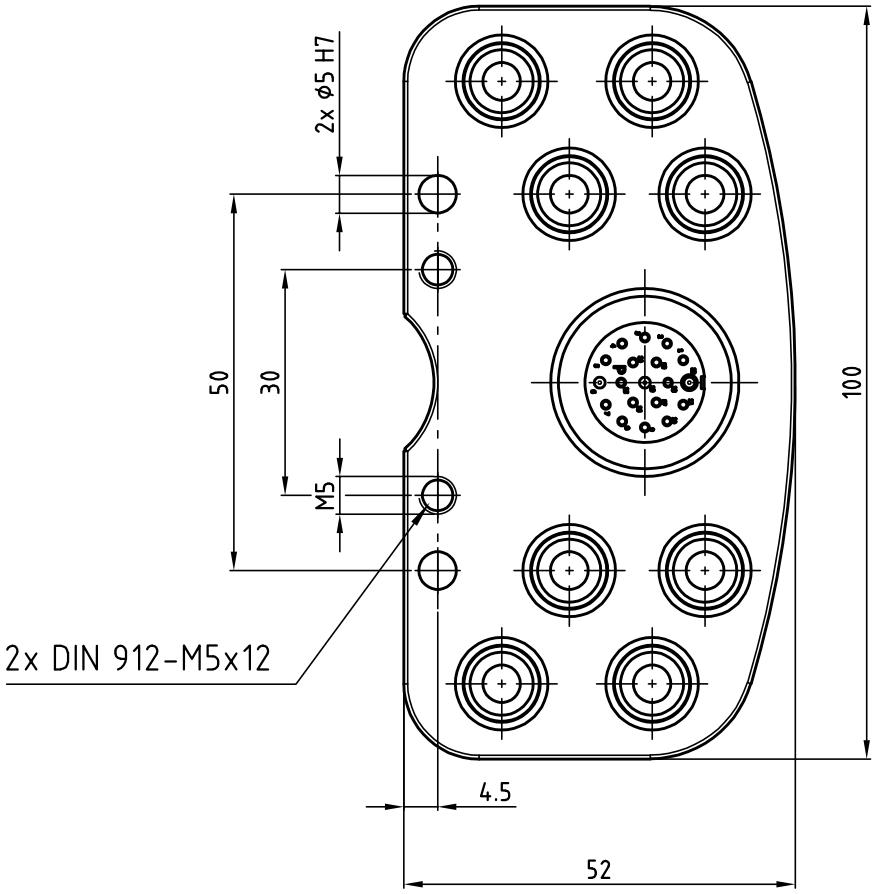
Datum	Maßstab	
29.11.2017	1:1	

Zeichnungsnummer

G-MEK200-O-8Pk6-1E19C

GRIP GmbH Handhabungstechnik





Datum	Maßstab
29.11.2017	1:1

Zeichnungsnummer

G-MEK200-U-8Pk6-1E19C

GRIP GmbH Handhabungstechnik

MEK-R MULTI-ENERGY-COUPLING

The MEK-R Multi-Energy-Coupling is a further development of our MEK series. The four air feedthroughs are equipped with check valves on the robot side. This allows the MGW-R coupling to be released under activated compressed air. In addition, the electrical contacts on the MEK-R have been replaced with spring contacts.

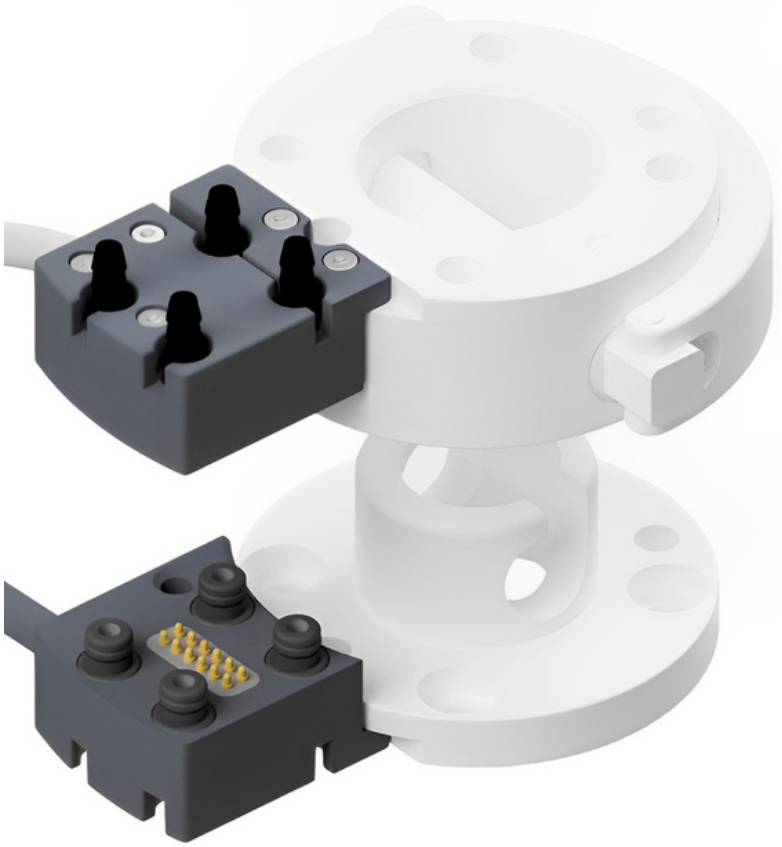
MEK-R Multi-Energy-Coupling Advantages:

- Improved electrical connection through the use of spring-loaded contacts
- Automatic closure of the pneumatic feedthroughs through the use of check valves
- Simultaneous mechanical, electrical and pneumatic connection

MEK Multi-Energy-Couplings can be modified to meet your needs. Please inquire about special applications.

SIZES

MEK063-R
MEK100-R



G-MEK063-R

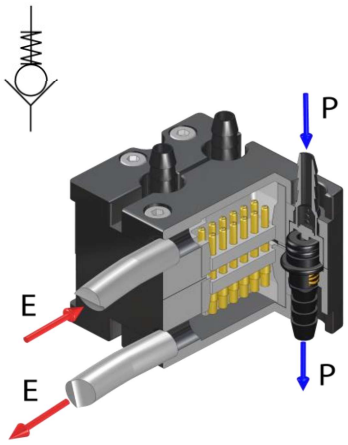
Technical specifications

Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts
Improved electrical connection by spring mounted poles
Automatic closing of pneumatic ducts by integrated check valves

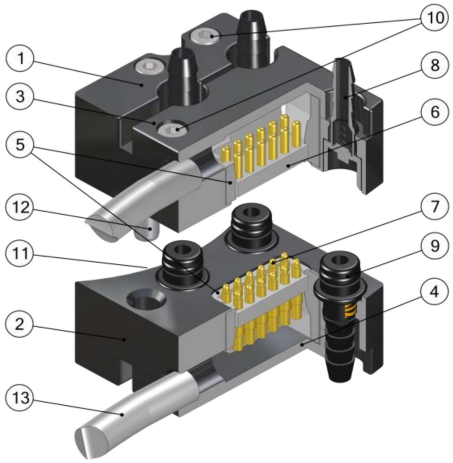
1

2

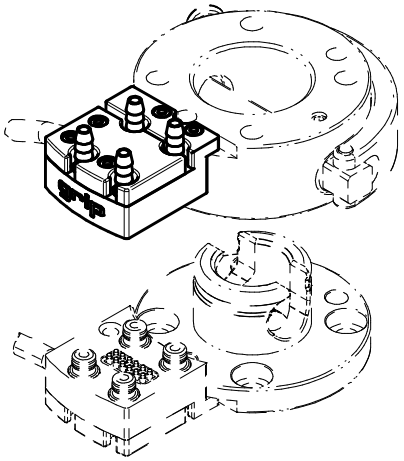
Technical specifications		MEK063-R
Suitable for		MGW063, SWS063
Pneumatic ducts	number P	4
	nominal width NW [mm]	PR4
	operating pressure p [bar]	-1 to 8
Electrical ducts	no. of poles E	12
	rated current I [A]	2
	rated voltage U (max. voltage) [V]	63 (120)
	contact resistance per pole R [mΩ]	<20
	contact durability (cycles)	50.000
Mass [kg]	upper assembly	0,11
	lower assembly	0,06
Protection class (higher requirement only on request)		IP40
Operating temperature range [°C]		-30 to +120

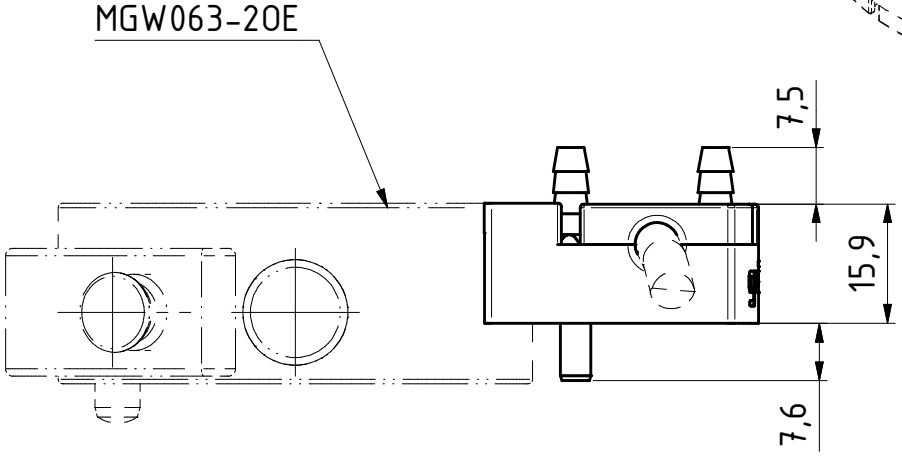


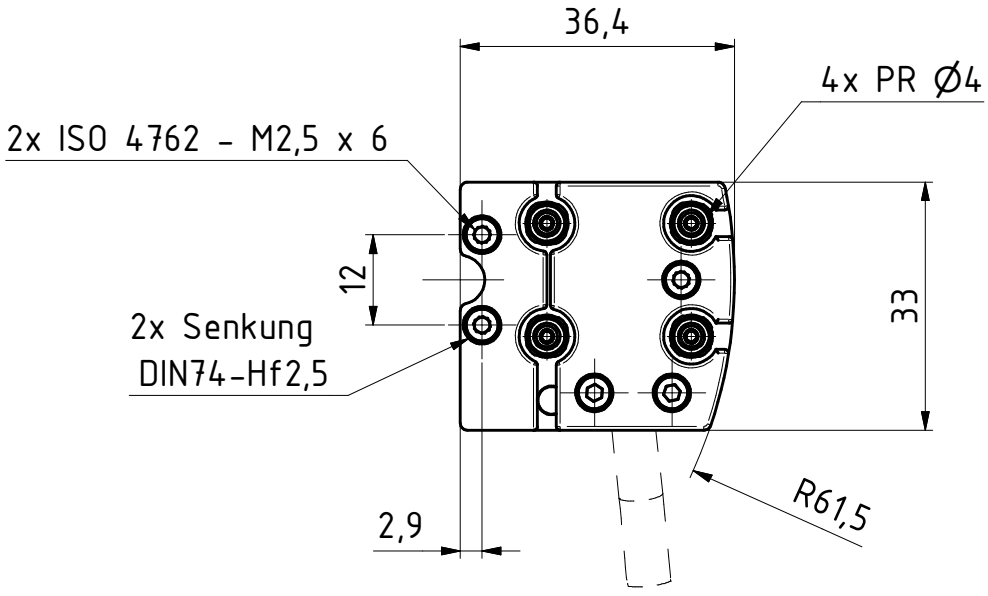
Pos.	Description
1	Upper assembly
2	Lower assembly
3	Upper cover
4	Lower cover
5	Insulation frame
6	Electrical bushing strip
7	Electrical plug strip
8	Female coupling (check valve)
9	Male coupling
10	Mounting screw
11	Mounting screw
12	Index pin
13	Cable (optional)



Multi energy coupling Ø63 with check valve	
G-MEK063-O-4PR4	upper assembly, 4 x air with check valve, ID = 4 mm
G-MEK063-O-4PR4-1FE12	upper assembly, 4 x air with check valve, ID = 4 mm, el. socket for suspension, 12 pol.
G-MEK063-O-4PR4-1FE12-2000OE	upper assembly, 4 x air with check valve, ID = 4 mm, el. socket for suspension, 12 pol., 2000 mm cable, open end
G-MEK063-O-4PR4-1FE12-300-M12	upper assembly, 4 x air with check valve, ID = 4 mm, el. socket for suspension, 12 pol., 300 mm cable, M12 circular plug-in connector
G-MEK063-U-4PR4	lower assembly, 4 x air, ID = 4 mm
G-MEK063-U-4PR4-1FE12	lower assembly, 4 x air, ID = 4 mm, spring mounted electrical plug, 12 poles
G-MEK063-U-4PR4-1FE12-2000OE	lower assembly, 4 x air, ID = 4 mm, spring mounted electrical plug, 12 poles, 2000 mm cable, open end
G-MEK063-U-4PR4-1FE12-300-M12	lower assembly, 4 x air, ID = 4 mm, spring mounted electrical plug, 12 poles, 300 mm cable, M12 circular plug-in connector



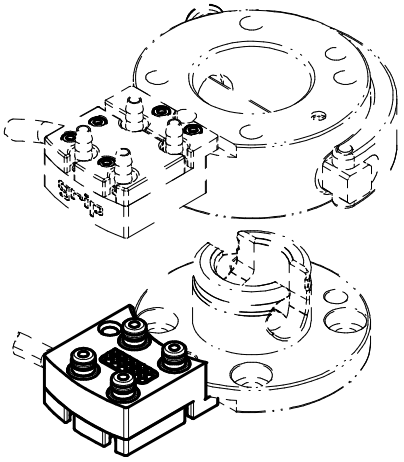


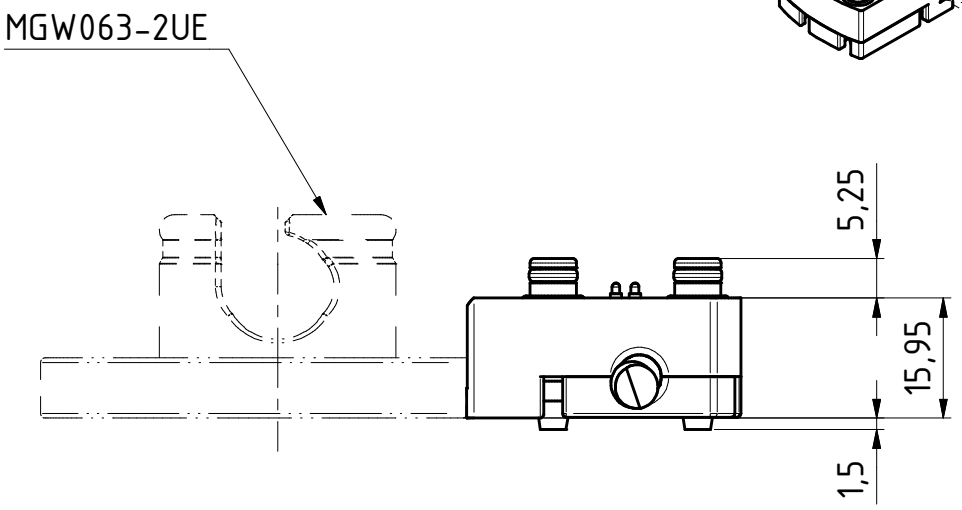


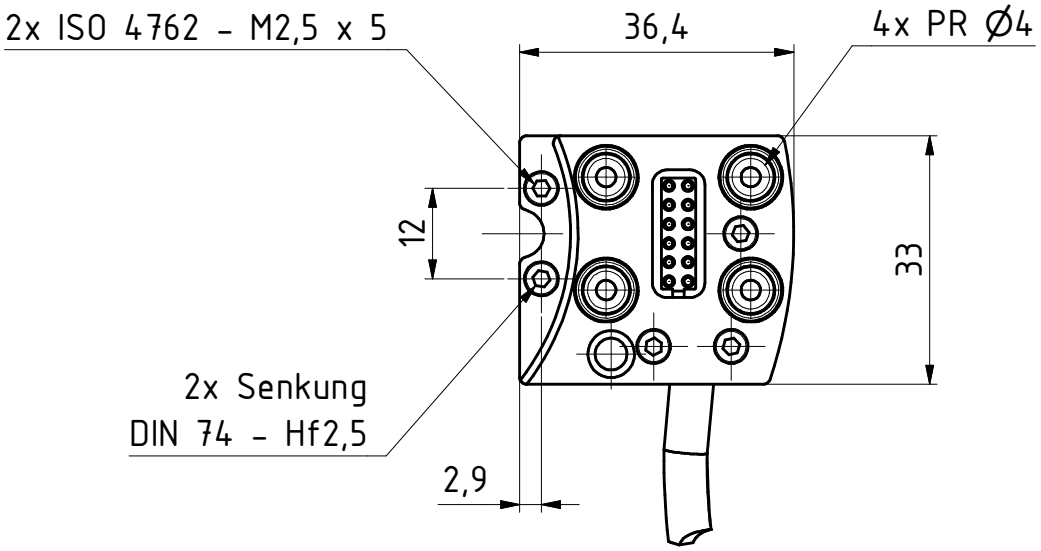
Bestellnummer Oberteil

G-MEK063-O-4PR4
G-MEK063-O-4PR4-1FE12
G-MEK063-O-4PR4-1FE12-2000E
G-MEK063-O-4PR4-1FE12-300-M12

Datum 31.01.2018	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-MEK063-O-4PR4-1E12			







Bestellnummer Unterteil

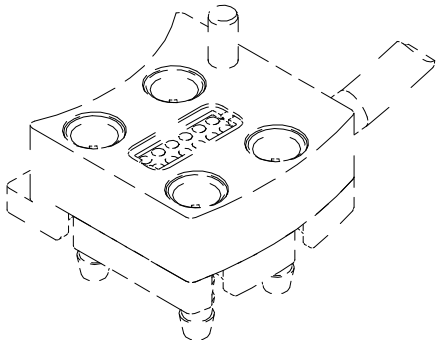
G-MEK063-U-4PR4

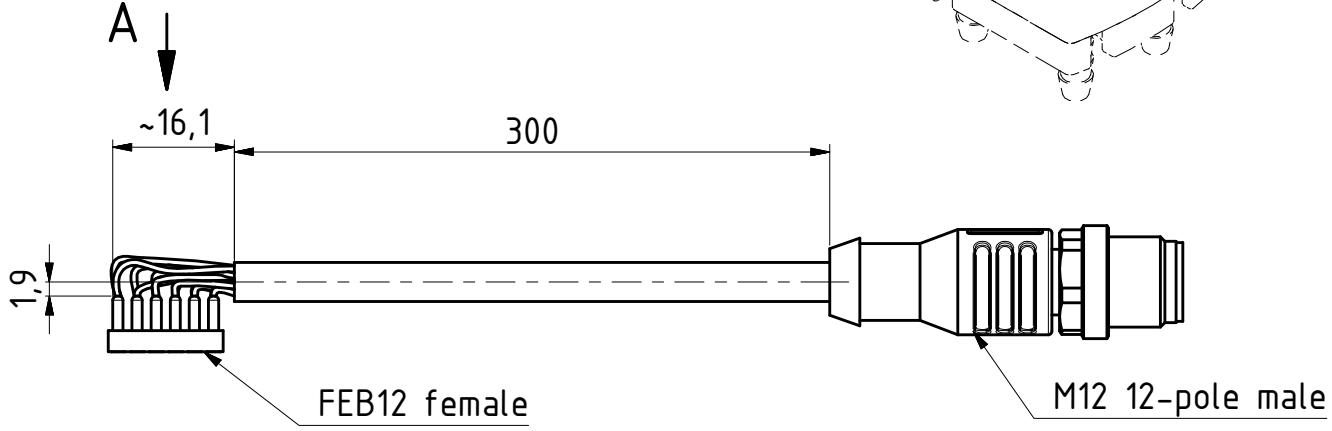
G-MEK063-U-4PR4-1FE12

G-MEK063-U-4PR4-1FE12-2000E

G-MEK063-U-4PR4-1FE12-300-M12

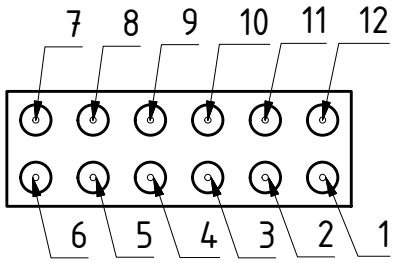
Datum	Maßstab		
Zeichnungsnummer G-MEK063-U-4PR4-1FE12			GRIP GmbH Handhabungstechnik





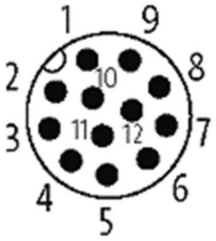
A

FEB12



M12

Male



FEB12 female	colour	M12 male
1	white	3
2	brown	1
3	green	4
4	yellow	6
5	grey	8
6	pink	5
7	blue	2
8	red	9
9	black	7
10	violet	10
11	grey/ pink	11
12	blue/ red	12

Technische Daten
Kontaktleiste FEB12 (f/w)
Leiste 2 reihig mit je 6 Interface-Pins ;
Nennstrom: 2A;
Kontaktwiderstand: < 20mΩ;
Rastermaß: 2,45 mm ;
vergoldet;
Lötanschluss

Technische Daten M12
Rundsteckverbinder (m)
nach IEC-61076-2-...
Betriebsspannung: max 30 V
Verschmutzungsgrad: 3
Isolierstoffgruppe: 2
Isolationswiderstand: $\geq 10^3 \Omega$
Strombelastbarkeit: 1,5 A / 40°C
Umgebungstemperatur: -30°C - +90°V
Schutzart im gesteckten und verriegelten Zustand: IP67

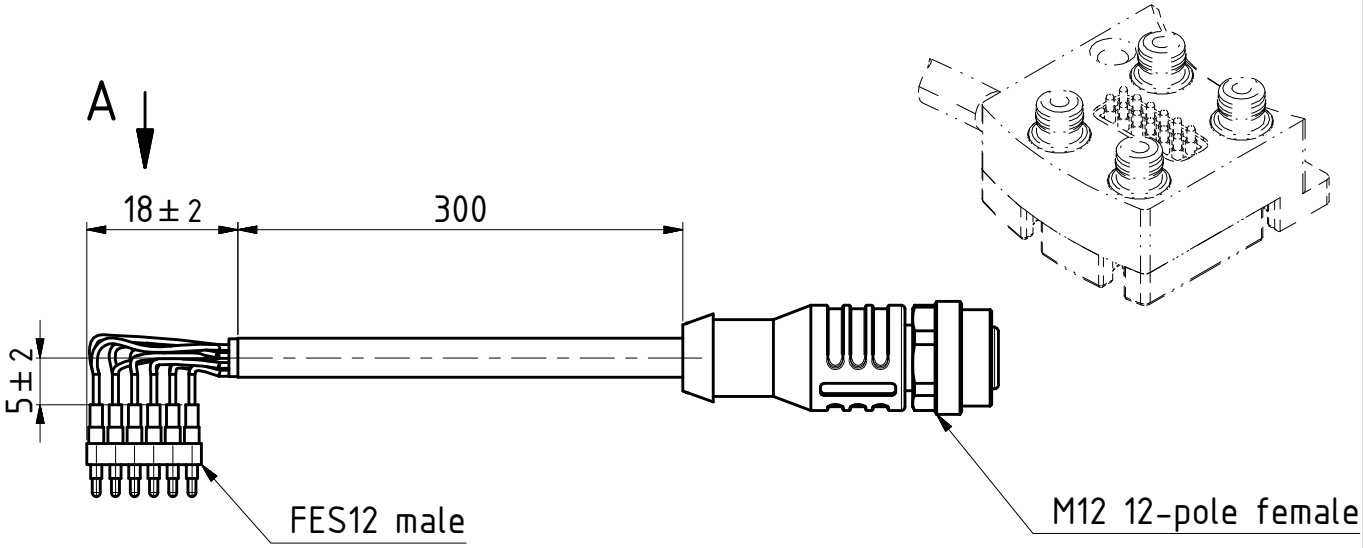
Datum 20.04.20	Maßstab	

Zeichnungsnummer

EG-MEK-FEB12-300-M12

GRIP GmbH Handhabungstechnik

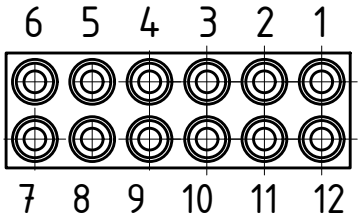
T:\CAD\Standard\MEK\MEK-RY\Zukaufteile\Kabelkonfektionierung\2D - EG-MEK-FEB12-300-M12 Kontaktbelegung.idw



A

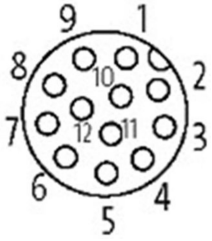
FES12

Lötkelchseite



M12

Female



Federkontaktstecker FES12
(männl./male)
Leiste 12 polig (2x 6 reihig)
Federkraft: 0,6N bei 0,7 mm;
Nennstrom je Kontakt: 2A;
Kontaktwiderstand: < 20 mΩ;
Rastermaß: 2,54 mm;
vergoldet;
Lötanschluss;
max Hub. 2,4 mm

FES12 male	colour	M12 fem.
1	white	3
2	brown	1
3	green	4
4	yellow	6
5	grey	8
6	pink	5
7	blue	2
8	red	9
9	black	7
10	violet	10
11	grey/ pink	11
12	blue/ red	12

Technische Daten M12
Rundsteckverbinder Buchse
(weibl/female)
nach IEC-61076-2-...
Betriebsspannung: max 30 V
Verschmutzungsgrad: 3
Isolierstoffgruppe: 2
Isolationswiderstand: $\geq 10^3 \Omega$
Strombelastbarkeit: 1,5A/40°C
Umgebungstemp.: -30°C...90°C
Schutzart im gesteckten und
verriegelten Zustand: IP67

Datum 20.04.20	Maßstab	
Zeichnungsnummer EG-MEK-FES12-300-M12		GRIP GmbH Handhabungstechnik

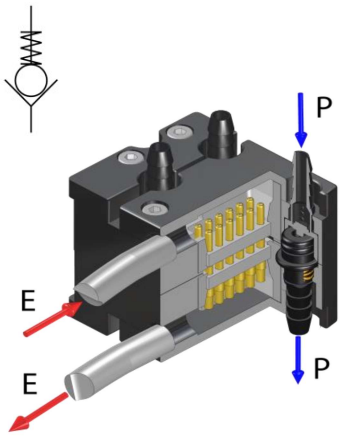
T:\CAD\Standard\MEK\MEK-RY\Zukaufteile\Kabelkonfektionierung\EG-MEK-FES12-300-M12-BG Kabelkonfektionierung.idw

G-MEK100-R

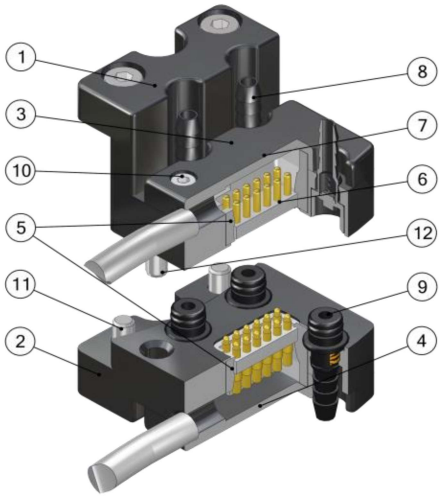
Technical specifications

Operation mode:
The MEK upper assembly (1) is mounted on the MGW or SWS upper assembly. The MEK lower assembly (2) fits onto the MGW or SWS lower assembly. The MEK is automatically coupled by the mechanical connection of the change system.
Advantages:
Mechanical, pneumatic and electric connections are established simultaneously.
Can withstand 50,000 alternating cycles
Individual wiring
Coding of the interchangeable parts
Improved electrical connection by spring mounted poles
Automatic closing of pneumatic ducts by integrated check valves

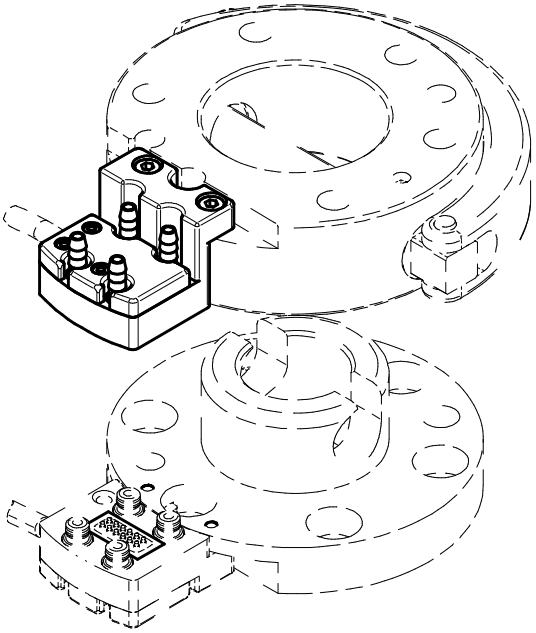
Technical specifications		MEK100-R
Suitable for		MGW100, SWS100
Pneumatic ducts	number P	4
	nominal width NW [mm]	PR4
	operating pressure p [bar]	-1 to 8
Electrical ducts	no. of poles E	12
	rated current I [A]	2
	rated voltage U (max. voltage) [V]	63 (120)
	contact resistance per pole R [mΩ]	<20
	contact durability (cycles)	50.000
Mass [kg]	upper assembly	0,11
	lower assembly	0,06
Protection class (higher requirement only on request)		IP40
Operating temperature range [°C]		-30 to +120



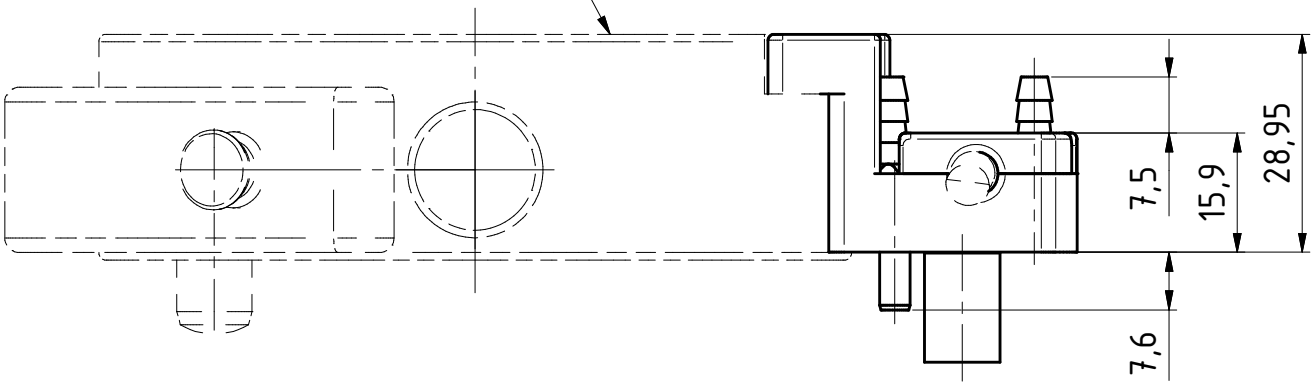
Pos.	Description
1	Upper assembly
2	Lower assembly
3	Upper cover
4	Lower cover
5	Insulation frame
6	Electrical bushing strip
7	Electrical plug strip
8	Female coupling (check valve)
9	Male coupling
10	Mounting screw
11	Mounting screw
12	Index pin
13	Cable (optional)

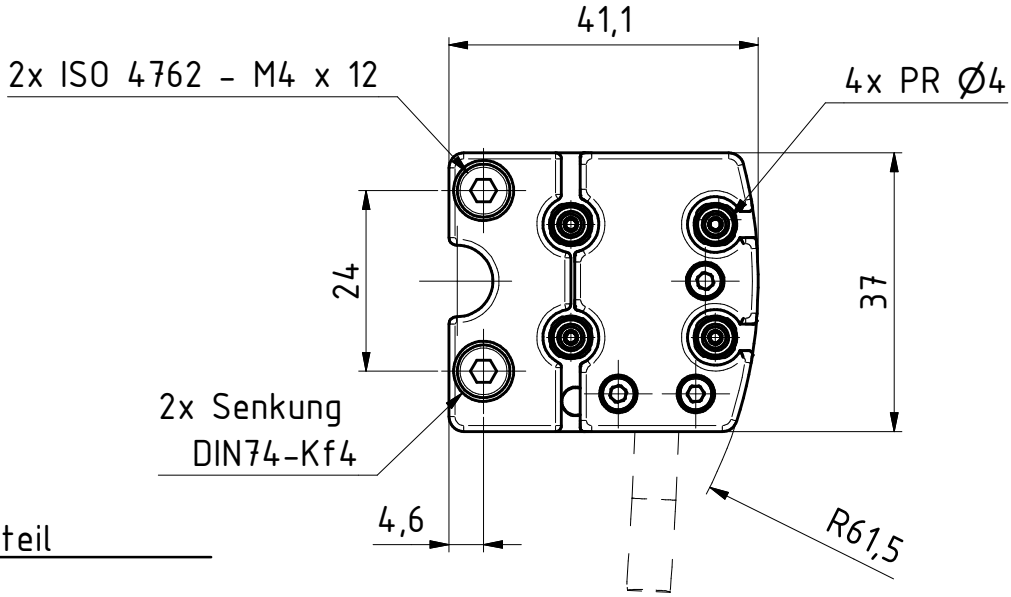


Multi energy coupling Ø100 with check valve	
G-MEK100-O-4PR4	upper assembly, 4 x air with check valve, ID = 4 mm
G-MEK100-O-4PR4-1FE12	upper assembly, 4 x air with check valve, ID = 4 mm, el. socket for suspension, 12 pol.
G-MEK100-O-4PR4-1FE12-2000OE	upper assembly, 4 x air with check valve, ID = 4 mm, el. socket for suspension, 12 pol., 2000 mm cable, open end
G-MEK100-O-4PR4-1FE12-300-M12	upper assembly, 4 x air with check valve, ID = 4 mm, el. socket for suspension, 12 pol., 300 mm cable, M12 circular plug-in connector
G-MEK100-U-4PR4	lower assembly, 4 x air, ID = 4 mm
G-MEK100-U-4PR4-1FE12	lower assembly, 4 x air, ID = 4 mm, spring mounted electrical plug, 12 poles
G-MEK100-U-4PR4-1FE12-2000OE	lower assembly, 4 x air, ID = 4 mm, spring mounted electrical plug, 12 poles, 2000 mm cable, open end
G-MEK100-U-4PR4-1FE12-300-M12	lower assembly, 4 x air, ID = 4 mm, spring mounted electrical plug, 12 poles, 300 mm cable, M12 circular plug-in connector



MGW100-O-20E





Bestellnummer Oberteil

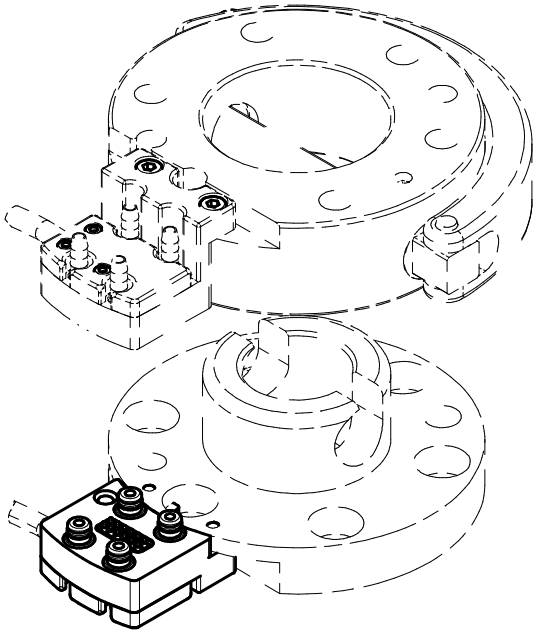
G-MEK100-O-4PR4

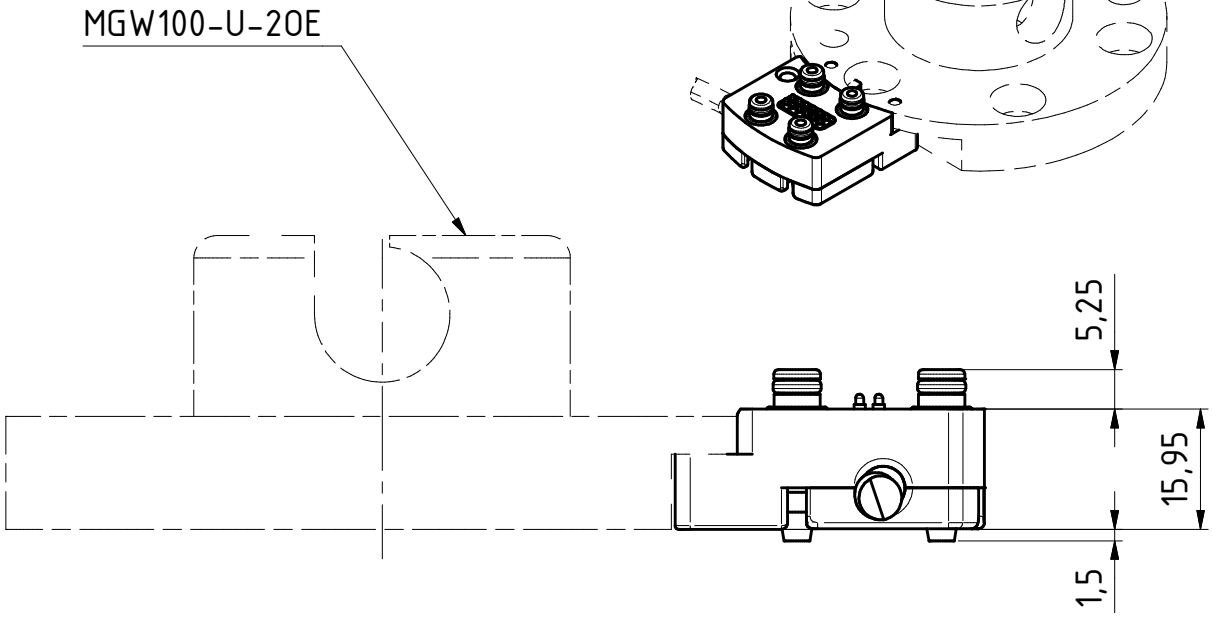
G-MEK100-O-4PR4-1FE12

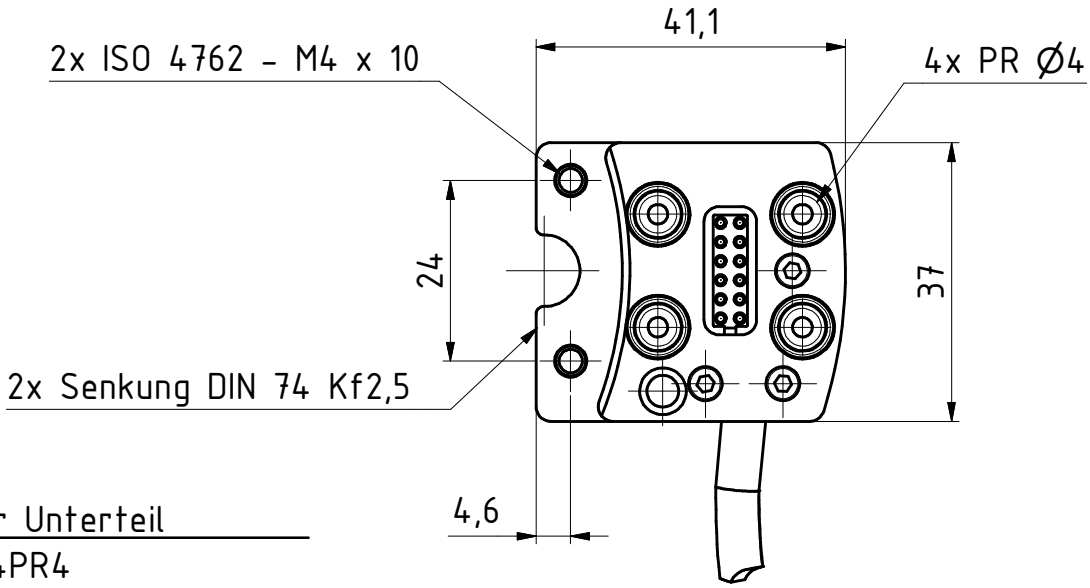
G-MEK100-O-4PR4-1FE12-2000E

G-MEK100-O-4PR4-1FE12-300-M12

Datum 29.05.2018	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-MEK100-O-4PR4-1E12			







Bestellnummer Unterteil

G-MEK100-U-4PR4

G-MEK100-U-4PR4-1FE12

G-MEK100-U-4PR4-1FE12-2000E

G-MEK100-U-4PR4-1FE12-300-M12

Datum 29.05.18	Maßstab	
Zeichnungsnummer G-MEK100-U-4PR4-1FE12		GRIP GmbH Handhabungstechnik

SEK-P

SEK-FE

MEK-R

Products	Elecrical connection	Cable variants
SEK-P / SEK-FE / MEK-R upper assembly	Electric strip, female (suitable for spring contacts)	M8-bushing, M12-plug, open end
SEK-P / SEK-FE / MEK-R lower assembly	Electric strip, male (including spring contacts)	M8-plug, M12-bushing, open end

SEK

MEK-PM

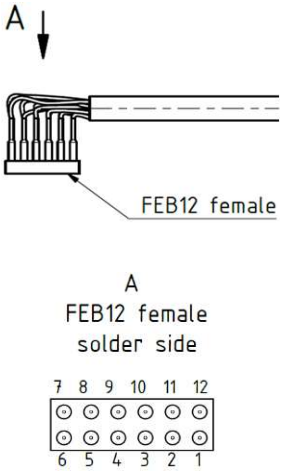
Products	Elecrical connection	Cable variants
SEK / MEK-PM upper assembly	Insulating body with pin contacts	M8-bushing, M12-plug, open end
SEK / MEK-PM lower assembly	Insulating body with socket contacts	M8-plug, M12-bushing, open end

SEK-FE

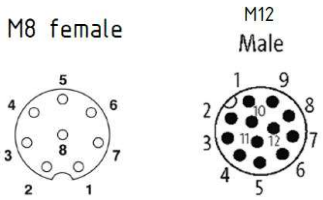
As standard, we offer the listed products for self-soldering.
The contact assignment of the pre-assembled connections can be found in the following data sheets.

Ordering example: G-SEK100-O/U-1FE12
G-MEK063-O/U-6PM5-1E12

FEB12
Electric strip, female
12-poles (female)
Strip 2x 6 rows
Rated current per pole: 2A
Contact resistance < 20mΩ
Contact spacing: 2,54mm
Gilded
Solder connection

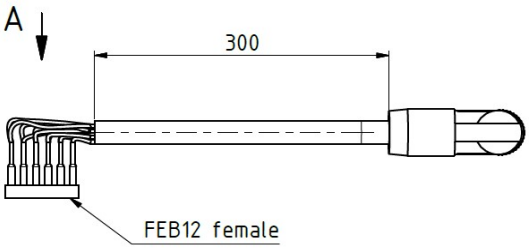


M8-bushing	M12-plug



300-M8

300mm cable, circular connector M8-bushing



pin	assignment
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	---
10	---
11	---
12	---

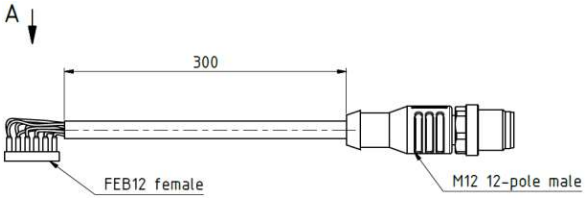
M8-bushing
8 poles (female)
Cable: drag chain suitable
According to IEC-61076-2-104
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Temperature range: -25…85°C
Cable: PUR halogen-free

included in: G-SEK100-O-1FE12-300-M8
G-MEK063-O-4PR4-1FE12-300-M8

spare part: EG-MEK-FEB12-300-M8-BW

300-M12

300mm cable, circular connector M12 plug



FEB12 female	colour	M12 male
1	white	3
2	brown	1
3	green	4
4	yellow	6
5	grey	8
6	pink	5
7	blue	2
8	red	9
9	black	7
10	violet	10
11	grey/ pink	11
12	blue/ red	12

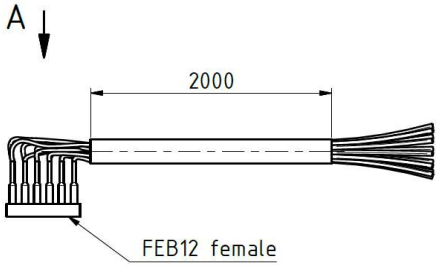
M12-plug
12 poles (male)
Cable: drag chain suitable
12 x 0,14mm^2, Ø5,6
According to IEC-61076-2-104
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Insulation resistance: ≥10^{3}Ω
Temperature range: -25…85°C
Cable: PUR halogen-free

included in: G-SEK100-O-1FE12-300-M12
G-MEK063-O-4PR4-1FE12-300-M12

spare part: EG-MEK-FEB12-300-M12

2000-OE

2000mm cable, open end



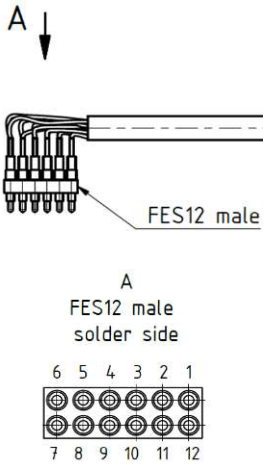
pin	assignment
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	black
10	violet
11	grey-pink
12	blue-red

Open end
12 poles
Cable: drag chain suitable
Outer-Ø (D): 5,6 ± 0,2mm
Nominal voltage: ≤300V
Bending radius: - fixed installation: >5 x D - in motion: >10 x D
Wire cross-section: 12 x 0,14mm^2
Insulation resistance: ≥10^{3}Ω
Temperature range: -25…85°C
Material: PUR halogen-free
Rated current (at 30°): 2 A

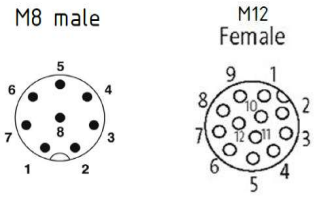
included in: G-SEK100-O-1FE12-2000-OE
G-MEK063-O-4PR4-1FE12-2000-OE

spare part: EG-MEK-FEB12-2000OE

FES12
Electric strip, male
Spring contacts
12 poles (male)
Strip 2x 6 rows
Spring force: 0,6N at 0,7mm
Rated current per pole: 2A
Contact resistance < 20mΩ
Contact spacing: 2,54mm
Gilded
Solder connection
Max stroke: 2,4mm

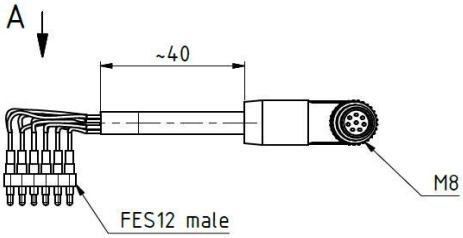


M8 plug	M12 bushing



40-M8

40mm cable, circular connector M8 plug



pin	assignment
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	---
10	---
11	---
12	---

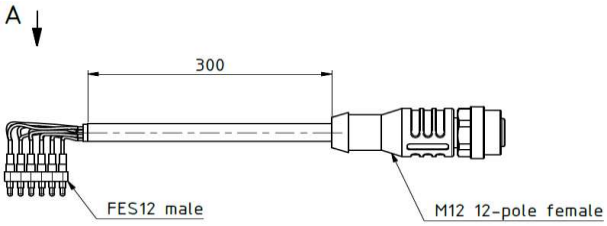
M8 plug
8 poles (male)
Cable: drag chain suitable
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Temperature range: -25…85°C
Cable: PUR halogen-free

included in: G-SEK100-U-1FE12-40-M8
G-MEK063-U-4PR4-1FE12-40-M8

spare part: EG-MEK-FES12-40-M8-SW

300-M12

300mm cable, circular connector M12 bushing



FES12 male	colour	M12 fem.
1	white	3
2	brown	1
3	green	4
4	yellow	6
5	grey	8
6	pink	5
7	blue	2
8	red	9
9	black	7
10	violet	10
11	grey/ pink	11
12	blue/ red	12

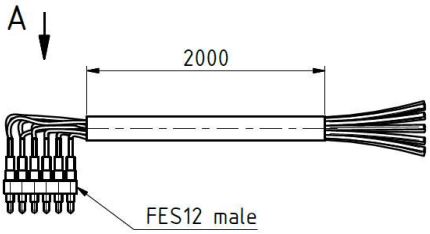
M12 bushing
12 poles (female)
Cable: drag chain suitable
12 x 0,14mm^2, Ø5,6
According to IEC-61076-2-104
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Insulation resistance: ≥10^{3}Ω
Temperature range: -25…85°C
Cable: PUR halogen-free

included in: G-SEK100-U-1FE12-300-M12
G-MEK063-U-4PR4-1FE12-300-M12

spare part: EG-MEK-FES12-300-M12

2000-OE

2000mm cable, open end



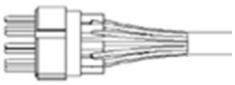
pin	assignment
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	black
10	violet
11	grey-pink
12	blue-red

Open end
12 poles
Cable: drag chain suitable
Outer-Ø (D): 5,6 ± 0,2mm
Nominal voltage: ≤300V
Bending radius: - fixed installation: >5 x D - in motion: >10 x D
Wire cross-section: 12 x 0,14mm^2
Insulation resistance: ≥10^{3}Ω
Temperature range: -25…85°C
Material: PUR halogen-free
Rated current (at 30°): 2 A

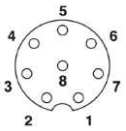
included in: G-SEK100-U-1FE12-2000-OE
G-MEK063-U-4PR4-1FE12-2000-OE

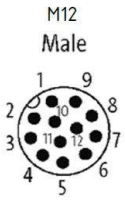
spare part: EG-MEK-FES12-2000OE

IKS12
Insulating body with pins
12 poles (male)
Rated current per pole: 9A
Contact resistance < 3mΩ



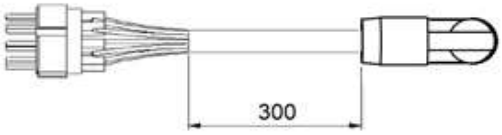
M8 bushing	M12 plug





300-M8

300mm cable, circular connector M8 bushing



pin	assignment
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	---
10	---
11	---
12	---

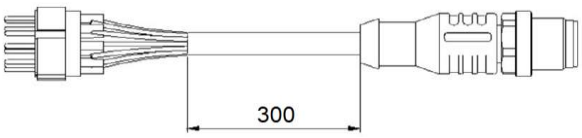
M8 bushing
8 poles (female)
Cable: drag chain suitable
According to IEC-61076-2-104
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Temperature range: -25…85°C
Cable: PUR halogen-free

included in: G-SEK100-O-1E12-300-M8
G-MEK063-O-6PM5-1E12-300-M8

spare part: EG-MEK-IKS12-300-M8-BW

300-M12

300mm cable, circular connector M12 plug



pin	assignment
1	brown
2	blue
3	white
4	green
5	pink
6	yellow
7	black
8	grey
9	red
10	violet
11	grey-pink
12	blue-red

M12 plug
12 poles (male)
Cable: drag chain suitable
12 x 0,14mm^2, Ø5,6
According to IEC-61076-2-104
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Insulation resistance: ≥10^{3}Ω
Temperature range: -25…85°C
Cable: PUR halogen-free

included in: G-SEK100-O-1E12-300-M12
G-MEK063-O-6PM5-1E12-300-M12

spare part: EG-MEK-IKS12-300-M12

2000-OE

2000mm cable, open end

pin	assignment
1	brown
2	blue
3	white
4	green
5	pink
6	yellow
7	black
8	grey
9	red
10	violet
11	grey-pink
12	blue-red

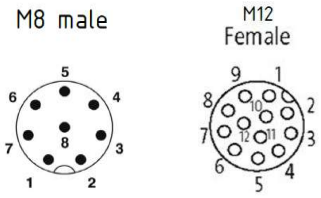
Open end
12 poles
Cable: drag chain suitable
Outer-Ø (D): 5,6 ± 0,2mm
Nominal voltage: ≤300V
Bending radius:
- fixed installation: >5 x D
- in motion: >10 x D
Wire cross-section: 12 x 0,14mm^2
Insulation resistance: ≥10^{3}Ω
Temperature range: -25…85°C
Material: PUR halogen-free
Rated current (at 30°): 2 A

included in: G-SEK100-O-1E12-2000-OE
G-MEK063-O-6PM5-1E12-2000-OE

spare part: EG-MEK-IKS12-2000-OE

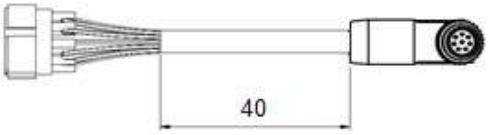
IKB12
Insulating body with bushings
12 poles (female)
Rated current per pole: 9A
Contact resistance < 3mΩ

M8 plug	M12 bushing



40-M8

40mm cable, circular connector M8 plug



pin	assignment
1	white
2	brown
3	green
4	yellow
5	grey
6	pink
7	blue
8	red
9	---
10	---
11	---
12	---

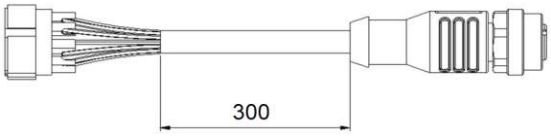
M8 plug
8 poles (male)
Cable: drag chain suitable
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Temperature range: -25…85°C
Cable: PUR halogen-free

included in: G-SEK100-U-1E12-40-M8
G-MEK063-U-6PM5-1E12-40-M8

spare part: EG-MEK-IKB12-40-M8-SW

300-M12

300mm cable, circular connector M12 bushing



pin	assignment
1	brown
2	blue
3	white
4	green
5	pink
6	yellow
7	black
8	grey
9	red
10	violet
11	grey-pink
12	blue-red

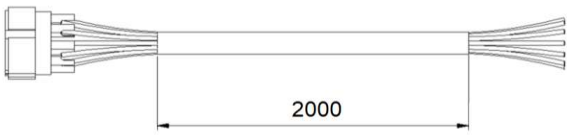
M12 bushing
12 poles (female)
Cable: drag chain suitable
12 x 0,14mm^2, Ø5,6
According to IEC-61076-2-104
Operating voltage: max 30 V
Rated current (at 30°): 1,5 A
Insulation resistance: ≥10^{3}Ω
Temperature range: -25…85°C
Cable: PUR halogen-free

included in: G-SEK100-U-1E12-300-M12
G-MEK063-U-6PM5-1E12-300-M12

spare part: EG-MEK-IKB12-300-M12

2000-OE

2000mm cable, open end



pin	assignment
1	brown
2	blue
3	white
4	green
5	pink
6	yellow
7	black
8	grey
9	red
10	violet
11	grey-pink
12	blue-red

Open end
12 poles
Cable: drag chain suitable
Outer-Ø (D): 5,6 ± 0,2mm
Nominal voltage: ≤300V
Bending radius:
- fixed installation: >5 x D
- in motion: >10 x D
Wire cross-section: 12 x 0,14mm^2
Insulation resistance: ≥10^{3}Ω
Temperature range: -25…85°C
Material: PUR halogen-free
Rated current (at 30°): 2 A

included in: G-SEK100-U-1E12-2000-OE
G-MEK063-U-6PM5-1E12-2000-OE

spare part: EG-MEK-IKB12-2000-OE

DDF MULTI SWIVEL

Solution for the rotatable feed-through of 2 to 4 compressed air or vacuum lines. The compressed air is fed through channels inside the DDF. This prevents twisting of the pneumatic lines during endless rotary movements.

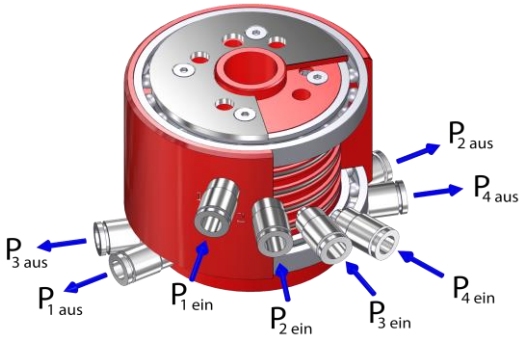
DDF Multi Swivel Advantages:

- For unlimited rotary movements, such as robot axes
- Prevents the twisting of air channels
- Low weight, made of high-strength aluminum, anodized
- Optional with integrated roller bearings
- Durable
- ISO flange
- Quick connection of the pneumatic lines?
- Interfaces according to DIN EN ISO 9409–1

DDF Multi Swivels can be modified to meet your needs. Please inquire about special applications.

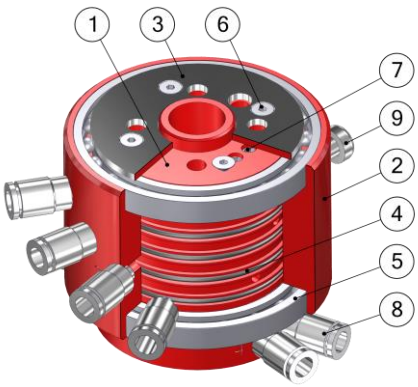
Operating mode:
The compressed air is routed through channels inside the DDF. These channels prevent the pneumatic lines from becoming twisted, when the multy swivel is rotated.
Advantages:
Light and robust
ISO-flange
No twisting of the air conduction
Quick connection of pneumatic tubes
Interface according to DIN EN ISO 9409-1

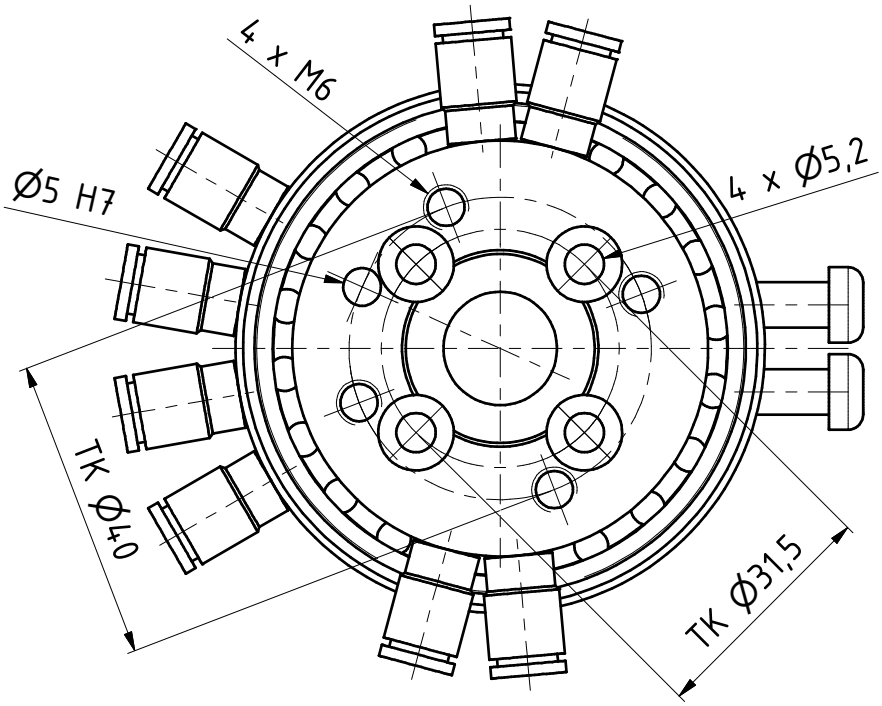
Technical specifications	DDF050
Basic material	Al. anod., SS
Medium	Compressed air, filtered
	oiled und unoiled
Operating pressure range	-1 to 8 bar
Number of ducts	4
Tube external diameter	6 mm
Threaded connection comp. air	M5
Dead weight	690 g
Max. speed	60 / min
Initial torque	1 Nm
Ambient temperature	5 - 40 °C
Mounting flange	according to ISO9409-1
Operating temperature range [°C]	-30 to +120

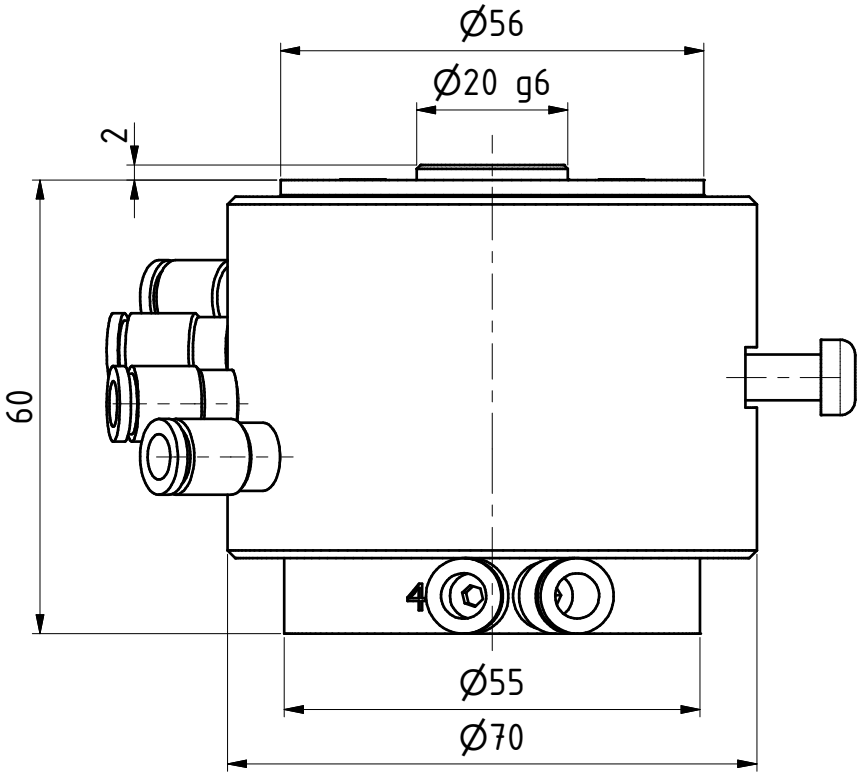


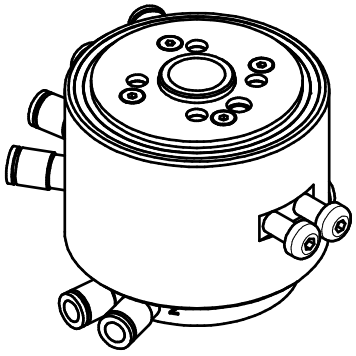
Pos.	Description
1	Flange
2	Ring
3	Disc
4	Piston seal
5	Grooved ball bearing
6	Counter-sunk screw
7	Setscrew
8	Straight connection
9	Fitting Screw

Multi swivel Ø50…	
G-DDF050-2-4/NW4	with grooved ball bearing + universal seals 4 x air
Replacement gasket kit…	
EG-DDF050-2-DS-4	for 4 x air DDF050 with grooved ball bearing









Datum 26.03.2020	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-DDF050-2-4/NW4			

GRIPPING

Standardized products for different gripping tasks

Our pneumatic grippers GP Parallel Gripper and GZ Angular Gripper are characterized by their compact and robust design. They are available in five different sizes. In 2009 we introduced our pneumatic GI Internal Grippers followed by our GIS Internal Gripper in 2016. The Internal Grippers are available in 16 sizes from 5 to 20 mm. The Internal Grippers are unique in the handling technology industry.

GRIP Grippers have proven their worth for over 25 years with well-known companies.

GP Parallel Gripper

Parallel Gripper with linear jaw movement. The double-acting cylinder is actuated by compressed air which actuates the movements. The vertical movement is converted into opposing horizontal movement via two angularly arranged springs.

GZ Angular Gripper

The Angular Gripper with pivoting jaw movement. The double-acting cylinder is actuated by compressed air which actuates the movements. An eccentric mechanism ensures a long service life and a constant gripping torque. In contrast to the Parallel Gripper, the gripping force safety device can only be designed as a closing -GS- version.

GI Internal Gripper

The GI Internal Gripper is an inflatable bellows gripper for internal gripping. The Internal Grippers plunge into bore holes. Applying pneumatic pressure to the silicone membrane increases the outer diameter. This friction against the bore hole wall holds the Gripper in place. The silicone membrane automatically retracts once the pressure is relieved

GIS Internal Gripper Short

The GIS Internal Gripper Short is a further development of the GI Internal Gripper with an optimized gripping zone. The Internal Grippers plunge into bore holes. Applying pneumatic pressure to the silicone membrane increases the outer diameter. This friction against the bore hole wall holds the Gripper in place. The silicone membrane automatically retracts once the pressure is relieved.

GP PARALLEL GRIPPER

Parallel Gripper with linear jaw movement. The double-acting cylinder is actuated by compressed air which actuates the movements. The vertical movement is converted into opposing horizontal movement via two angularly arranged springs. The grippers are driven by a wedge gear and can be equipped with a gripping force safety compression spring. The gripper position can be communicated using a reed switch on the drive cylinder (type "RS ..."). Depending on the installation, the gripping force safety device has a closing (GS) or opening (GÖ) effect.

The GP parallel grippers were developed to match the sizes of the quick connect systems. The compact design of the gripper allows it to be used in the most difficult industrial conditions. The modular design makes possible a large number of high-quality design options while maintaining costs.

GP Parallel Gripper Advantages:

- Wedge gear guided for optimal performance
- Extremely Durable
- Two stroke version available
- Interface according to DIN EN ISO9409–1
- Low weight made of high-strength aluminum and steel
- Optional "open" gripping force safety compression spring
- Optional "close" gripping force safety compression spring
- Piston position communicated with a proximity switch ZG-RSGU01

GP Parallel Grippers can be modified to meet your needs. Please inquire about special applications.

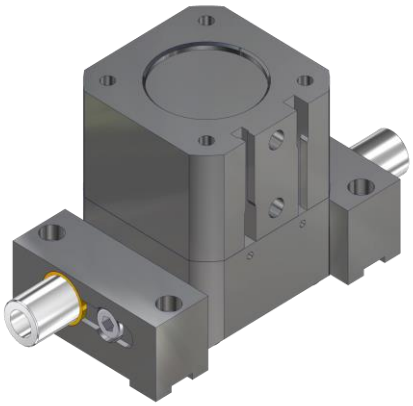
SIZES

GP050
GP063
GP080
GP100
GP125

G-GP050

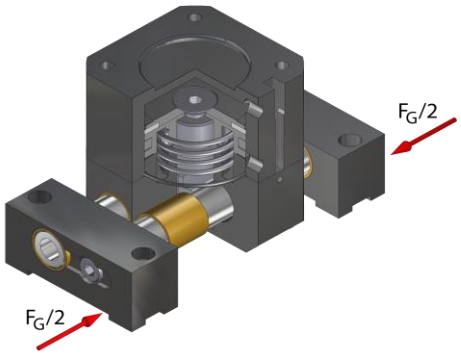
Technical specifications

Operating mode:
The double-acting cylinder is operated via pneum. compressed air and actuates the power unit. By two angularly arranged springs, which engage in the grooves of the bolts, the vertical is converted into horizontal movement.

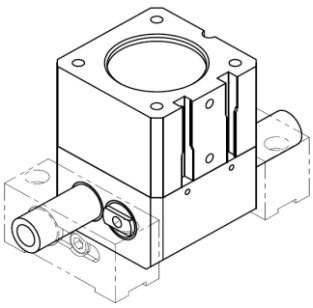


Advantages:
High life span
Two stroke variants stroke 1 or stroke 2
Mechanical interface according to DIN EN ISO 9409-12
Low dead weight
Optional gripping force safety device "opening" via pressure spring (7)
Optional gripping force safety device "closing" via pressure spring (7)
Depending on the mounting, gripping force safety device "closing" or "opening"
Universal jaws (15) for easy mounting of specific fingers
Piston position detection by means of proximity switch ZG-RSGU01 / 300-M8

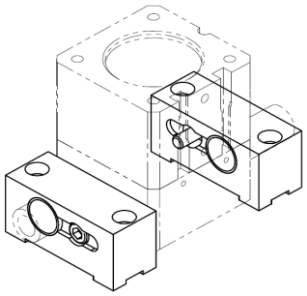
Technical specifications				GP050
Gripping force at 6 bar	FG [N]	stroke 1	opening	650
			shutting	560
		stroke 2	opening	325
			shutting	280
Gripping force factor	fg [N/ bar]	stroke 1	opening	108
			shutting	93
		stroke 2	opening	54
			shutting	46,5
Gripping force safety device	FS [N]	stroke 1	min.	340
			max.	480
		Stroke 2	min.	170
			max.	240
System stroke per jaw	h [mm]	stroke 1		3
		stroke 2		6
Recommended component weight			mw [kg]	5
Weight gripper			mg [kg]	0,3
Operating pressure (with gripping force safety device)				5 …6 bar
Operating pressure (without gripping force safety device)				2 …6 bar
Air consumption per Hub			V [ccm]	4,2
Air connection			Pmax = 10 bar	M5
Mounting flange			ISO	4 x M4 on TK ø40
Operating temperature range [°C]				-30 to +120



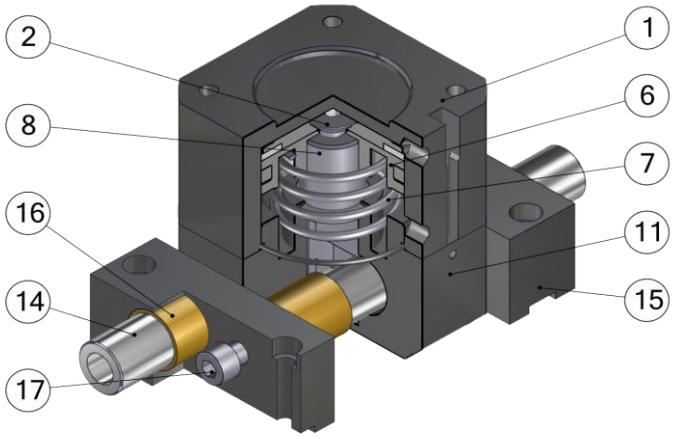
Parallel gripper Ø50…	
G-GP050-I1-GÖ	ISO-flange, Hub 1 gripping force safety device opening
G-GP050-I1-GS	ISO-flange, Hub 1 gripping force safety device shutting
G-GP050-I1-O	ISO-flange, Hub 1 without gripping force safety device
G-GP050-I2-GÖ	ISO-flange, Hub 2 gripping force safety device opening
G-GP050-I2-GS	ISO-flange, Hub 2 gripping force safety device shutting
G-GP050-I2-O	ISO-flange, Hub 2 without gripping force safety device

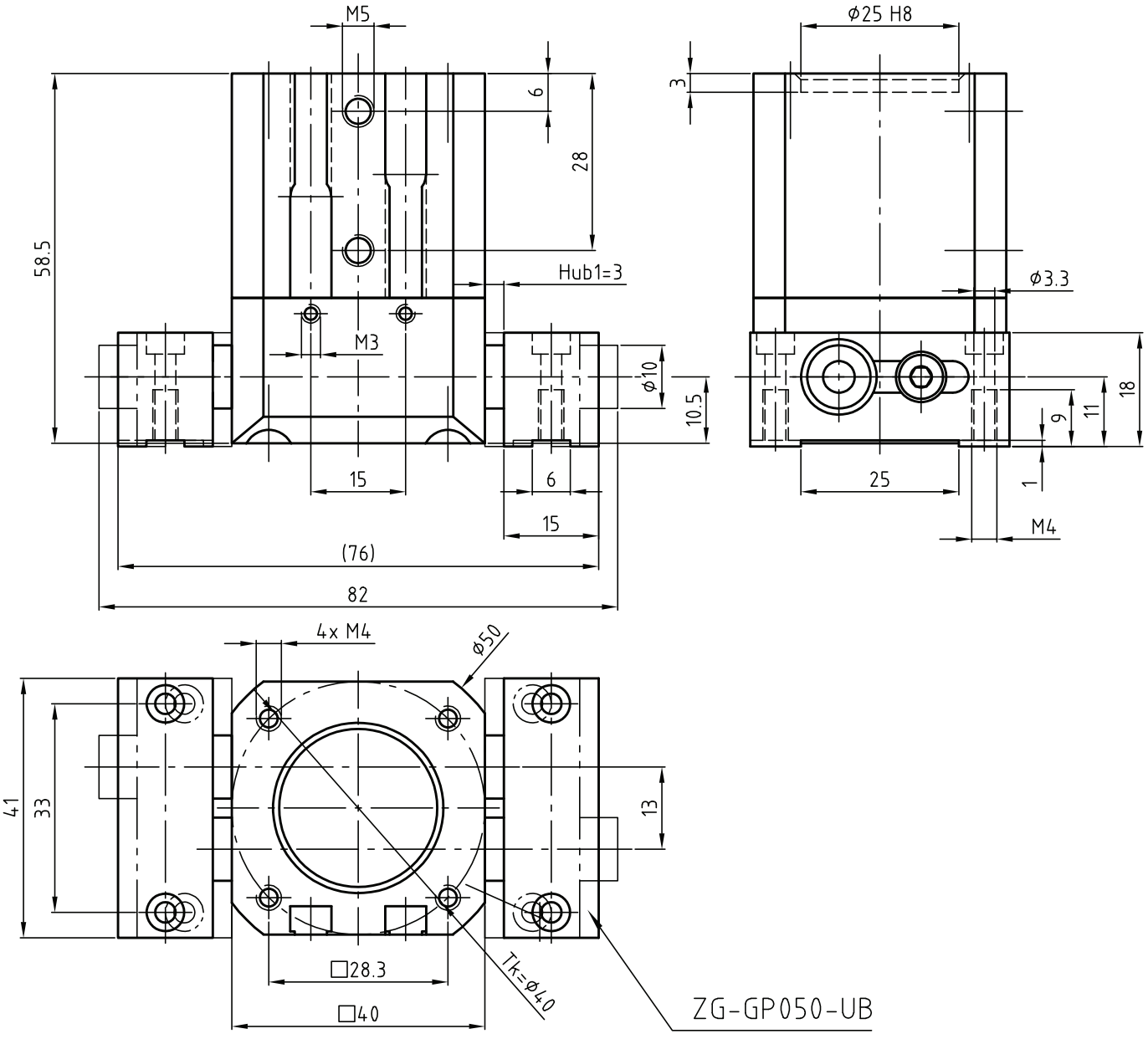


Equipment GP	
ZG-GP050-UB	Universal jaw for GP050 pair
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug
Spare parts GG	
EG-GG050-DS	Gasket set for gripper size 050



Pos.	Description
1	Cylinder ISO
2	Countersunk screw
3	Cap
4	Magnetic ring
5	Quadrat ring 1
6	Cone
7	Compression spring
8	Power unit 1/2
9	Quadrat ring 2
10	O- Ring
11	Housing
12	Cylinder head screw housing
13	Plain bearing bushing housing
14	Bolt 1/2
15	Universal jaw
16	Plain bearing bushing UB
17	Cylinder head screw UB



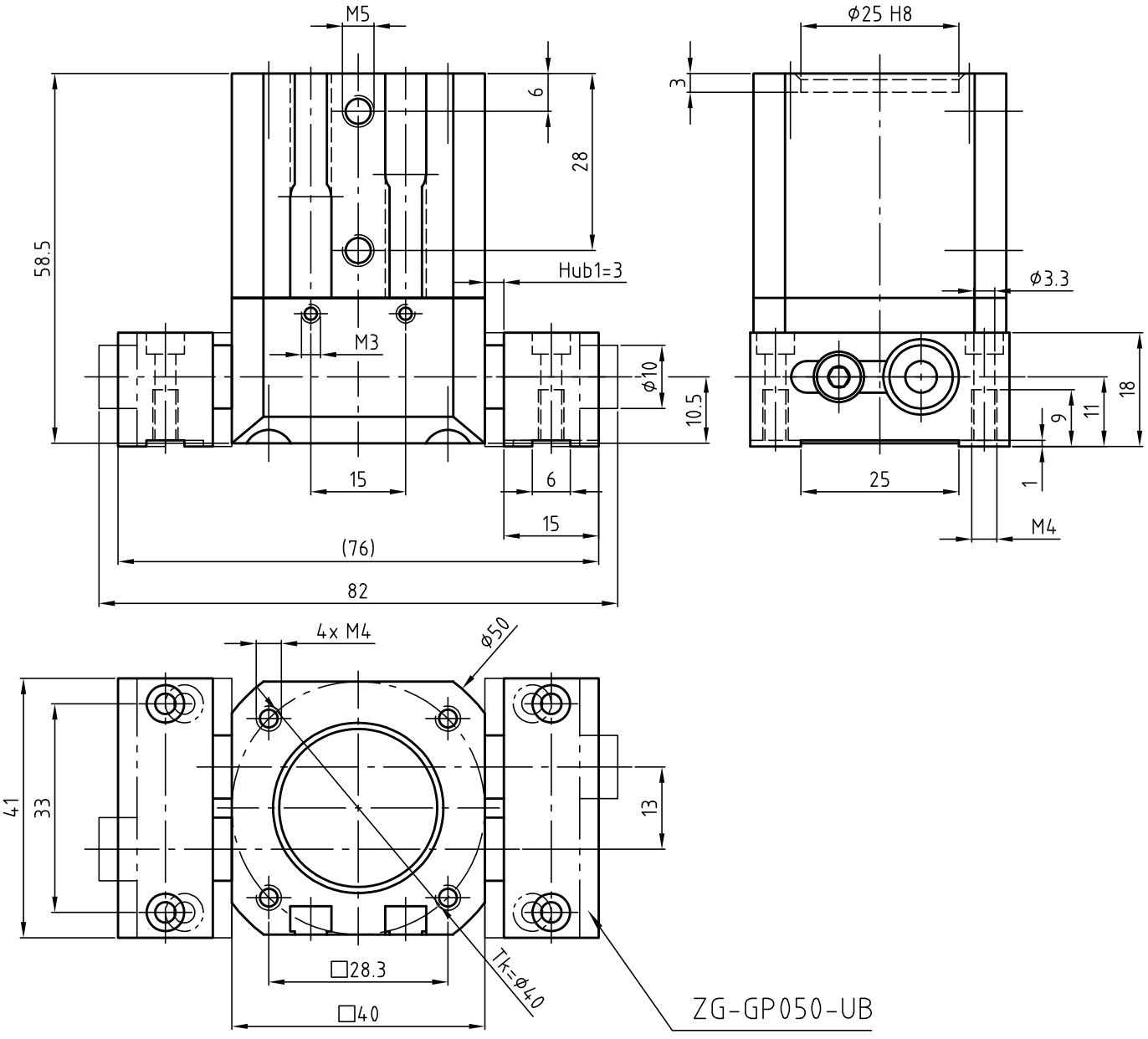


Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

G-GP050-I1-GS

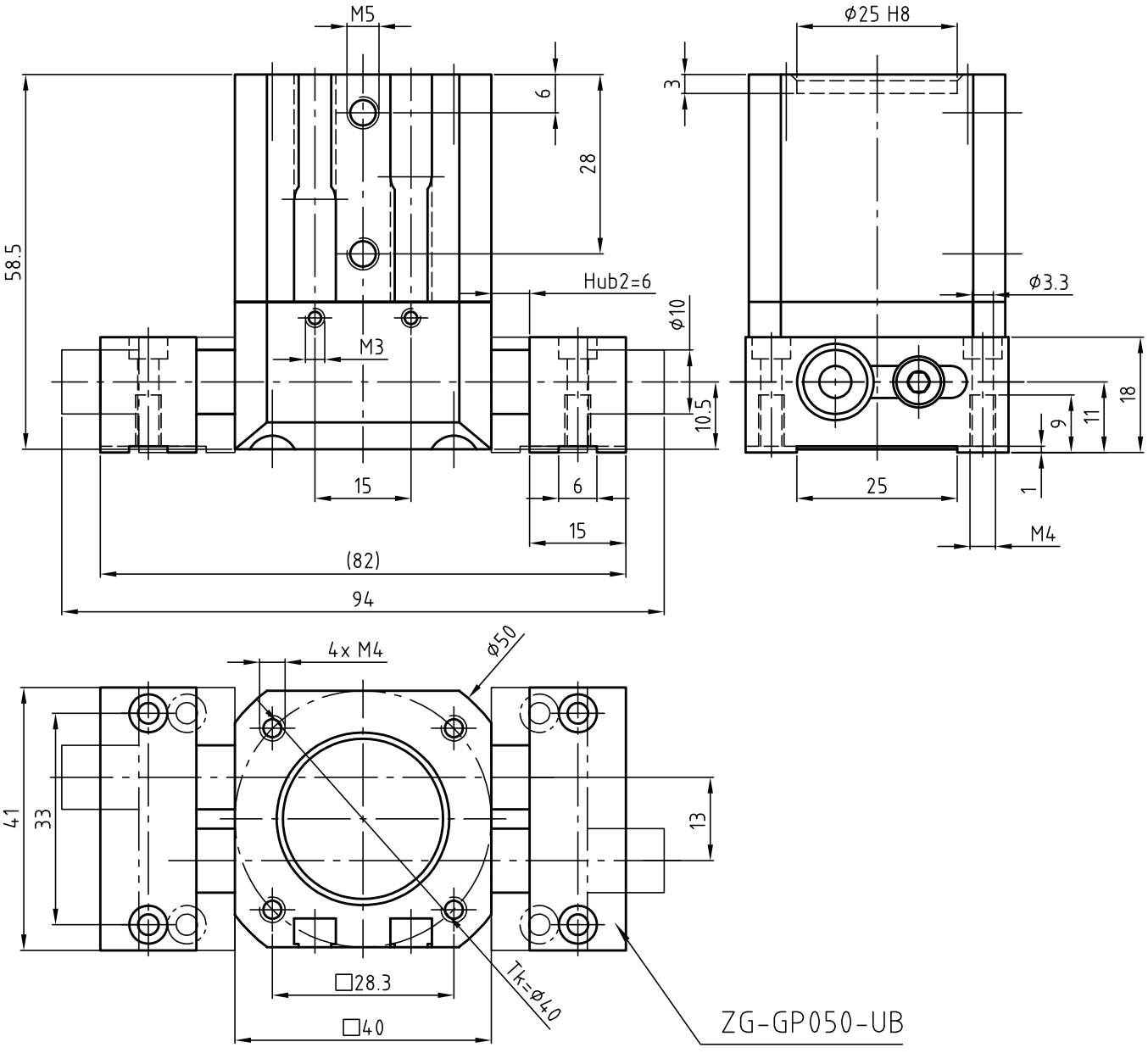
GRIP GmbH Handhabungstechnik



Bestellnummer

G-GP050-I1-GÖ
G-GP050-I1-O

Datum 10.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GP050-I1-O			

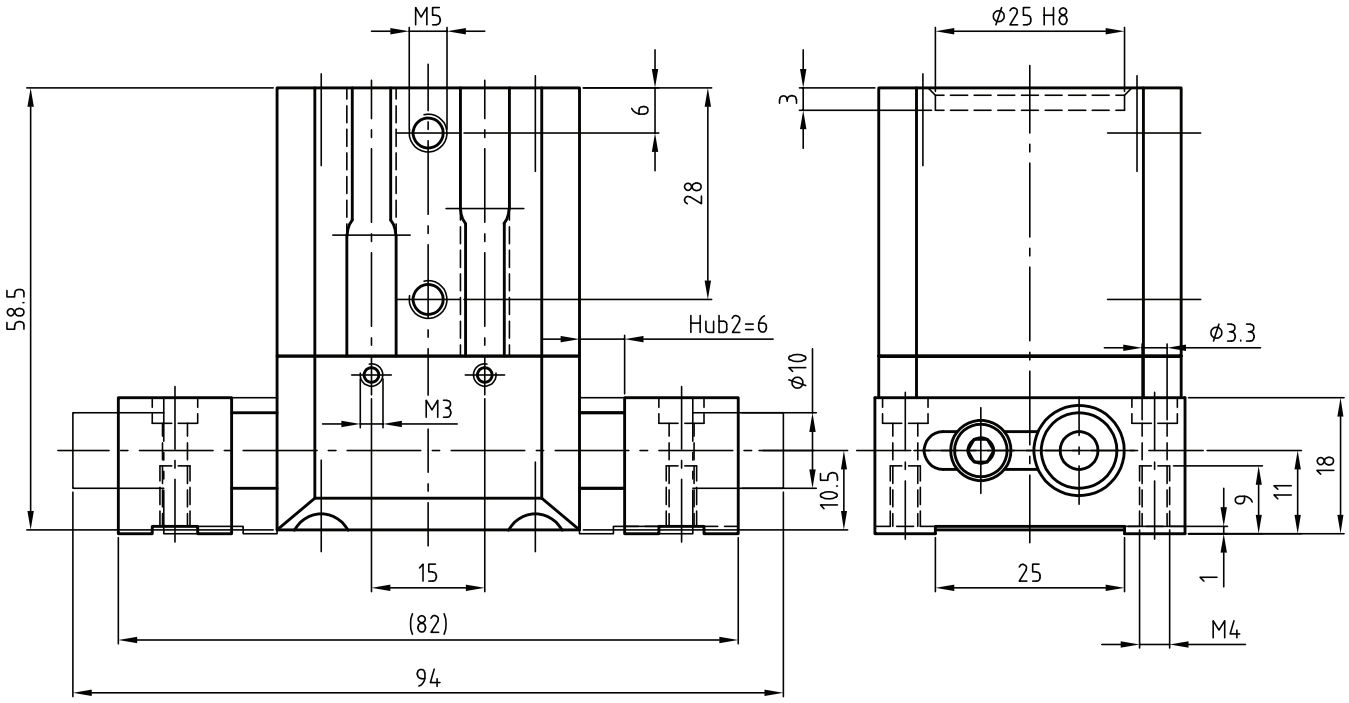


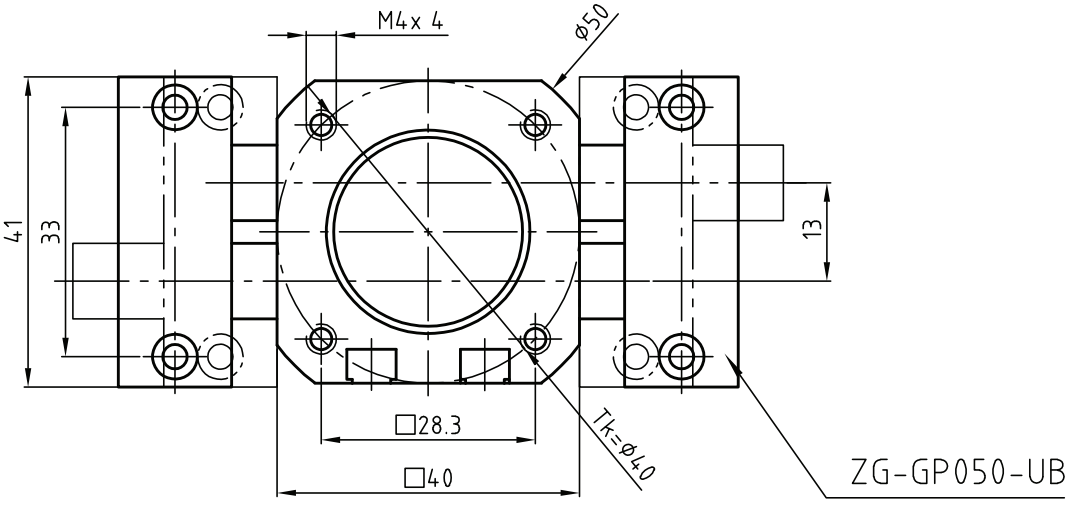
Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

G-GP050-I2-GS

GRIP GmbH Handhabungstechnik

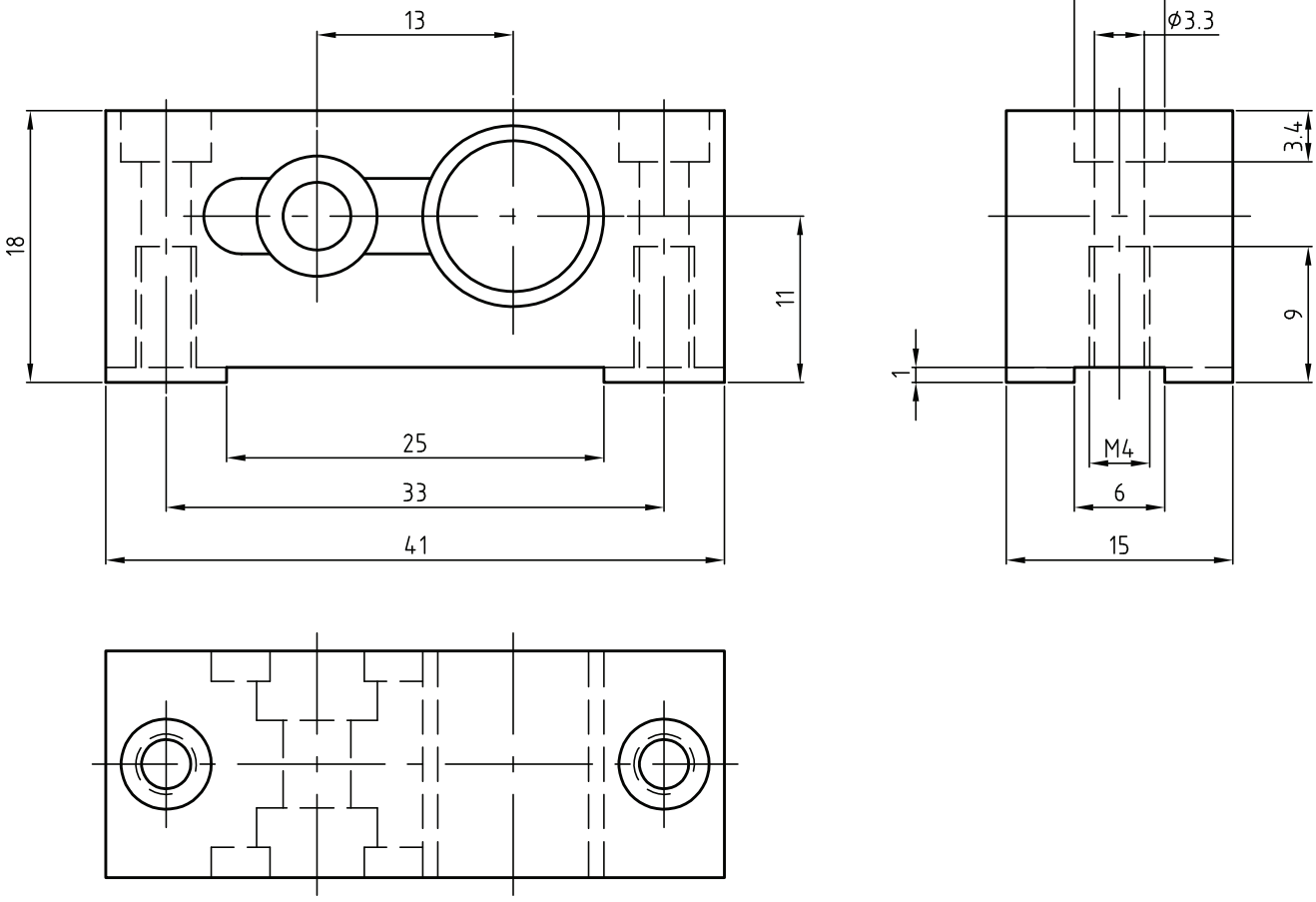




Bestellnummer

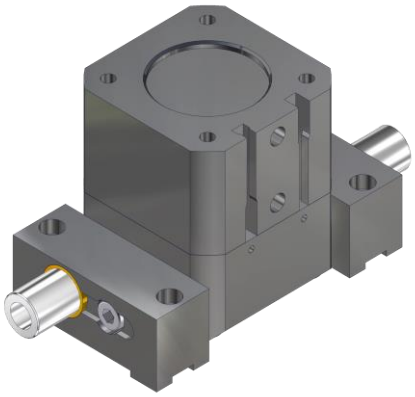
G-GP050-I2-GÖ
G-GP050-I2-O

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-GP050-I2-O		GRIP GmbH Handhabungstechnik

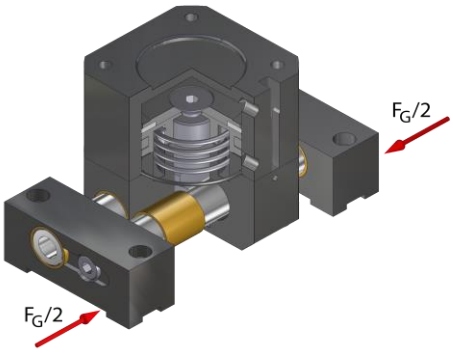


Datum 10.11.2016	Maßstab 2:1		
Zeichnungsnummer ZG-GP050-UB (Paar)			GRIP GmbH Handhabungstechnik

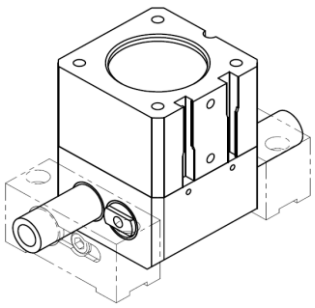
Operating mode:
The double-acting cylinder is operated via pneum. compressed air and actuates the power unit. By two angularly arranged springs, which engage in the grooves of the bolts, the vertical is converted into horizontal movement.
Advantages:
High life span
Two stroke variants stroke 1 or stroke 2
Mechanical interface according to DIN EN ISO 9409-12
Low dead weight
Optional gripping force safety device "opening" via pressure spring (7)
Optional gripping force safety device "closing" via pressure spring (7)
Depending on the mounting, gripping force safety device "closing" or "opening"
Universal jaws (15) for easy mounting of specific fingers
Piston position detection by means of proximity switch ZG-RSGU01 / 300-M8



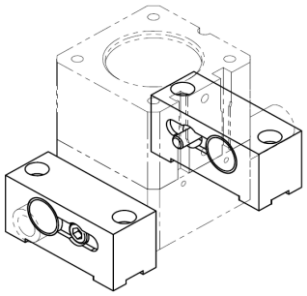
Technical specifications				GP063
Gripping force at 6 bar	FG [N]	stroke 1	opening	1200
			shutting	1000
		stroke 2	opening	600
			shutting	500
Gripping force factor	fg [N/ bar]	stroke 1	opening	200
			shutting	166
		stroke 2	opening	100
			shutting	83
Gripping force safety device	FS [N]	stroke 1	min.	500
			max.	760
		Stroke 2	min.	250
			max.	380
System stroke per jaw	h [mm]	stroke 1		4
		stroke 2		8
Recommended component weight			mw [kg]	10
Weight gripper			mg [kg]	0,4
Operating pressure (with gripping force safety device)				5 …6 bar
Operating pressure (without gripping force safety device)				2 …6 bar
Air consumption per Hub			V [ccm]	10
Air connection			Pmax = 10 bar	M5
Mounting flange			ISO	4 x M5 on TK ø50
Operating temperature range [°C]				-30 to +120



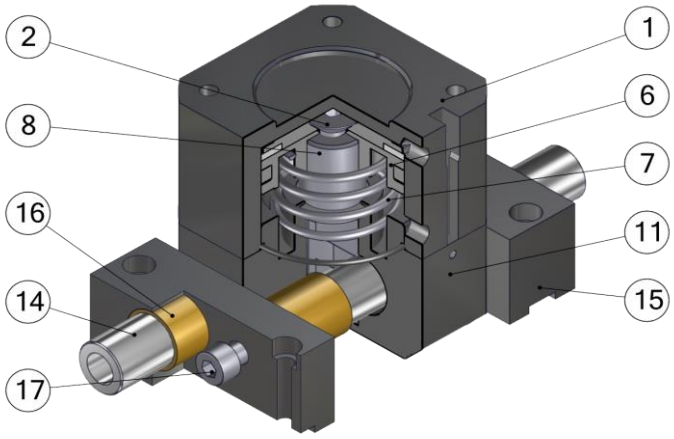
Parallel gripper Ø63…	
G-GP063-I1-GÖ	ISO-flange, Hub 1 gripping force safety device opening
G-GP063-I1-GS	ISO-flange, Hub 1 gripping force safety device shutting
G-GP063-I1-O	ISO-flange, Hub 1 without gripping force safety device
G-GP063-I2-GÖ	ISO-flange, Hub 2 gripping force safety device opening
G-GP063-I2-GS	ISO-flange, Hub 2 gripping force safety device shutting
G-GP063-I2-O	ISO-flange, Hub 2 without gripping force safety device

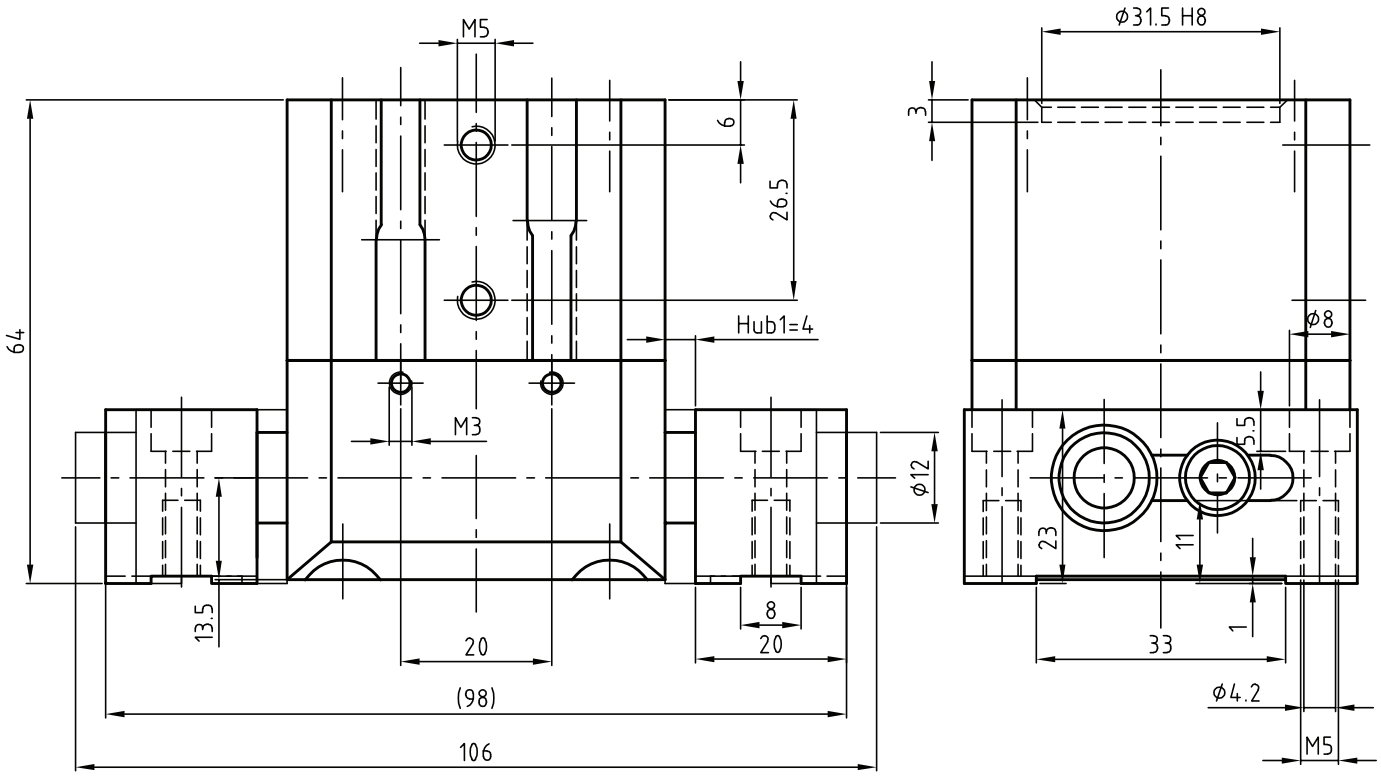


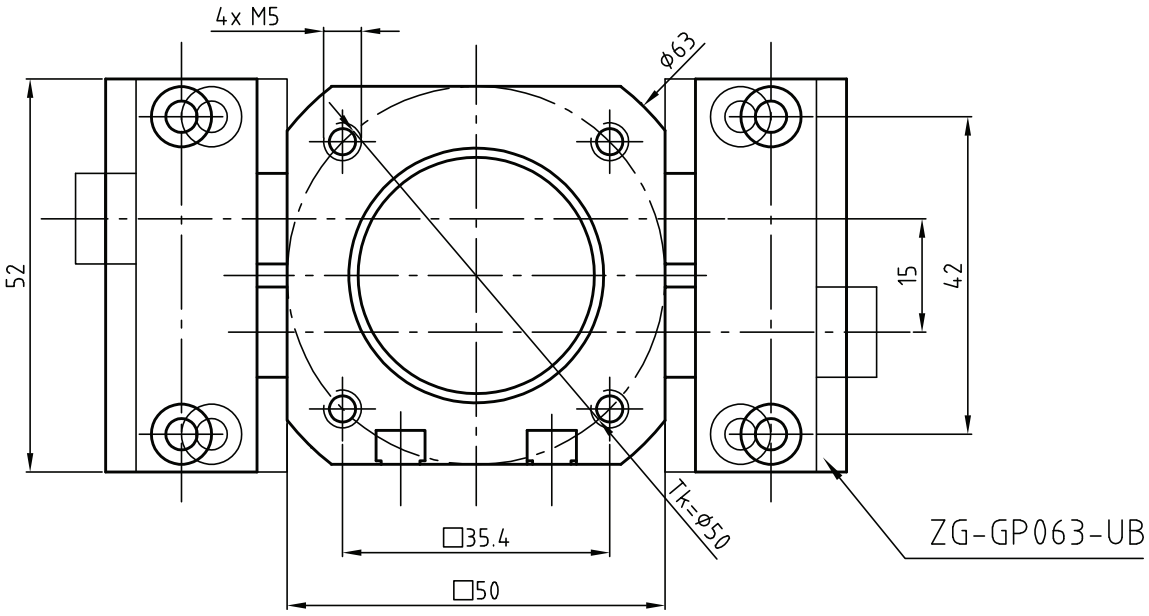
Equipment GP	
ZG-GP063-UB	Universal jaw for GP063 pair
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug
Spare parts GG	
EG-GG063-DS	Gasket set for gripper size 063



Pos.	Description
1	Cylinder ISO
2	Countersunk screw
3	Cap
4	Magnetic ring
5	Quadrat ring 1
6	Cone
7	Compression spring
8	Power unit 1/2
9	Quadrat ring 2
10	O- Ring
11	Housing
12	Cylinder head screw housing
13	Plain bearing bushing housing
14	Bolt 1/2
15	Universal jaw
16	Plain bearing bushing UB
17	Cylinder head screw UB





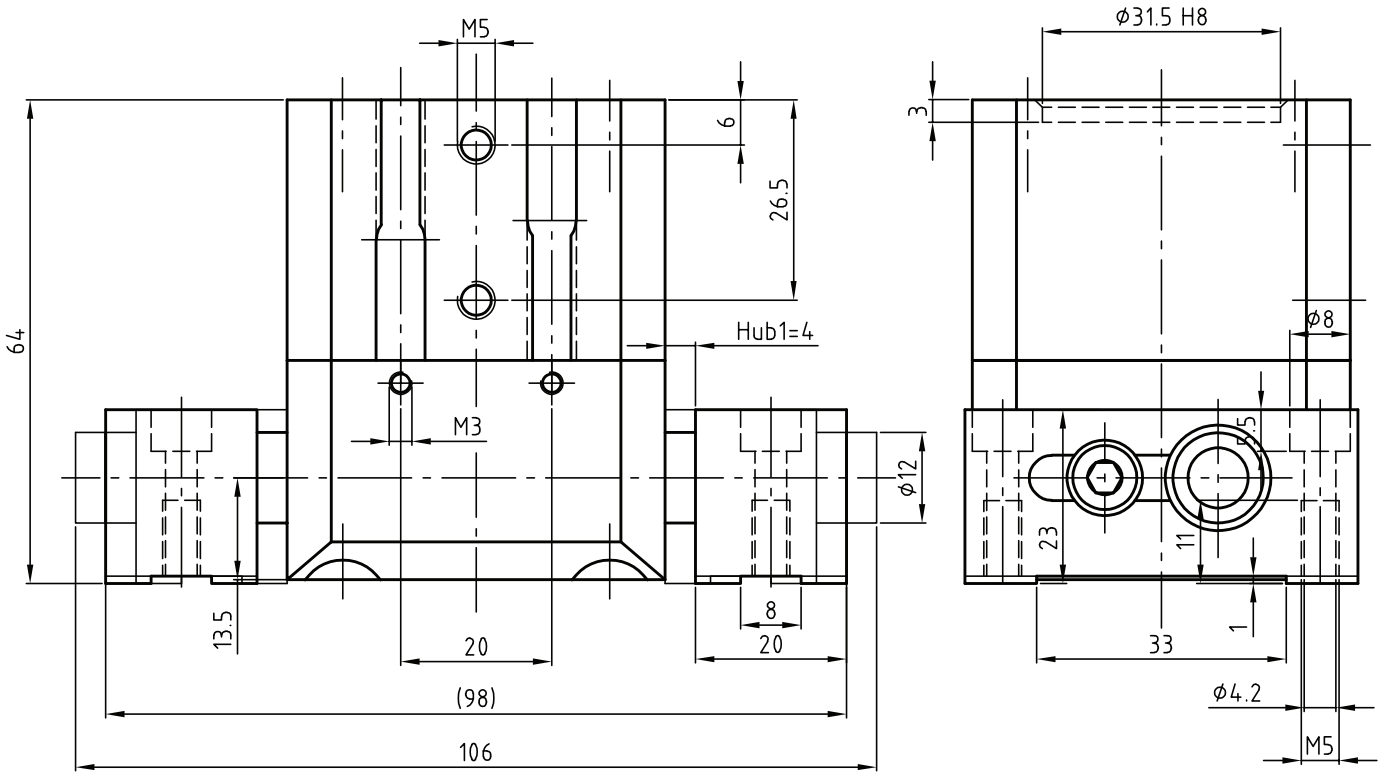


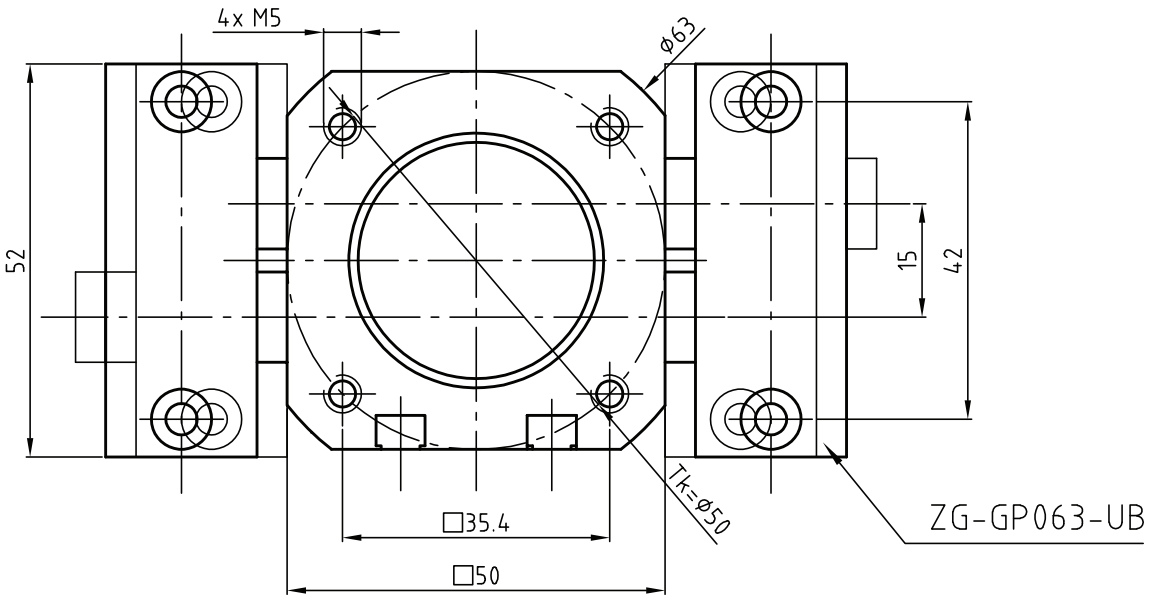
Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

G-GP063-I1-GS

GRIP GmbH Handhabungstechnik

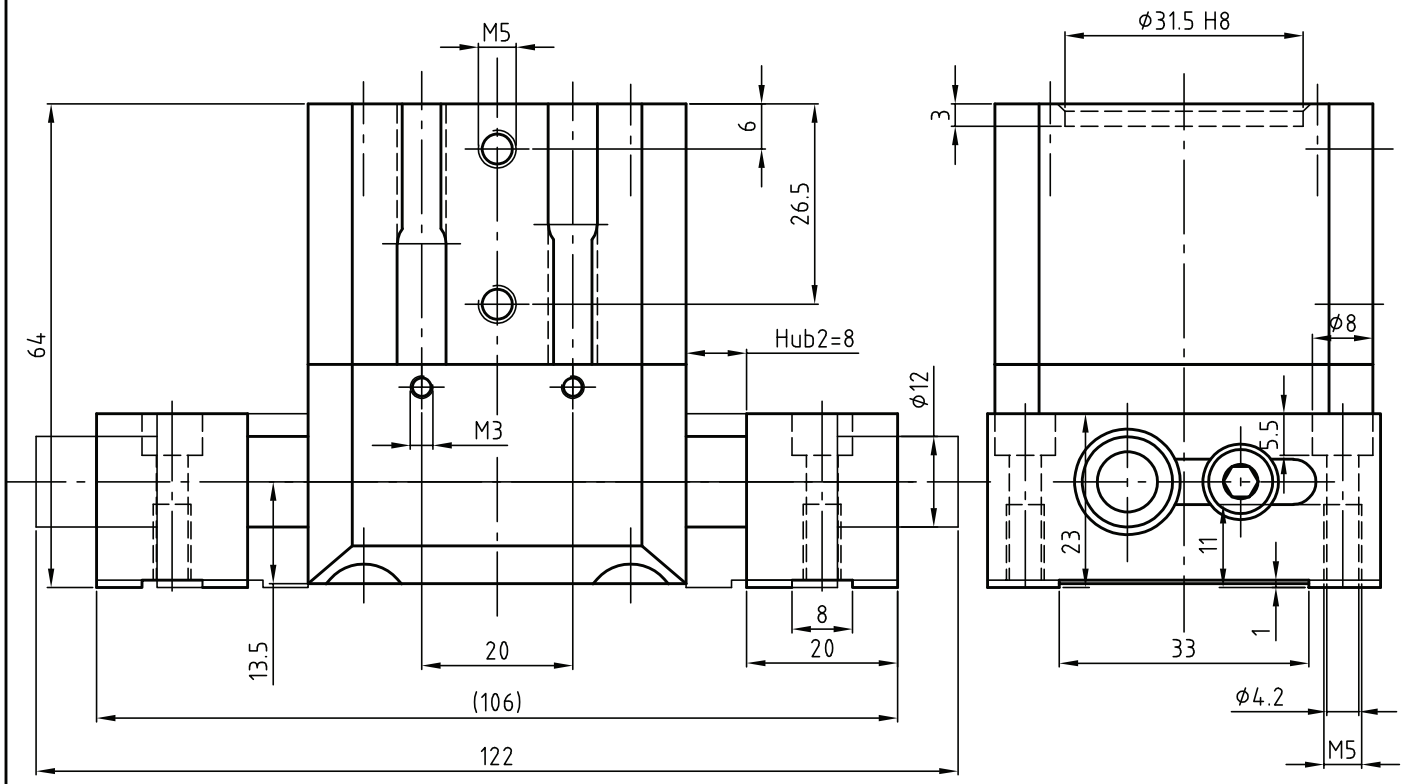


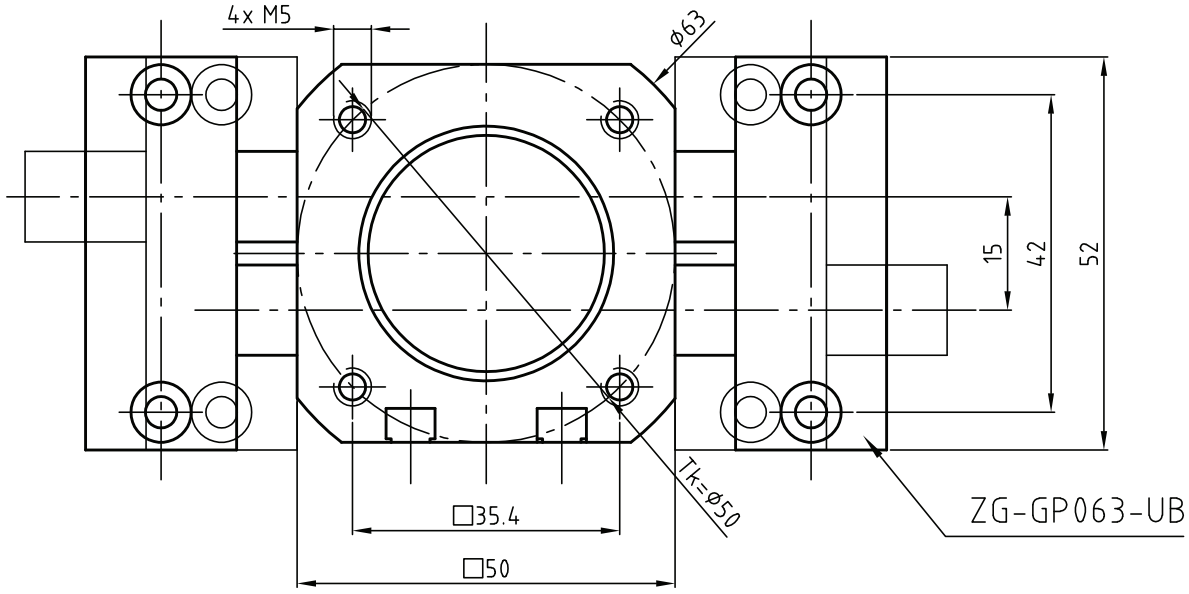


Bestellnummer

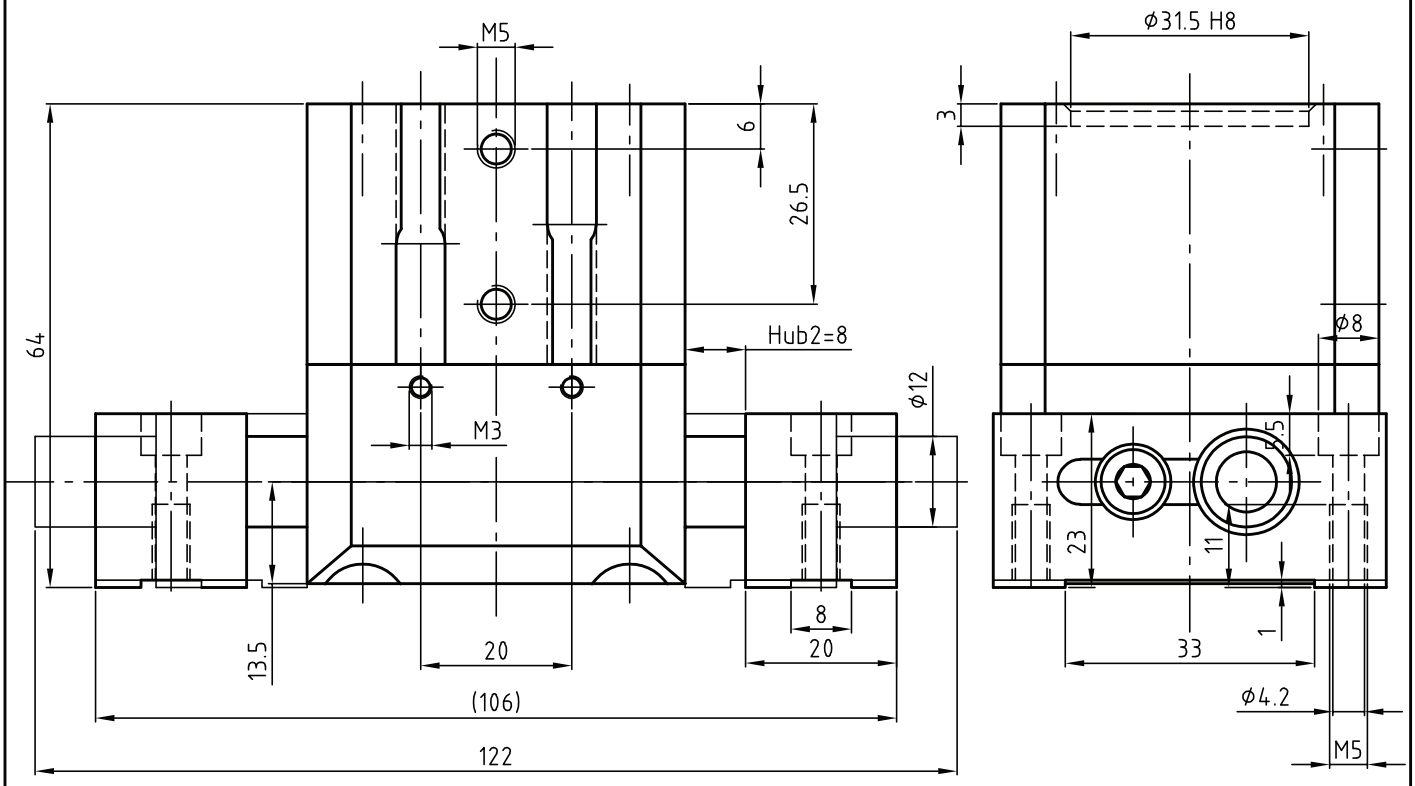
G-GP063-I1-GÖ
G-GP063-I1-O

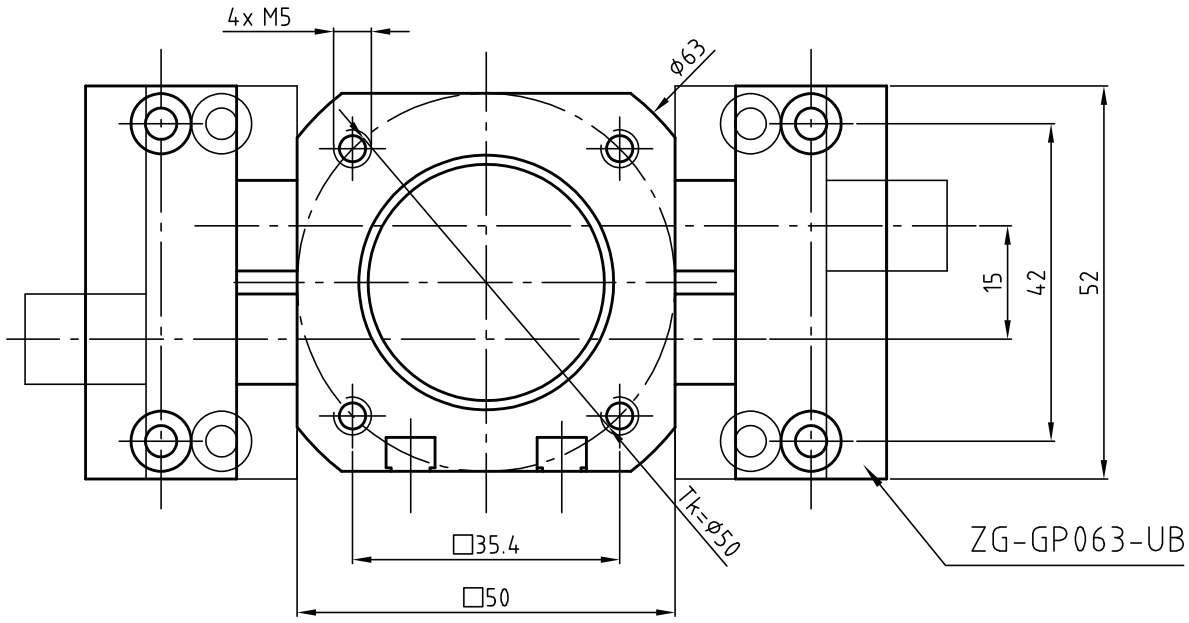
Datum 10.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GP063-I1-O			





Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-GP063-I2-GS		GRIP GmbH Handhabungstechnik

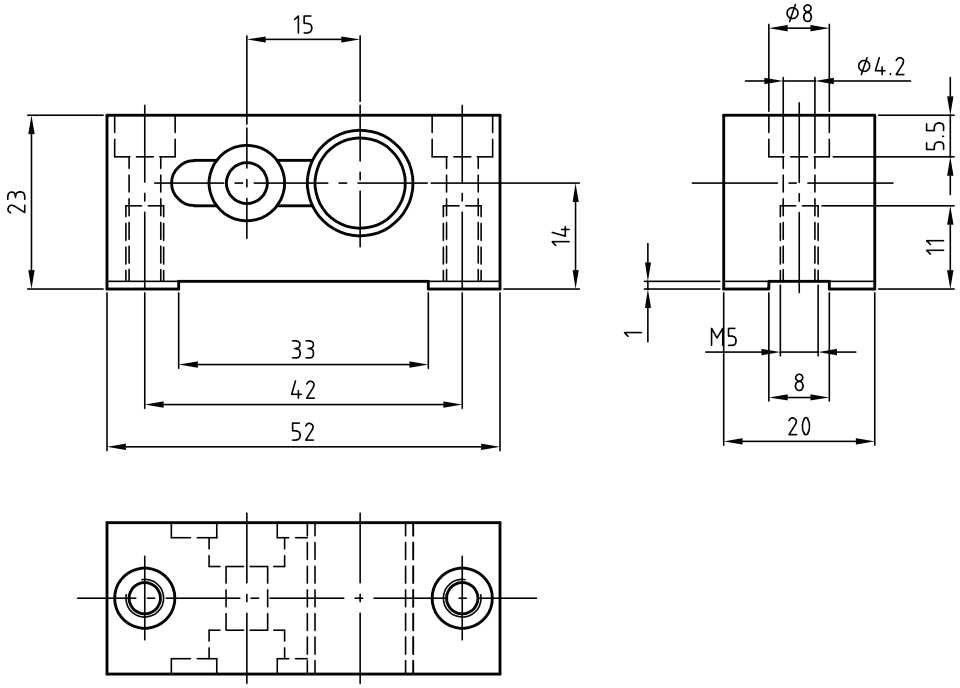




Bestellnummer

G-GP063-I2-GÖ
G-GP063-I2-O

Datum 10.11.2016	Maßstab 1:1	
Zeichnungsnummer G-GP063-I2-O		GRIP GmbH Handhabungstechnik



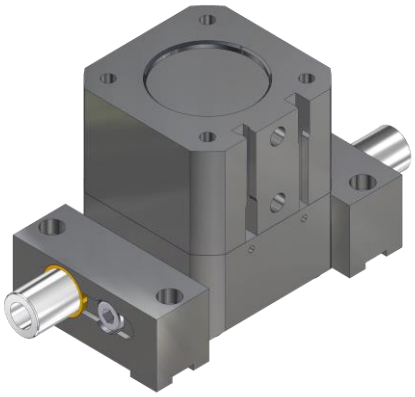
Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

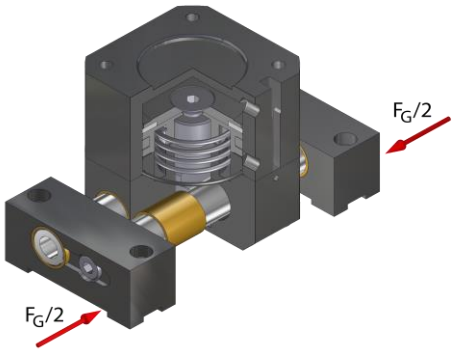
ZG-GP063-UB (Paar)

GRIP GmbH Handhabungstechnik

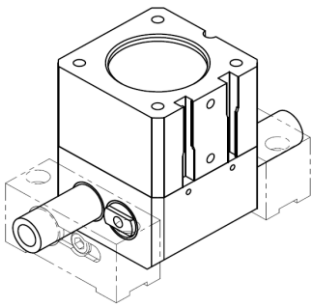
Operating mode:
The double-acting cylinder is operated via pneum. compressed air and actuates the power unit. By two angularly arranged springs, which engage in the grooves of the bolts, the vertical is converted into horizontal movement.
Advantages:
High life span
Two stroke variants stroke 1 or stroke 2
Mechanical interface according to DIN EN ISO 9409-12
Low dead weight
Optional gripping force safety device "opening" via pressure spring (7)
Optional gripping force safety device "closing" via pressure spring (7)
Depending on the mounting, gripping force safety device "closing" or "opening"
Universal jaws (15) for easy mounting of specific fingers
Piston position detection by means of proximity switch ZG-RSGU01 / 300-M8



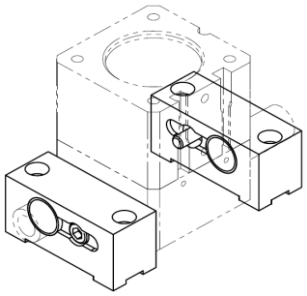
Technical specifications				GP080
Gripping force at 6 bar	FG [N]	stroke 1	opening	1800
			shutting	1600
		stroke 2	opening	900
			shutting	800
Gripping force factor	fg [N/ bar]	stroke 1	opening	300
			shutting	266
		stroke 2	opening	150
			shutting	133
Gripping force safety device	FS [N]	stroke 1	min.	320
			max.	790
		Stroke 2	min.	160
			max.	395
System stroke per jaw	h [mm]	stroke 1		5
		stroke 2		10
Recommended component weight			mw [kg]	15
Weight gripper			mg [kg]	0,9
Operating pressure (with gripping force safety device)				5 …6 bar
Operating pressure (without gripping force safety device)				2 …6 bar
Air consumption per Hub			V [ccm]	19,6
Air connection			Pmax = 10 bar	M5
Mounting flange			ISO	4 x M6 on TK ø63
Operating temperature range [°C]				-30 to +120



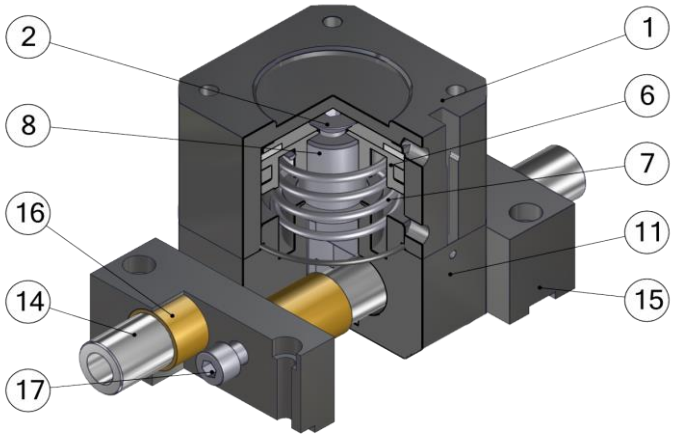
Parallel gripper Ø80…	
G-GP080-I1-GÖ	ISO-flange, Hub 1 gripping force safety device opening
G-GP080-I1-GS	ISO-flange, Hub 1 gripping force safety device shutting
G-GP080-I1-O	ISO-flange, Hub 1 without gripping force safety device
G-GP080-I2-GÖ	ISO-flange, Hub 2 gripping force safety device opening
G-GP080-I2-GS	ISO-flange, Hub 2 gripping force safety device shutting
G-GP080-I2-O	ISO-flange, Hub 2 without gripping force safety device

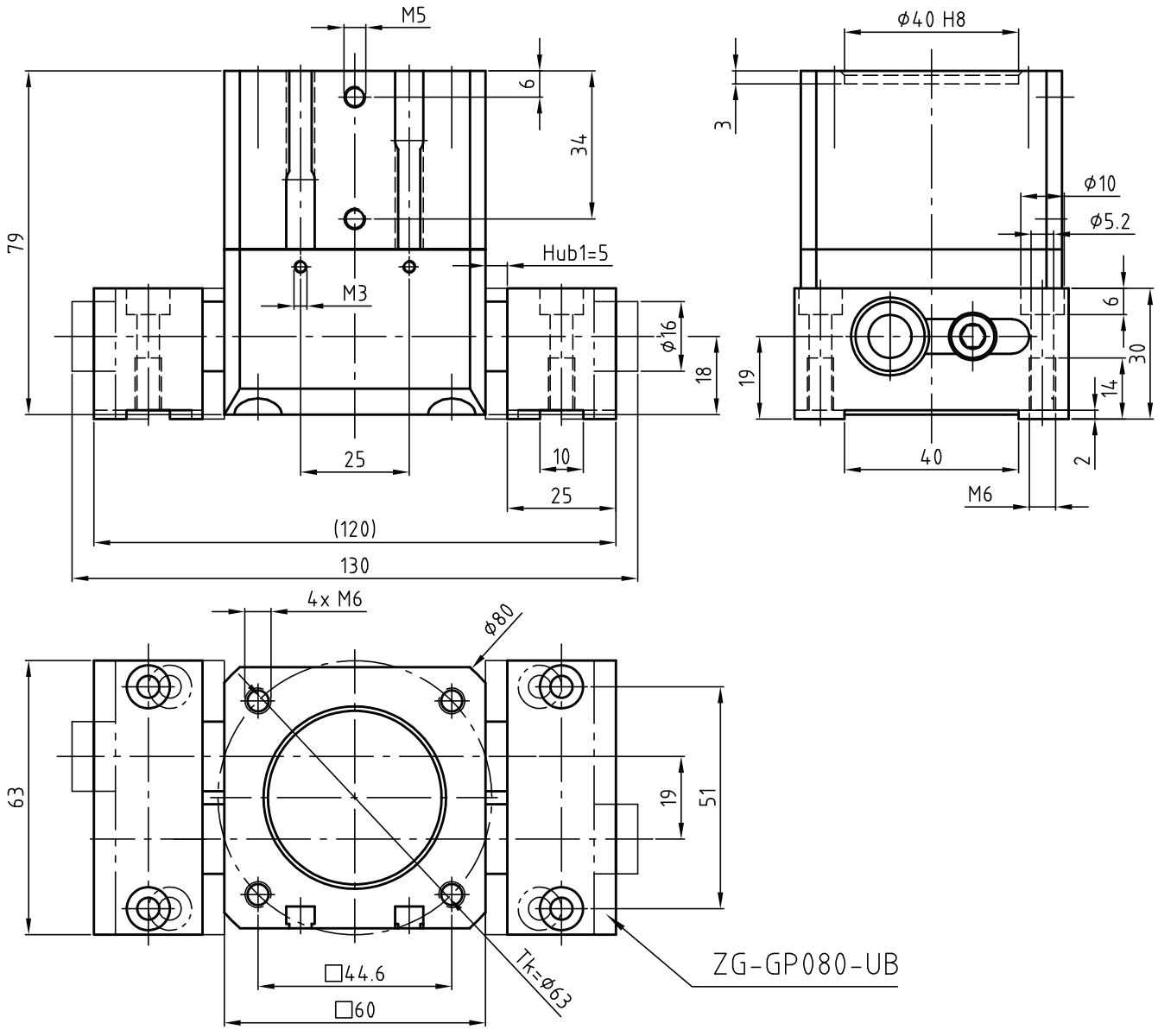


Equipment GP	
ZG-GP080-UB	Universal jaw for GP080 pair
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug
Spare parts GG	
EG-GG080-DS	Gasket set for gripper size 080



Pos.	Description
1	Cylinder ISO
2	Countersunk screw
3	Cap
4	Magnetic ring
5	Quadrat ring 1
6	Cone
7	Compression spring
8	Power unit 1/2
9	Quadrat ring 2
10	O- Ring
11	Housing
12	Cylinder head screw housing
13	Plain bearing bushing housing
14	Bolt 1/2
15	Universal jaw
16	Plain bearing bushing UB
17	Cylinder head screw UB



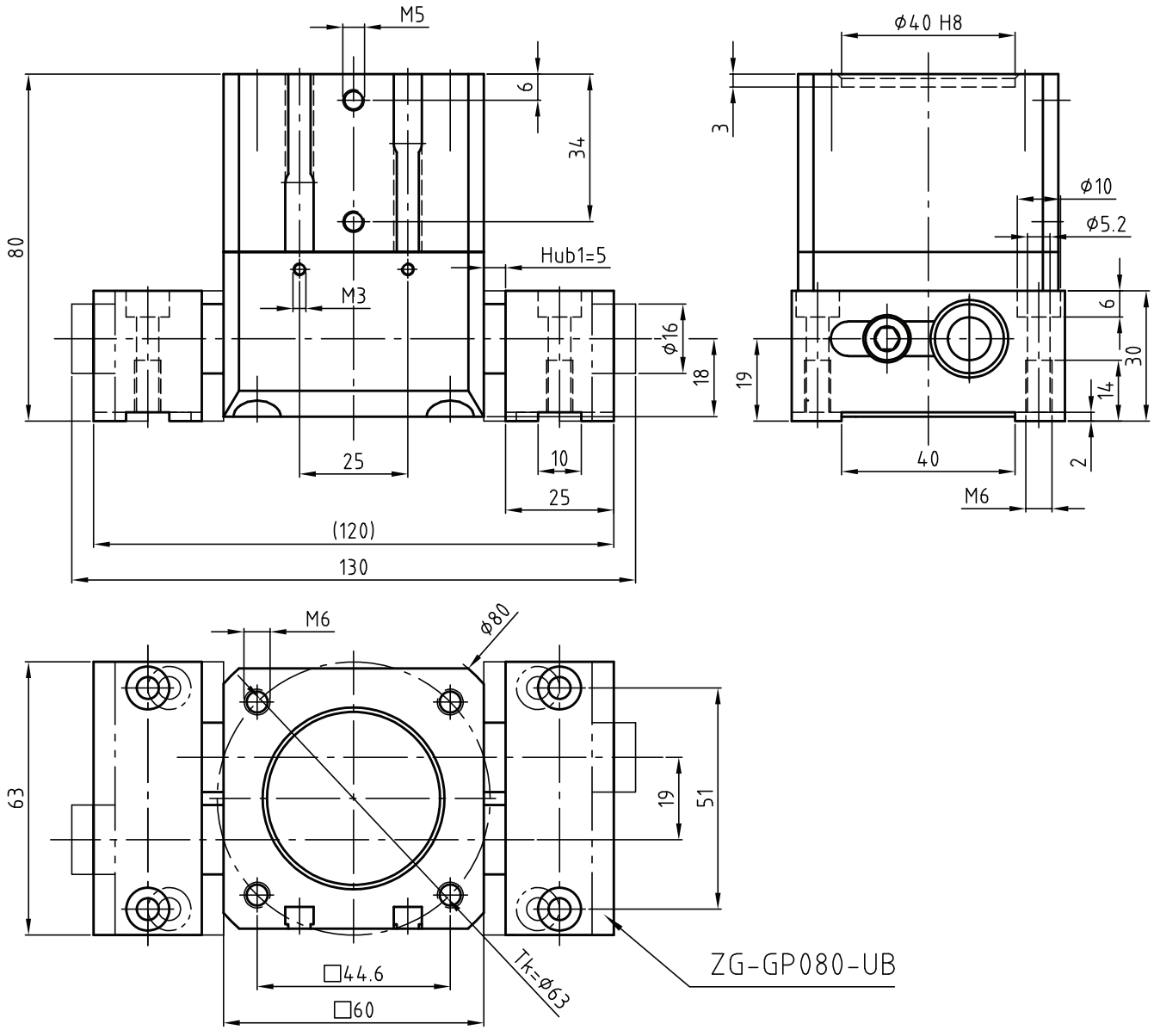


Datum	Maßstab	
10.11.2016	1:1.5	

Zeichnungsnummer

G-GP080-I1-GS

GRIP GmbH Handhabungstechnik

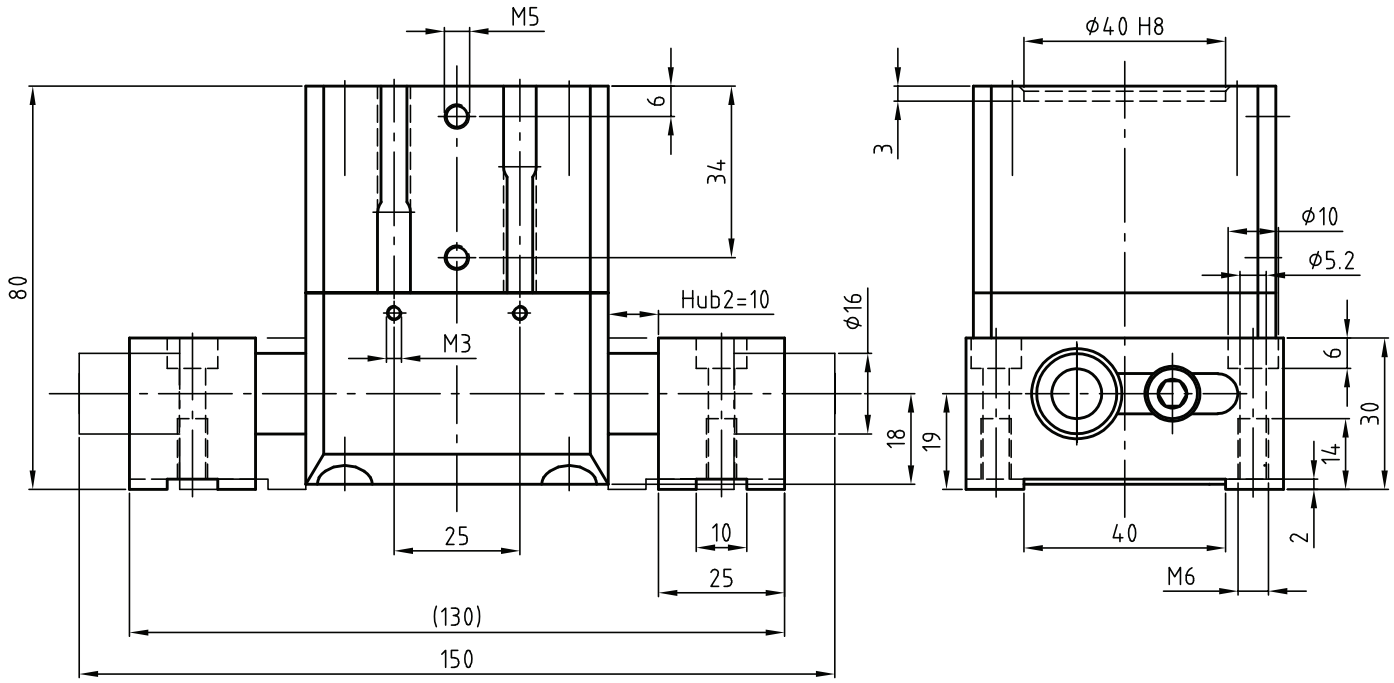


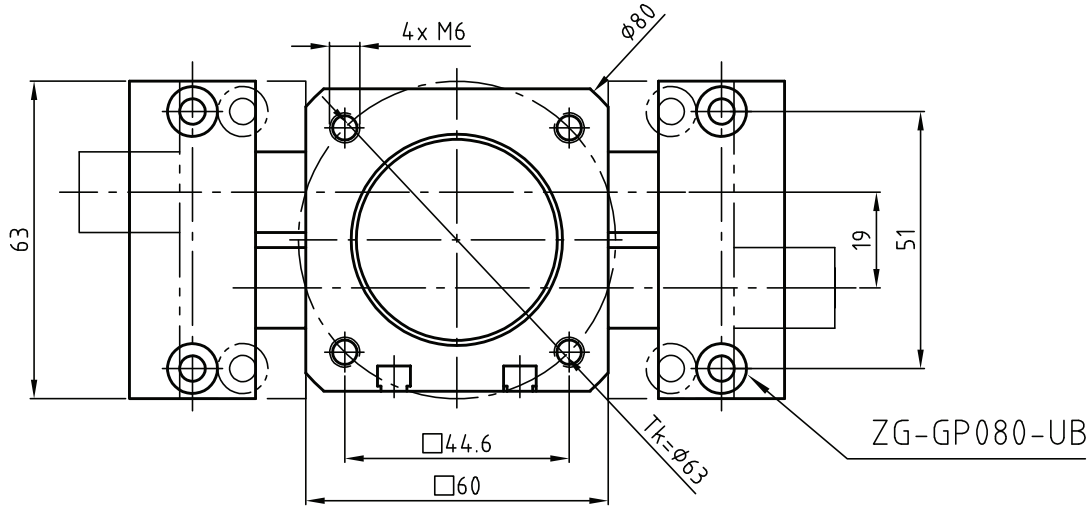
Bestellnummer

G-GP080-I1-GÖ

G-GP080-I1-O

Datum 10.11.2016	Maßstab 1:1.5	
Zeichnungsnummer G-GP080-I1-O		GRIP GmbH Handhabungstechnik



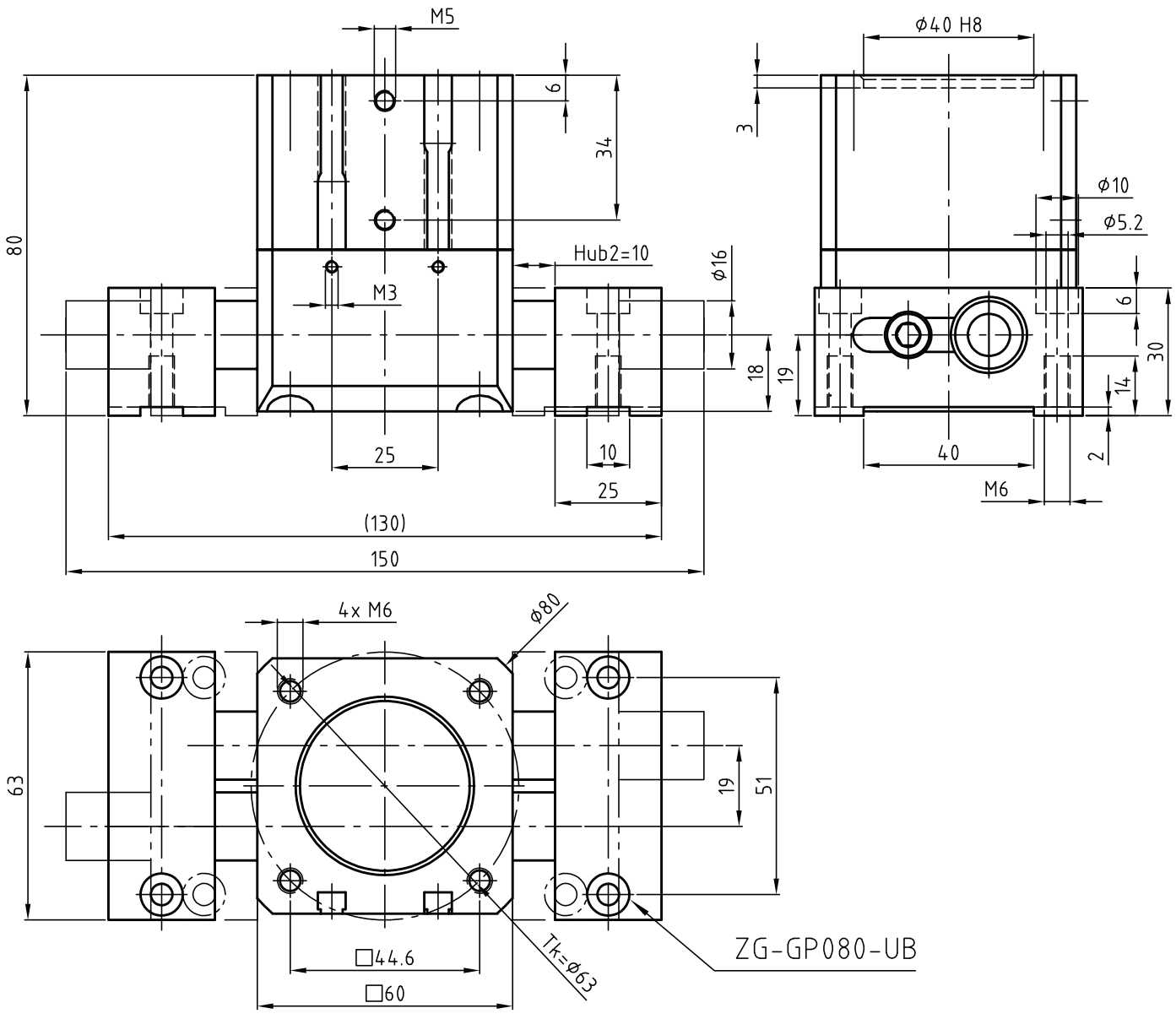


Datum	Maßstab	
10.11.2016	1:1.5	

Zeichnungsnummer

G-GP080-I2-GS

GRIP GmbH Handhabungstechnik

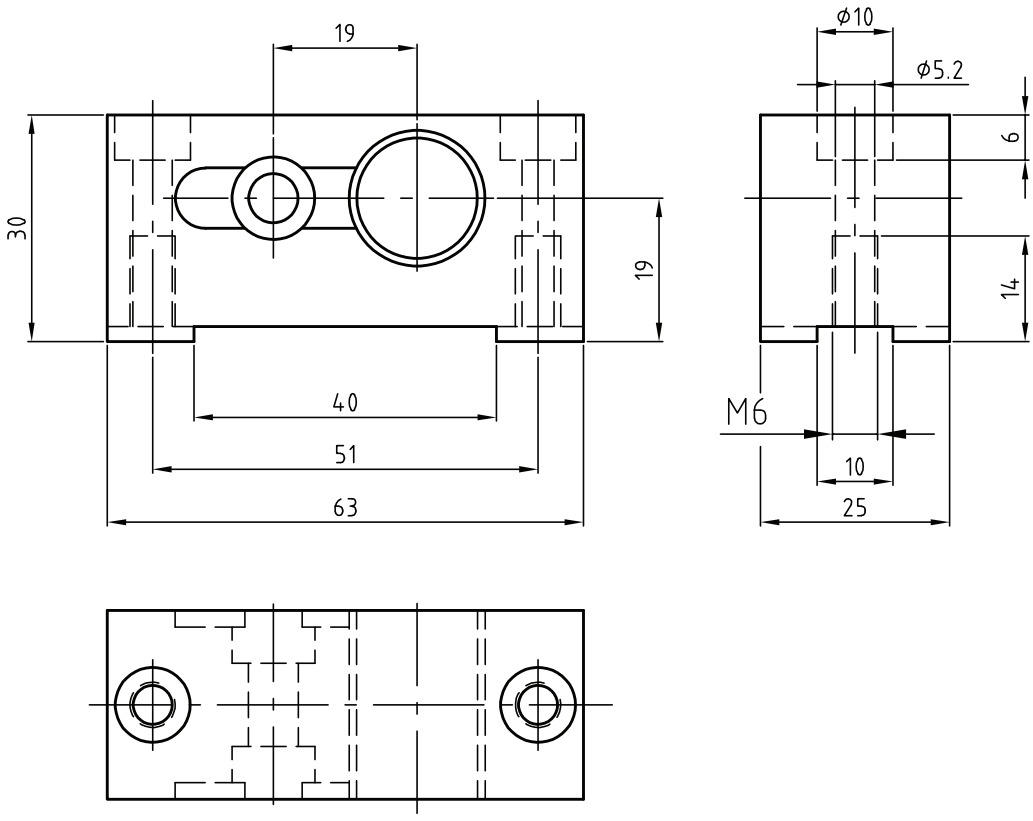


Bestellnummer

G-GP080-I2-GÖ

G-GP080-I2-O

Datum 10.11.2016	Maßstab 1:1.5	
Zeichnungsnummer G-GP080-I2-O		GRIP GmbH Handhabungstechnik



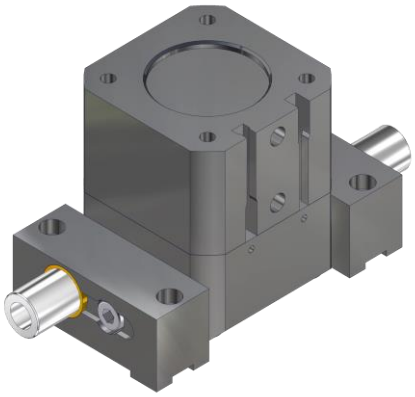
Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

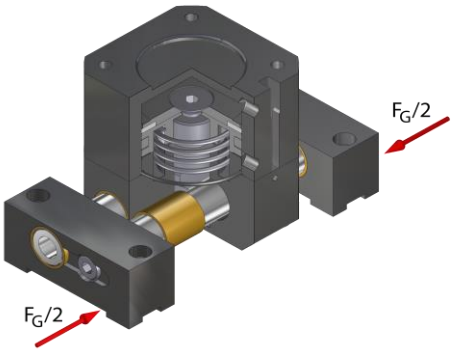
ZG-GP080-UB (Paar)

GRIP GmbH Handhabungstechnik

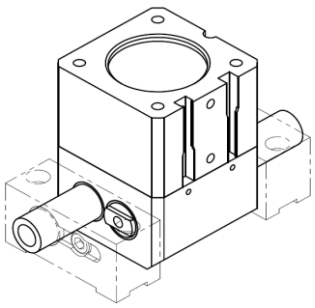
Operating mode:
The double-acting cylinder is operated via pneum. compressed air and actuates the power unit. By two angularly arranged springs, which engage in the grooves of the bolts, the vertical is converted into horizontal movement.
Advantages:
High life span
Two stroke variants stroke 1 or stroke 2
Mechanical interface according to DIN EN ISO 9409-12
Low dead weight
Optional gripping force safety device "opening" via pressure spring (7)
Optional gripping force safety device "closing" via pressure spring (7)
Depending on the mounting, gripping force safety device "closing" or "opening"
Universal jaws (15) for easy mounting of specific fingers
Piston position detection by means of proximity switch ZG-RSGU01 / 300-M8



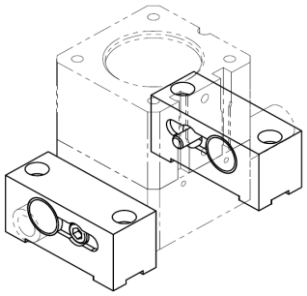
Technical specifications				GP100
Gripping force at 6 bar	FG [N]	stroke 1	opening	3200
			shutting	2800
		stroke 2	opening	1600
			shutting	1400
Gripping force factor	fg [N/ bar]	stroke 1	opening	530
			shutting	466
		stroke 2	opening	265
			shutting	233
Gripping force safety device	FS [N]	stroke 1	min.	770
			max.	1500
		Stroke 2	min.	385
			max.	750
System stroke per jaw	h [mm]	stroke 1		6
		stroke 2		12
Recommended component weight			mw [kg]	25
Weight gripper			mg [kg]	1,9
Operating pressure (with gripping force safety device)				5 …6 bar
Operating pressure (without gripping force safety device)				2 …6 bar
Air consumption per Hub			V [ccm]	38,6
Air connection			Pmax = 10 bar	G 1/8
Mounting flange			ISO	4 x M8 on TK ø80
Operating temperature range [°C]				-30 to +120



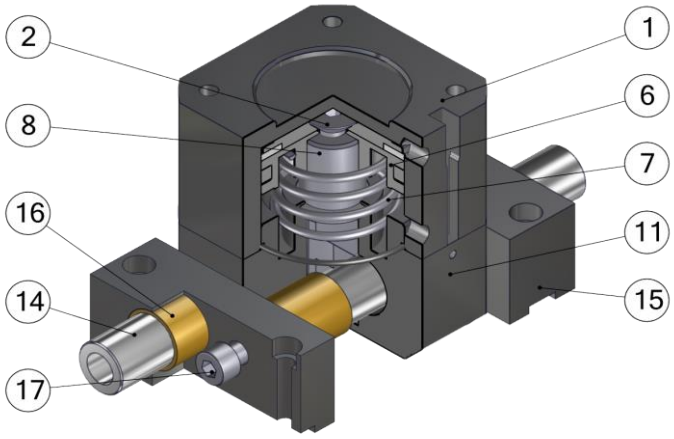
Parallel gripper Ø100…	
G-GP100-I1-GÖ	ISO-flange, Hub 1 gripping force safety device opening
G-GP100-I1-GS	ISO-flange, Hub 1 gripping force safety device shutting
G-GP100-I1-O	ISO-flange, Hub 1 without gripping force safety device
G-GP100-I2-GÖ	ISO-flange, Hub 2 gripping force safety device opening
G-GP100-I2-GS	ISO-flange, Hub 2 gripping force safety device shutting
G-GP100-I2-O	ISO-flange, Hub 2 without gripping force safety device

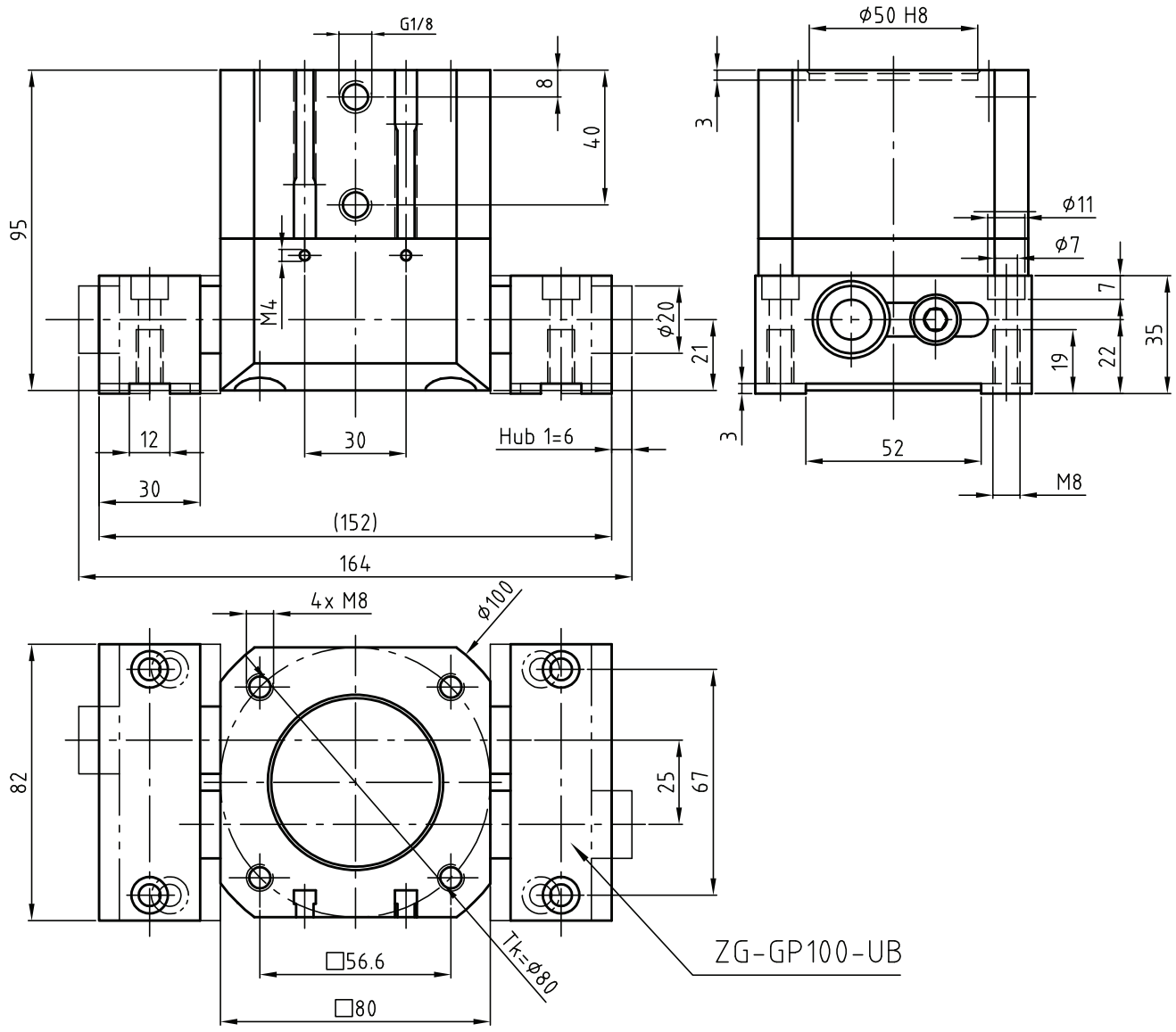


Equipment GP	
ZG-GP100-UB	Universal jaw for GP100 pair
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug
Spare parts GG	
EG-GG100-DS	Gasket set for gripper size 100



Pos.	Description
1	Cylinder ISO
2	Countersunk screw
3	Cap
4	Magnetic ring
5	Quadrat ring 1
6	Cone
7	Compression spring
8	Power unit 1/2
9	Quadrat ring 2
10	O- Ring
11	Housing
12	Cylinder head screw housing
13	Plain bearing bushing housing
14	Bolt 1/2
15	Universal jaw
16	Plain bearing bushing UB
17	Cylinder head screw UB



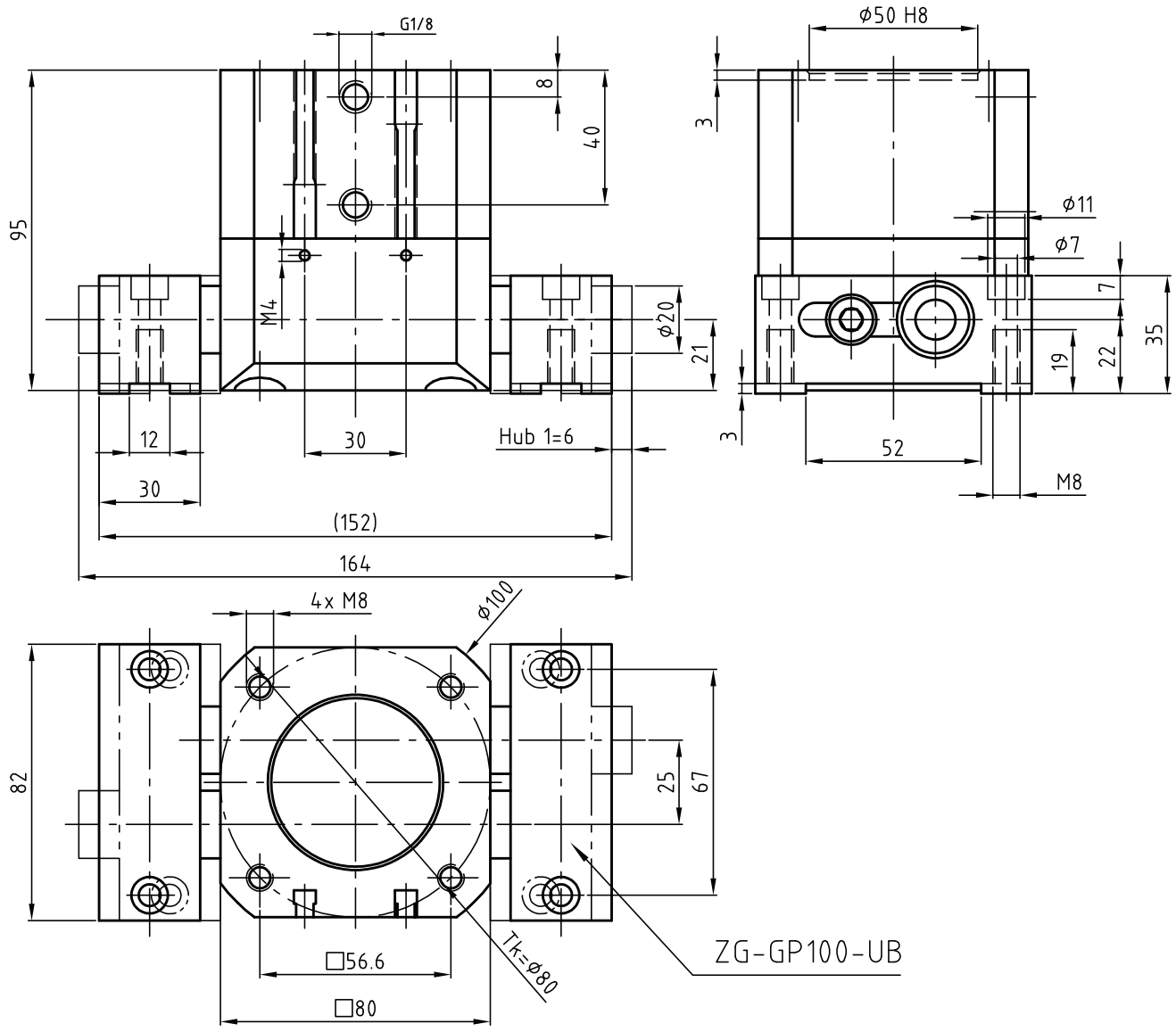


Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

G-GP100-I1-GS

GRIP GmbH Handhabungstechnik

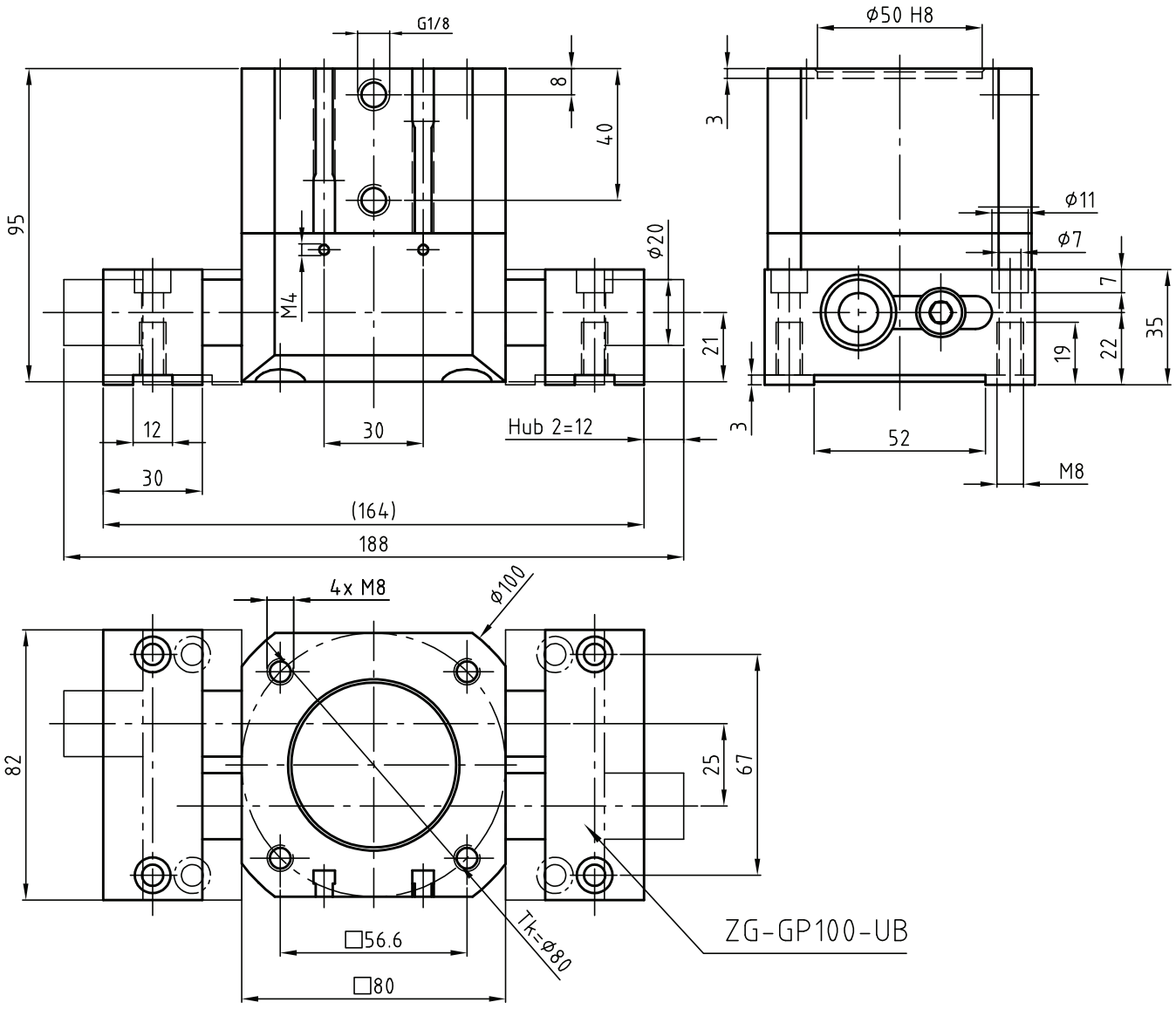


Bestellnummer

G-GP100-I1-GÖ

G-GP100-I1-O

Datum 10.11.2016	Maßstab 1:2	
Zeichnungsnummer G-GP100-I1-O		GRIP GmbH Handhabungstechnik

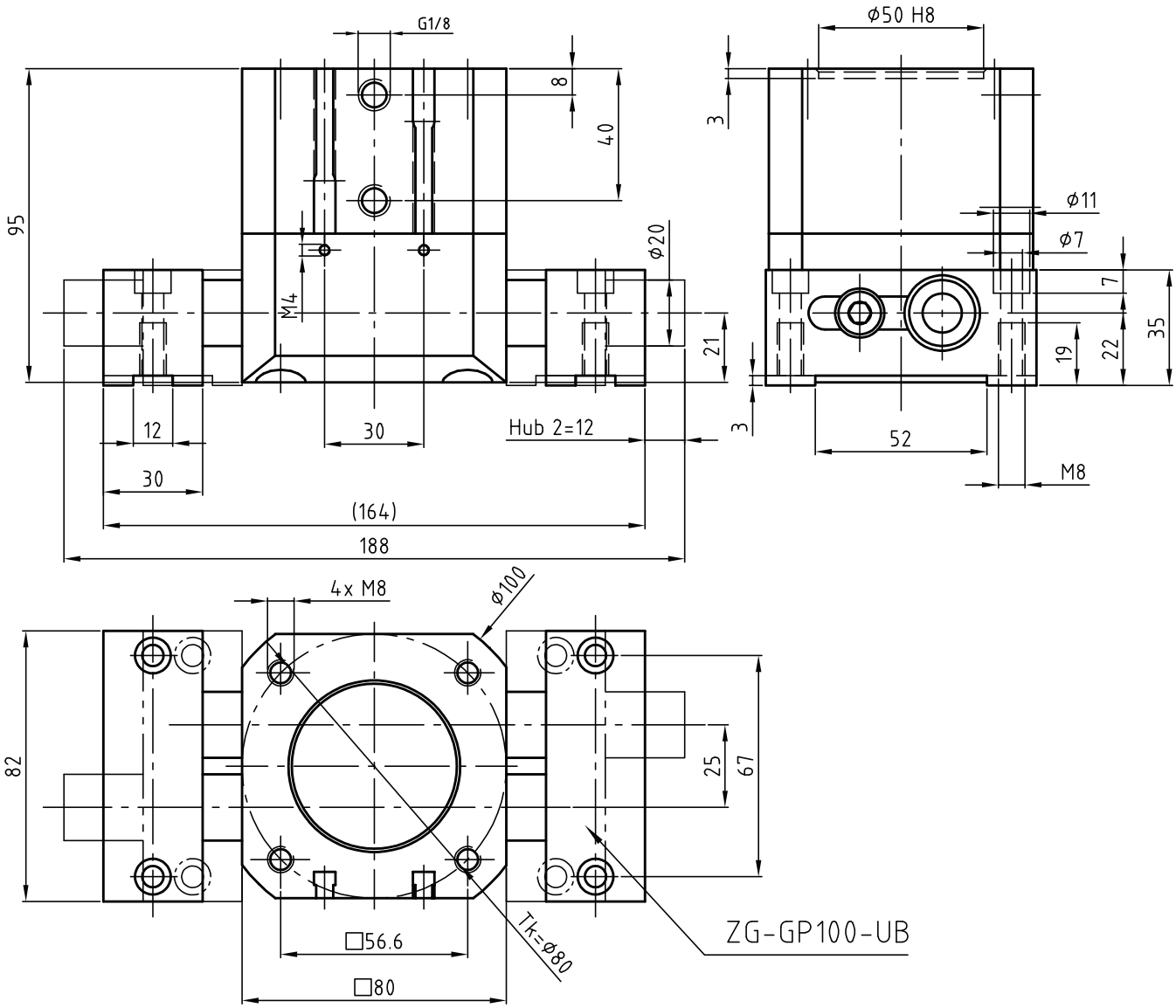


Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

G-GP100-I2-GS

GRIP GmbH Handhabungstechnik

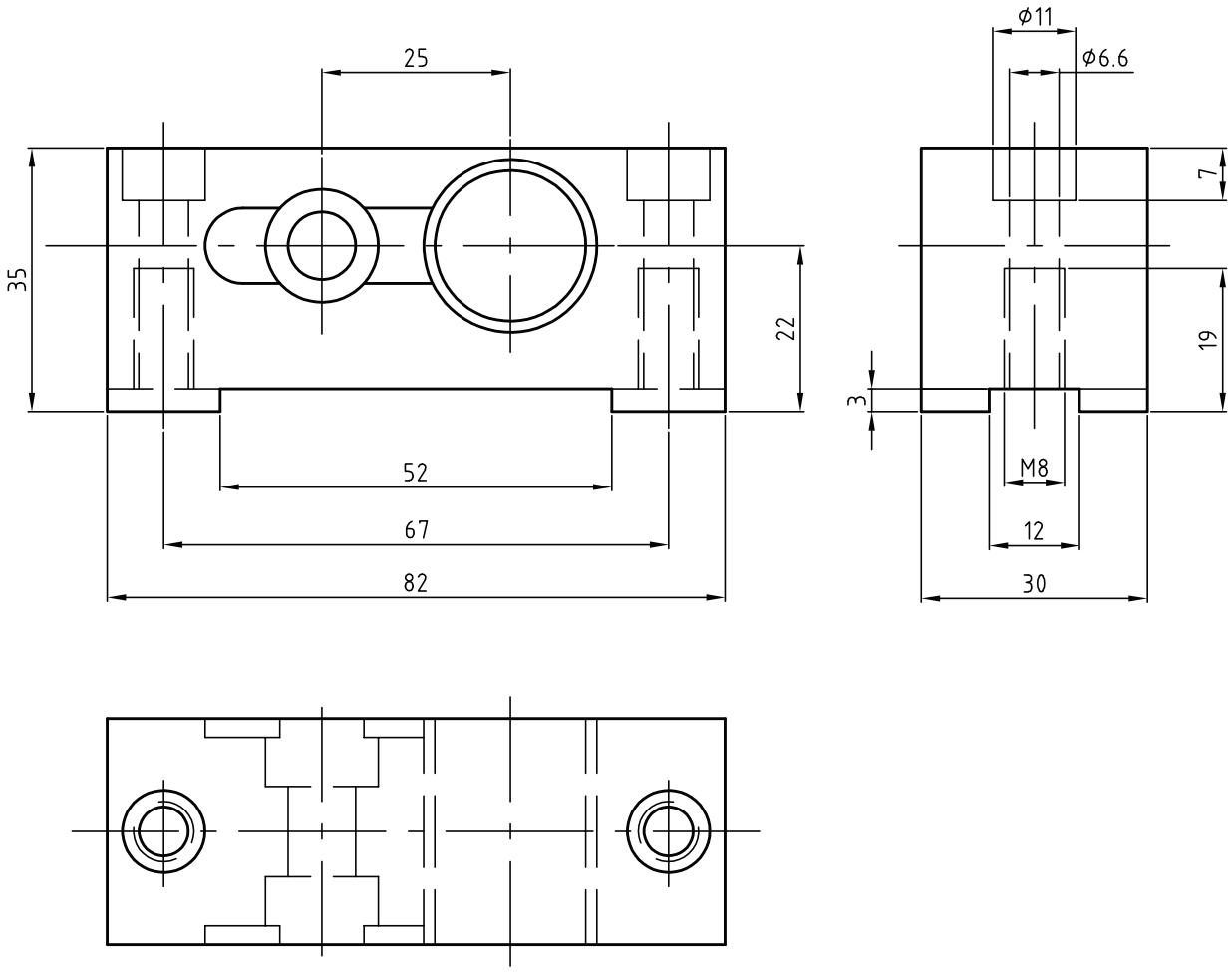


Bestellnummer

G-GP100-I2-GÖ

G-GP100-I2-O

Datum 10.11.2016	Maßstab 1:2	
Zeichnungsnummer G-GP100-I2-O		GRIP GmbH Handhabungstechnik



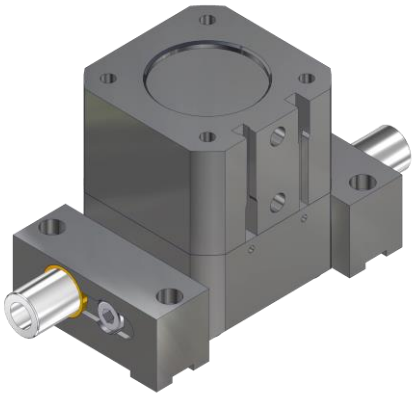
Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

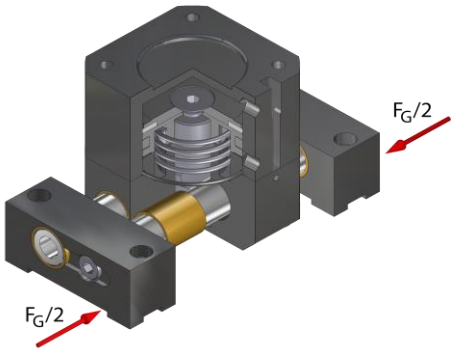
ZG-GP100-UB (Paar)

GRIP GmbH Handhabungstechnik

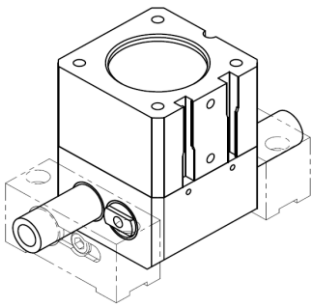
Operating mode:
The double-acting cylinder is operated via pneum. compressed air and actuates the power unit. By two angularly arranged springs, which engage in the grooves of the bolts, the vertical is converted into horizontal movement.
Advantages:
High life span
Two stroke variants stroke 1 or stroke 2
Mechanical interface according to DIN EN ISO 9409-12
Low dead weight
Optional gripping force safety device "opening" via pressure spring (7)
Optional gripping force safety device "closing" via pressure spring (7)
Depending on the mounting, gripping force safety device "closing" or "opening"
Universal jaws (15) for easy mounting of specific fingers
Piston position detection by means of proximity switch ZG-RSGU01 / 300-M8



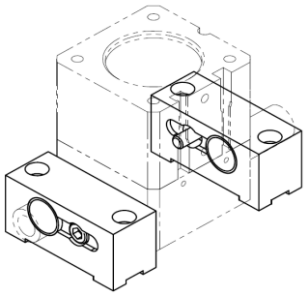
Technical specifications				GP125
Gripping force at 6 bar	FG [N]	stroke 1	opening	4900
			shutting	4100
		stroke 2	opening	2450
			shutting	2050
Gripping force factor	fg [N/ bar]	stroke 1	opening	816
			shutting	683
		stroke 2	opening	408
			shutting	341,5
Gripping force safety device	FS [N]	stroke 1	min.	1100
			max.	2200
		Stroke 2	min.	550
			max.	1100
System stroke per jaw	h [mm]	stroke 1		7
		stroke 2		14
Recommended component weight			mw [kg]	40
Weight gripper			mg [kg]	3
Operating pressure (with gripping force safety device)				5 …6 bar
Operating pressure (without gripping force safety device)				2 …6 bar
Air consumption per Hub			V [ccm]	70,4
Air connection			Pmax = 10 bar	G 1/8
Mounting flange			ISO	4 x M8 on TK ø100
Operating temperature range [°C]				-30 to +120



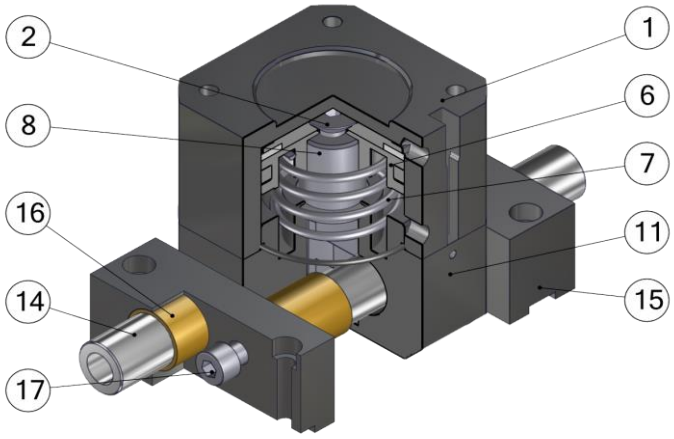
Parallel gripper Ø125…	
G-GP125-I1-GÖ	ISO-flange, Hub 1 gripping force safety device opening
G-GP125-I1-GS	ISO-flange, Hub 1 gripping force safety device shutting
G-GP125-I1-O	ISO-flange, Hub 1 without gripping force safety device
G-GP125-I2-GÖ	ISO-flange, Hub 2 gripping force safety device opening
G-GP125-I2-GS	ISO-flange, Hub 2 gripping force safety device shutting
G-GP125-I2-O	ISO-flange, Hub 2 without gripping force safety device

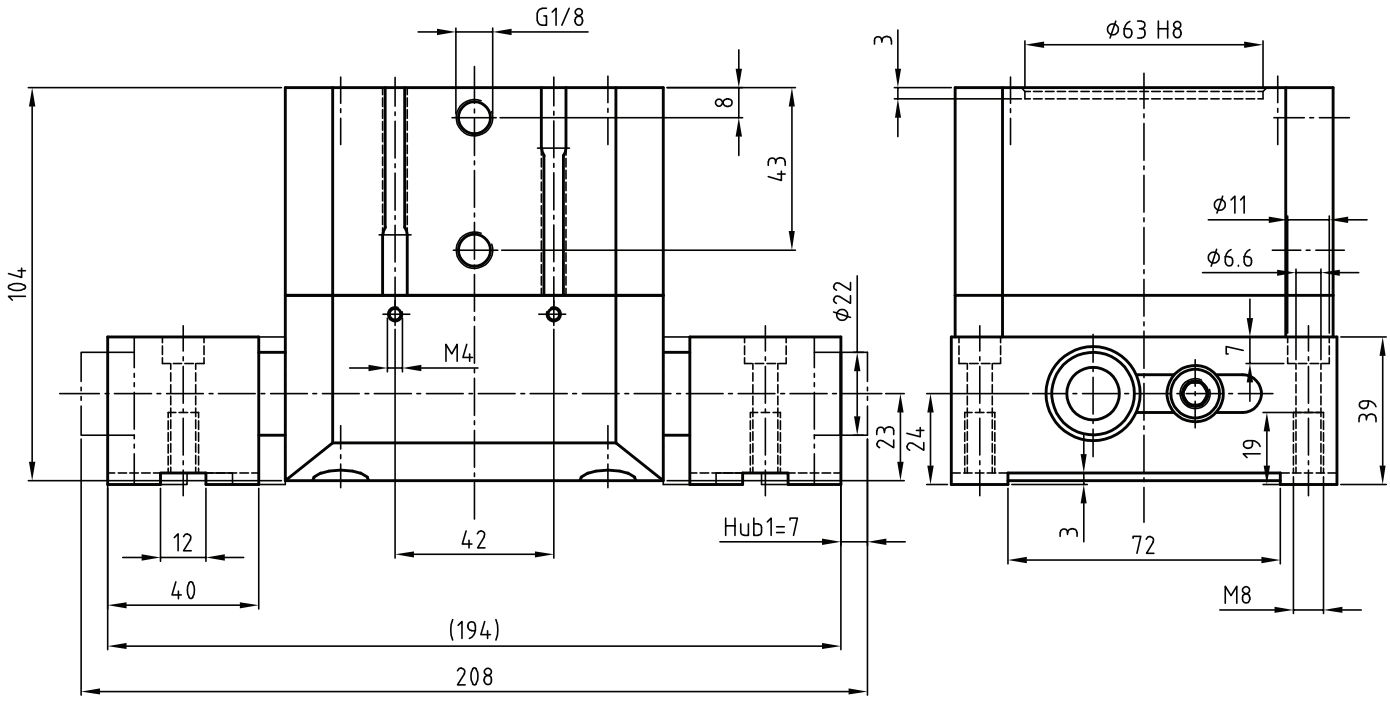


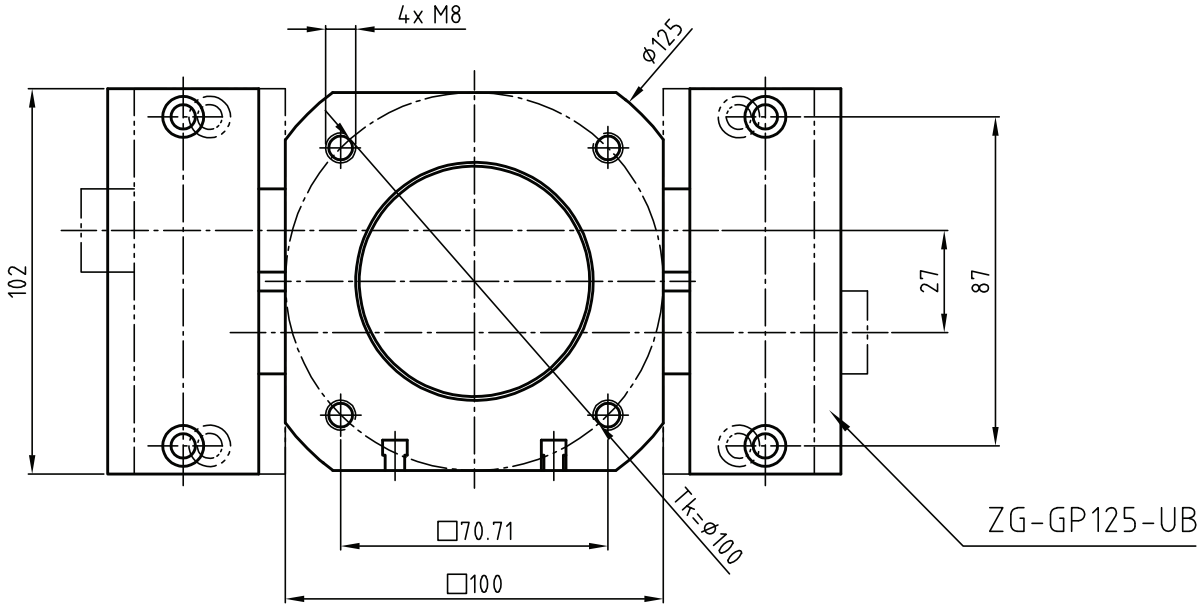
Equipment GP	
ZG-GP125-UB	Universal jaw for GP125 pair
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug
Spare parts GG	
EG-GG125-DS	Gasket set for gripper size 125



Pos.	Description
1	Cylinder ISO
2	Countersunk screw
3	Cap
4	Magnetic ring
5	Quadrat ring 1
6	Cone
7	Compression spring
8	Power unit 1/2
9	Quadrat ring 2
10	O- Ring
11	Housing
12	Cylinder head screw housing
13	Plain bearing bushing housing
14	Bolt 1/2
15	Universal jaw
16	Plain bearing bushing UB
17	Cylinder head screw UB





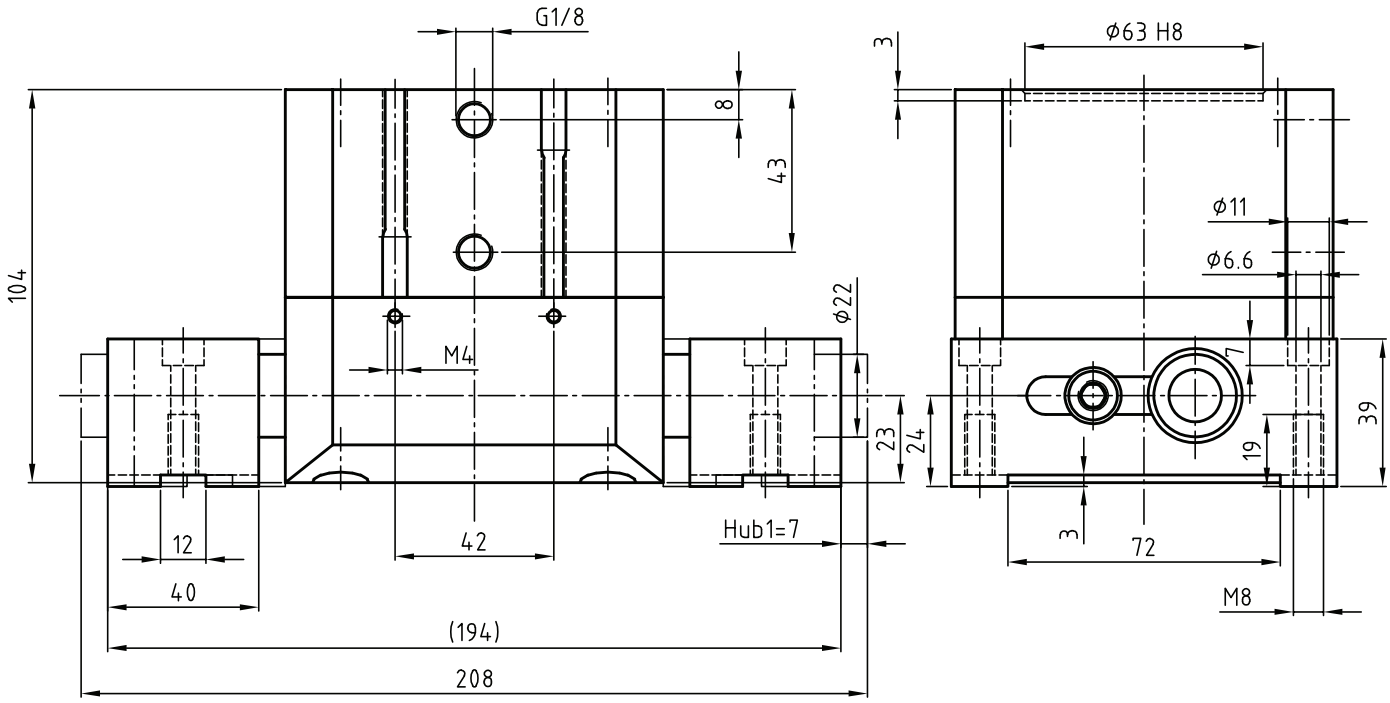


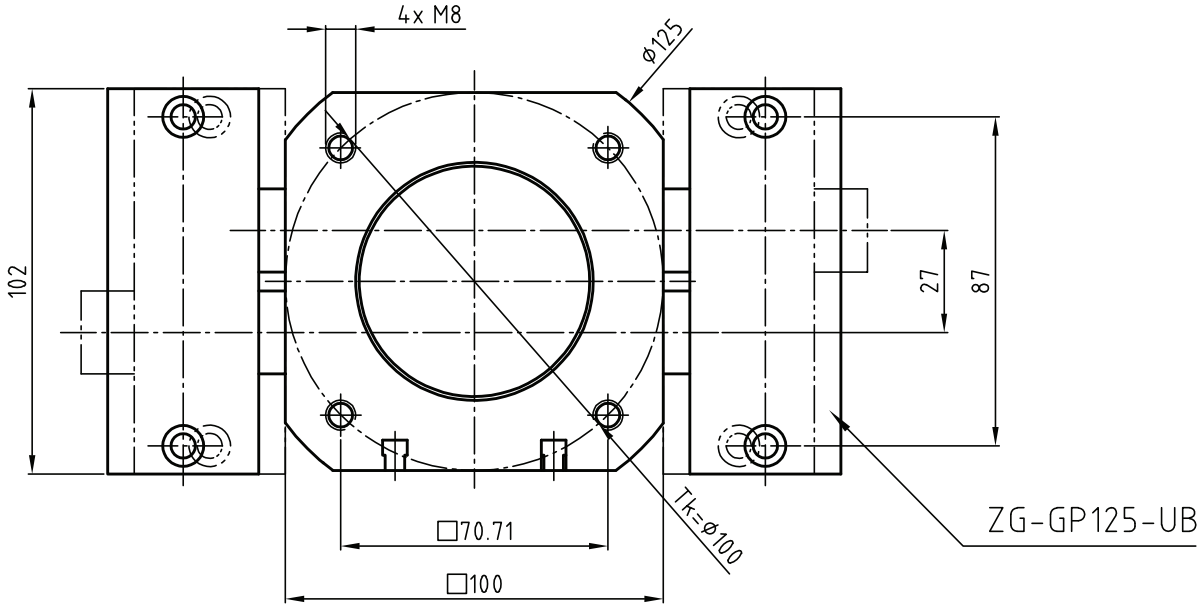
Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

G-GP125-I1-GS

GRIP GmbH Handhabungstechnik



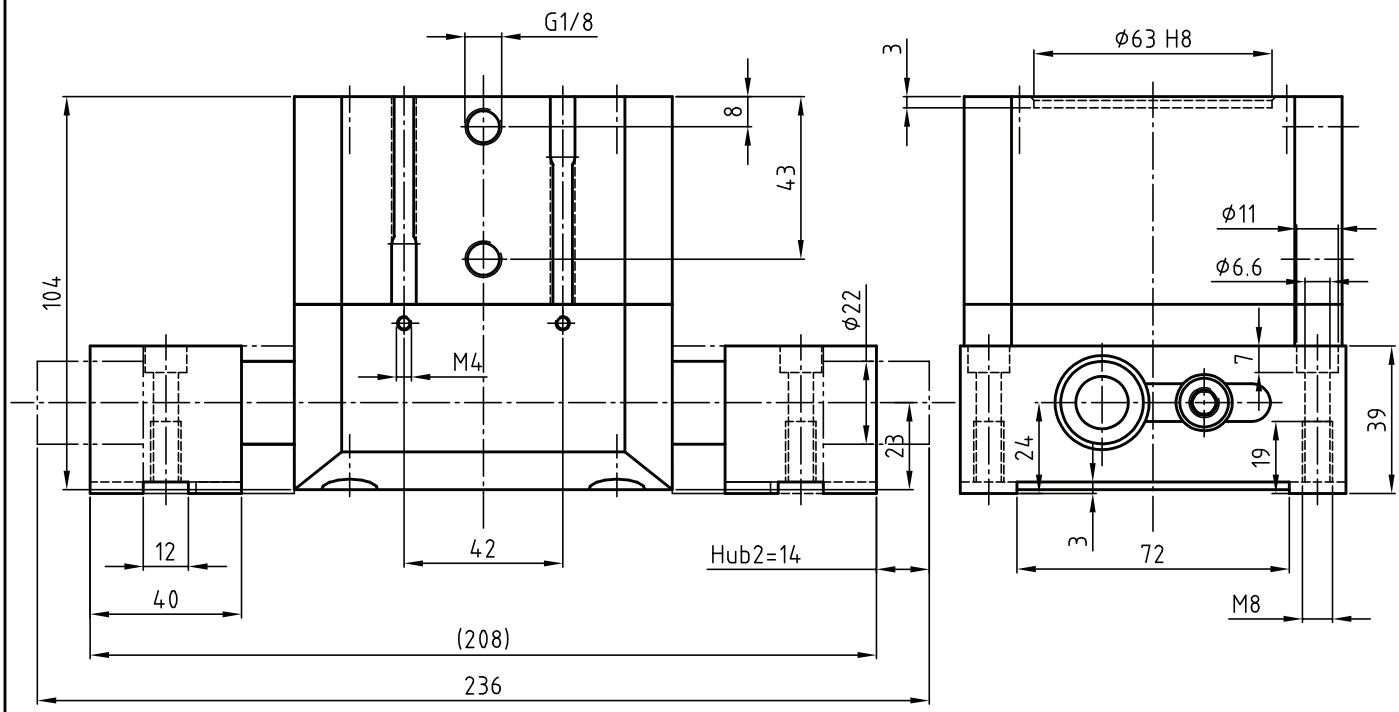


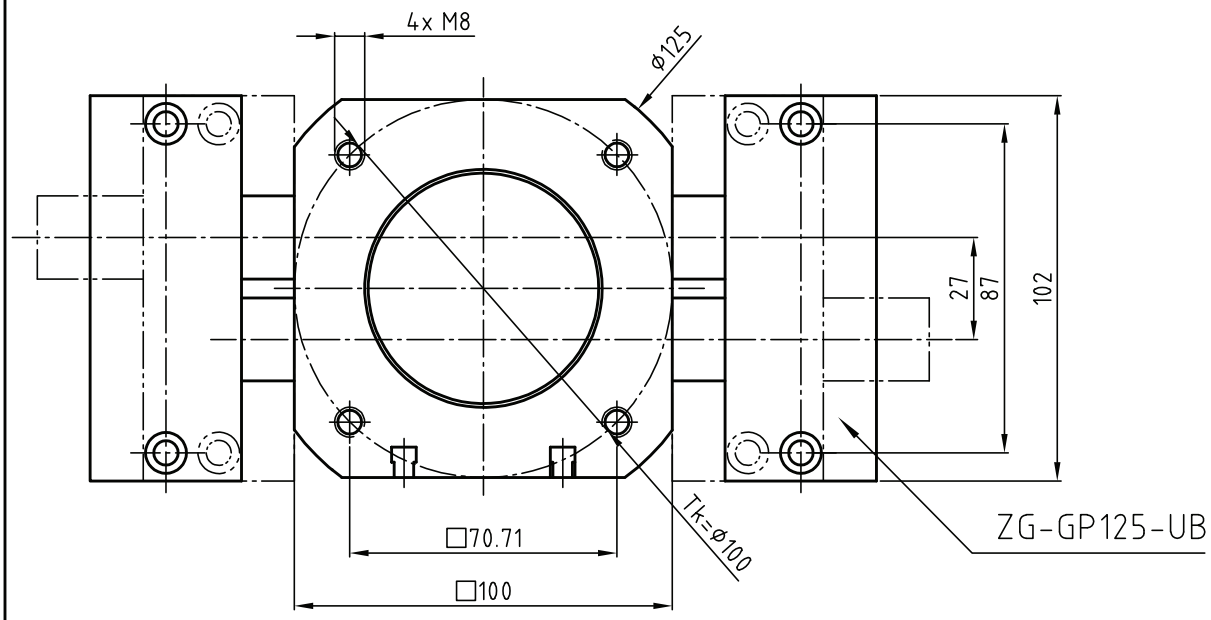
Bestellnummer

G-GP125-I1-GÖ

G-GP125-I1-O

Datum 10.11.2016	Maßstab 1:2	
Zeichnungsnummer G-GP125-I1-O		GRIP GmbH Handhabungstechnik



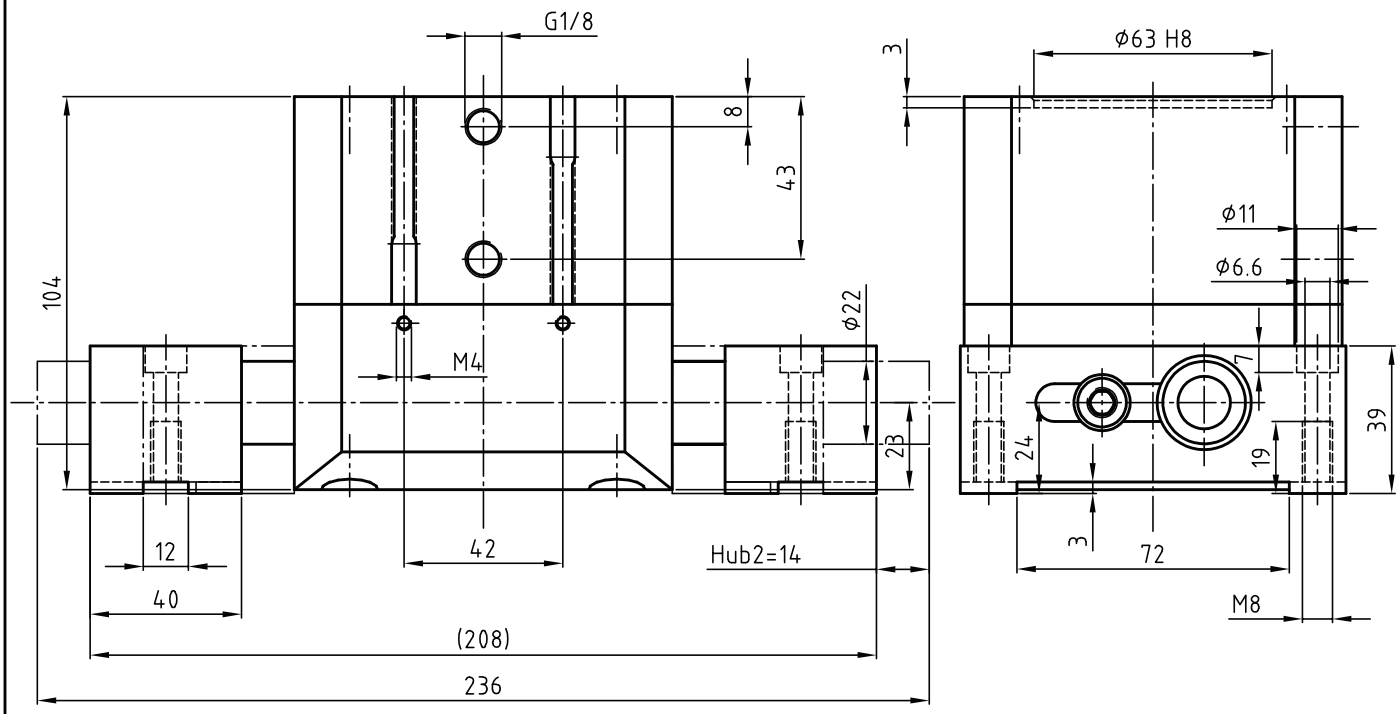


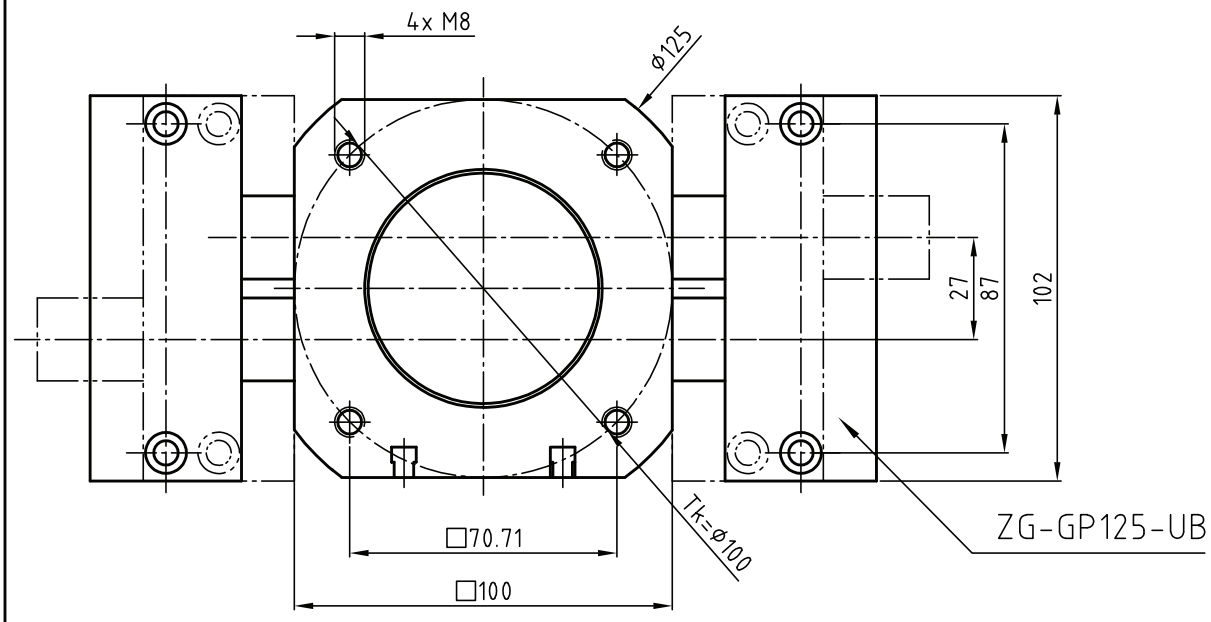
Datum	Maßstab	
10.11.2016	1:2	

Zeichnungsnummer

G-GP125-I2-GS

GRIP GmbH Handhabungstechnik



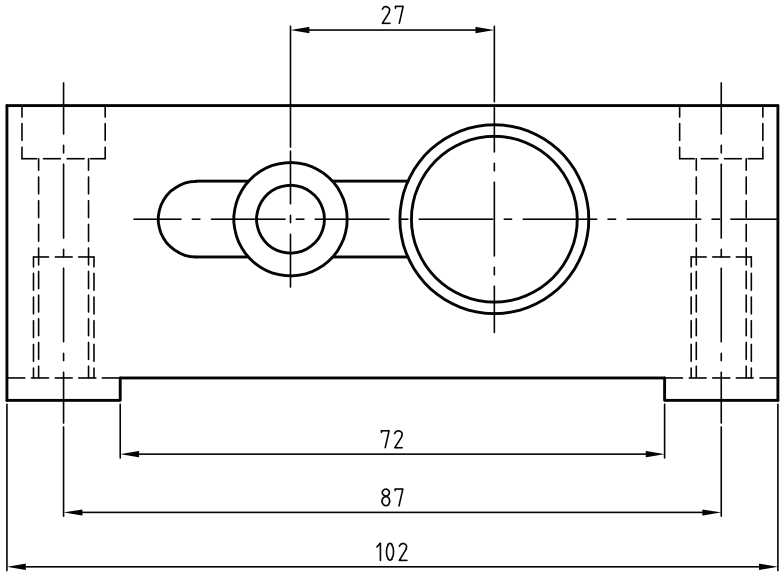


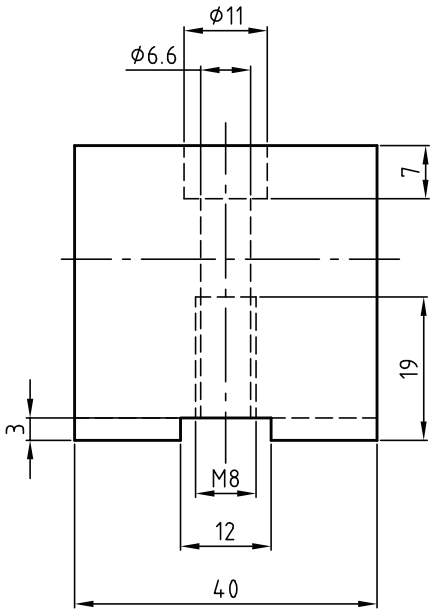
Bestellnummer

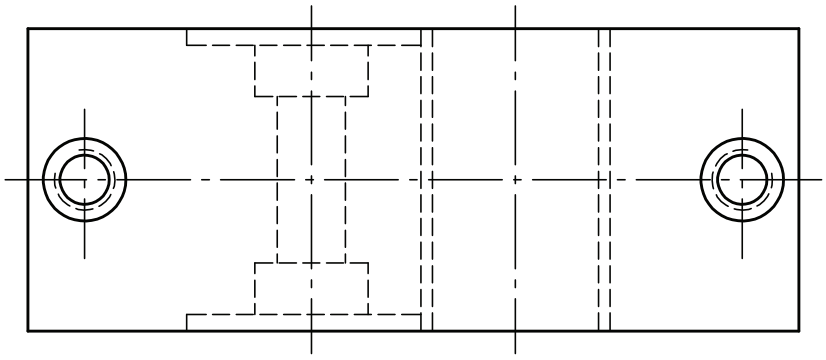
G-GP125-I2-GÖ

G-GP125-I2-0

Datum 10.11.2016	Maßstab 1:2	
Zeichnungsnummer G-GP125-I2-0		GRIP GmbH Handhabungstechnik







Datum	Maßstab	
10.11.2016	1:1	

Zeichnungsnummer

ZG-GP125-UB

GRIP GmbH Handhabungstechnik

GZ ANGULAR GRIPPER

The Angular Gripper with pivoting jaw movement. The double-acting cylinder is actuated by compressed air which actuates the movements. An eccentric mechanism ensures a long service life and a constant gripping torque. In contrast to the Parallel Gripper, the gripping force safety device can only be designed as a closing -GS- version.

GZ Angular Gripper Advantages:

- Interface according to DIN EN ISO9409–1
- Low weight made of high-strength aluminum and steel
- Extremely Durable
- Eccentric drive for constant gripping torque over the entire gripping range
- Uniform torque over the entire opening and closing range of the fingers
- Opening angle has 60° degrees of adjustability
- Optional "closing" gripping force safety device
- Piston position communicated with a proximity switch ZG-RSGU01

GZ Angular Grippers can be modified to meet your needs. Please inquire about special applications.

SIZES

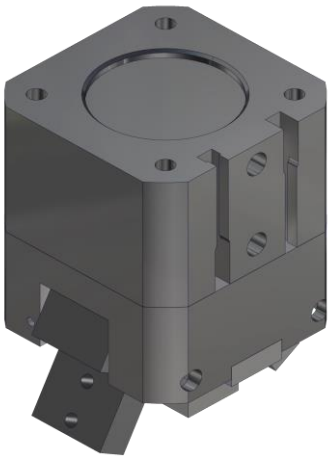
GZ050
GZ063
GZ080
GZ100
GZ125

G-GZ050

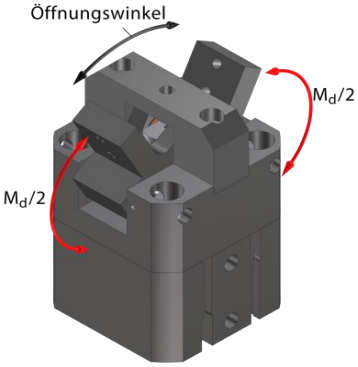
Technical specifications

Operating mode:
The double-acting cylinder is operated by pneum. compressed-air and actuates the power unit. An eccentric mechanism ensures a long service life and a constant gripping moment. In contrast to the parallel gripper, the gripping safety device is only capable of being closed -GS-.

Advantages:
High service life by robust mechanics
Constant torque over the entire opening and closing range of the fingers
Mechanical interface according to DIN EN ISO 9409-1
Low dead weight
Optional gripping force safety device "shutting"
Piston position monitoring using inductive proximity switch ZG-RSGU01 / 300-M8

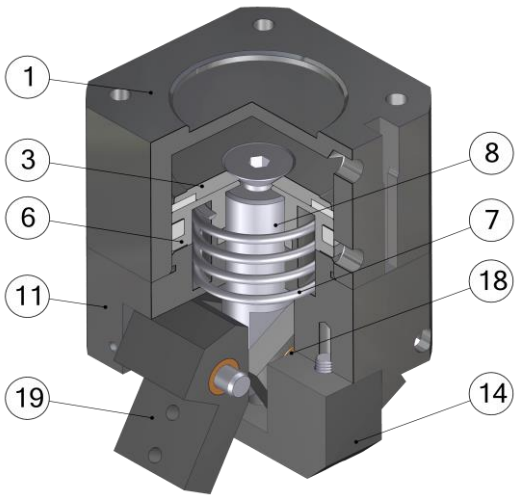


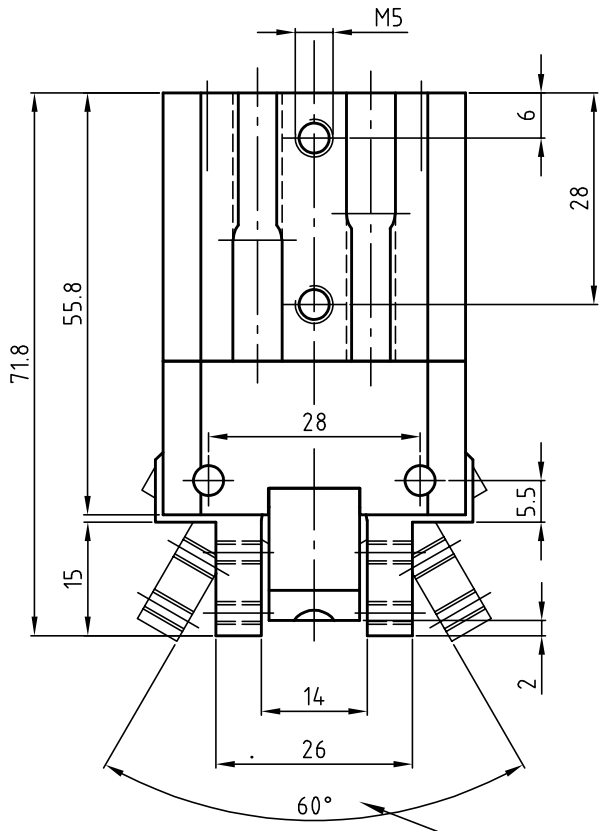
Technical specifications		GZ050
Torque at 6 bar	Md [Nm]	4,9
Md factor	fg [Nm/bar]	0,8
Opening angle		60°
Gripper weight	mg [kg]	0,3
Operating pressure (with gripping force safety device)		5 …6 bar
Operating pressure (without gripping force safety device)		2 …6 bar
Air consumption	V [ccm]	4,2
Air supply	Pmax = 10 bar	M5
Mounting flange	ISO	4 x M4 - TK ø40
Operating temperature range [°C]		-30 to +120

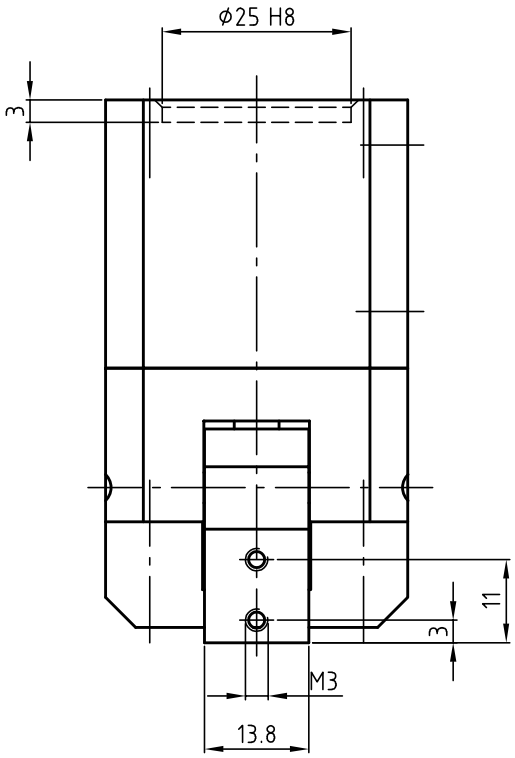


Pos.	Description
1	Cylinder ISO
2	Counter sunk screw, galvanized
3	Piston cover
4	Magnetic ring
5	Sealing ring 1
6	Piston
7	Pressure spring
8	Power unit
9	Sealing ring 2
10	O-Ring
11	Housing
12	Cylindrical pin finger
13	Cylinder screw housing
14	Stop
15	Cylinder screw stop
16	Setscrew power unit
17	Sinter bronze connection
18	Eccentric
19	Finger
20	Cylindrical pin eccentric

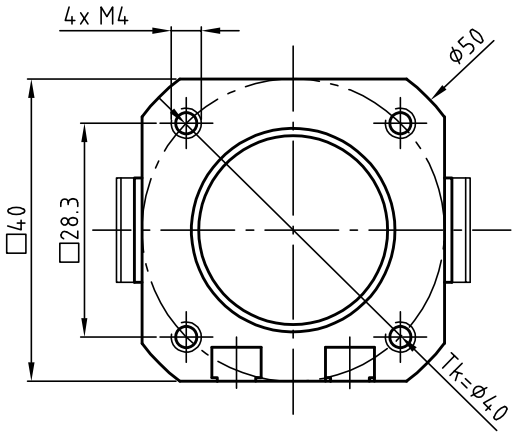
Pincer gripper Ø50…	
G-GZ050-IGS	ISO-flange gripping force safety device shutting
G-GZ050-IO	ISO-flange without gripping force safety device
Accessories GZ	
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug
Spare Parts GG	
EG-GG050-DS	Gasket kit for gripper size 050







mittels zentralem Endschlag
von 0° bis 60°
stufenlos einstellbar



Bestellnummer

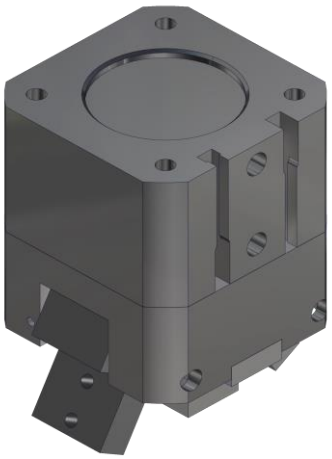
G-GZ050-IGS
G-GZ050-IO

Datum 10.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GZ050-IO			

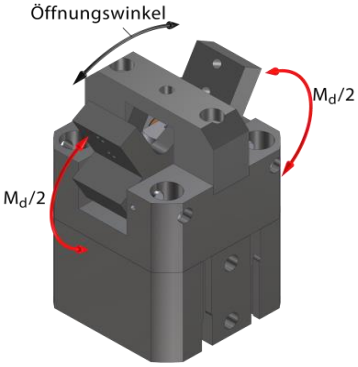
G-GZ063

Technical specifications

Operating mode:
The double-acting cylinder is operated by pneum. compressed-air and actuates the power unit. An eccentric mechanism ensures a long service life and a constant gripping moment. In contrast to the parallel gripper, the gripping safety device is only capable of being closed -GS-.
Advantages:
High service life by robust mechanics
Constant torque over the entire opening and closing range of the fingers
Mechanical interface according to DIN EN ISO 9409-1
Low dead weight
Optional gripping force safety device "shutting"
Piston position monitoring using inductive proximity switch ZG-RSGU01 / 300-M8

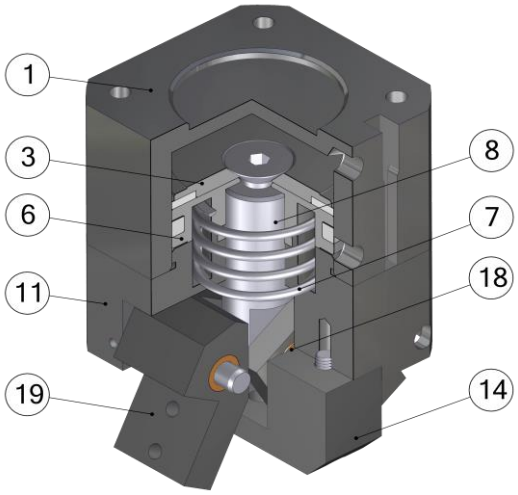


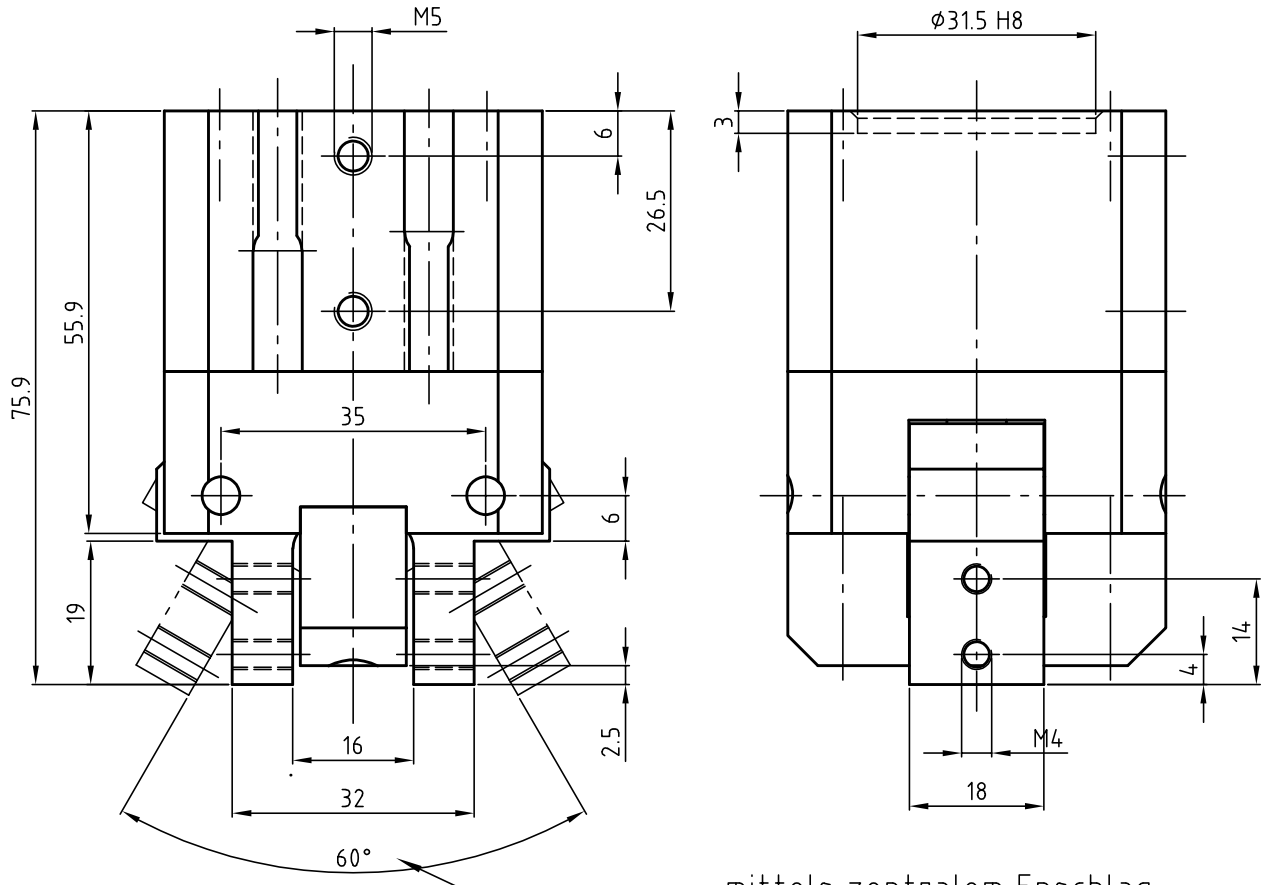
Technical specifications		GZ063
Torque at 6 bar	Md [Nm]	11,4
Md factor	fg [Nm/bar]	1,9
Opening angle		60°
Gripper weight	mg [kg]	0,4
Operating pressure (with gripping force safety device)		5 …6 bar
Operating pressure (without gripping force safety device)		2 …6 bar
Air consumption	V [ccm]	10
Air supply	Pmax = 10 bar	M5
Mounting flange	ISO	4 x M5 - TK ø50
Operating temperature range [°C]		-30 to +120

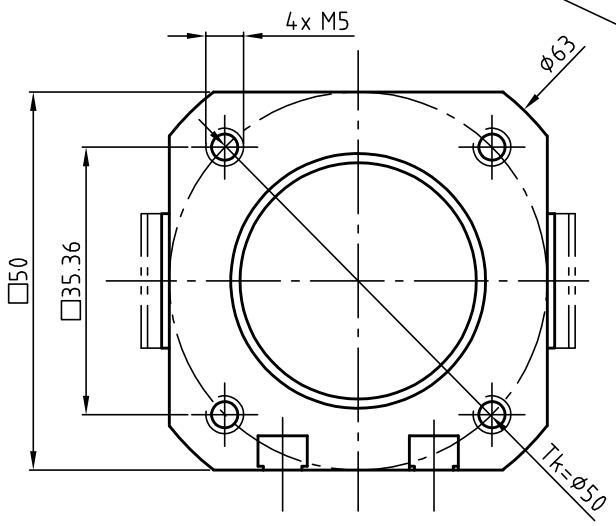


Pos.	Description
1	Cylinder ISO
2	Counter sunk screw, galvanized
3	Piston cover
4	Magnetic ring
5	Sealing ring 1
6	Piston
7	Pressure spring
8	Power unit
9	Sealing ring 2
10	O-Ring
11	Housing
12	Cylindrical pin finger
13	Cylinder screw housing
14	Stop
15	Cylinder screw stop
16	Setscrew power unit
17	Sinter bronze connection
18	Eccentric
19	Finger
20	Cylindrical pin eccentric

Pincer gripper Ø63…	
G-GZ063-IGS	ISO-flange gripping force safety device shutting
G-GZ063-IO	ISO-flange without gripping force safety device
Accessories GZ	
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug
Spare Parts GG	
EG-GG063-DS	Gasket kit for gripper size 063







Bestellnummer

G-GZ063-IGS
G-GZ063-IO

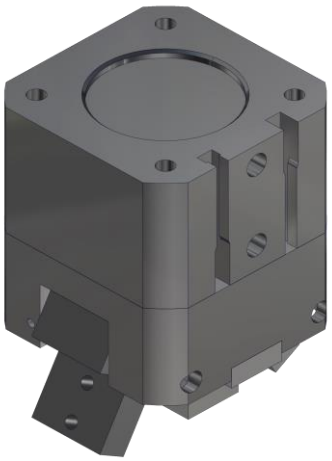
Datum 10.11.2016	Maßstab 1:1		
Zeichnungsnummer G-GZ063-IO			GRIP GmbH Handhabungstechnik

G-GZ080

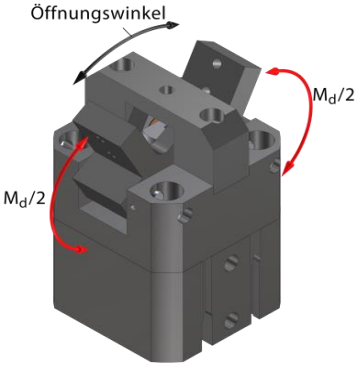
Technical specifications

Operating mode:
The double-acting cylinder is operated by pneum. compressed-air and actuates the power unit. An eccentric mechanism ensures a long service life and a constant gripping moment. In contrast to the parallel gripper, the gripping safety device is only capable of being closed -GS-.

Advantages:
High service life by robust mechanics
Constant torque over the entire opening and closing range of the fingers
Mechanical interface according to DIN EN ISO 9409-1
Low dead weight
Optional gripping force safety device "shutting"
Piston position monitoring using inductive proximity switch ZG-RSGU01 / 300-M8

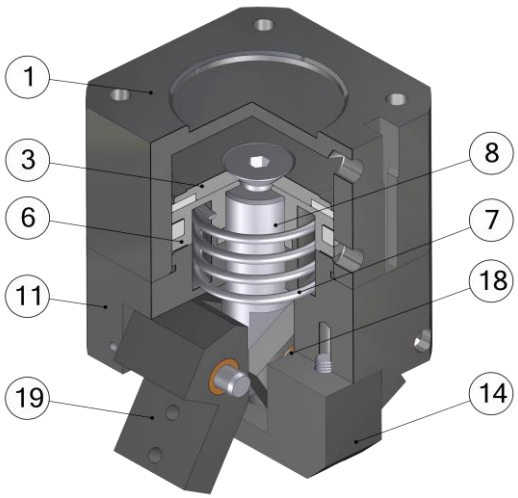


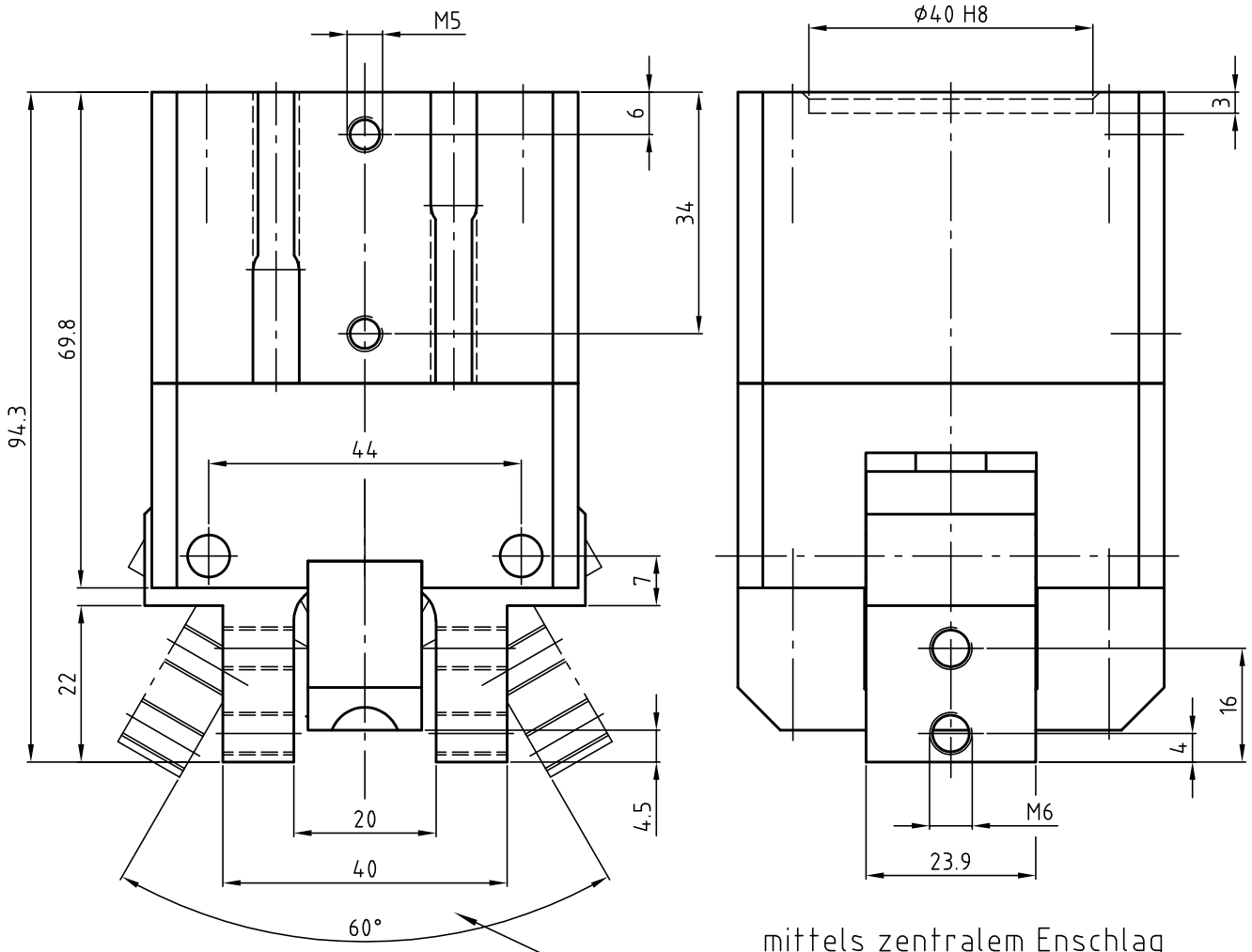
Technical specifications		GZ080
Torque at 6 bar	Md [Nm]	22
Md factor	fg [Nm/bar]	3,6
Opening angle		60°
Gripper weight	mg [kg]	0,9
Operating pressure (with gripping force safety device)		5 …6 bar
Operating pressure (without gripping force safety device)		2 …6 bar
Air consumption	V [ccm]	19,6
Air supply	Pmax = 10 bar	M5
Mounting flange	ISO	4 x M6 - TK ø63
Operating temperature range [°C]		-30 to +120



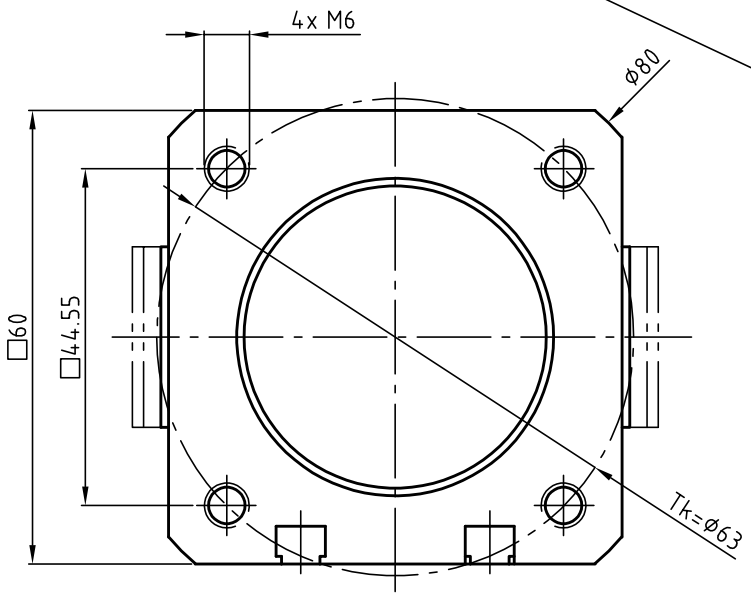
Pos.	Description
1	Cylinder ISO
2	Counter sunk screw, galvanized
3	Piston cover
4	Magnetic ring
5	Sealing ring 1
6	Piston
7	Pressure spring
8	Power unit
9	Sealing ring 2
10	O-Ring
11	Housing
12	Cylindrical pin finger
13	Cylinder screw housing
14	Stop
15	Cylinder screw stop
16	Setscrew power unit
17	Sinter bronze connection
18	Eccentric
19	Finger
20	Cylindrical pin eccentric

Pincer gripper Ø80…	
G-GZ080-IGS	ISO-flange gripping force safety device shutting
G-GZ080-IO	ISO-flange without gripping force safety device
Accessories GZ	
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug
Spare Parts GG	
EG-GG080-DS	Gasket kit for gripper size 080





mittels zentralem Enschlag
von 0° bis 60°
stufenlos einstellbar



Bestellnummer

G-GZ080-IGS
G-GZ080-IO

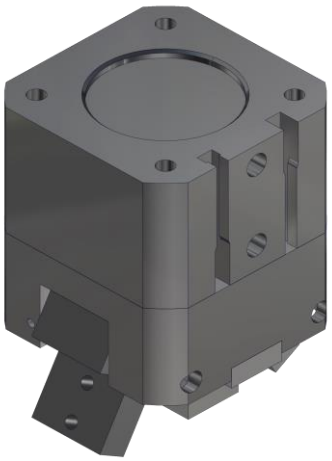
Datum 10.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GZ080-IO			

G-GZ100

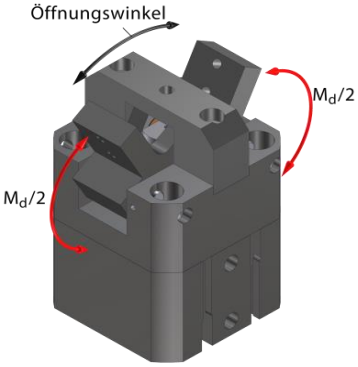
Technical specifications

Operating mode:
The double-acting cylinder is operated by pneum. compressed-air and actuates the power unit. An eccentric mechanism ensures a long service life and a constant gripping moment. In contrast to the parallel gripper, the gripping safety device is only capable of being closed -GS-.

Advantages:
High service life by robust mechanics
Constant torque over the entire opening and closing range of the fingers
Mechanical interface according to DIN EN ISO 9409-1
Low dead weight
Optional gripping force safety device "shutting"
Piston position monitoring using inductive proximity switch ZG-RSGU01 / 300-M8

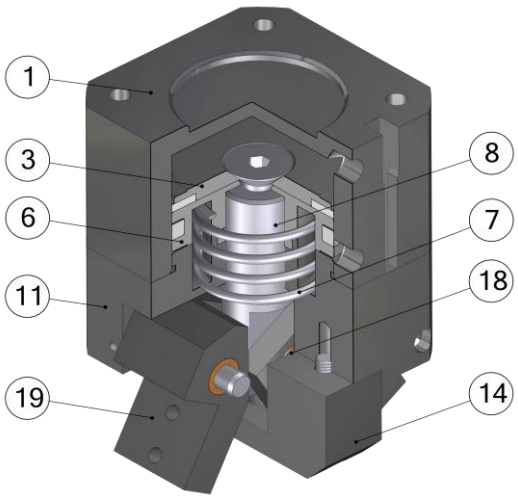


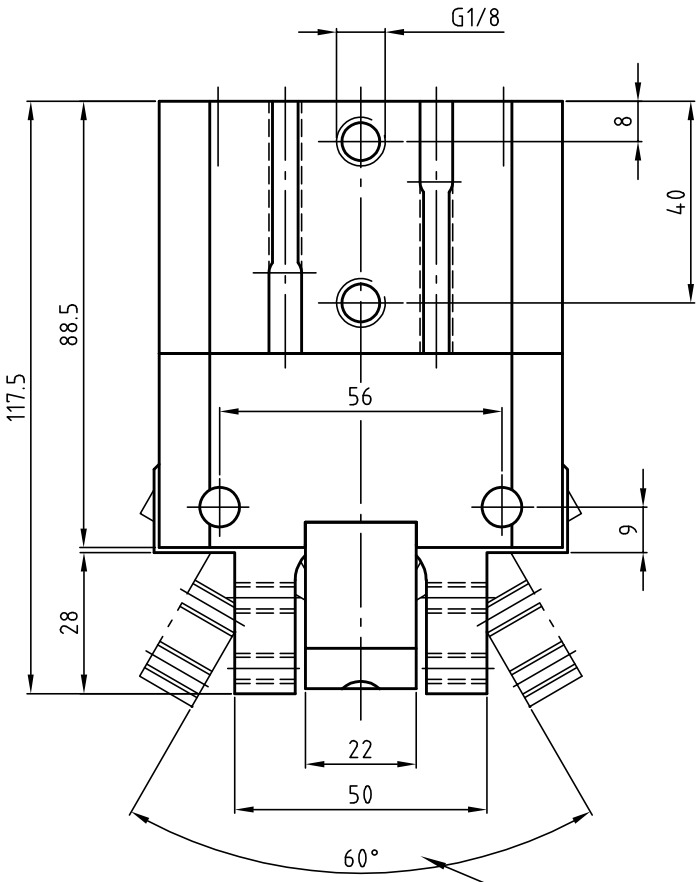
Technical specifications		GZ100
Torque at 6 bar	Md [Nm]	47,6
Md factor	fg [Nm/bar]	7,9
Opening angle		60°
Gripper weight	mg [kg]	1,9
Operating pressure (with gripping force safety device)		5 …6 bar
Operating pressure (without gripping force safety device)		2 …6 bar
Air consumption	V [ccm]	38,6
Air supply	Pmax = 10 bar	G 1/8
Mounting flange	ISO	4 x M8 - TK ø80
Operating temperature range [°C]		-30 to +120

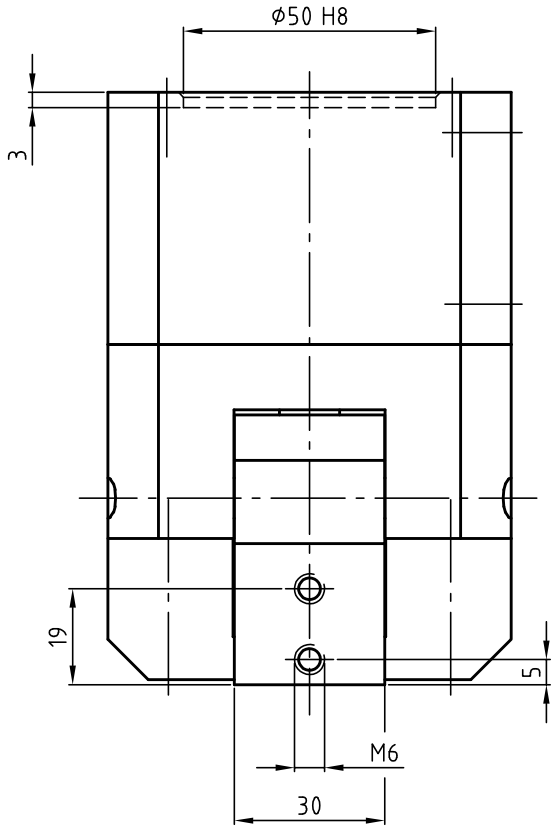


Pos.	Description
1	Cylinder ISO
2	Counter sunk screw, galvanized
3	Piston cover
4	Magnetic ring
5	Sealing ring 1
6	Piston
7	Pressure spring
8	Power unit
9	Sealing ring 2
10	O-Ring
11	Housing
12	Cylindrical pin finger
13	Cylinder screw housing
14	Stop
15	Cylinder screw stop
16	Setscrew power unit
17	Sinter bronze connection
18	Eccentric
19	Finger
20	Cylindrical pin eccentric

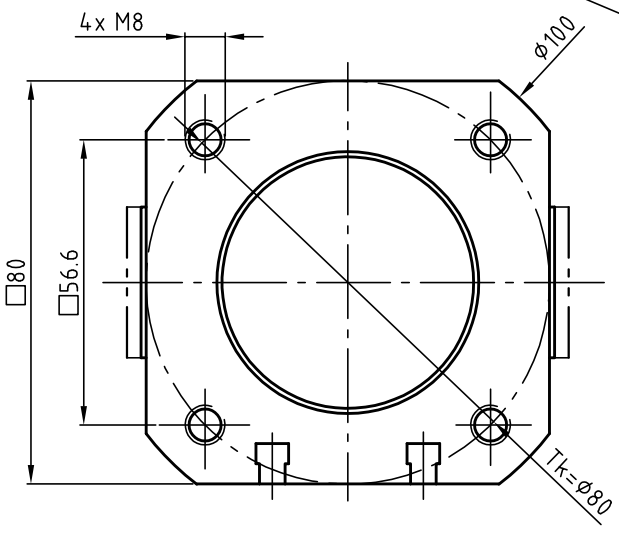
Pincer gripper Ø100…	
G-GZ100-IGS	ISO-flange gripping force safety device shutting
G-GZ100-IO	ISO-flange without gripping force safety device
Accessories GZ	
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug
Spare Parts GG	
EG-GG100-DS	Gasket kit for gripper size 100







mittels zentralem Endschlag
von 0° bis 60°
stufenlos einstellbar



Bestellnummer

G-GZ100-IGS

G-GZ100-IO

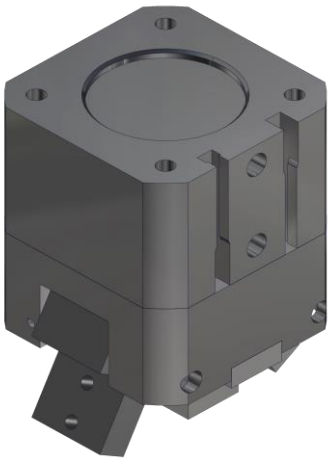
Datum 10.11.2016	Maßstab 1:1.5		
Zeichnungsnummer G-GZ100-IO			GRIP GmbH Handhabungstechnik

G-GZ125

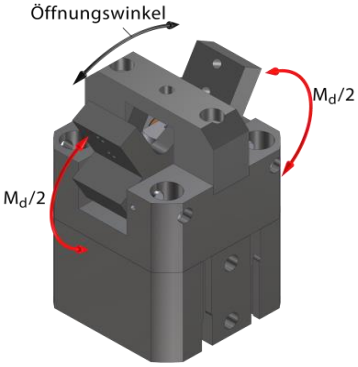
Technical specifications

Operating mode:
The double-acting cylinder is operated by pneum. compressed-air and actuates the power unit. An eccentric mechanism ensures a long service life and a constant gripping moment. In contrast to the parallel gripper, the gripping safety device is only capable of being closed -GS-.

Advantages:
High service life by robust mechanics
Constant torque over the entire opening and closing range of the fingers
Mechanical interface according to DIN EN ISO 9409-1
Low dead weight
Optional gripping force safety device "shutting"
Piston position monitoring using inductive proximity switch ZG-RSGU01 / 300-M8

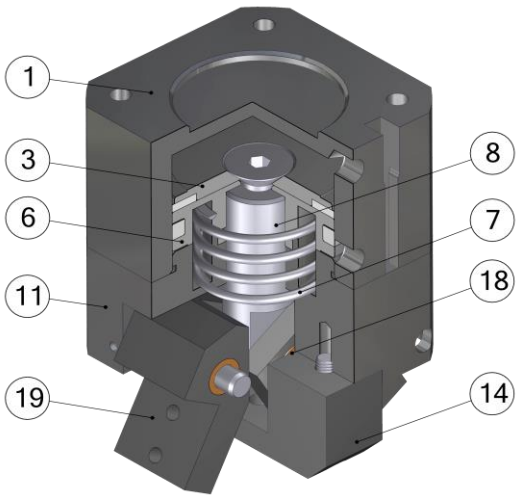


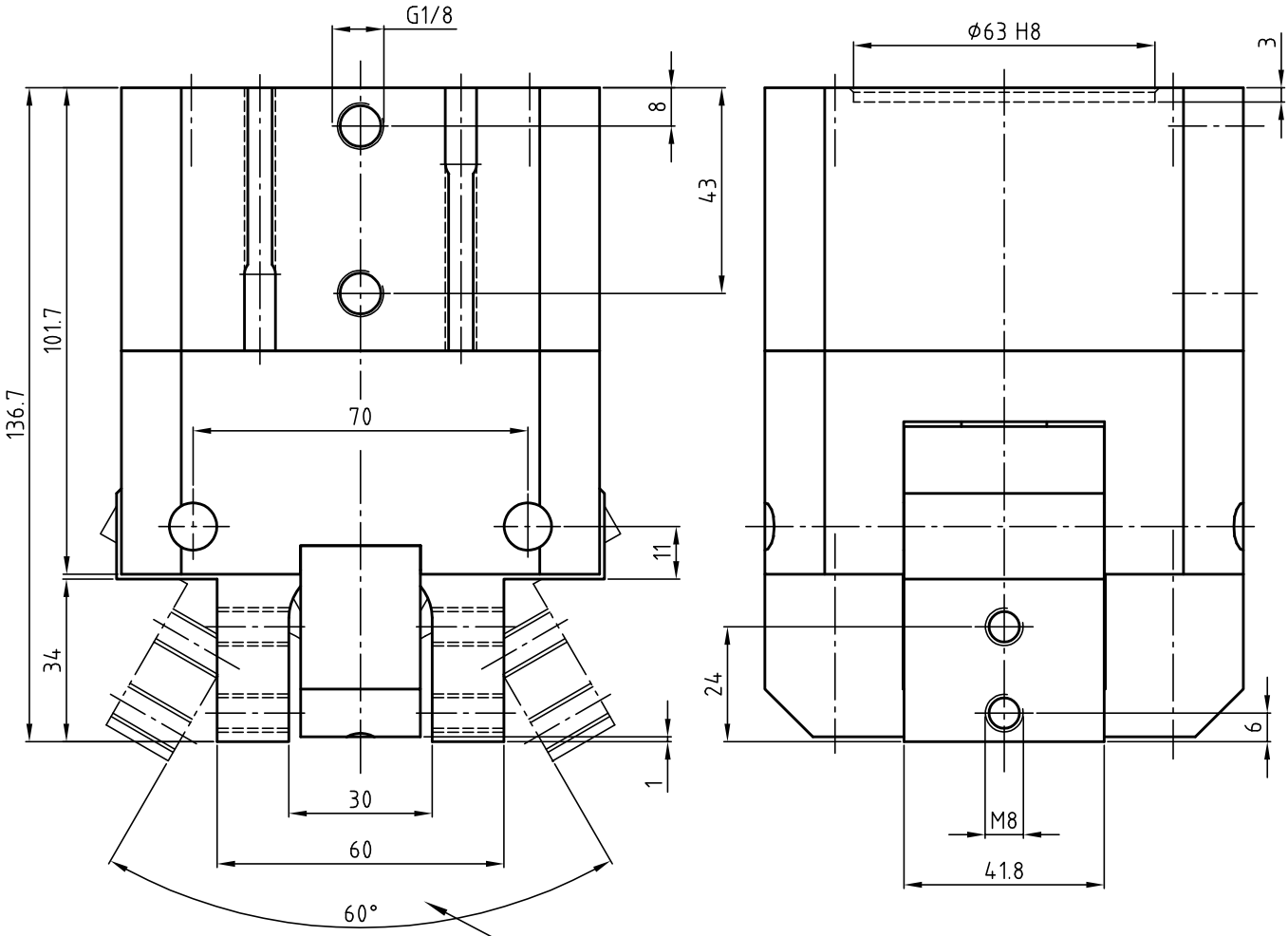
Technical specifications		GZ125
Torque at 6 bar	Md [Nm]	87,5
Md factor	fg [Nm/bar]	14,6
Opening angle		60°
Gripper weight	mg [kg]	3
Operating pressure (with gripping force safety device)		5 …6 bar
Operating pressure (without gripping force safety device)		2 …6 bar
Air consumption	V [ccm]	70,4
Air supply	Pmax = 10 bar	G 1/8
Mounting flange	ISO	4 x M8 - TK ø100
Operating temperature range [°C]		-30 to +120



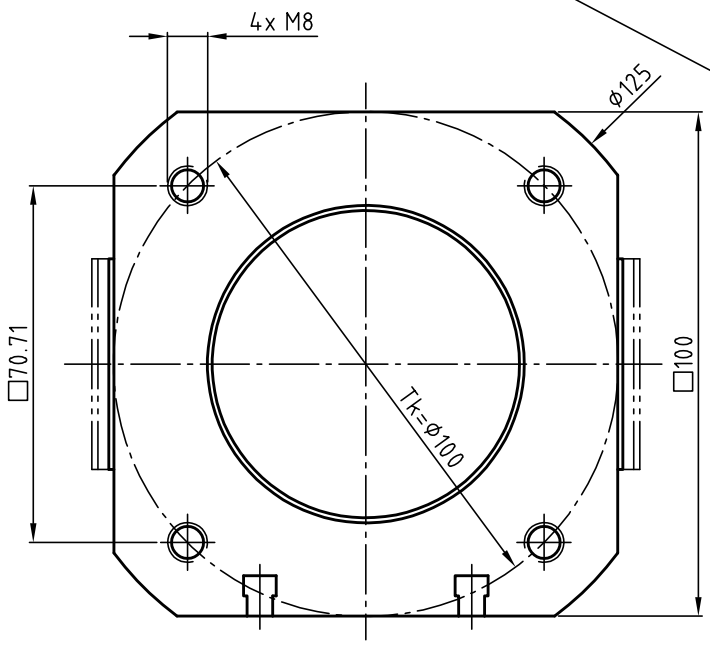
Pos.	Description
1	Cylinder ISO
2	Counter sunk screw, galvanized
3	Piston cover
4	Magnetic ring
5	Sealing ring 1
6	Piston
7	Pressure spring
8	Power unit
9	Sealing ring 2
10	O-Ring
11	Housing
12	Cylindrical pin finger
13	Cylinder screw housing
14	Stop
15	Cylinder screw stop
16	Setscrew power unit
17	Sinter bronze connection
18	Eccentric
19	Finger
20	Cylindrical pin eccentric

Pincer gripper Ø125…	
G-GZ125-IGS	ISO-flange gripping force safety device shutting
G-GZ125-IO	ISO-flange without gripping force safety device
Accessories GZ	
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug
Spare Parts GG	
EG-GG125-DS	Gasket kit for gripper size 125





mittels zentralem Endanschlag
von 0° bis 60°
stufenlos einstellbar



Bestellnummer

G-GZ125-IGS

G-GZ125-IO

Datum 10.11.2016	Maßstab 1:1.5		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GZ125-IO			

GI INTERNAL GRIPPER

The GI Internal Gripper is an inflatable bellows gripper for internal gripping. The Internal Grippers plunge into bore holes. Applying pneumatic pressure to the silicone membrane increases the outer diameter. This friction against the bore hole wall holds the Gripper in place. The silicone membrane automatically retracts once the pressure is relieved.

GI Internal Gripper Advantages:

- Enables gripping of objects with small bores
- Tapered end ensures smooth insertion / operation
- Available in multiple sizes 5 mm–20 mm (1 mm increments)
- Operating temperature range: –40 to 300° Celsius
- Durable - over 500.000 cycles
- Replaceable silicon bladder
- Lightweight
- Simple gripping principle
- Excellent value
- Ideal for injection molding applications

GI Internal Grippers can be modified to meet your needs. Please inquire about special applications.

SIZES

GI005–008
GI009–012
GI013–016
GI017–020

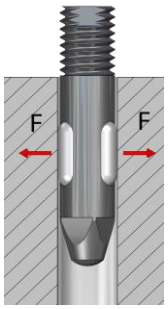
G-GI005

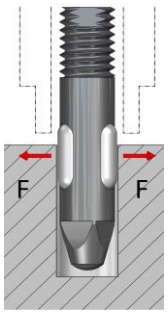
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

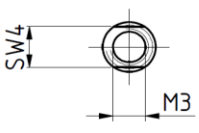
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

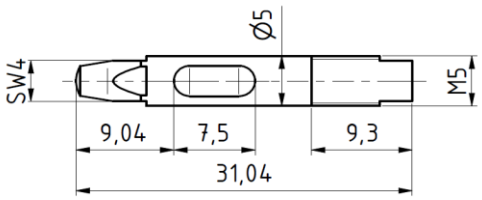
Technical specifications	GI005
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	4
For bore diameter [mm]	5,1 – 6,0
Allowed component weight [kg]	0,4
Gripper weight [kg]	0.003
Compressed air connection Ø	M3
Assembly Ø	M5
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

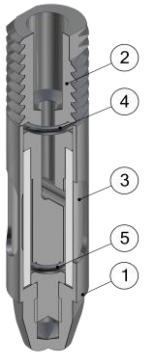




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper Ø005…	
G-GI005	External diameter 5, screw thread M5

Replacement tube	
EG-GI005-S	for internal gripper GI005

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

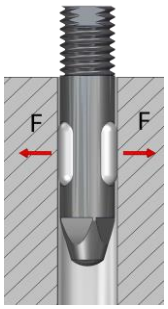
G-GI006

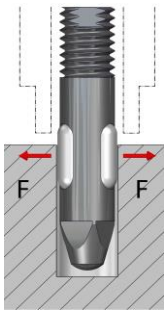
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

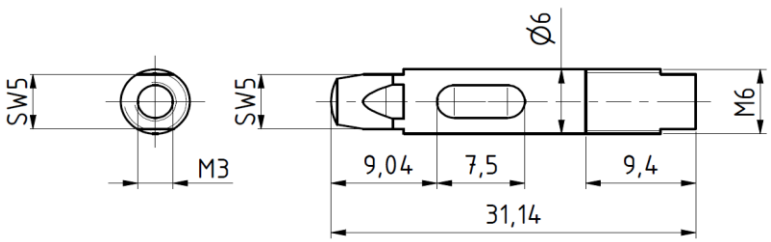
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

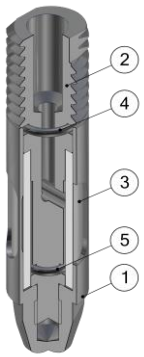
Technical specifications	GI006
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	5
For bore diameter [mm]	6,1 – 7,0
Allowed component weight [kg]	0,5
Gripper weight [kg]	0.005
Compressed air connection Ø	M3
Assembly Ø	M6
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C





Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	





Internal gripper Ø006…	
G-GI006	External diameter 6, screw thread M6
Replacement tube	
EG-GI006-S	for internal gripper GI006

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

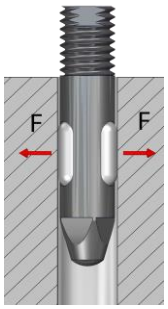
G-GI007

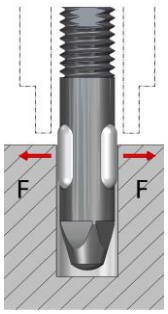
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

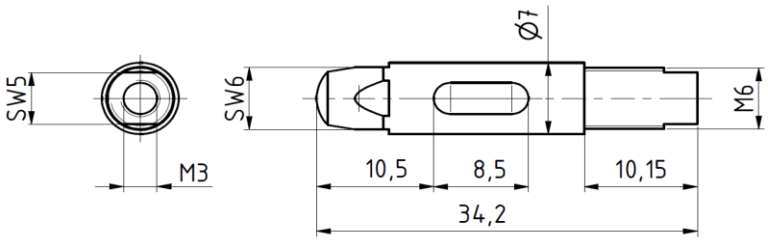
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

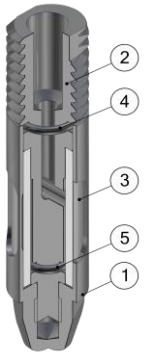
Technical specifications	GI007
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	7
For bore diameter [mm]	7,1 – 8,0
Allowed component weight [kg]	0,7
Gripper weight [kg]	0.007
Compressed air connection Ø	M3
Assembly Ø	M6
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C





Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	





Internal gripper Ø007…	
G-GI007	External diameter 7, screw thread M6
Replacement tube	
EG-GI007-S	for internal gripper GI007

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

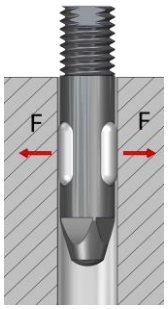
G-GI008

Technical specifications

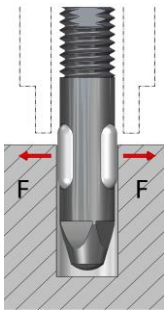
Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

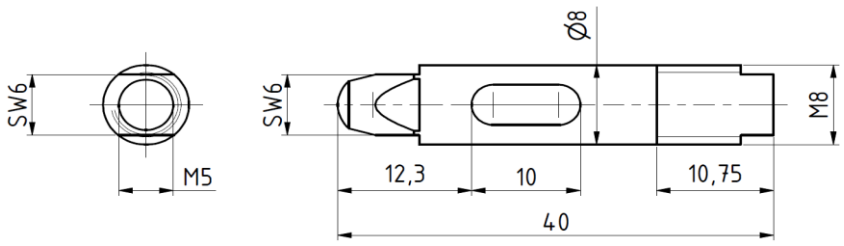
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

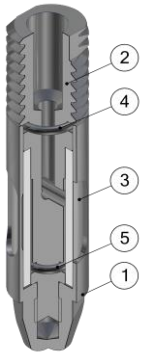
Technical specifications	GI008
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	17
For bore diameter [mm]	8,1 – 9,0
Allowed component weight [kg]	1,7
Gripper weight [kg]	0.01
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	

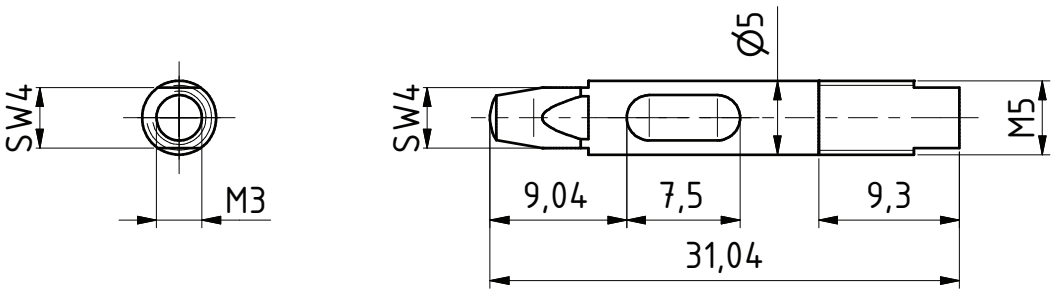




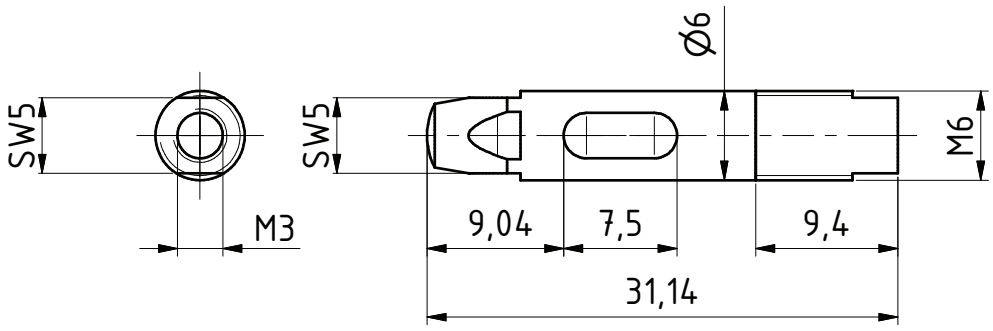


Internal gripper Ø008…	
G-GI008	External diameter 8, screw thread M8
Replacement tube	
EG-GI008-S	for internal gripper GI008

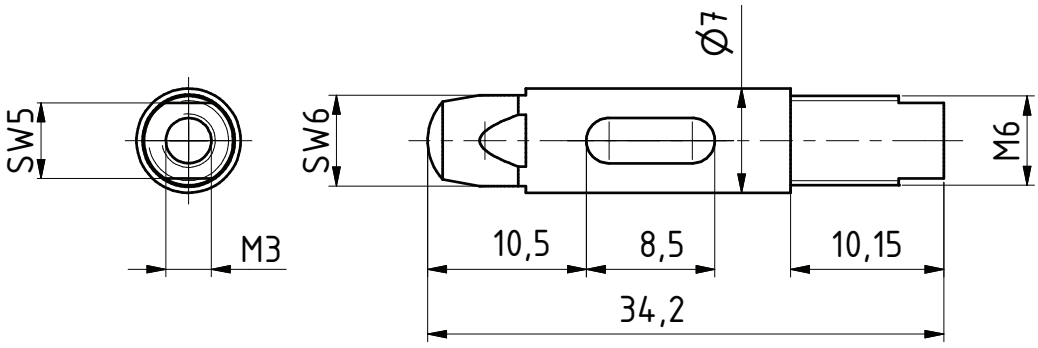
Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2



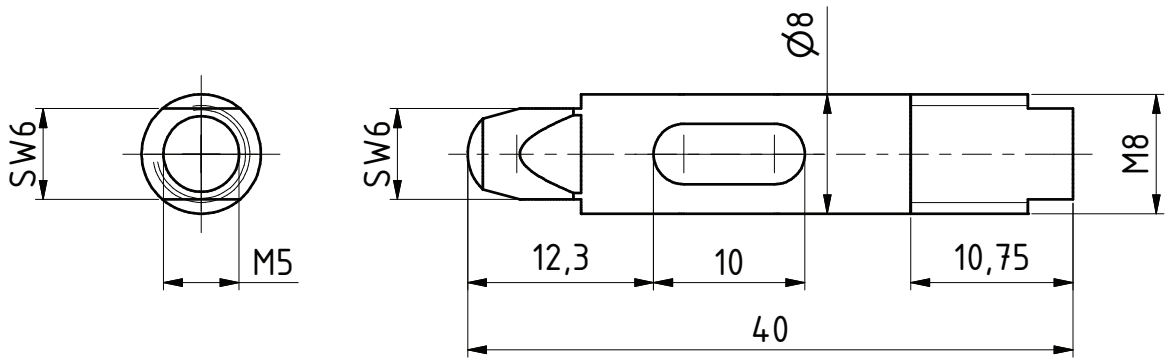
Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI005			



Datum 11.11.2016	Maßstab 2:1		
Zeichnungsnummer G-GI006			GRIP GmbH Handhabungstechnik



Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI007			



Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI008			

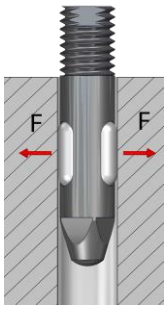
G-GI009

Technical specifications

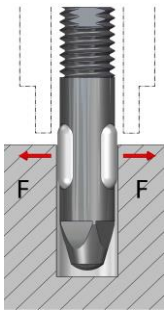
Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

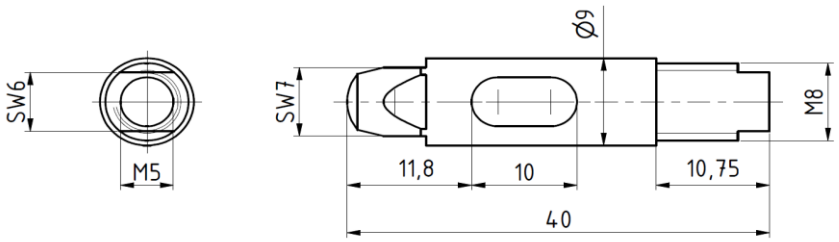
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

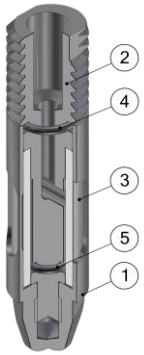
Technical specifications	GI009
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	17
For bore diameter [mm]	9,1 – 10,0
Allowed component weight [kg]	1,7
Gripper weight [kg]	0.012
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper Ø009…	
G-GI009	External diameter 9, screw thread M8
Replacement tube	
EG-GI009-S	for internal gripper GI009

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

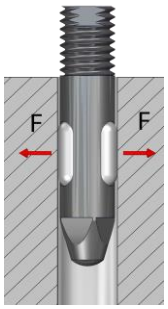
G-GI010

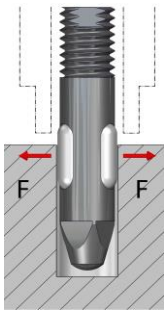
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

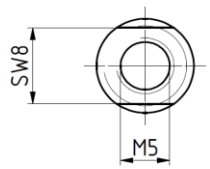
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

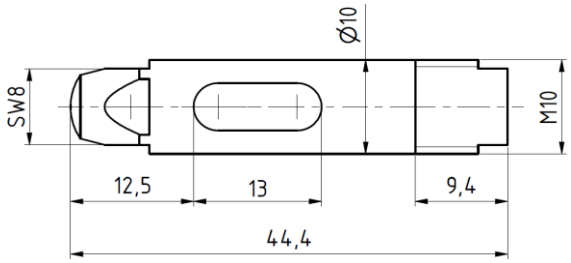
Technical specifications	GI010
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	20
For bore diameter [mm]	10,1 – 11,0
Allowed component weight [kg]	2
Gripper weight [kg]	0.018
Compressed air connection Ø	M5
Assembly Ø	M10
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

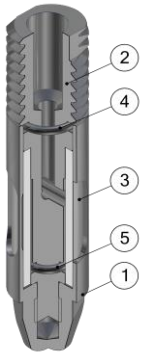




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper Ø010…	
G-GI010	External diameter 10, screw thread M10
Replacement tube	
EG-GI010-S	for internal gripper GI010

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

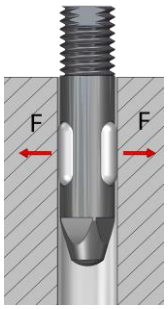
G-GI011

Technical specifications

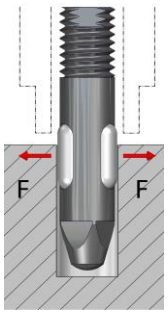
Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

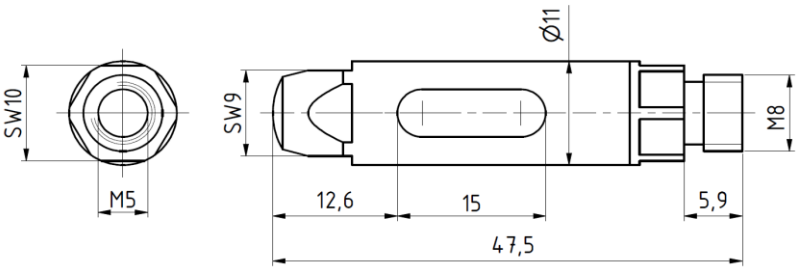
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

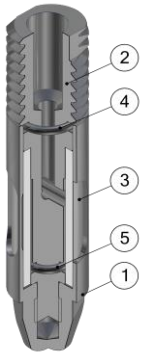
Technical specifications	GI011
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	25
For bore diameter [mm]	11,1 – 12,0
Allowed component weight [kg]	2,5
Gripper weight [kg]	0,022
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper Ø011…	
G-GI011	External diameter 11, screw thread M8
Replacement tube	
EG-GI011-S	for internal gripper GI011

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

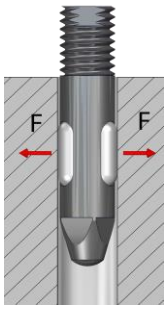
G-GI012

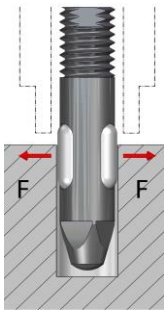
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

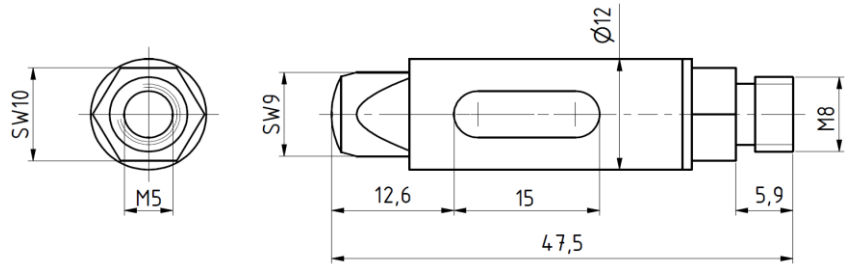
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

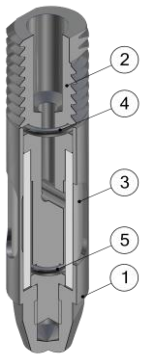
Technical specifications	GI012
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	30
For bore diameter [mm]	12,1 – 13,5
Allowed component weight [kg]	3
Gripper weight [kg]	0,026
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C





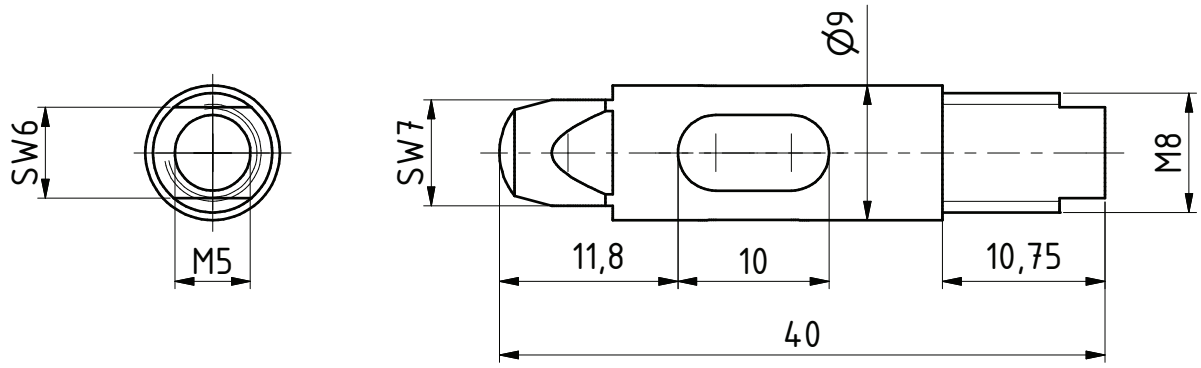
Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



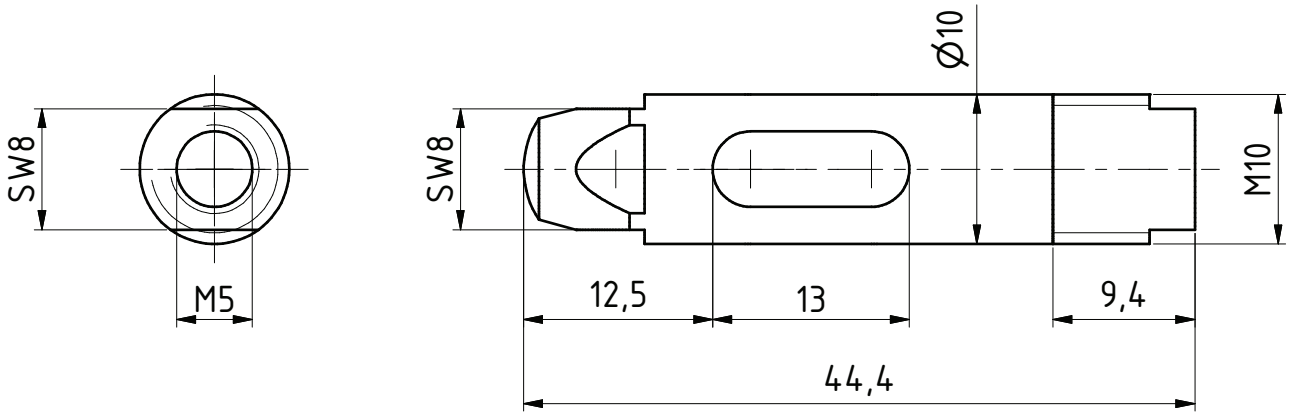


Internal gripper Ø012…	
G-GI012	External diameter 12, screw thread M8
Replacement tube	
EG-GI012-S	for internal gripper GI012

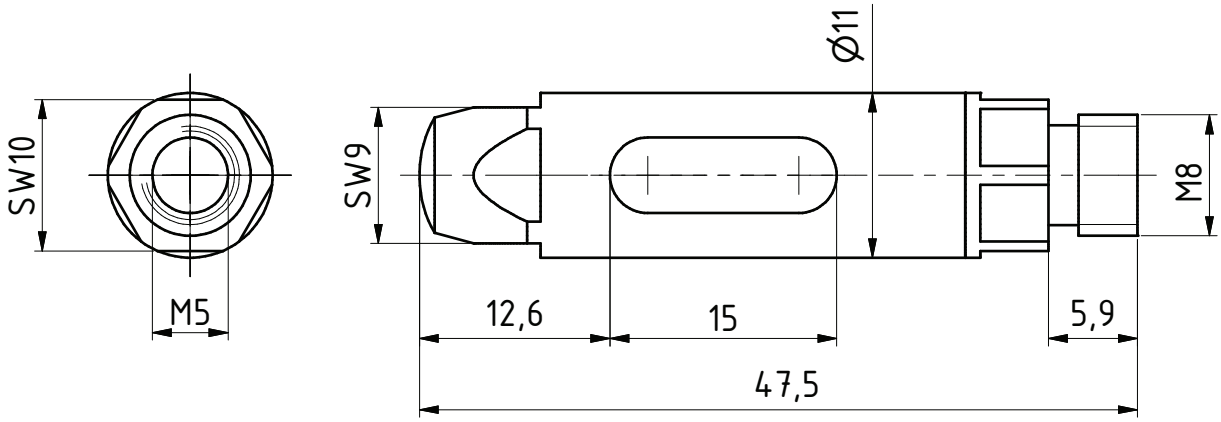
Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2



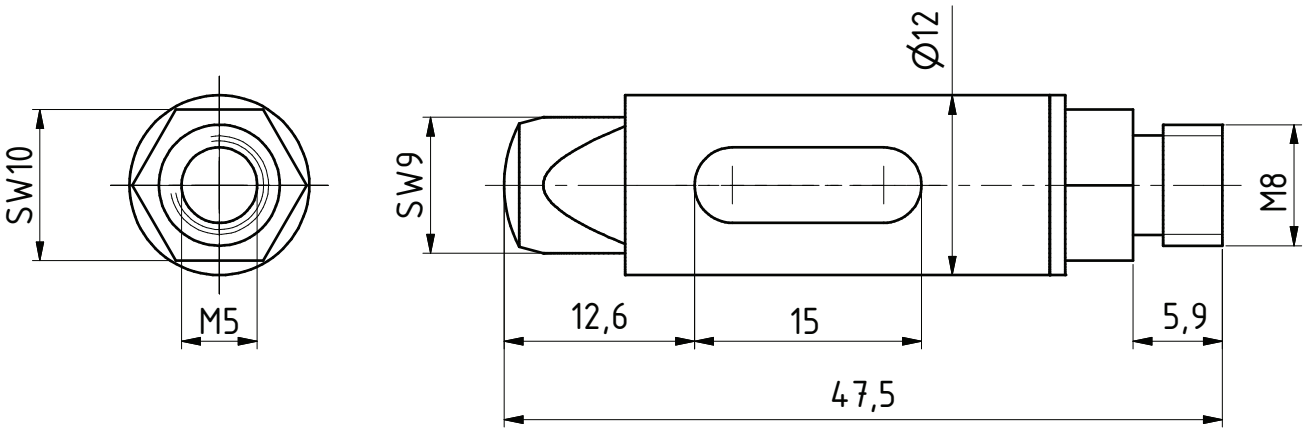
Datum 11.11.2016	Maßstab 2:1		
Zeichnungsnummer G-GI009			GRIP GmbH Handhabungstechnik



Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI010			



Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI011			



Datum 11.11.2016	Maßstab 2:1		
Zeichnungsnummer G-GI012			GRIP GmbH Handhabungstechnik

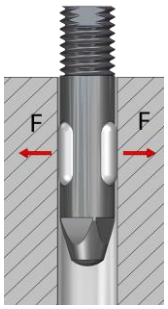
G-GI013

Technical specifications

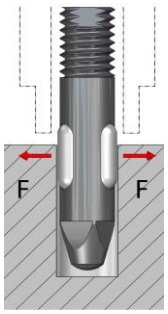
Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

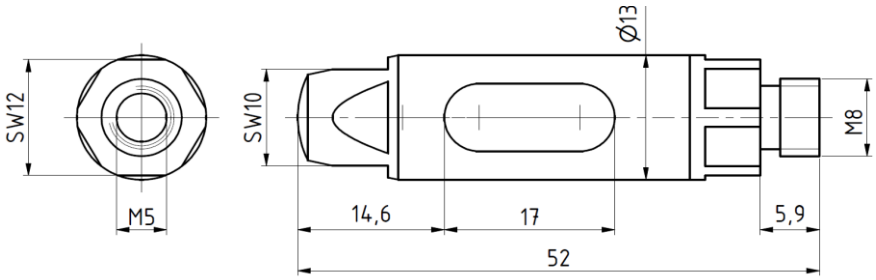
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

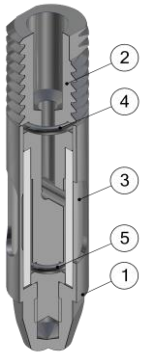
Technical specifications	GI013
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	40
For bore diameter [mm]	13,1 – 14,5
Allowed component weight [kg]	4
Gripper weight [kg]	0.032
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper Ø013…	
G-GI013	External diameter 13, screw thread M8
Replacement tube	
EG-GI013-S	for internal gripper GI013

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

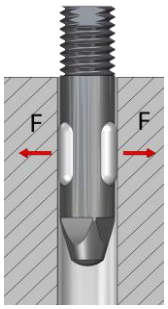
G-GI014

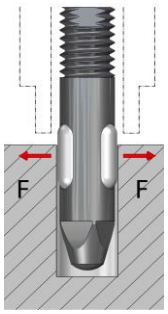
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

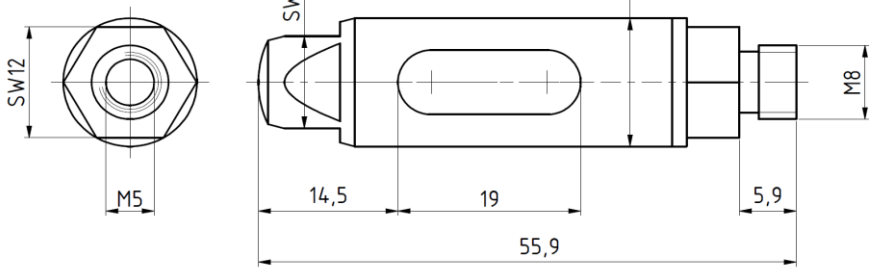
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

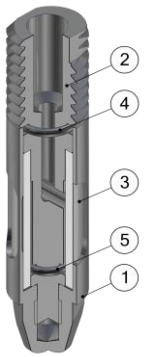
Technical specifications	GI014
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	45
For bore diameter [mm]	14,1 – 15,5
Allowed component weight [kg]	4,5
Gripper weight [kg]	0.04
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C





Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	





Internal gripper Ø014…	
G-GI014	External diameter 14, screw thread M8
Replacement tube	
EG-GI014-S	for internal gripper GI014

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

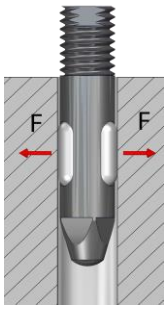
G-GI015

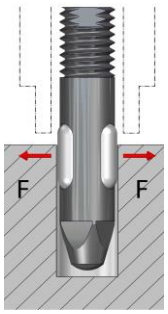
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

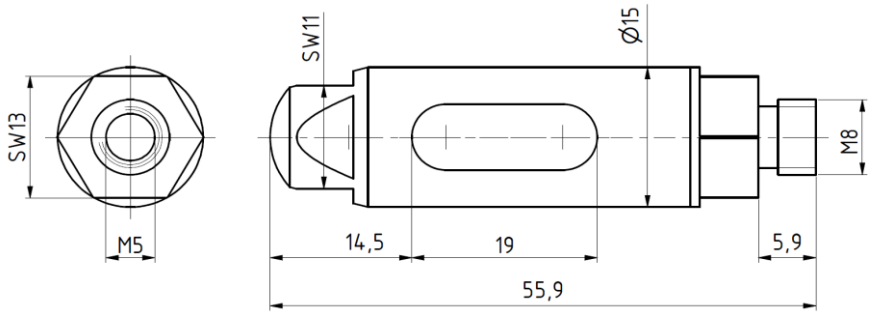
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

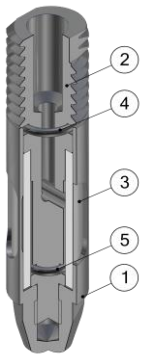
Technical specifications	GI015
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	45
For bore diameter [mm]	15,1 – 16,5
Allowed component weight [kg]	4,5
Gripper weight [kg]	0.046
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C





Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	





Internal gripper Ø015…	
G-GI015	External diameter 15, screw thread M8
Replacement tube	
EG-GI015-S	for internal gripper GI015

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

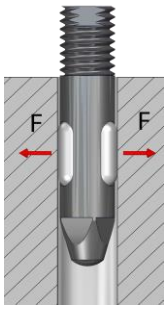
G-GI016

Technical specifications

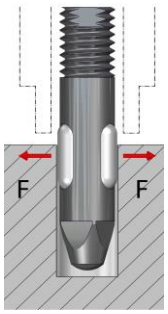
Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

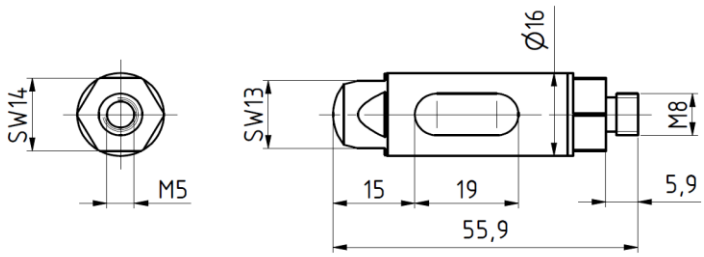
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

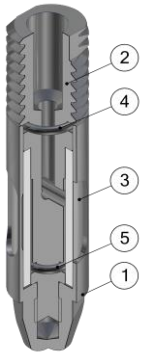
Technical specifications	GI016
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	16,1 – 17,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.054
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	

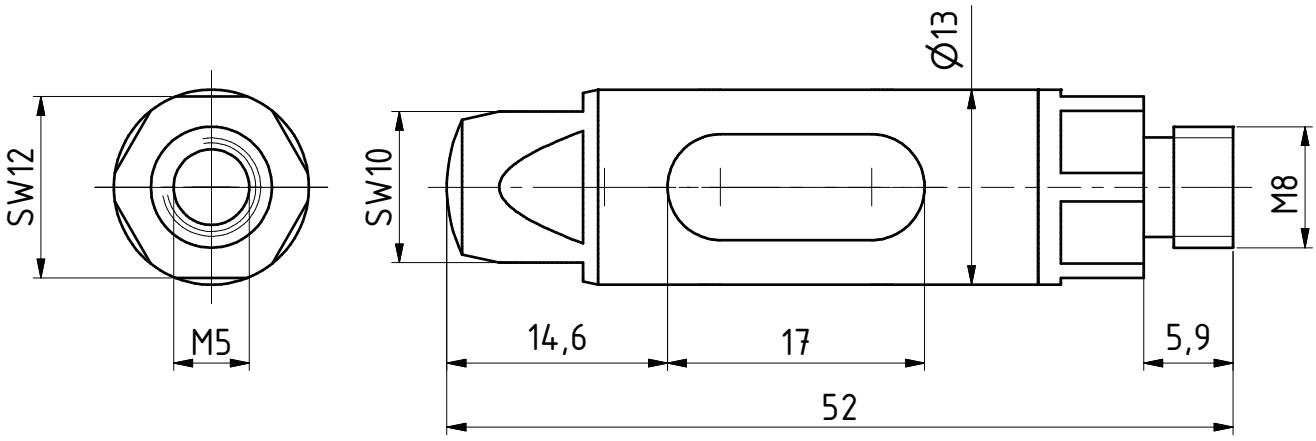




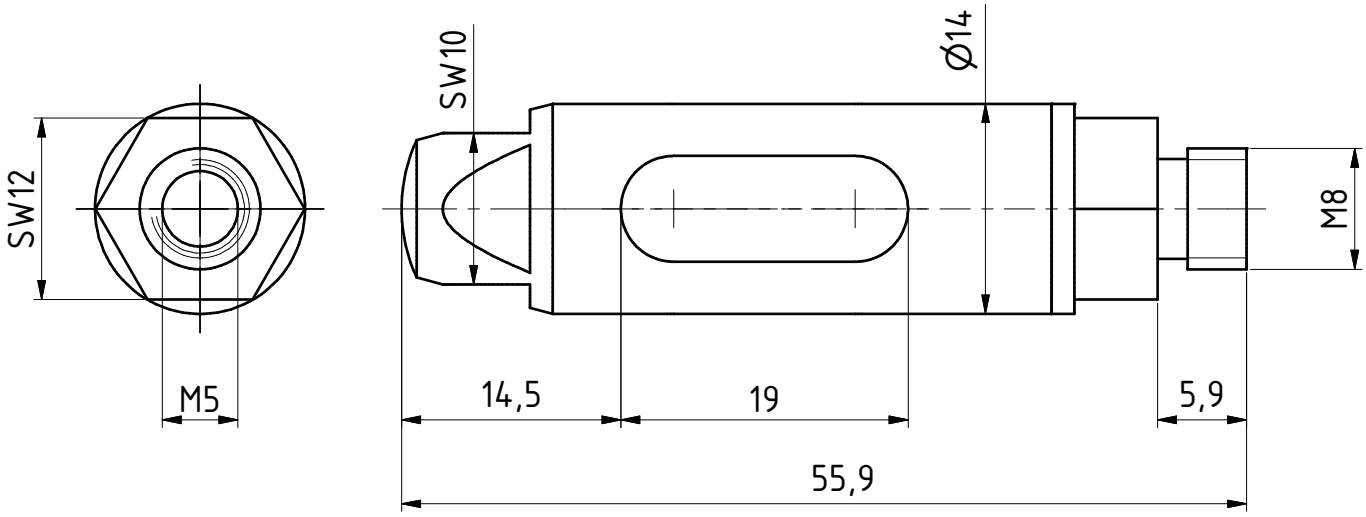


Internal gripper Ø016…	
G-GI016	External diameter 16, screw thread M8
Replacement tube	
EG-GI016-S	for internal gripper GI016

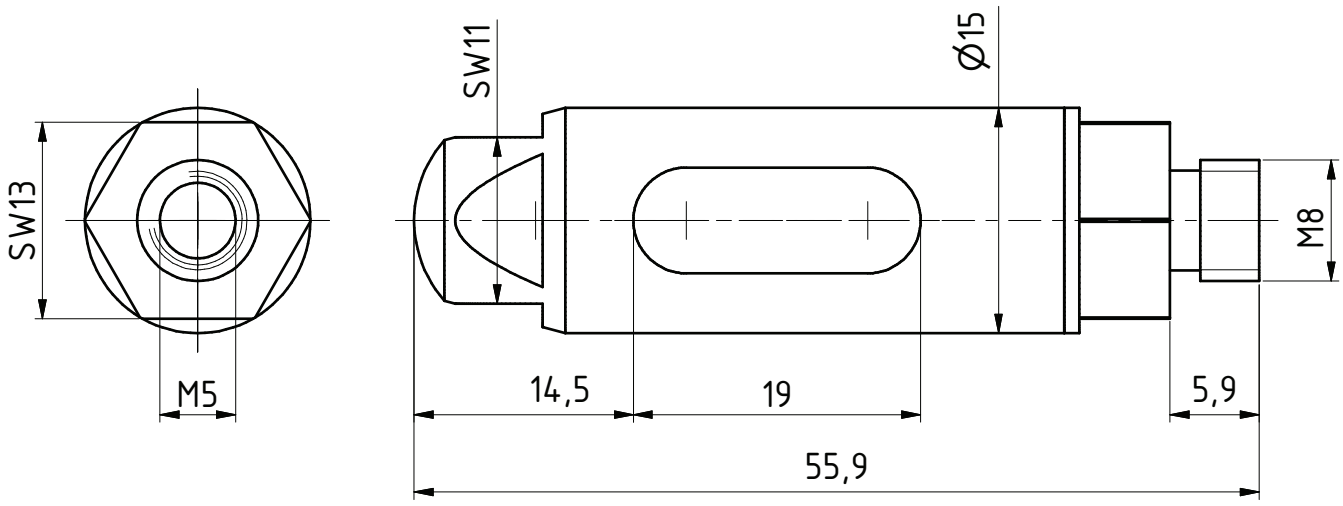
Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2



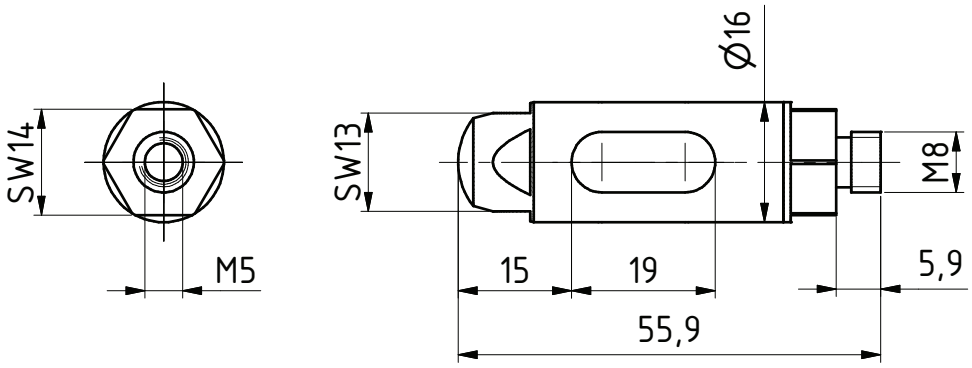
Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI013			



Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI014			



Datum 11.11.2016	Maßstab 2:1		
Zeichnungsnummer G-GI015			GRIP GmbH Handhabungstechnik



Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI016			

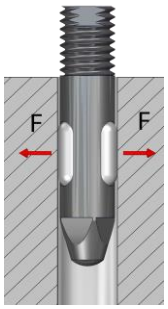
G-GI017

Technical specifications

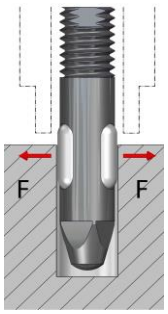
Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

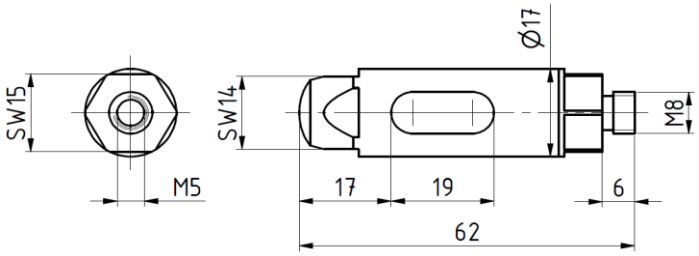
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

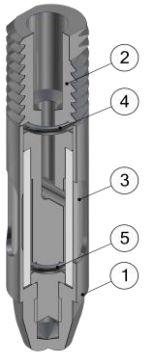
Technical specifications	GI017
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	17,1 – 18,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.07
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper Ø017…	
G-GI017	External diameter 17, screw thread M8
Replacement tube	
EG-GI017-S	for internal gripper GI017

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

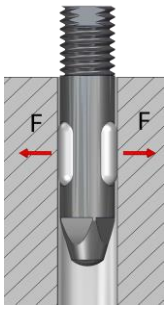
G-GI018

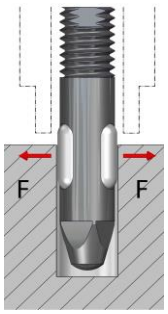
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

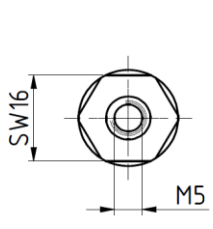
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

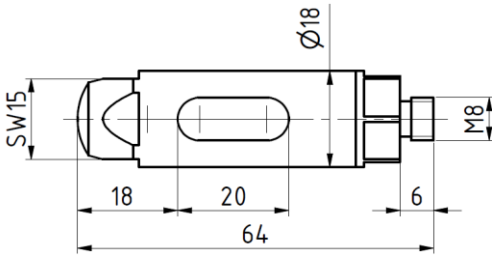
Technical specifications	GI018
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	18,1 – 19,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.084
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

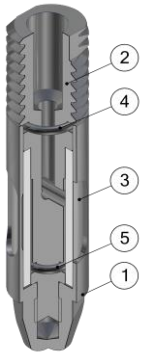




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper Ø018…	
G-GI018	External diameter 18, screw thread M8
Replacement tube	
EG-GI018-S	for internal gripper GI018

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

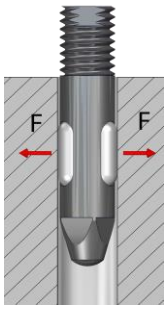
G-GI019

Technical specifications

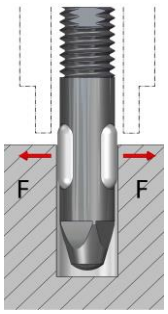
Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

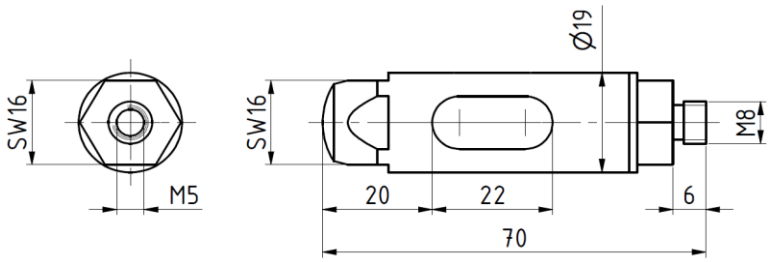
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

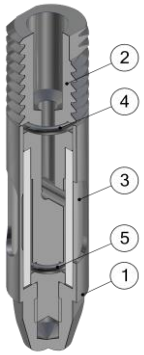
Technical specifications	GI019
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	60
For bore diameter [mm]	19,1 – 21,0
Allowed component weight [kg]	6
Gripper weight [kg]	0.102
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper Ø019…	
G-GI019	External diameter 19, screw thread M8
Replacement tube	
EG-GI019-S	for internal gripper GI019

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

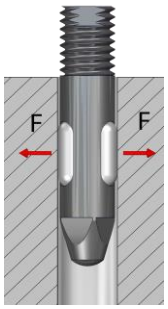
G-GI020

Technical specifications

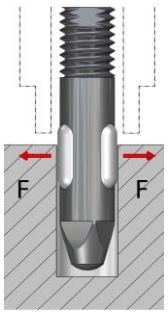
Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

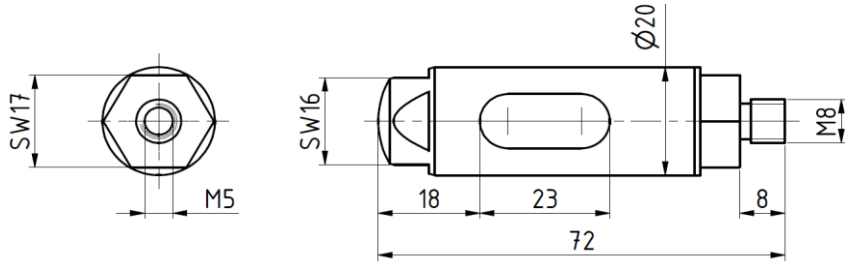
Advantages:
Minimum installation size possible
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

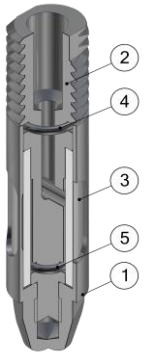
Technical specifications	GI020
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	60
For bore diameter [mm]	20,1 – 21,5
Allowed component weight [kg]	6
Gripper weight [kg]	0.114
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	

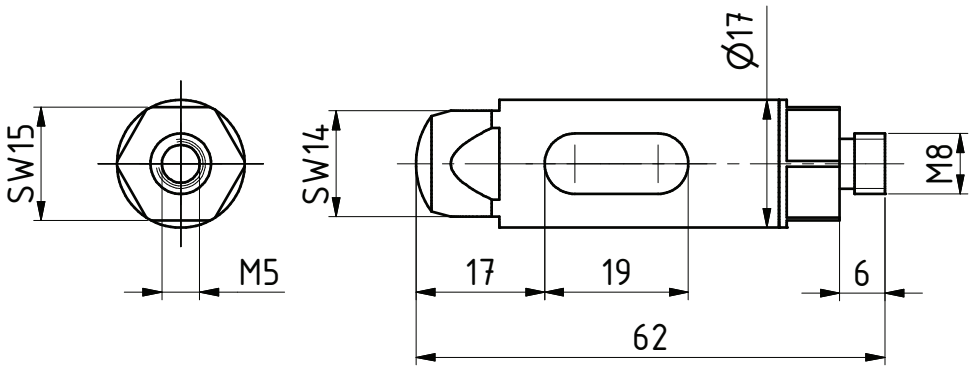




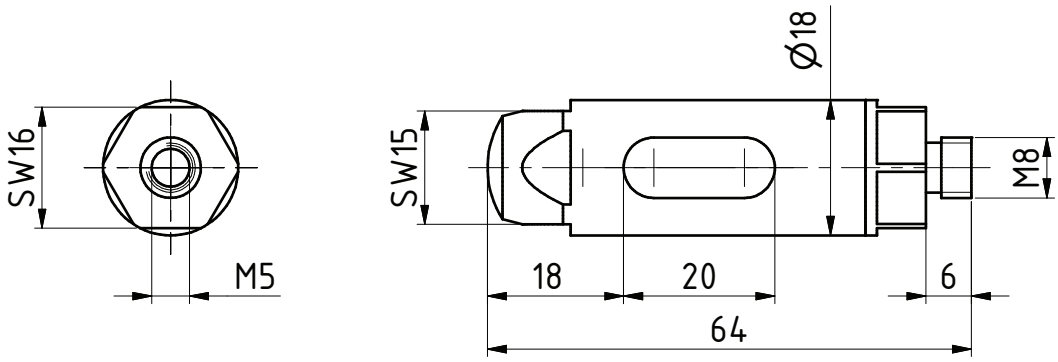


Internal gripper Ø020…	
G-GI020	External diameter 20, screw thread M8
Replacement tube	
EG-GI020-S	for internal gripper GI020

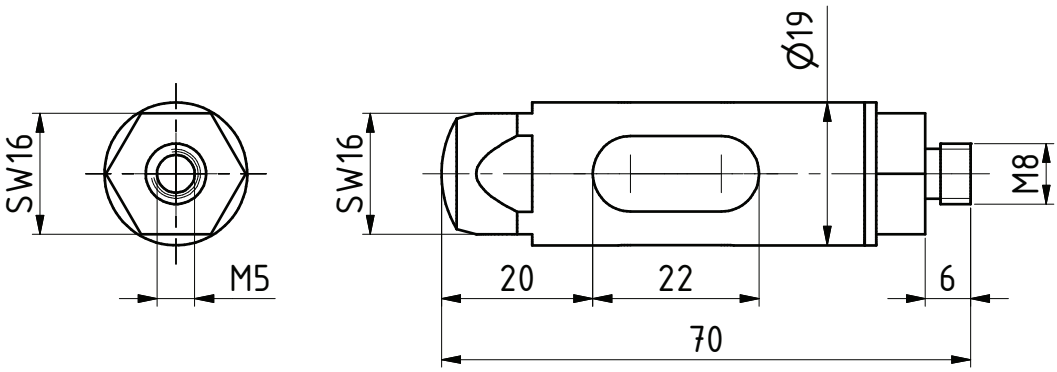
Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2



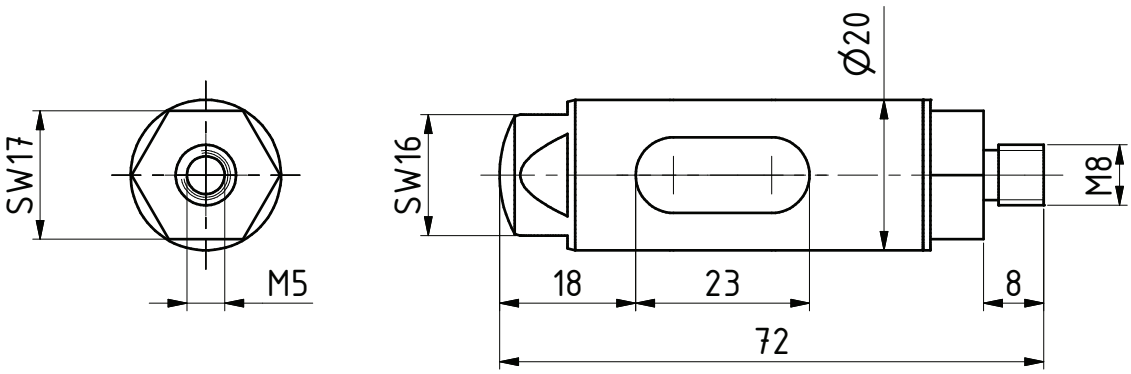
Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI017			



Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI018			



Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GI019			



Datum 11.11.2016	Maßstab 1:1		
Zeichnungsnummer G-GI020			GRIP GmbH Handhabungstechnik

GIS INTERNAL GRIPPER SHORT

The GI Internal Gripper is an inflatable bellows gripper for internal gripping. The Internal Grippers plunge into bore holes. Applying pneumatic pressure to the silicone membrane increases the outer diameter. This friction against the bore hole wall holds the Gripper in place. The silicone membrane automatically retracts once the pressure is relieved.

GIS Internal Gripper Advantages:

- Enables gripping of objects with small bores
- Blunt end allows full insertion (important in applications with limited hole depth)
- Available in multiple sizes 5 mm–20 mm (1 mm increments)
- Operating temperature range: –40 to 300° Celsius
- Durable - over 500.000 cycles
- Replaceable silicon bladder
- Lightweight
- Simple gripping principle
- Excellent value
- Ideal for injection molding applications

GIS Internal Grippers can be modified to meet your needs. Please inquire about special applications.

SIZES

GIS005–008
GIS009–012
GIS013–016
GIS017–020

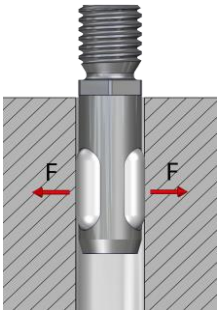
G-GIS005

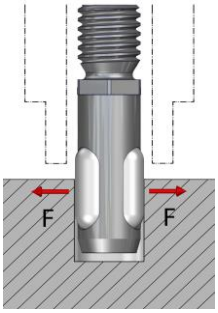
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

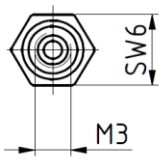
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

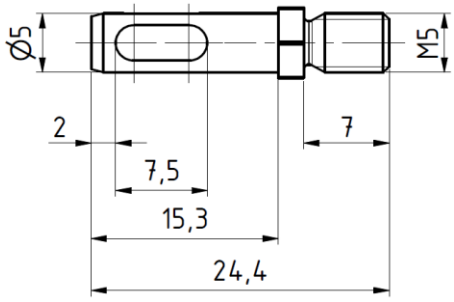
Technical specifications	GIS005
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	4
For bore diameter [mm]	5,1 – 6,0
Allowed component weight [kg]	0,4
Gripper weight [kg]	0.003
Compressed air connection Ø	M3
Assembly Ø	M5
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

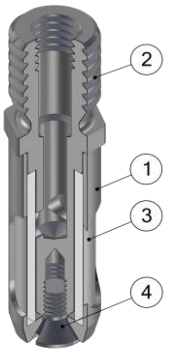




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø005…	
G-GIS005	External diameter 5, screw thread M5

Replacement tube	
EG-GI005-S	for internal gripper counter bore GIS005

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

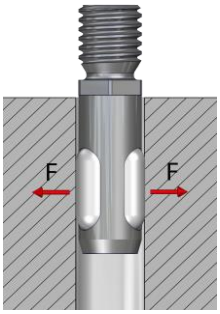
G-GIS006

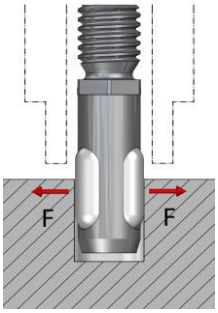
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

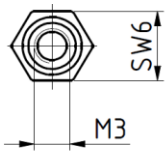
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

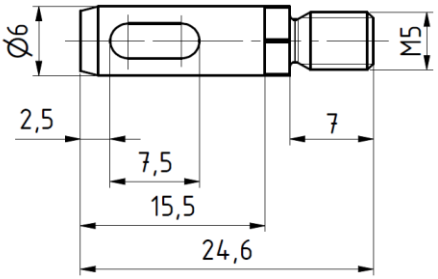
Technical specifications	GIS006
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	5
For bore diameter [mm]	6,1 – 7,0
Allowed component weight [kg]	0,5
Gripper weight [kg]	0.003
Compressed air connection Ø	M3
Assembly Ø	M5
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

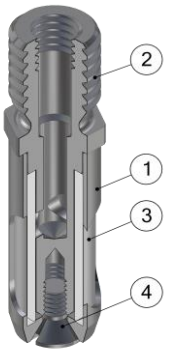




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø006…	
G-GIS006	External diameter 6, screw thread M5

Replacement tube	
EG-GI006-S	for internal gripper counter bore GIS006

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

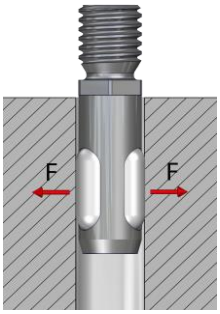
G-GIS007

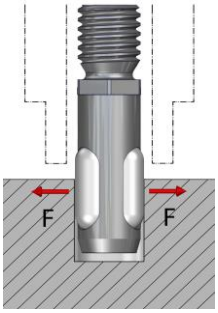
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

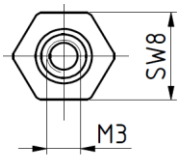
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

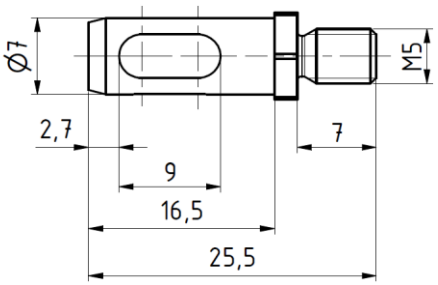
Technical specifications	GIS007
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	7
For bore diameter [mm]	7,1 – 8,0
Allowed component weight [kg]	0,7
Gripper weight [kg]	0.005
Compressed air connection Ø	M3
Assembly Ø	M5
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

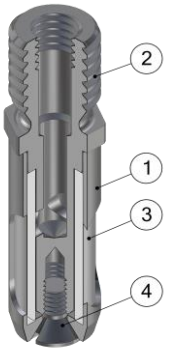




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø007…	
G-GIS007	External diameter 7, screw thread M5

Replacement tube	
EG-GI007-S	for internal gripper counter bore GIS007

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

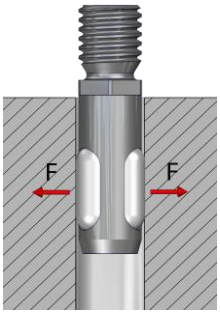
G-GIS008

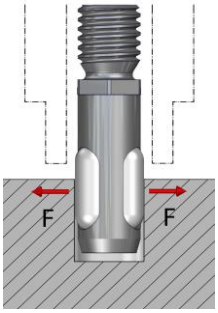
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

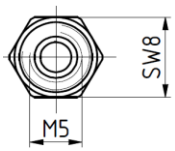
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

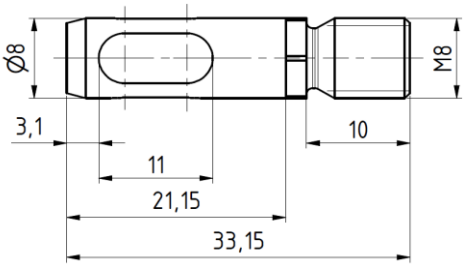
Technical specifications	GIS008
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	17
For bore diameter [mm]	8,1 – 9,0
Allowed component weight [kg]	1,7
Gripper weight [kg]	0.008
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

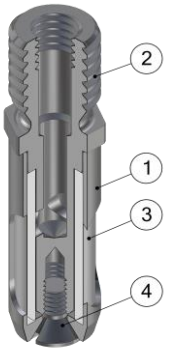




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



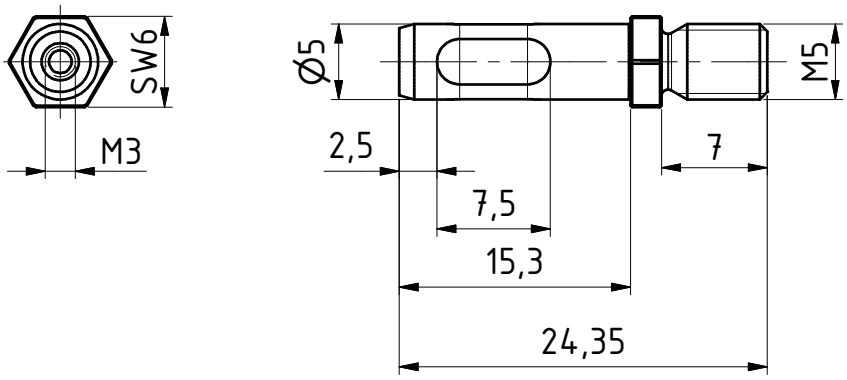


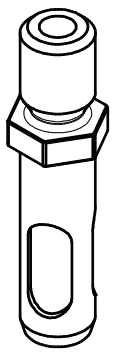


Internal gripper lowering Ø008…	
G-GIS008	External diameter 8, screw thread M8

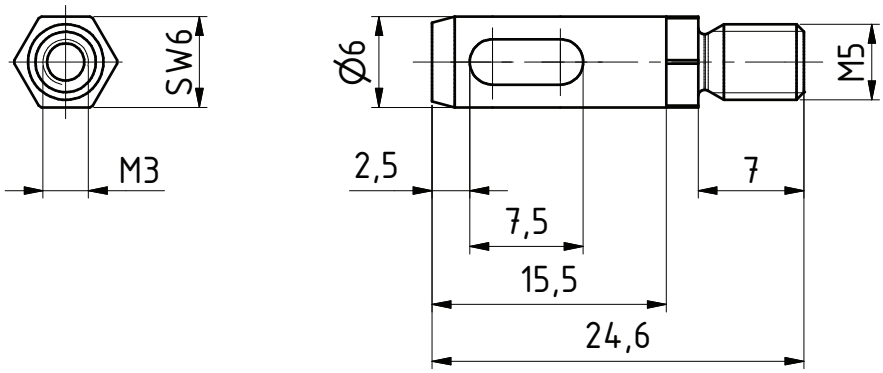
Replacement tube	
EG-GI008-S	for internal gripper counter bore GIS008

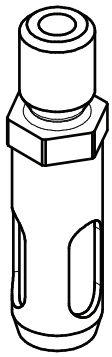
Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw



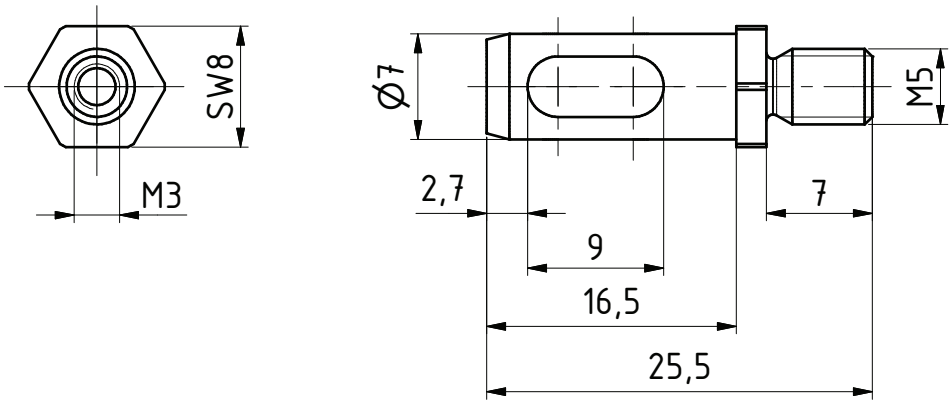


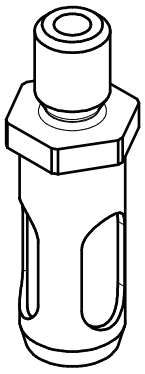
Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS005			



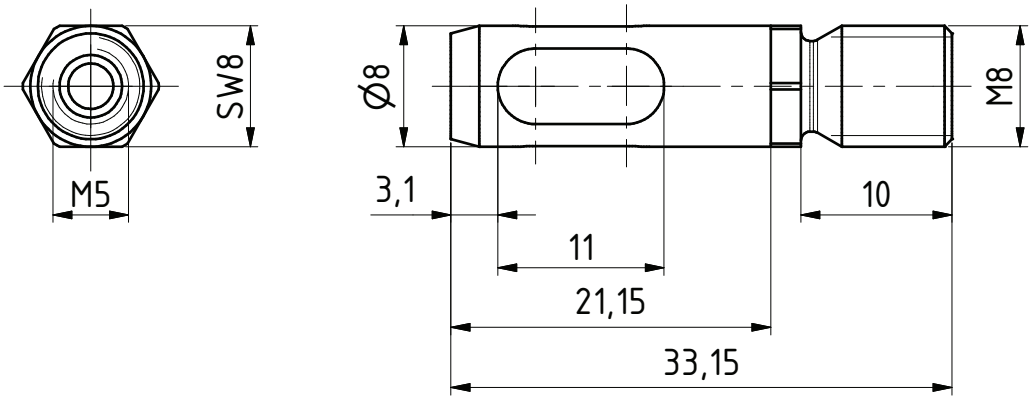


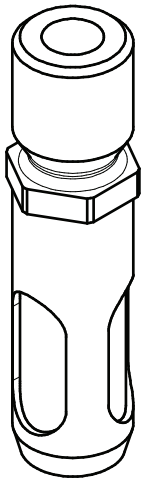
Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS006			





Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS007			





Datum	Maßstab	
11.11.2016	2:1	

Zeichnungsnummer

G-GIS008

GRIP GmbH Handhabungstechnik

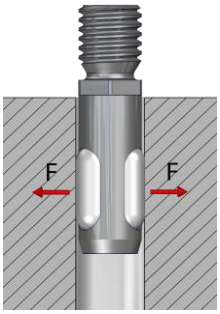
G-GIS009

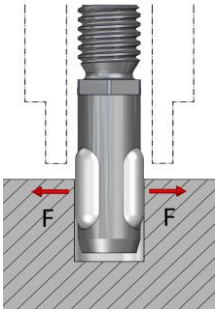
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

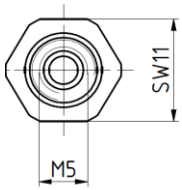
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

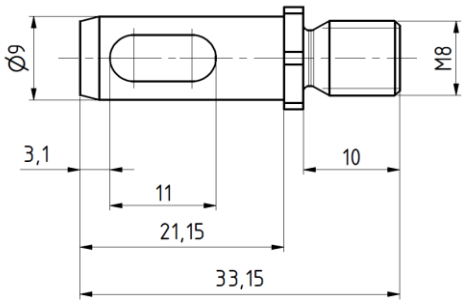
Technical specifications	GIS009
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	17
For bore diameter [mm]	9,1 – 10,0
Allowed component weight [kg]	1,7
Gripper weight [kg]	0.01
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

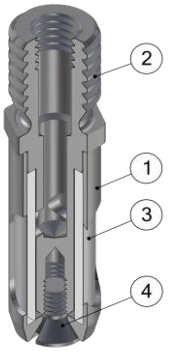




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø009…	
G-GIS009	External diameter 9, screw thread M8

Replacement tube	
EG-GI009-S	for internal gripper counter bore GIS009

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

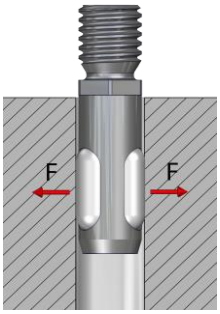
G-GIS010

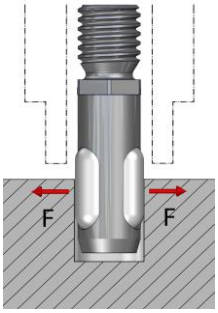
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

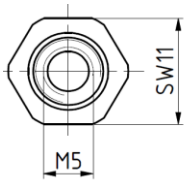
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

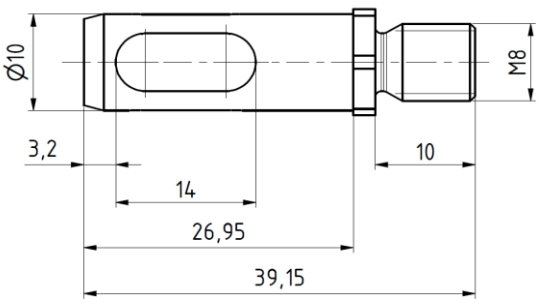
Technical specifications	GIS010
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	20
For bore diameter [mm]	10,1 – 11,0
Allowed component weight [kg]	2
Gripper weight [kg]	0.013
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

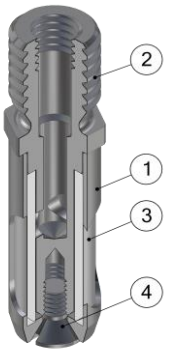




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø010…	
G-GIS010	External diameter 10, screw thread M8
Replacement tube	
EG-GI010-S	for internal gripper counter bore GIS010

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

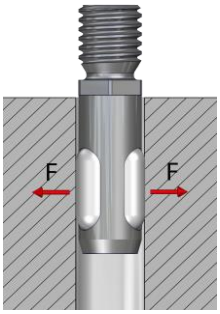
G-GIS011

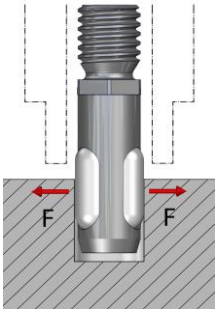
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

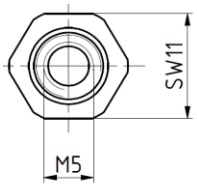
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

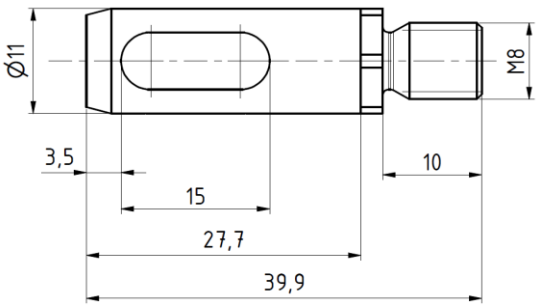
Technical specifications	GIS011
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	25
For bore diameter [mm]	11,1 – 12,0
Allowed component weight [kg]	2,5
Gripper weight [kg]	0.016
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

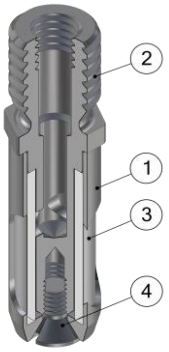




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø011…	
G-GIS011	External diameter 11, screw thread M8

Replacement tube	
EG-GI011-S	for internal gripper counter bore GIS011

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

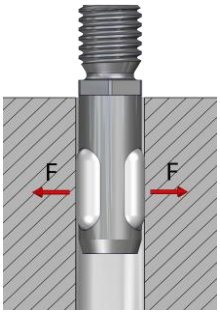
G-GIS012

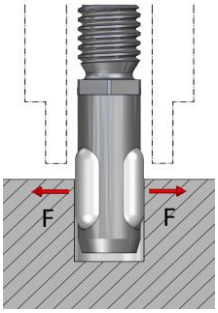
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

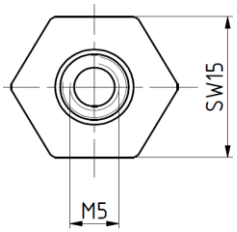
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

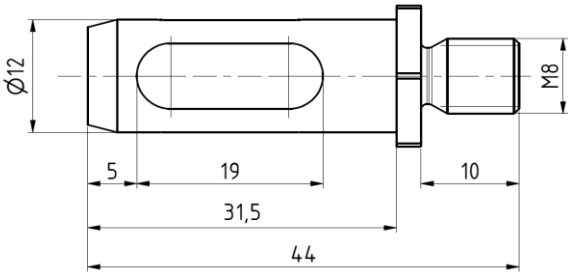
Technical specifications	GIS012
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	30
For bore diameter [mm]	12,1 – 13,5
Allowed component weight [kg]	3
Gripper weight [kg]	0.023
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

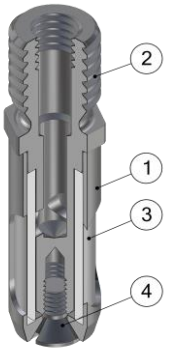




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



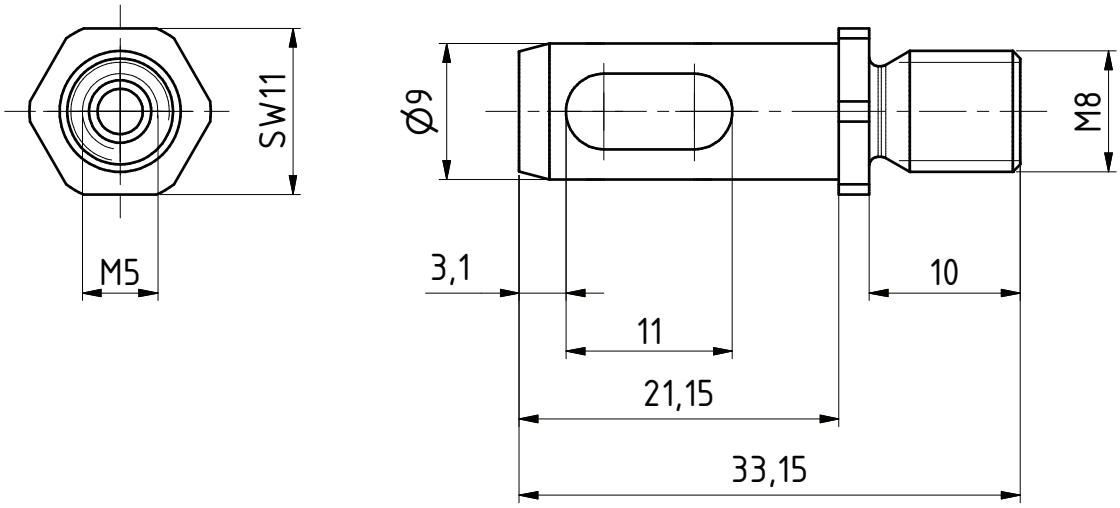


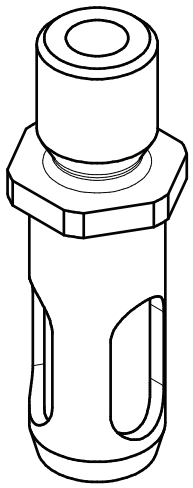


Internal gripper lowering Ø012…	
G-GIS012	External diameter 12, screw thread M8

Replacement tube	
EG-GI012-S	for internal gripper counter bore GIS012

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw



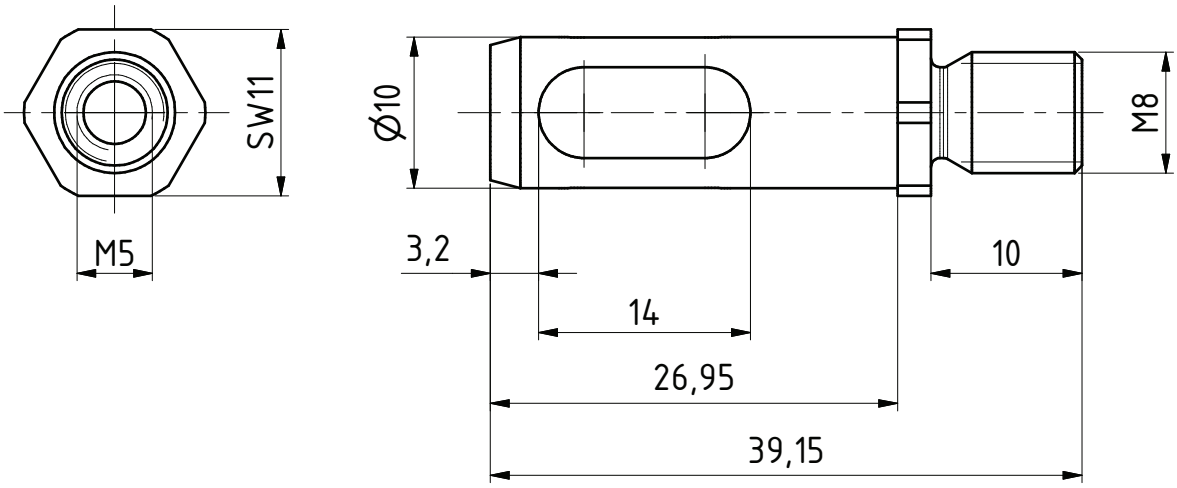


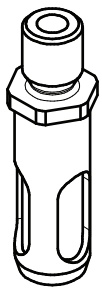
Datum	Maßstab	
11.11.2016	2:1	

Zeichnungsnummer

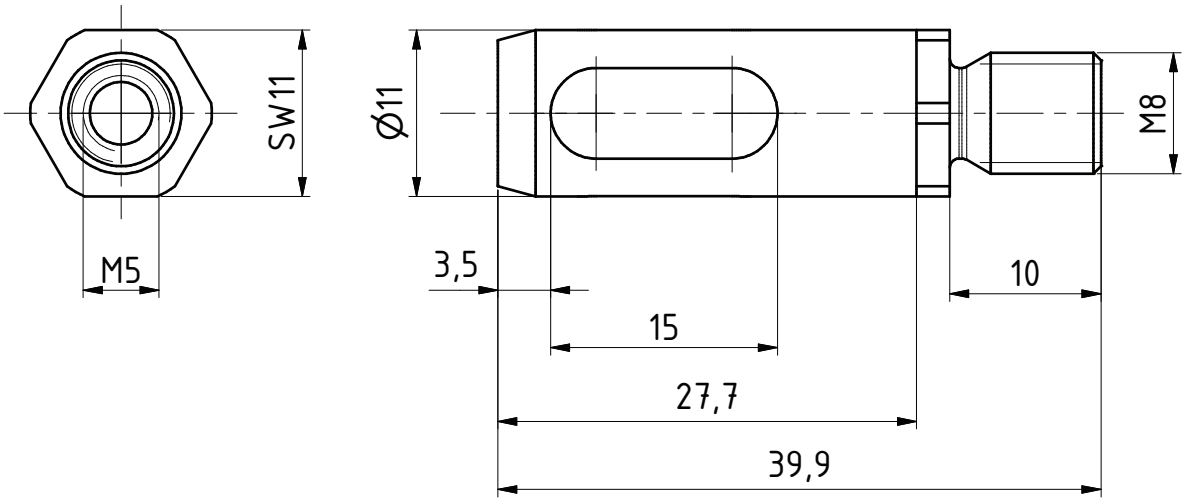
G-GIS009

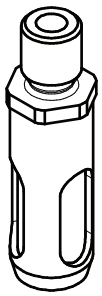
GRIP GmbH Handhabungstechnik





Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS010			



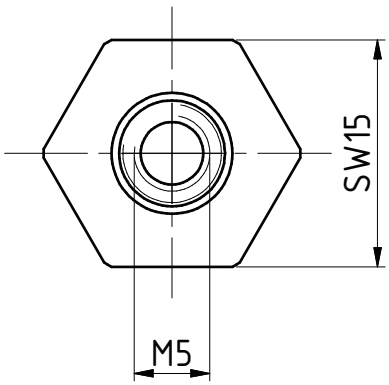


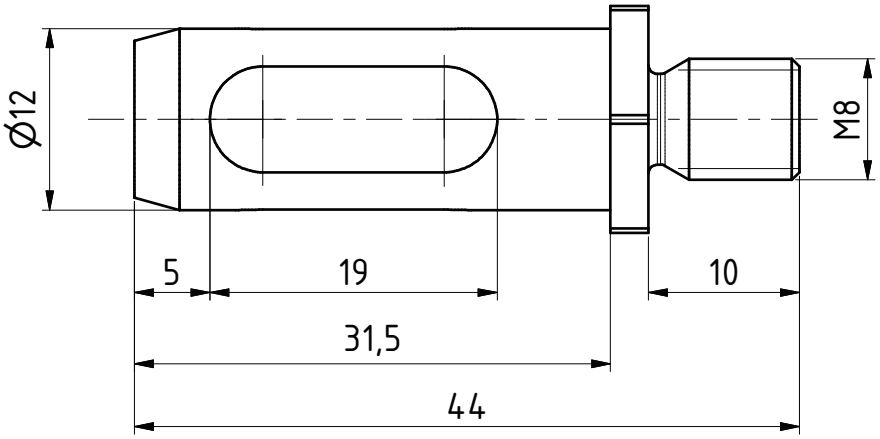
Datum	Maßstab	
11.11.2016	2:1	

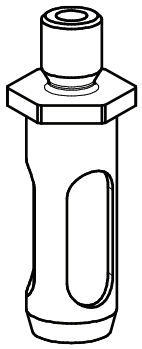
Zeichnungsnummer

G-GIS011

GRIP GmbH Handhabungstechnik







Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS012			

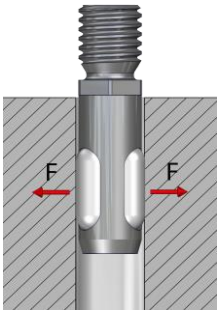
G-GIS013

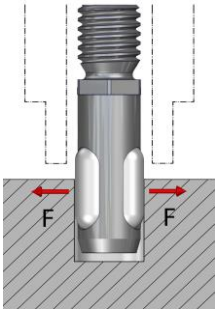
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

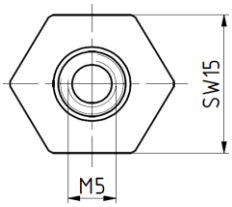
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

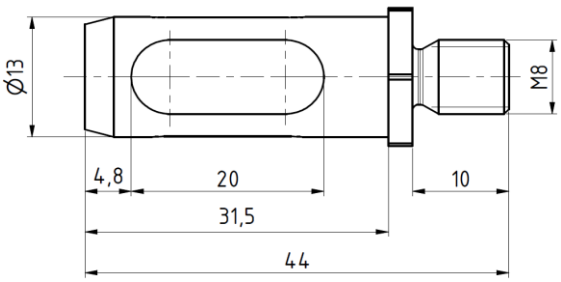
Technical specifications	GIS013
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	40
For bore diameter [mm]	13,1 – 14,5
Allowed component weight [kg]	4
Gripper weight [kg]	0.027
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

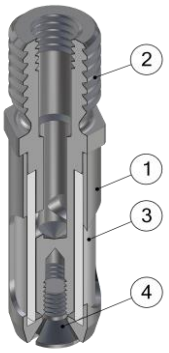




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø013…	
G-GIS013	External diameter 13, screw thread M8

Replacement tube	
EG-GI013-S	for internal gripper counter bore GIS013

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

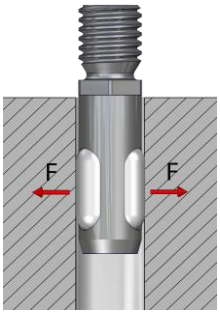
G-GIS013-12KL1

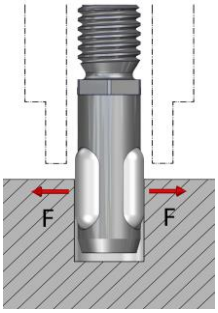
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

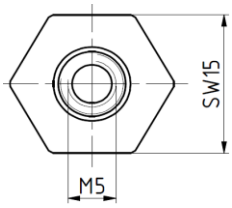
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

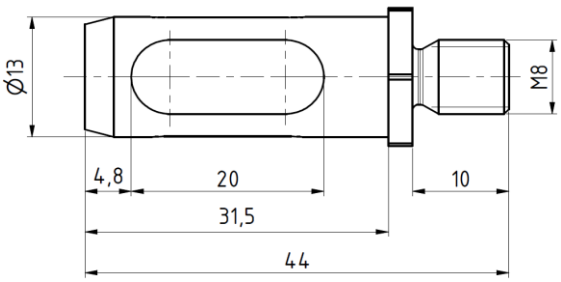
Technical specifications	GIS013-12KL1
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	40
For bore diameter [mm]	13,1 – 14,5
Allowed component weight [kg]	4
Gripper weight [kg]	0.028
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

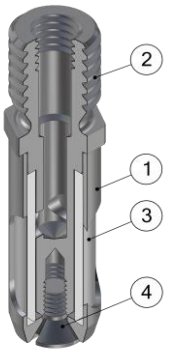




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø013…	
G-GIS013-12KL1	External diameter 13, screw thread M8, made of 1.4112

Replacement tube	
EG-GI013-S	for internal gripper counter bore GIS013

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

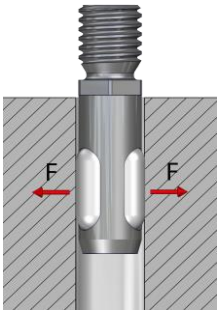
G-GIS014

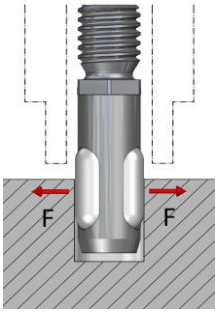
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

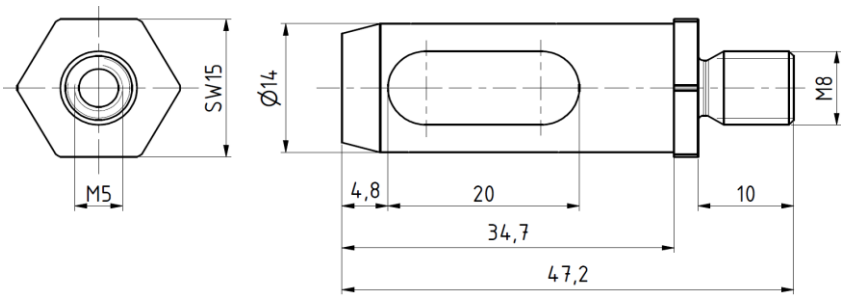
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

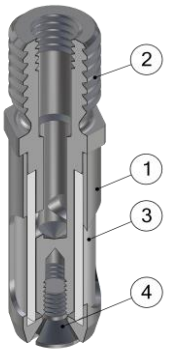
Technical specifications	GIS014
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	45
For bore diameter [mm]	14,1 – 15,5
Allowed component weight [kg]	4,5
Gripper weight [kg]	0.034
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C





Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	





Internal gripper lowering Ø014…	
G-GIS014	External diameter 14, screw thread M8

Replacement tube	
EG-GI014-S	for internal gripper counter bore GIS014

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

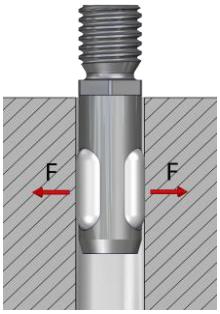
G-GIS015

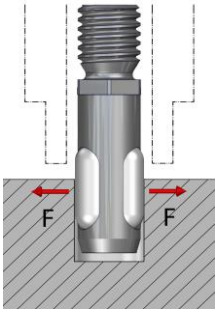
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

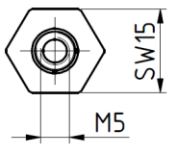
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

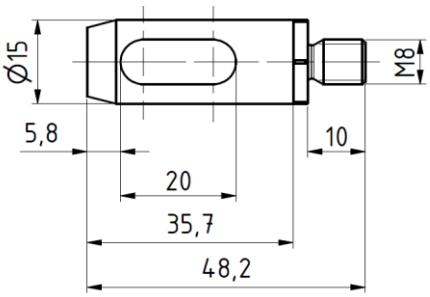
Technical specifications	GIS015
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	45
For bore diameter [mm]	15,1 – 16,5
Allowed component weight [kg]	4,5
Gripper weight [kg]	0.04
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

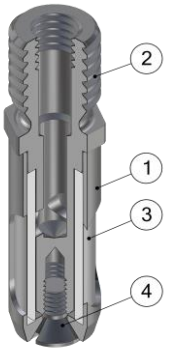




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø015…	
G-GIS015	External diameter 15, screw thread M8
Replacement tube	
EG-GI015-S	for internal gripper counter bore GIS015

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

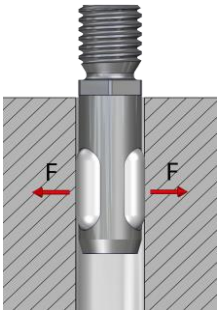
G-GIS016

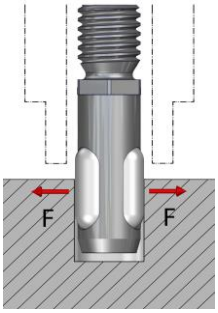
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

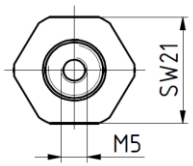
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

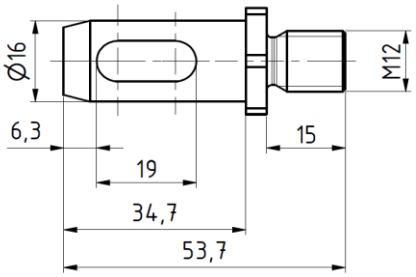
Technical specifications	GIS016
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	16,1 – 17,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.061
Compressed air connection Ø	M5
Assembly Ø	M12
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

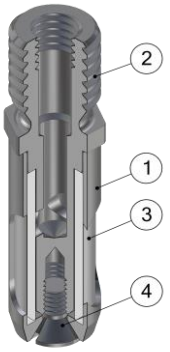




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



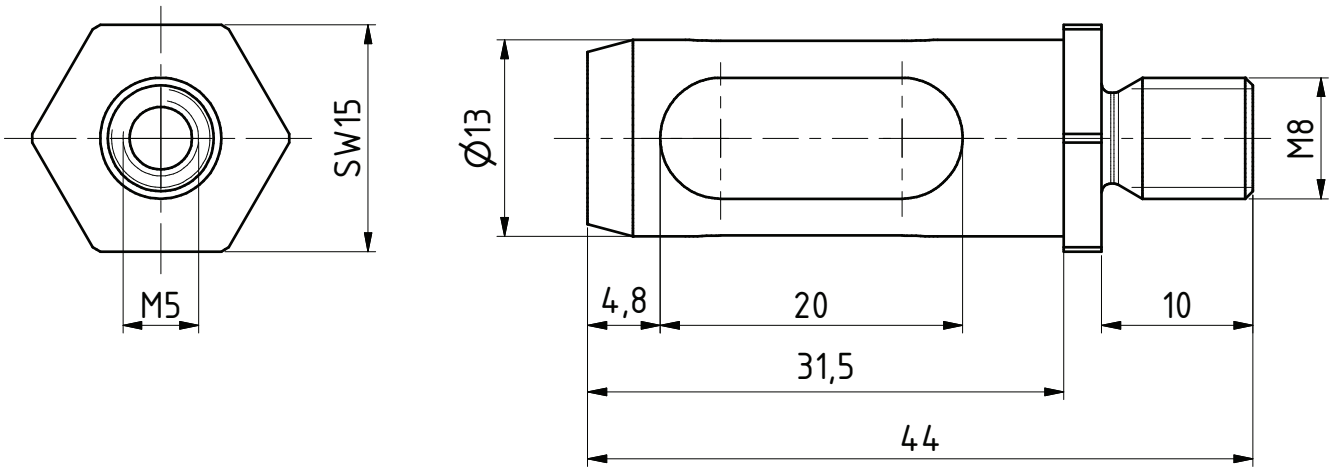


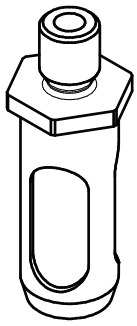


Internal gripper lowering Ø016…	
G-GIS016	External diameter 16, screw thread M12

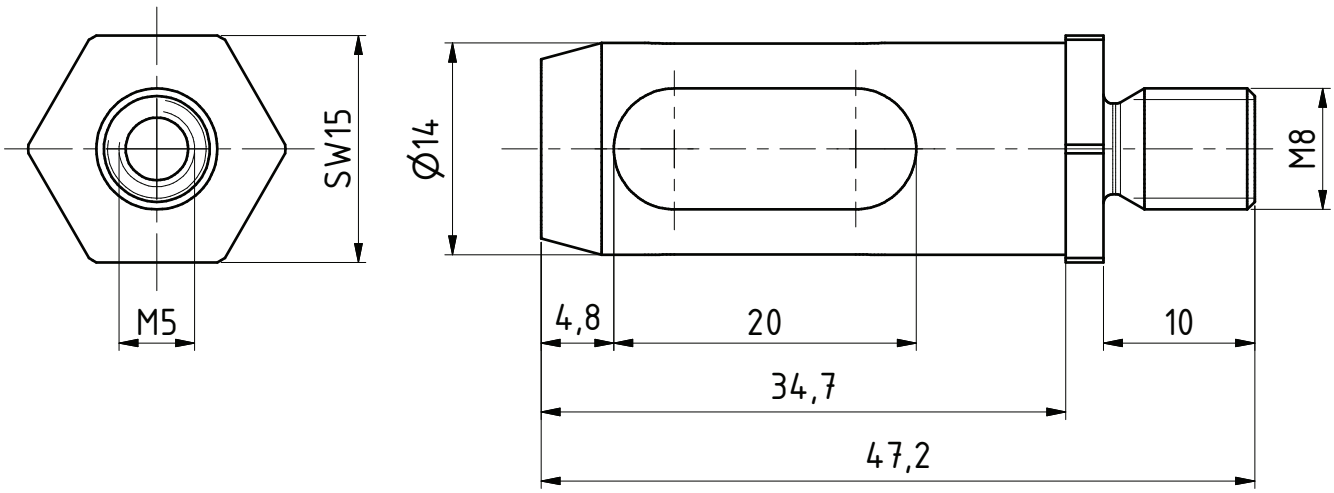
Replacement tube	
EG-GI016-S	for internal gripper counter bore GIS016

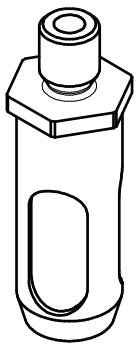
Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw



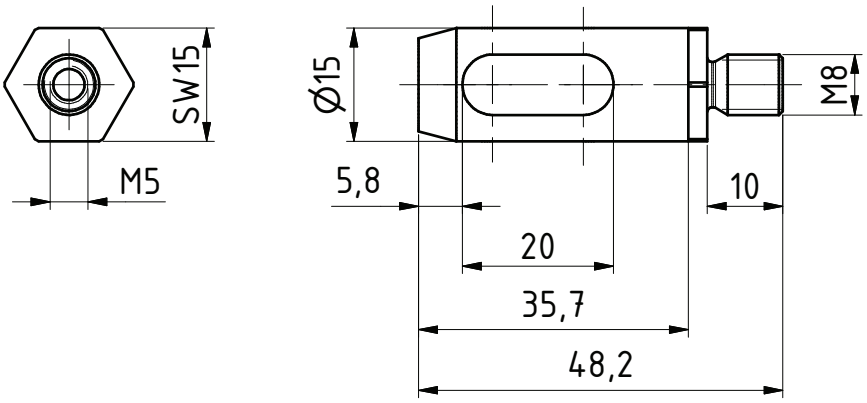


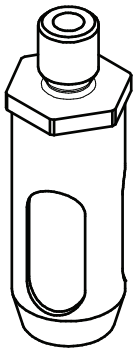
Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS013			



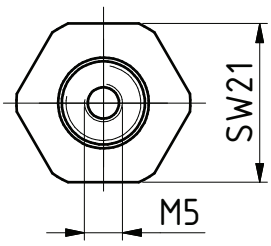


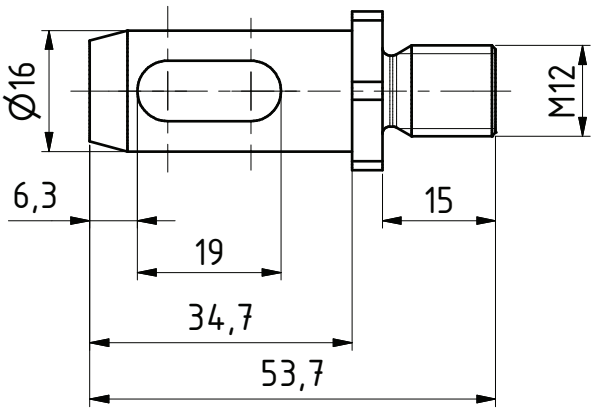
Datum 11.11.2016	Maßstab 2:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS014			

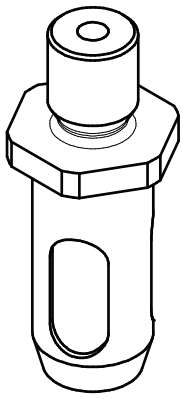




Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS015			







Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS016			

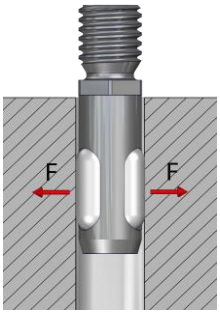
G-GIS017

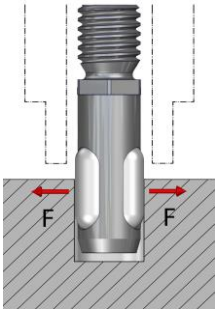
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

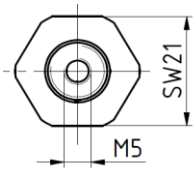
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

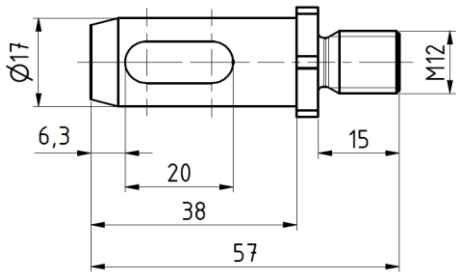
Technical specifications	GIS017
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	17,1 – 18,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.072
Compressed air connection Ø	M5
Assembly Ø	M12
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

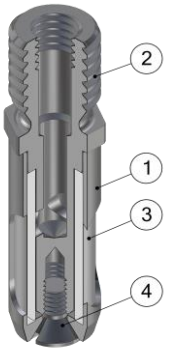




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø017…	
G-GIS017	External diameter 17, screw thread M12

Replacement tube	
EG-GI017-S	for internal gripper counter bore GIS017

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

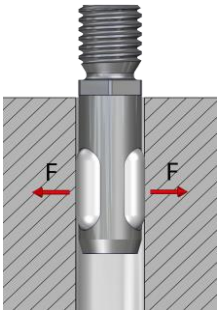
G-GIS018

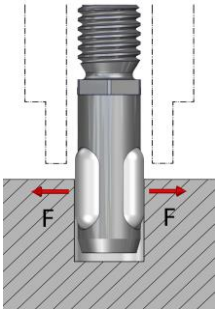
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

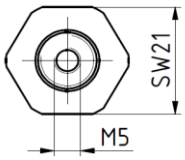
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

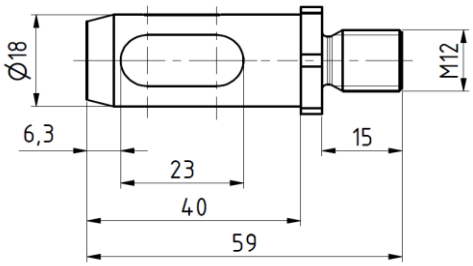
Technical specifications	GIS018
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	18,1 – 19,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.08
Compressed air connection Ø	M5
Assembly Ø	M12
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

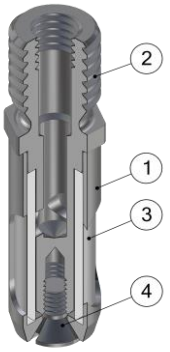




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø018…	
G-GIS018	External diameter 18, screw thread M12

Replacement tube	
EG-GI018-S	for internal gripper counter bore GIS018

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

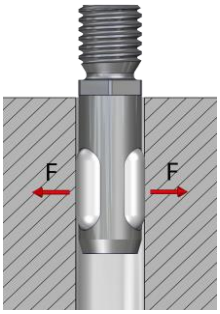
G-GIS019

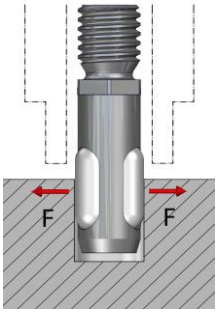
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

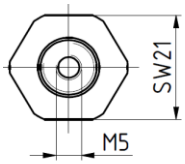
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

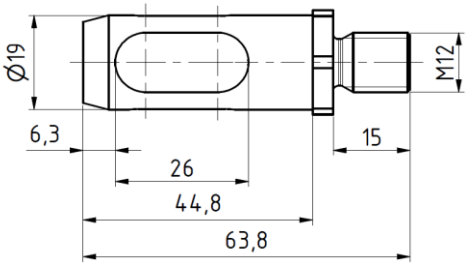
Technical specifications	GIS019
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	60
For bore diameter [mm]	19,1 – 21,0
Allowed component weight [kg]	6
Gripper weight [kg]	0.096
Compressed air connection Ø	M5
Assembly Ø	M12
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

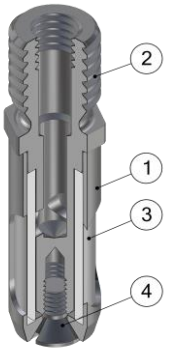




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	







Internal gripper lowering Ø019…	
G-GIS019	External diameter 19, screw thread M12

Replacement tube	
EG-GI019-S	for internal gripper counter bore GIS019

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

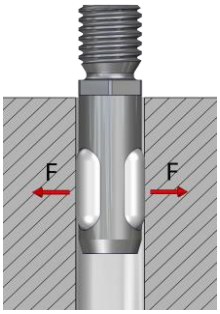
G-GIS020

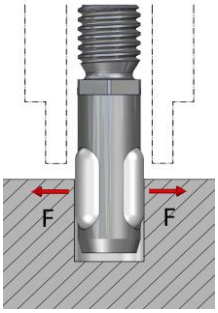
Technical specifications

Operating mode:
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

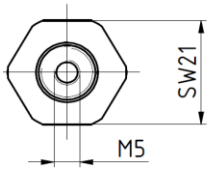
Advantages:
Minimum installation size possible
Width across flats for assembly
Minimum immersion depth
Low gripper weight
Simple gripper principle
Cost-efficient
Quick membrane replacement possible
Indirect request via pressure switch in the supply line possible

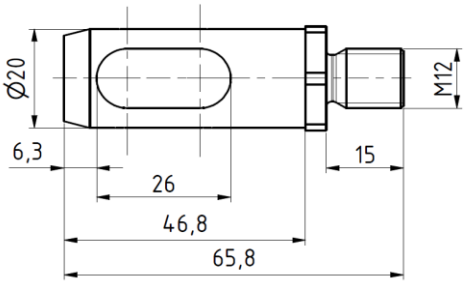
Technical specifications	GIS020
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	60
For bore diameter [mm]	20,1 –21,5
Allowed component weight [kg]	6
Gripper weight [kg]	0.11
Compressed air connection Ø	M5
Assembly Ø	M12
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

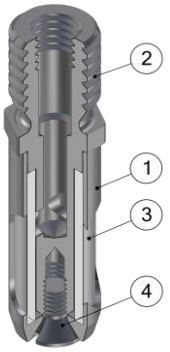




Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



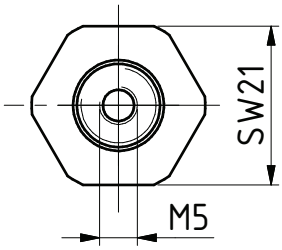


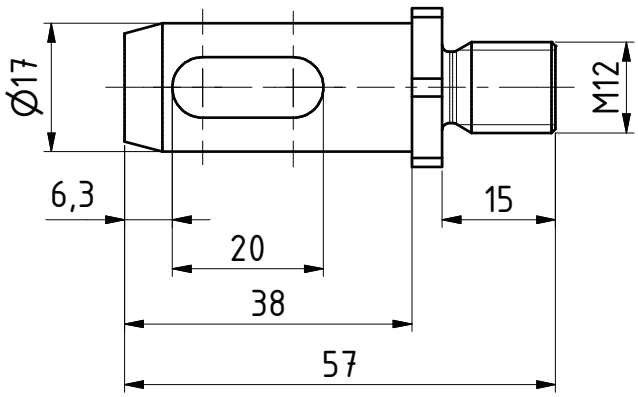


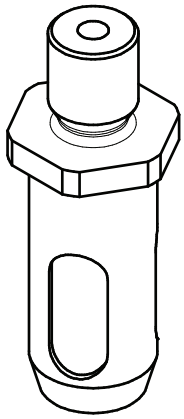
Internal gripper lowering Ø020…	
G-GIS020	External diameter 20, screw thread M12

Replacement tube	
EG-GI020-S	for internal gripper counter bore GIS020

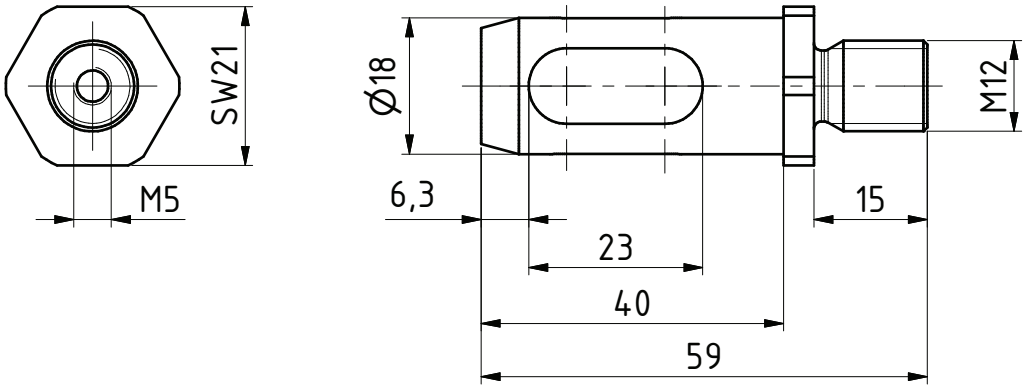
Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk screw

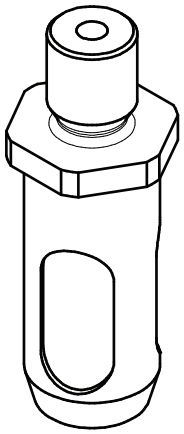




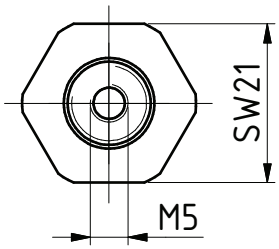


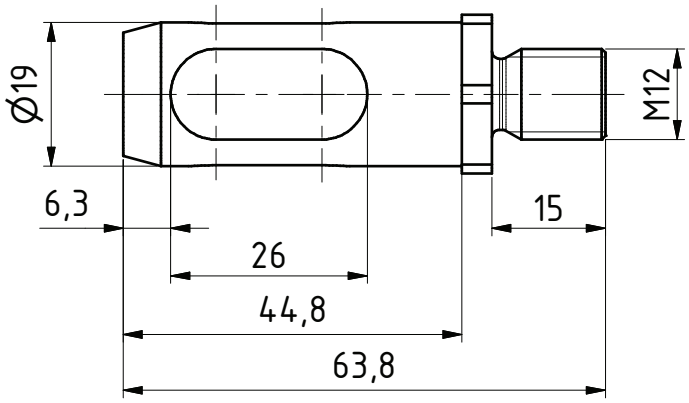
Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS017			

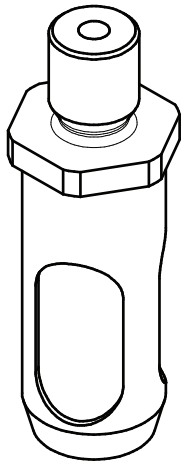




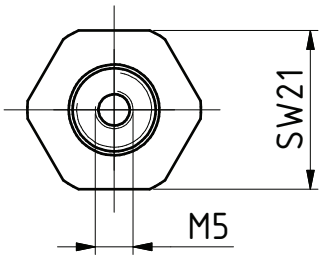
Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS018			

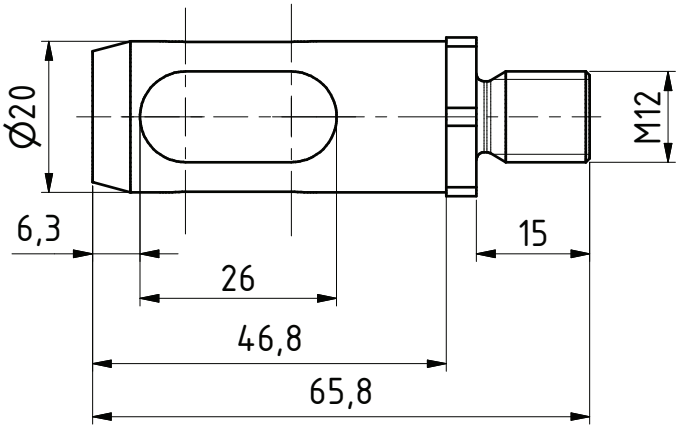


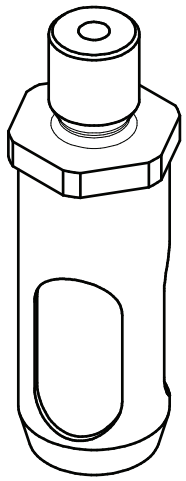




Datum 11.11.2016	Maßstab 1:1		
Zeichnungsnummer G-GIS019			GRIP GmbH Handhabungstechnik







Datum 11.11.2016	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-GIS020			

ACCESSORIES

Standardized products for carrying out compressed air, electrical signals and other additional functions

ZS Centering disc

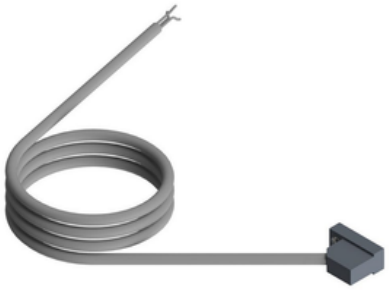
A centering disc can be installed on both the upper assembly (robot side) and lower assembly (tool side) of the robot and ensures that the tools are correctly aligned with the robot arm.

YA Y–Adapter

The Y-Adapter connects two tools to a robot flange.

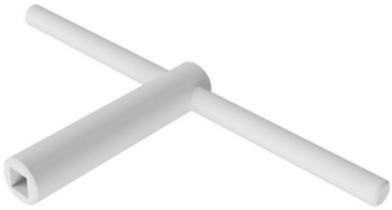
RSGU Signal transmitter with LED

We recommend the RSGU signal transmitter as an accessory for our GP and GZ Grippers. The electronic magnetic switch enables the piston position to be queried and thus the status of the gripper. For example "open" or "closed". It is designed as PNP-closer and is compatible with all our Gripper sizes. The sensor is inserted into the prepared grooves on the Grippers. The switching position can then be fixed via a set screw.



VKS Square Socket Key

The Square Socket Key is the optimal operating tool for our SWS Connector. It is required when using the safety lock device VS2. By inserting the key, the spring-loaded flap of the safety lock is disengaged.



VS2 Safety Lock

The VS2 Safety Lock is the optimal accessory for our connectors SWS050,063,080,100,125. For sizes SWS160,200,250 the VS2 Safety Lock is standard and comes premounted.

AC Tray

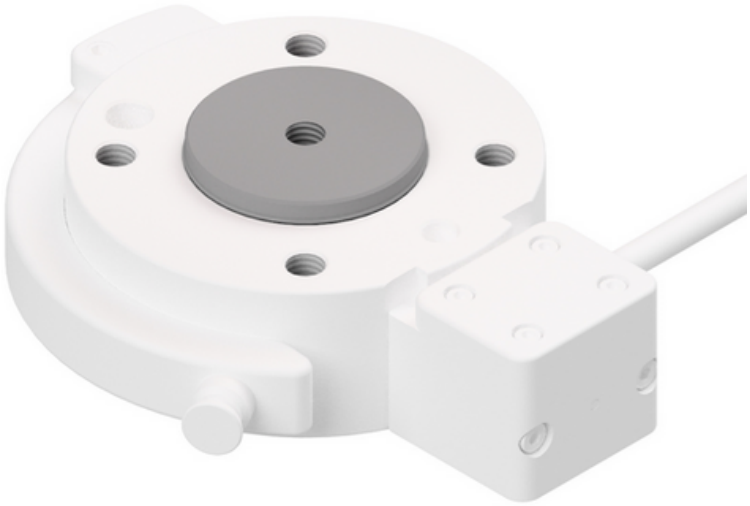
The AC tray is responsible for securely holding the Auto Connector lower assembly and respective tool. Additional trays can be added at any time making for a highly flexible and adaptable system.

ZS CENTERING DISC

A centering disc can be installed on both the upper assembly (robot side) and lower assembly (tool side) of the robot and ensures that the tools are correctly aligned with the robot arm.

ZS Centering disc Advantages:

- Ensures precise centering
- Installation on both the upper assembly (robot side) and lower assembly (tool side) possible
- Compatible with MGW, SHW and SWS Connectors
- Easy to remove due to the central threaded hole



COMPATIBLE FOR

SHW

MGW

SWS

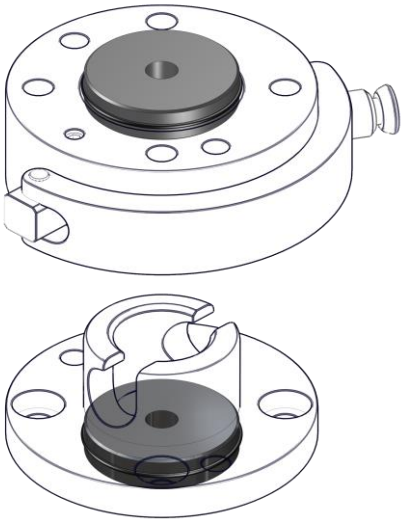
GP Parallel Gripper

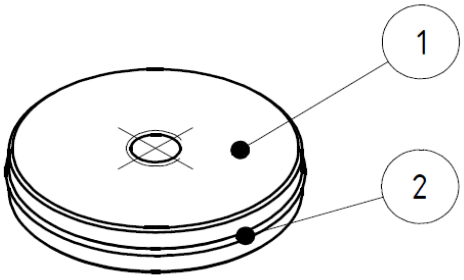
GZ Angular Gripper

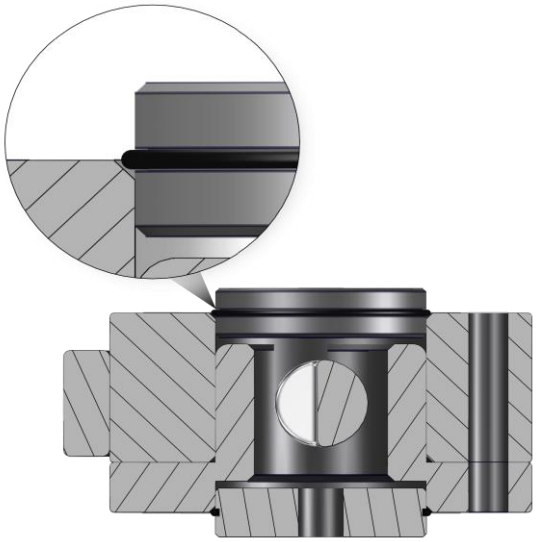
ZS Centering Disc

Technical specifications

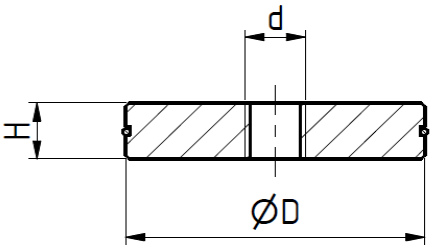
Operating Mode:
The use of a centering disc ensures that the upper assembly and/or lower assembly of the Connector are properly centered
Advantages:
Increases the centering accuracy
Can be added as an option at any time
Cost-effective
Assembly possible in upper assembly (robot-side) and lower assembly (tool-side)
Suitable for Connectors **MGW**, **SHW** and **SWS**



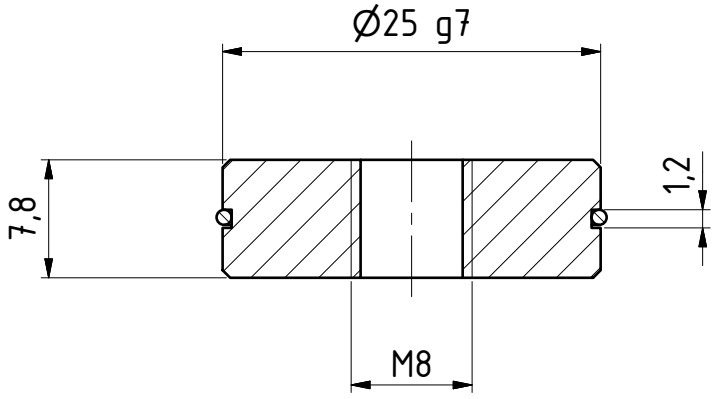


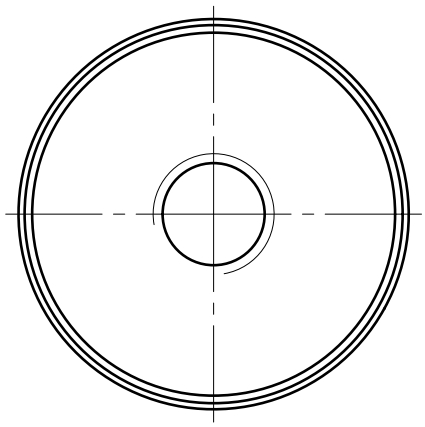


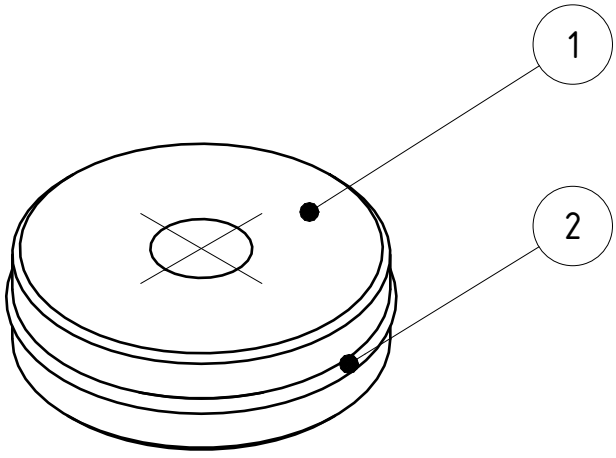
Pos.	Description
1	Centering disc
2	O-Ring



		Size					
Technical specifications		**050**	**063**	**080**	**100**	**125**	**160**
Order number		G-ZS050-1	G-ZS063-1	G-ZS080-1	G-ZS100-1	G-ZS125-1	G-ZS160-1
Material		aluminum, natural anodized / O-Ring NBR					
Diameter [mm]	D	25 g7	31,5 g7	40 g7	50 g7	63 g7	80 g7
Height [mm]	H	7,8					
Threaded bore	d	M8					
Mass [g]		10	16	26	42	67	109
Operating temperature range		-30 to +120					

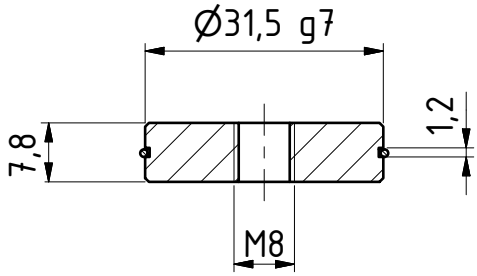


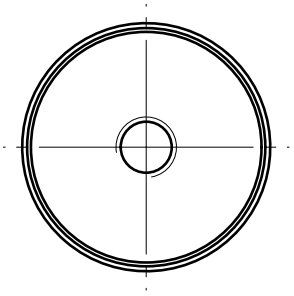


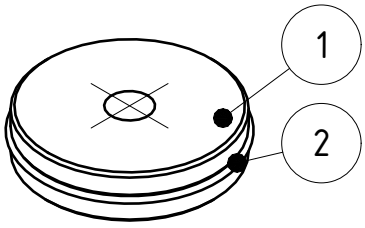


G-ZS050-1			
Pos.	Anzahl	Bestnr.	Benennung
1	1	G-ZS050-1	Zentrierscheibe 050
2	1	O-23x1 NBR70	O-Ring

Datum 22.10.19	Maßstab 2:1	GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-ZS050-1		

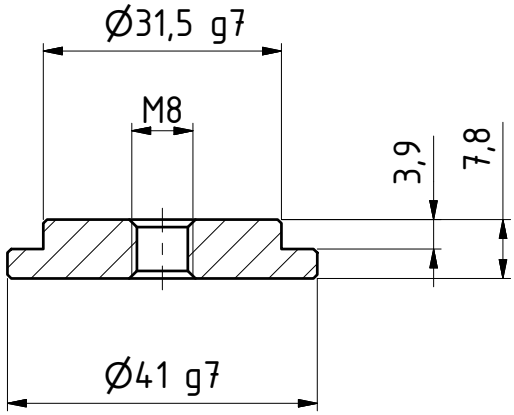


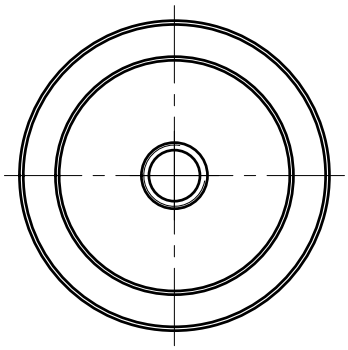


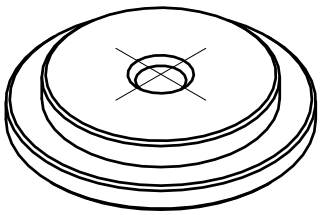


G-ZS063-1			
Pos.	Anzahl	Bestnr.	Benennung
1	1	G-ZS063-1.1	Zentrierscheibe 063
2	1	O-30x1 NBR70	O-Ring

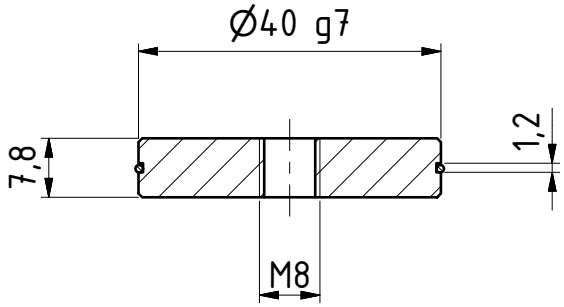
Datum 22.10.19	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-ZS063-1			

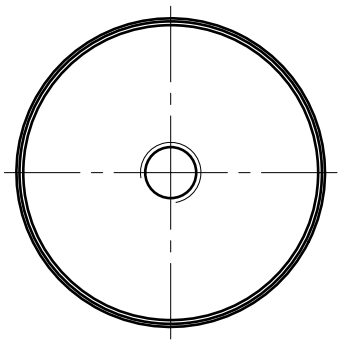


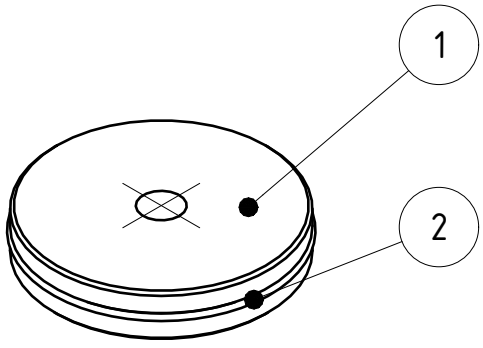




Datum 17.09.21	Maßstab 1 : 1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-ZS063-080-1			

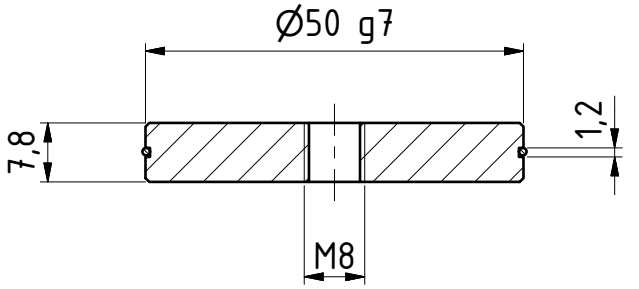


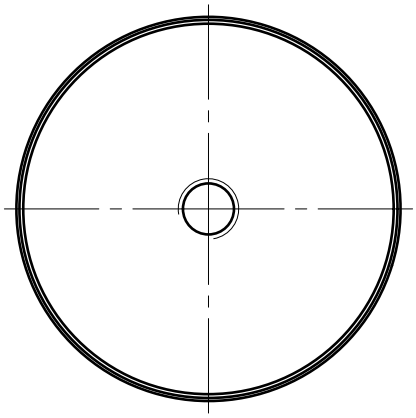


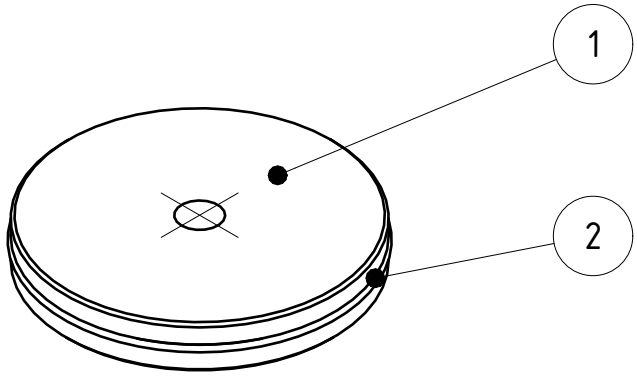


G-ZS080-1			
Pos.	Anzahl	Bestnr.	Benennung
1	1	G-ZS080-1.1	Zentrierscheibe 080
2	1	O-38x1 NBR70	O-Ring

Datum 22.10.19	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-ZS080-1			

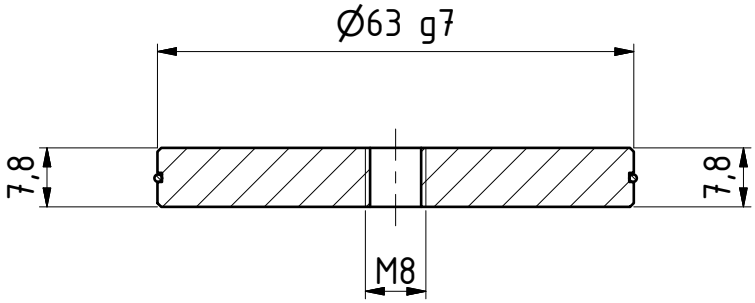


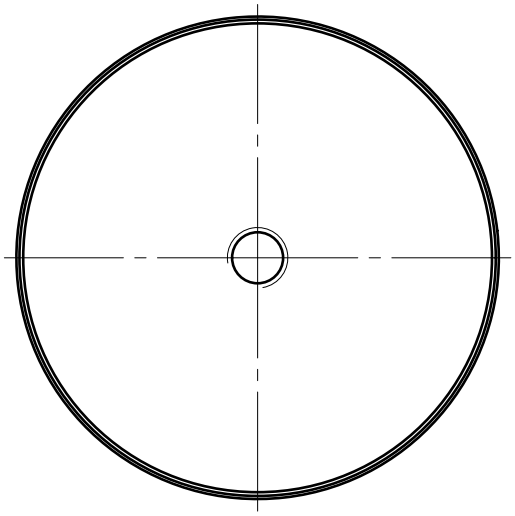


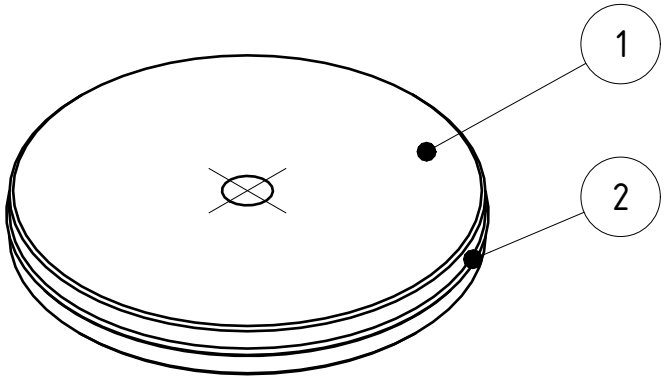


Stückliste			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	G-ZS100-1.1	Zentrierscheibe 100
2	1	O-46x1 NBR70	O-Ring

Datum 24.03.2020	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-ZS100-1			







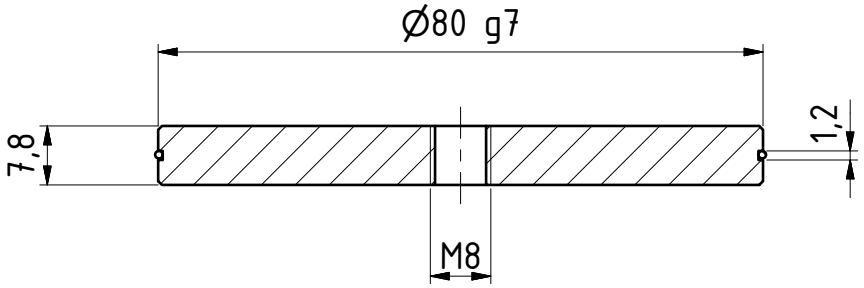
G-ZS125-1			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	G-ZS125-1.1	Zentrierscheibe 125
2	1	O-61x1 NBR70	O-Ring

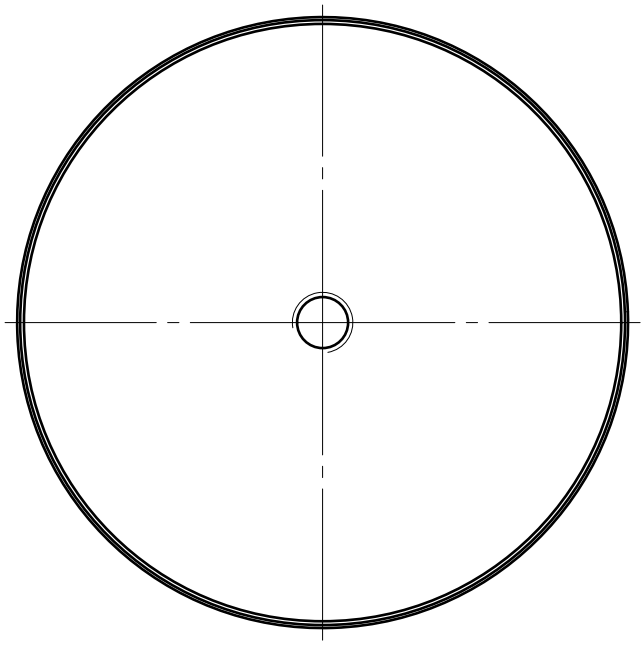
Datum 24.03.2020 | Maßstab 1:1

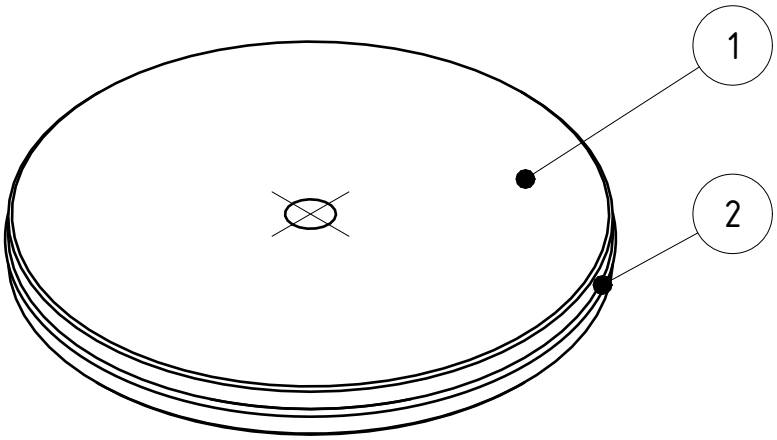
Zeichnungsnummer

G-ZS125-1

GRIP GmbH Handhabungstechnik







G-ZS160-1			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	G-ZS160-1.1	Zentrierscheibe 160
2	1	O-76x1 NBR70	O-Ring

Datum 24.03.2020	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-ZS160-1			

YA Y-ADAPTER

The Y-Adapter connects two tools to a robot flange.

Y-Adapter Advantages:

- Allows two tools to be connected to a robot arm at the same time
- Interface according to DIN EN ISO 9409–1
- Available in four sizes
- Pitch circle diameter 50 mm
- Universal Robots UR3, UR5, UR10, UR16
- Compatible with FANUC, YASKAWA, OMRON...

COMPATIBLE FOR

SHW

MGW

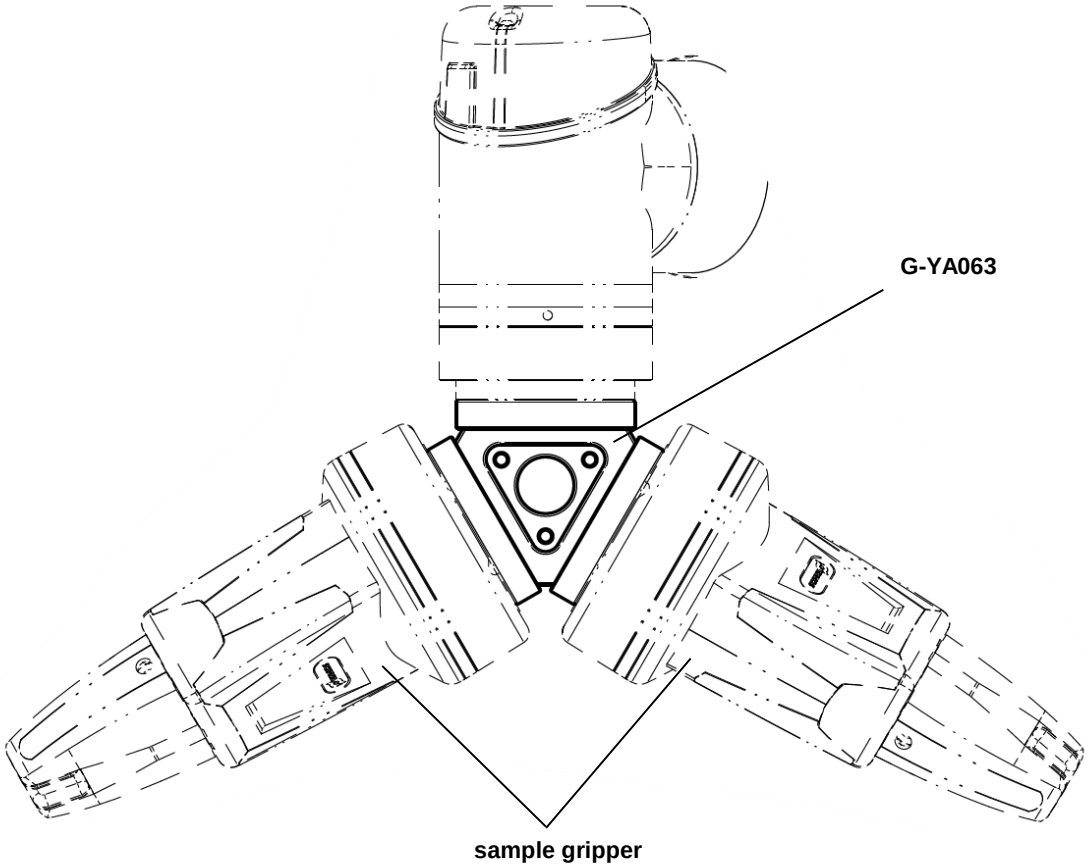
SWS

SWA

GRIP Y-Adapter

The **GRIP Y-Adapter** allows the installation of two tools, for example, two grippers on one robot.
With a pinch circle diameter of 50 mm, it's **suitable for most robots**.
By using the GRIP Y-Adapter, your robots cycle time and flexibility will be optimized.

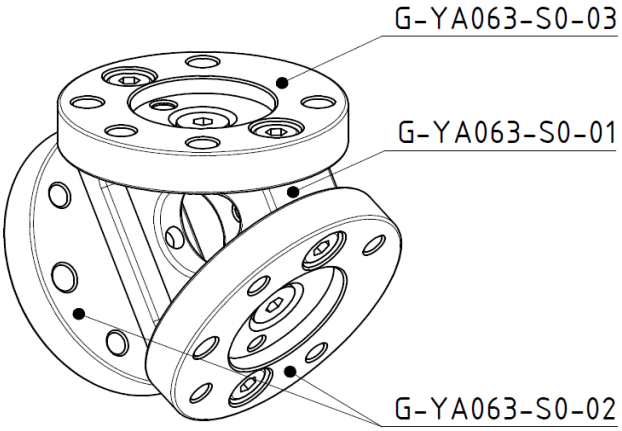
The **GRIP Y-Adapter** is available in four versions: **G-YA063-S1; G-YA063-S2; G-YA063-S3; G-YA063-S4**

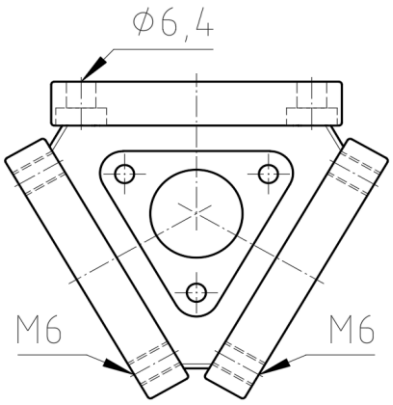


Operating Mode:
The Y-Adapter connects two tools with one robot flange.
Advantages:
Increase of robot flexibility
Optimized cycle time
Interface according to DIN EN ISO 9409-1
High-strength aluminum, black and green anodized
Compatible with every 50 mm pitch circle diameter robot type

Technical specifications	**YA063**
Basic material	aluminum, anodized
Flange diameter [mm]	63
Pitch circle diameter [mm]	50
Repeat accuracy +/- [mm]	0,02
Mass [kg]	0,34
Recommended load [kg]	24
Operating temperature range [°C]	-30 to +120

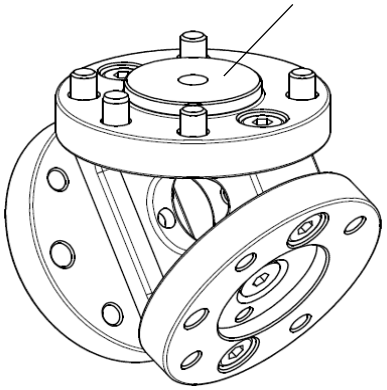
G-YA063-S1
1 x G-YA063-S0-01
2 x G-YA063-S0-02
1 x G-YA063-S0-03

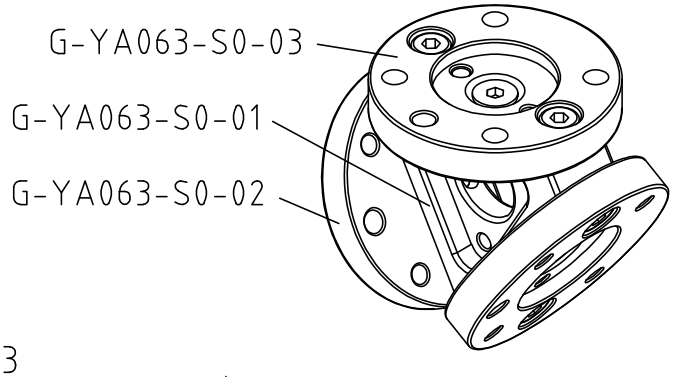


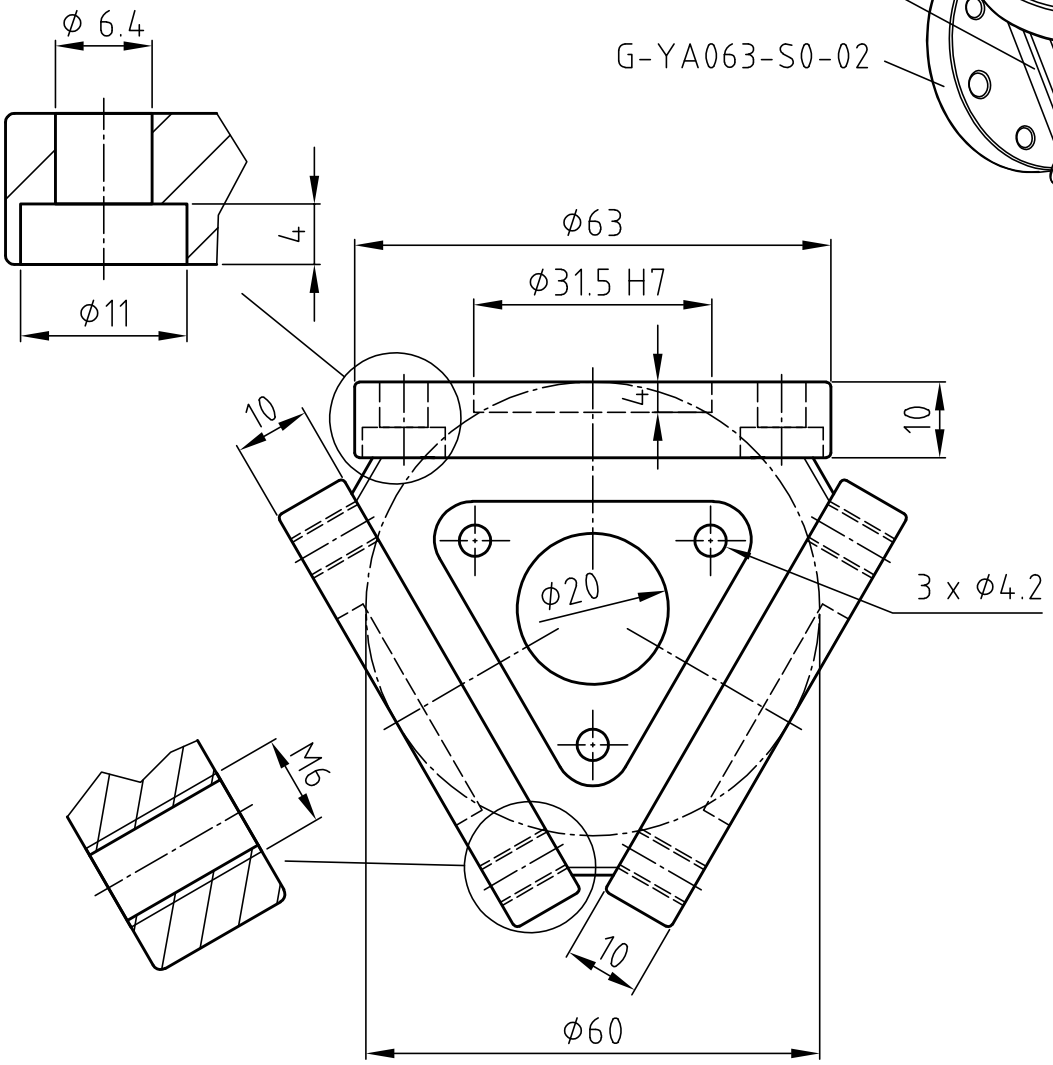


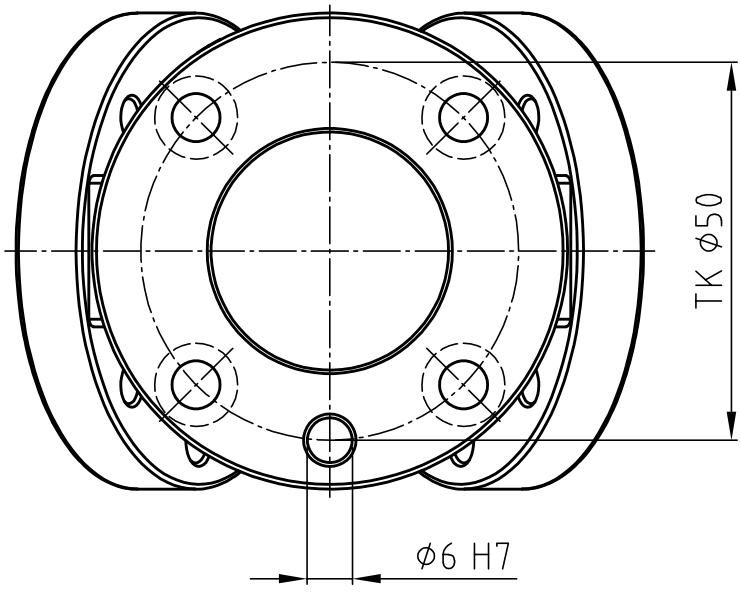
Y-Adapter	
G-YA063-S1	Y-Adapter set 1
Spare Parts	
G-YA063-S0-01	Y-Assembly
G-YA063-S0-02	Y-Flange 063 with M6 thread
G-YA063-S0-03	Y-Flange 063 with D6,4 counter bore
Accessories	
G-ZS063	Centering disk for MGW063

G-ZS063

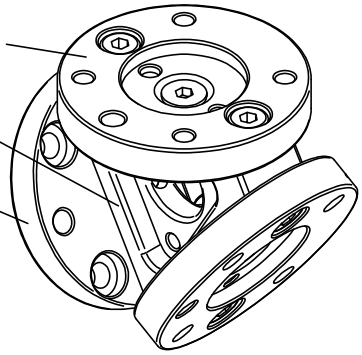


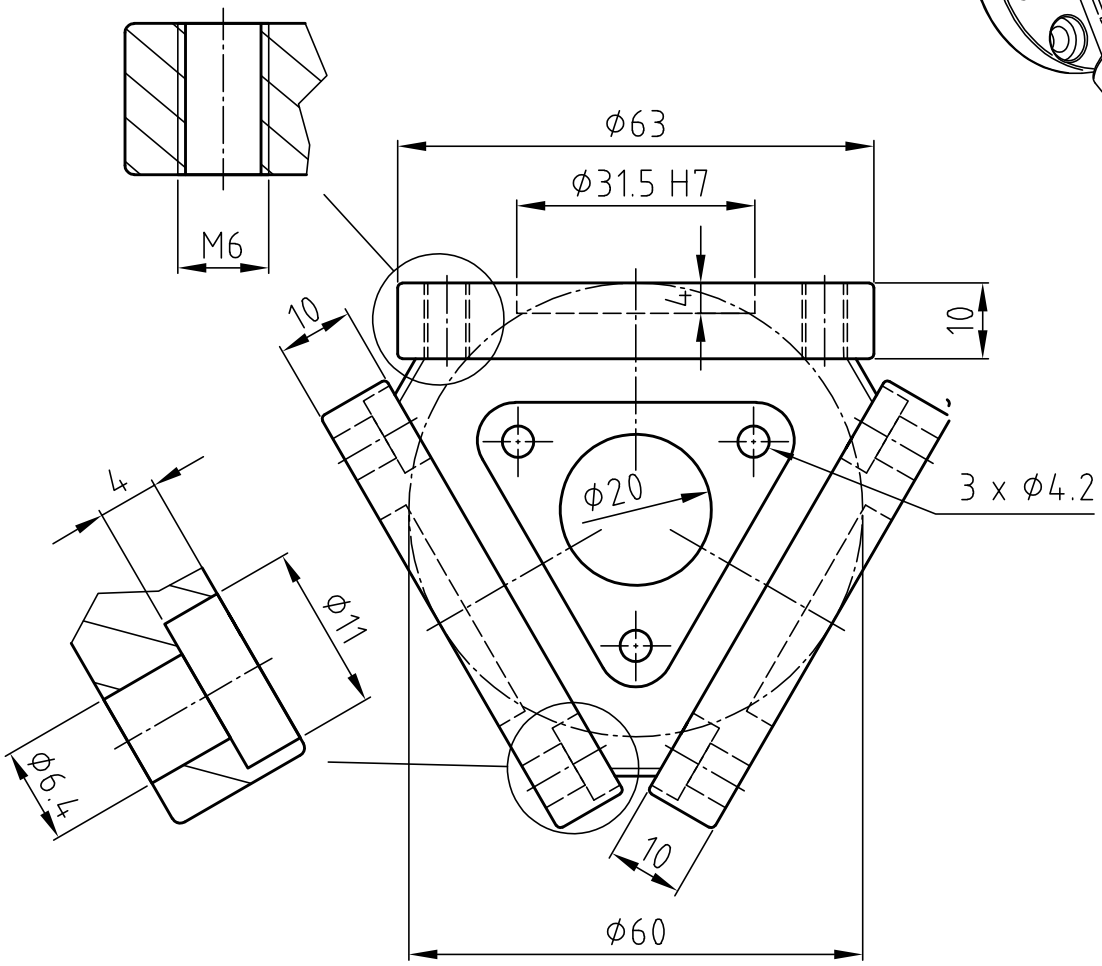


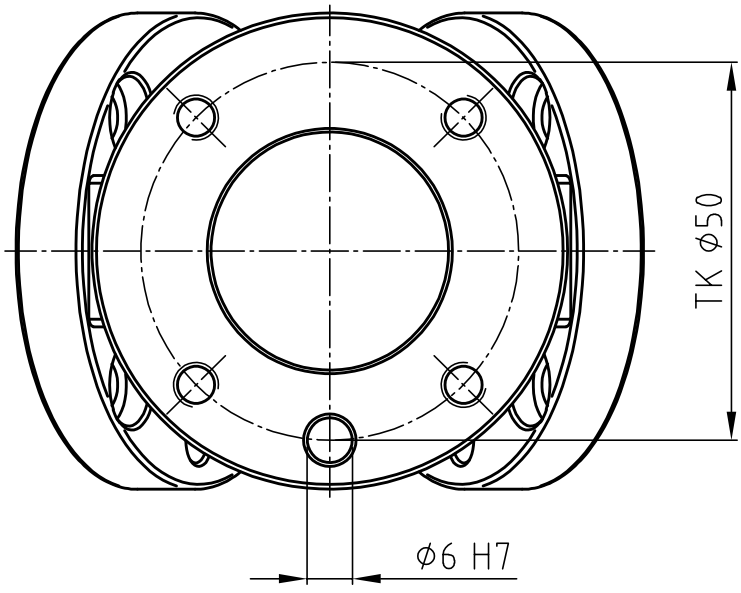




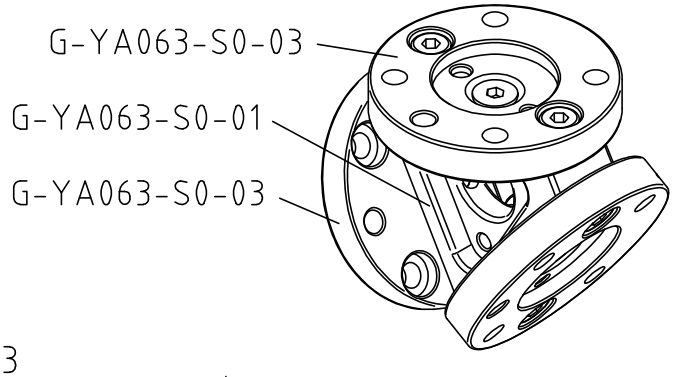
Datum 26.03.2020	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-YA063-S1			

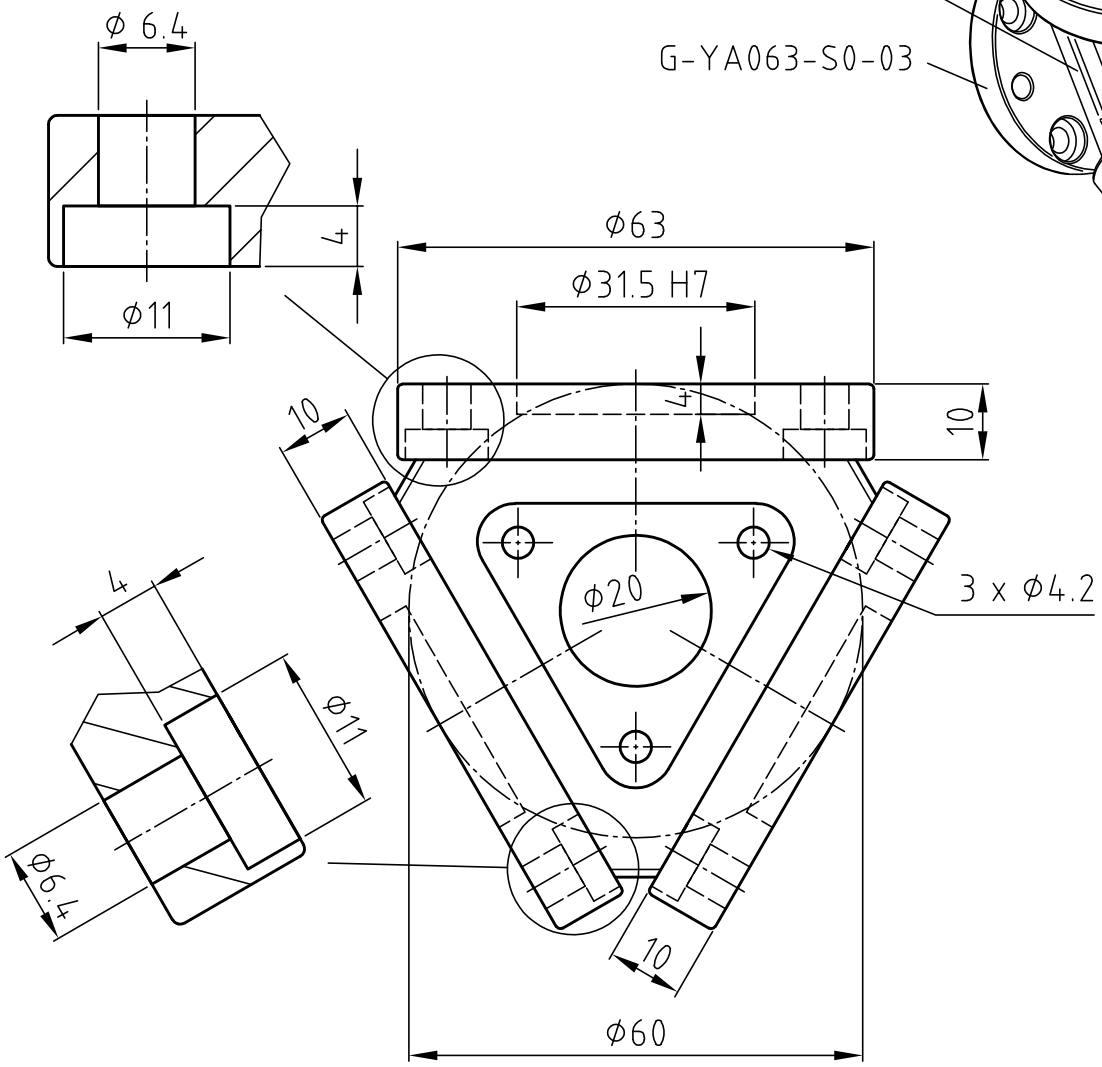


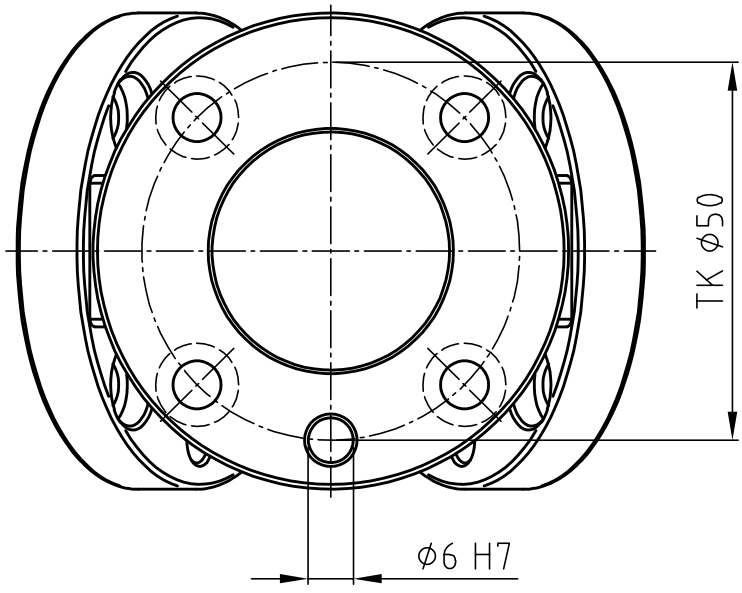




Datum 26.03.2020	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-YA063-S2			





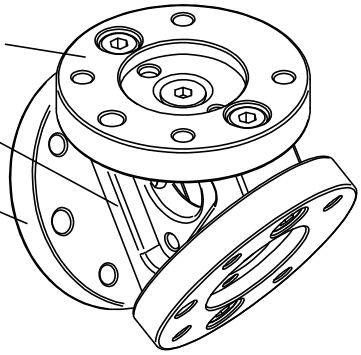


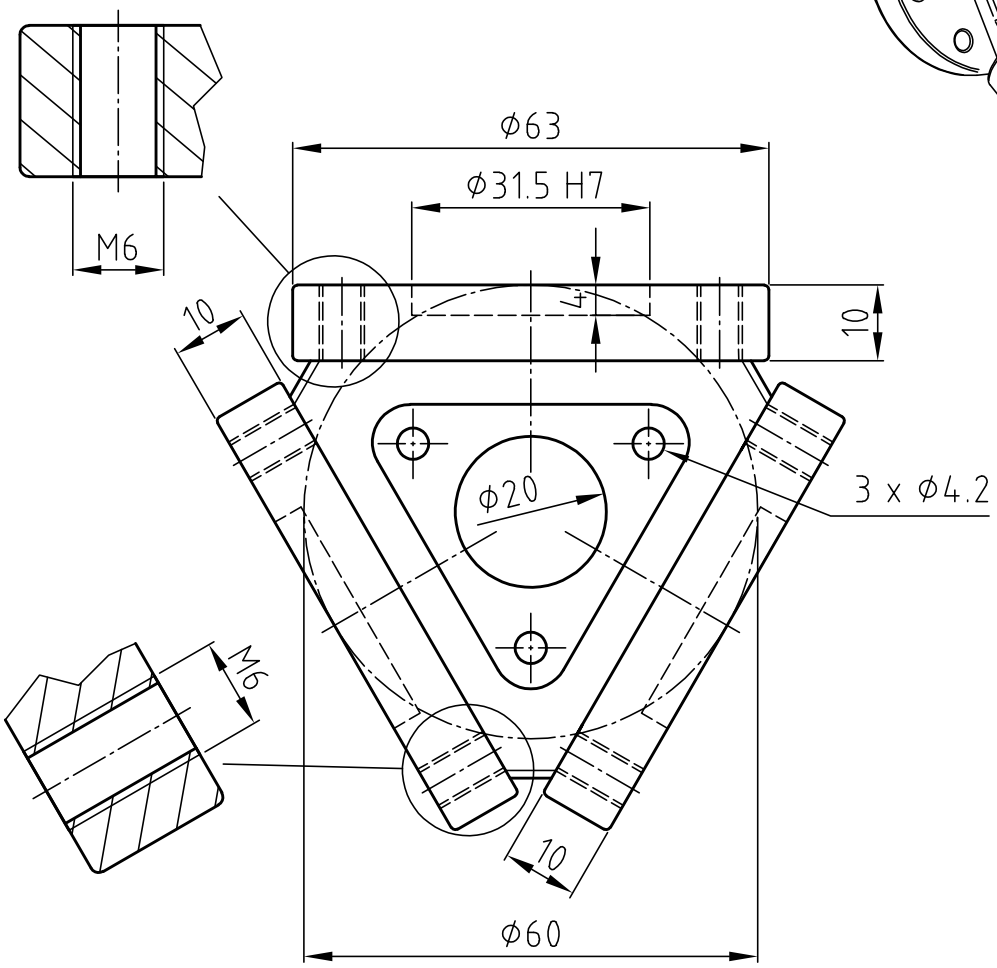
Datum	Maßstab		
26.03.2020	1:1		

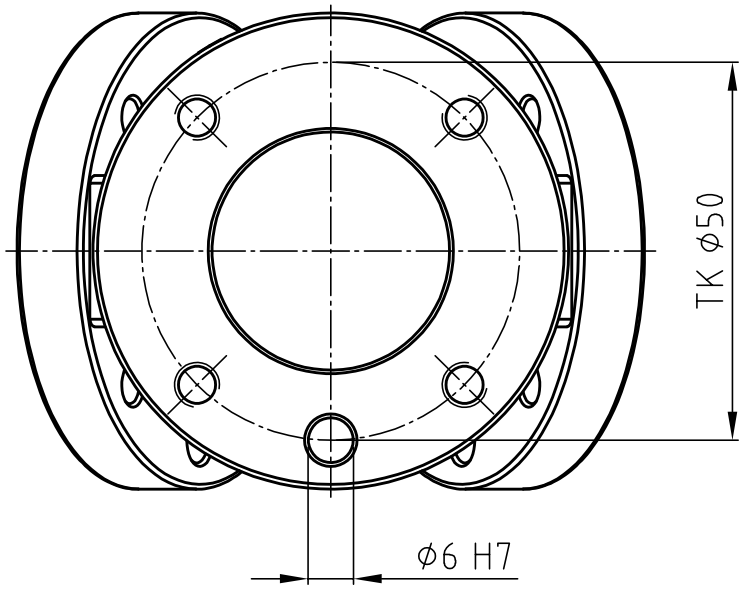
Zeichnungsnummer

G-YA063-S3

GRIP GmbH Handhabungstechnik







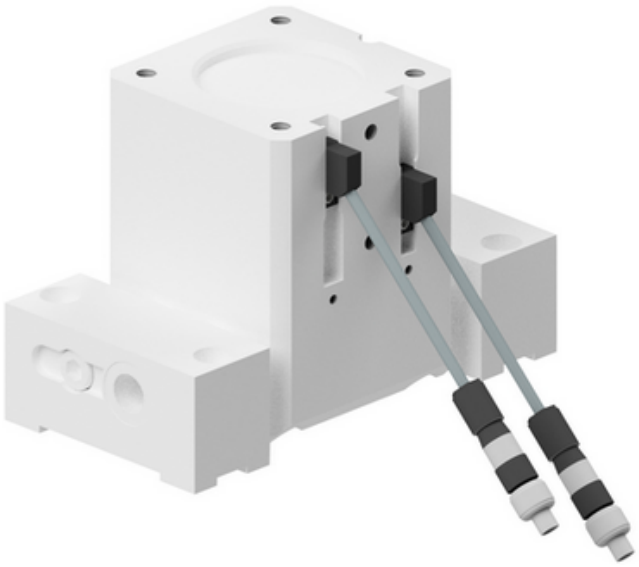
Datum 26.03.2020	Maßstab 1:1		
Zeichnungsnummer G-YA063-S4			GRIP GmbH Handhabungstechnik

RSGU SIGNAL TRANSMITTER WITH LED

We recommend the RSGU signal transmitter as an accessory for our GP and GZ Grippers. The electronic magnetic switch enables the piston position to be queried and thus the status of the gripper. For example "open" or "closed". It is designed as PNP-closer and is compatible with all our Gripper sizes. The sensor is inserted into the prepared grooves on the Grippers. The switching position can then be fixed via a set screw.

The signal transmitter with LED is available in two versions:

- The ZG–RSGU–01 has a 2 meter long and open end cable
- The ZG-RSGU01–300–M8 has a 300 mm long cable with an M8 connector

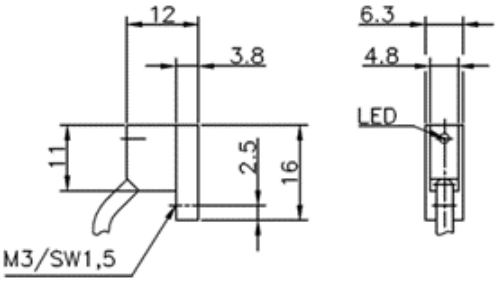


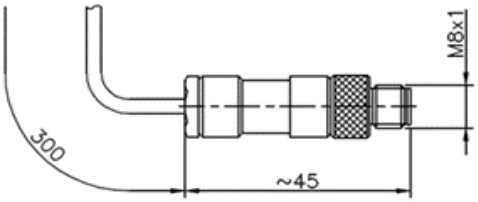
COMPATIBLE FOR

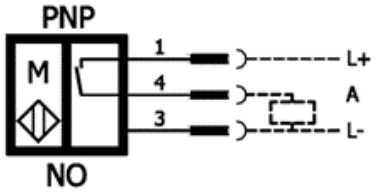
GP Parallel Grippe

GZ Angular Gripper

Technical specifications	RSGU01-300-M8
DC 3-Wire	16x12x6,3 mm
Switching output	PNP-closing contact
Operating voltage UB	10 - 30V DC
Rated operational current Ie	max. 200 mA
Voltage drop Du	≤3V (at Imax = 400mA)
Temperature range	- 25° C … +80° C
Short-circuit strength	integrated
Inverse-polarity protection	integrated
Protection class DIN 60 5029	IP67
Switching status display	LED
Connection M8	0,3m PVC Wire: 3x0,04 mm^2
Housing material	Plastic material
Torque of fastening screw	0.8 Nm
Operating temperature range [°C]	-30 to +120

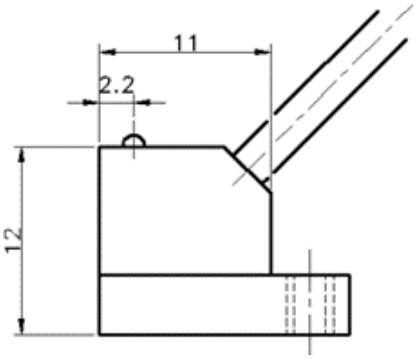


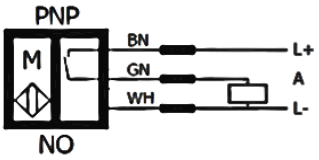


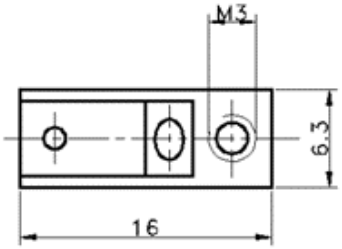


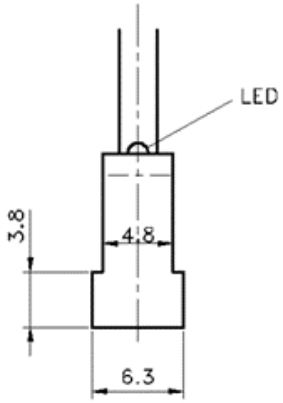
Electronic magnetic switch	
ZG-RSGU01-300-M8	for G-GP..., Signal transmitter with LED, with M8 plug

Technical specifications	RSGU01
DC 3-Wire	16x12x6,3 mm
Switching output	PNP-closing contact
Operating voltage UB	10 - 30V DC
Rated operational current Ie	max. 200 mA
Voltage drop Du	≤3V (at Imax = 400mA)
Temperature range	- 25° C … +80° C
Short-circuit strength	integrated
Inverse-polarity protection	integrated
Protection class DIN 60 5029	IP67
Switching status display	LED
Connection M8	2 m PVC Wire: 3x0,04 mm^2
Housing material	Plastic material
Torque of fastening screw	0.8 Nm
Operating temperature range [°C]	-30 to +120

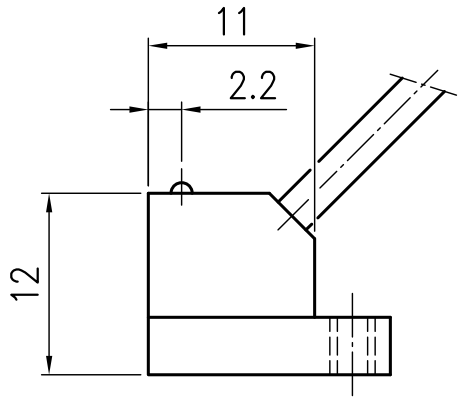


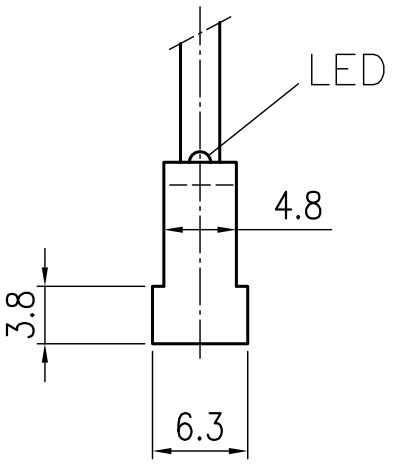


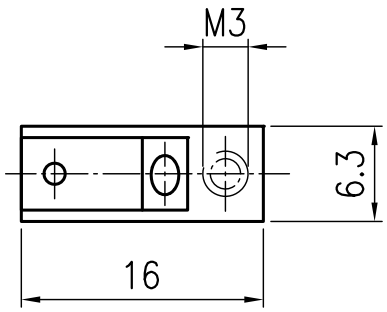


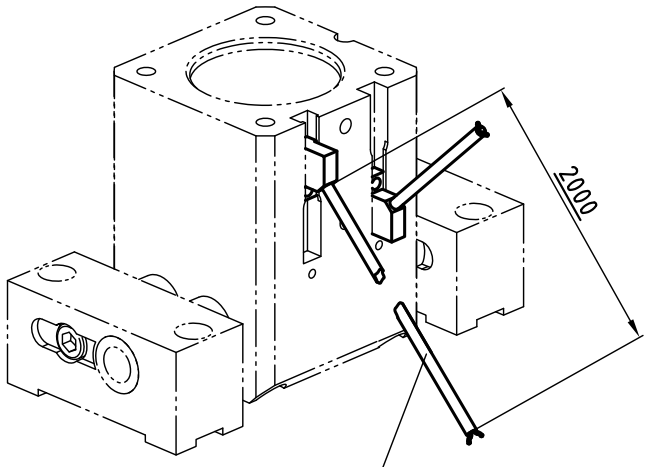


Electronic magnetic switch	
ZG-RSGU01	Magnetic proximity switch

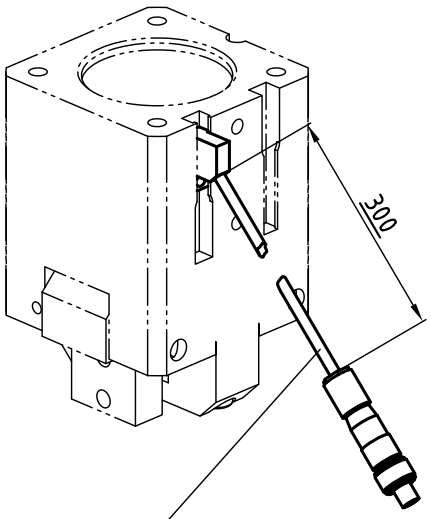








ZG-RSGU-01



ZG-RSGU01-300-M8

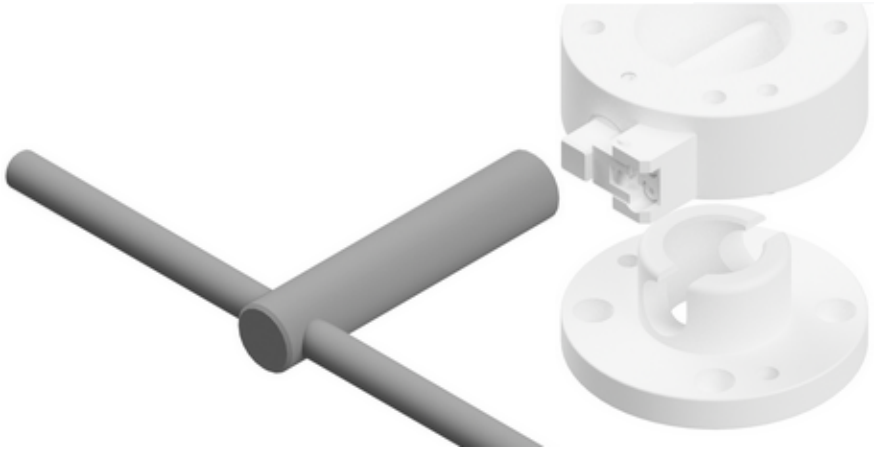
Datum	Maßstab		
26.03.2020	2:1		GRIP GmbH Handhabungstechnik

Zeichnungsnummer

G-RSGU

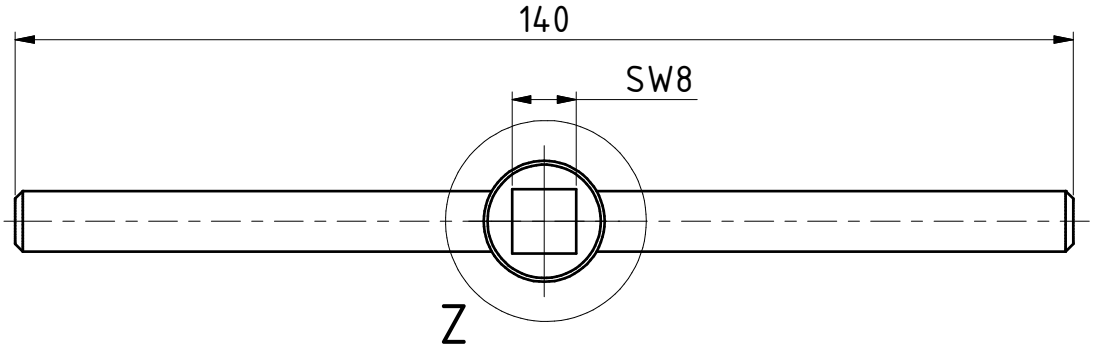
VKS SQUARE SOCKET KEY

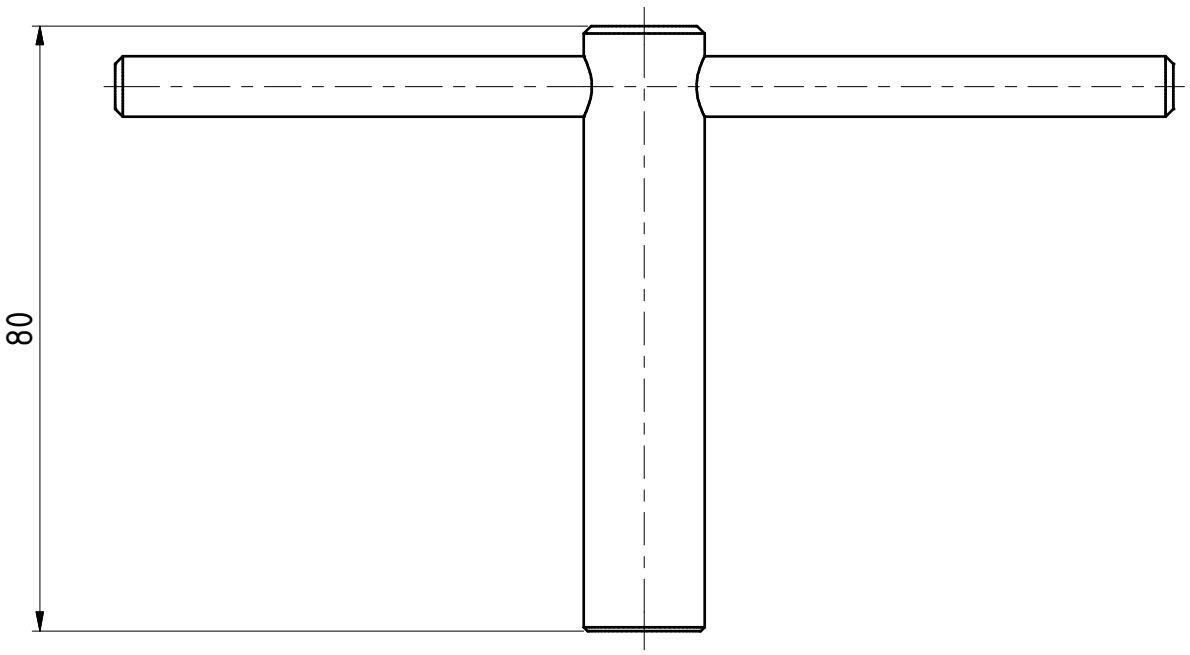
The Square Socket Key is the optimal operating tool for our SWS Connector. It is required when using the safety lock device VS2. By inserting the key, the spring-loaded flap of the safety lock is disengaged.

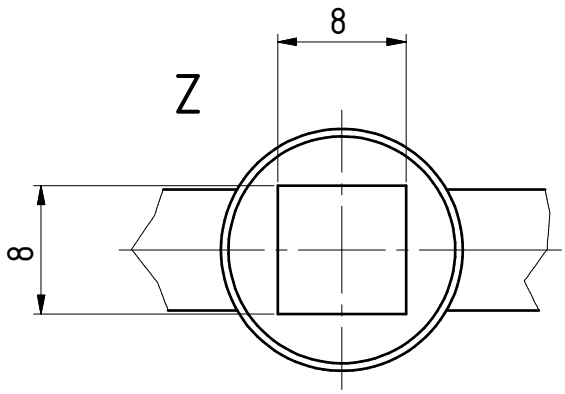


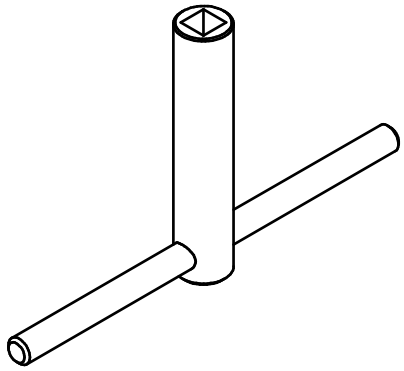
COMPATIBLE FOR

SWS









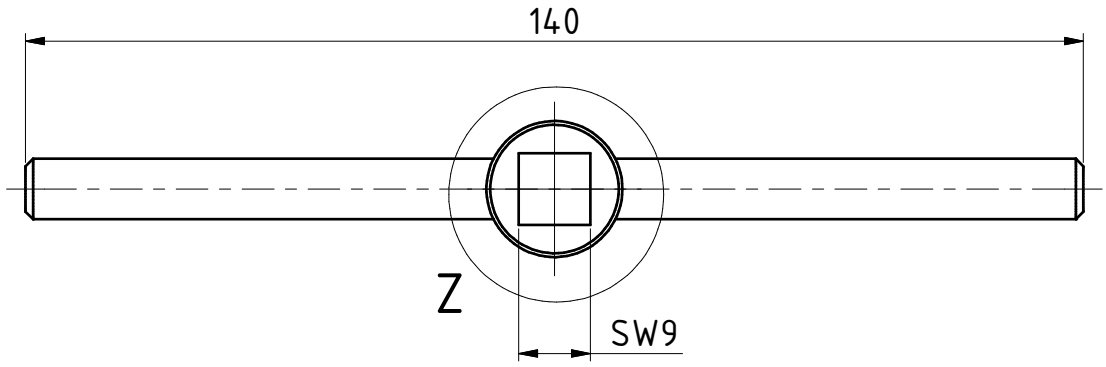
passend zu SWS050

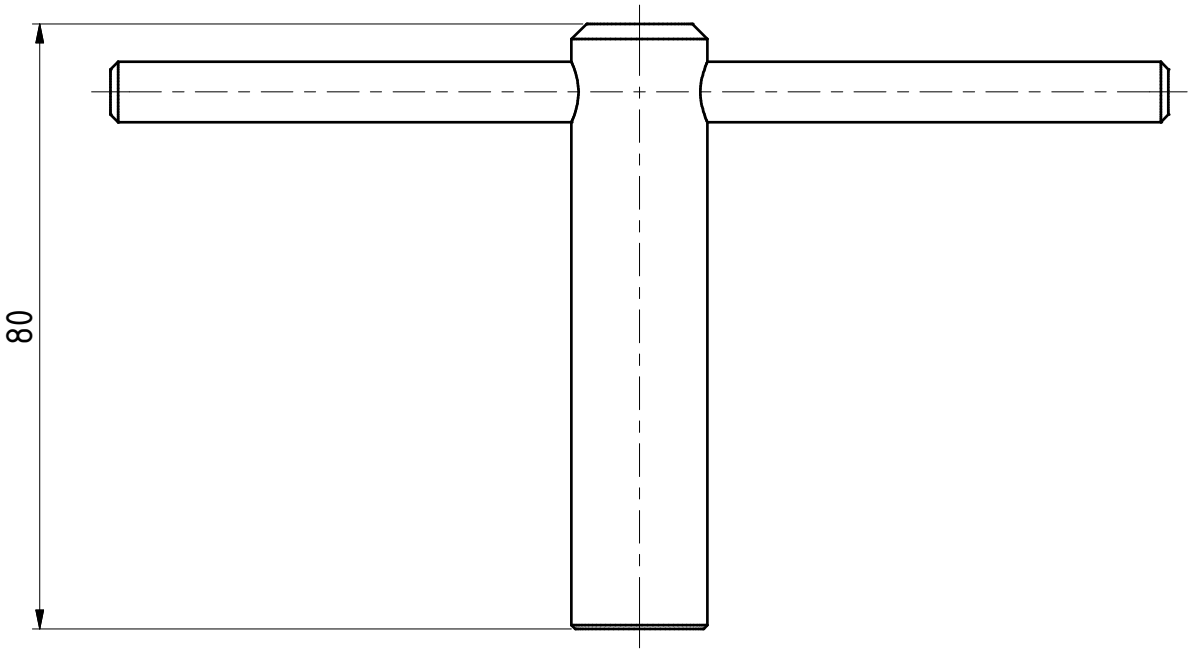
Datum	Maßstab	
10.02.2016	1:1	

Zeichnungsnummer

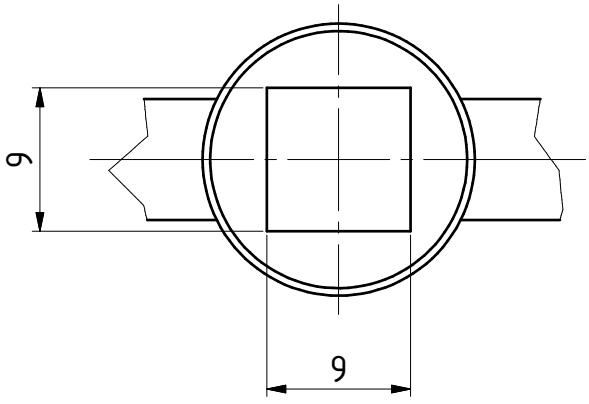
ZG-VKS050-SW08

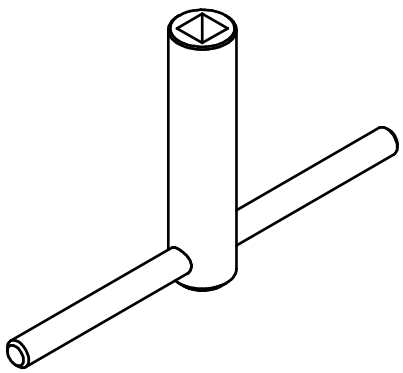
GRIP GmbH Handhabungstechnik





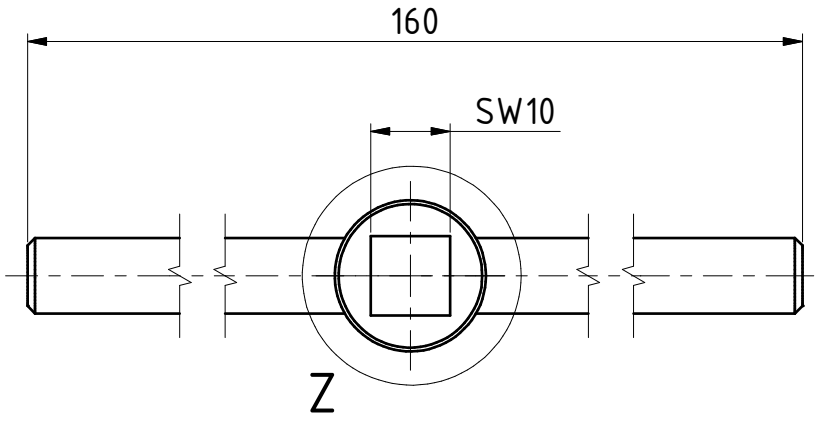
Z (2 : 1)

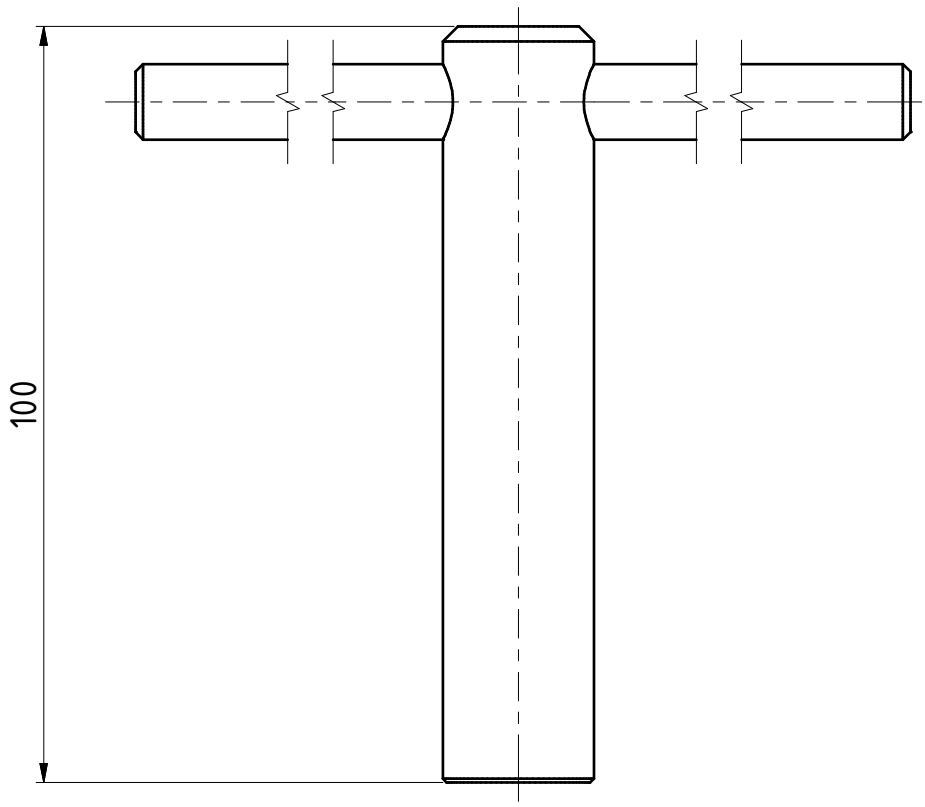


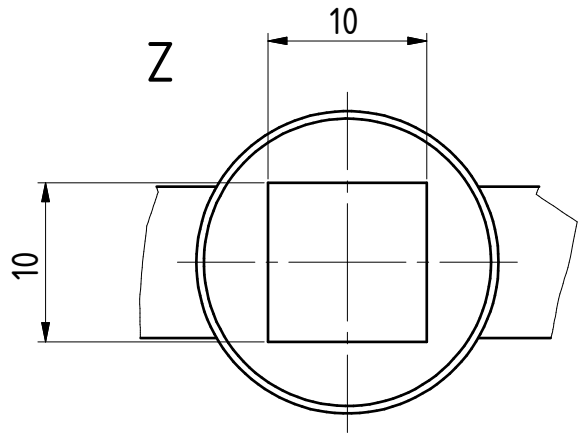


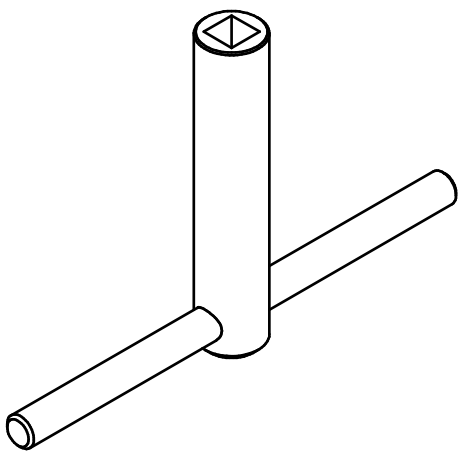
passend zu SWS063

Datum 23.03.2020	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer ZG-VKS063-SW09			



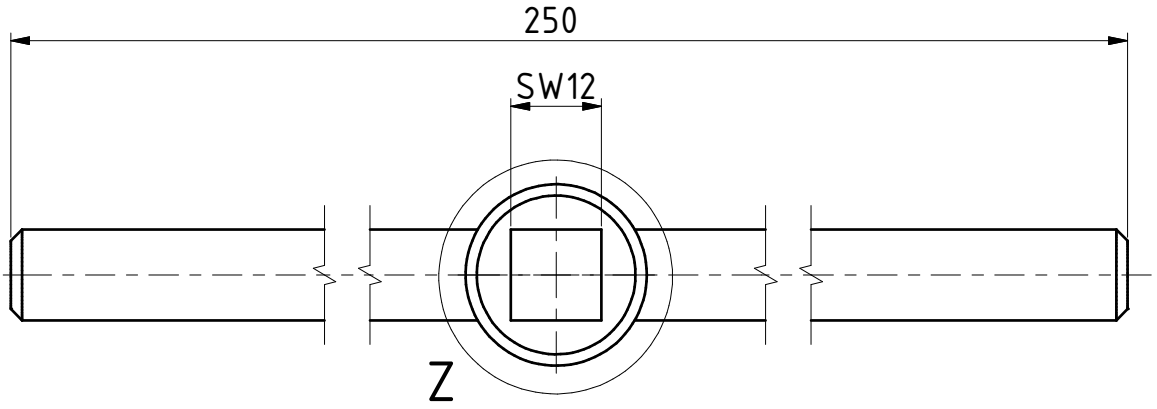


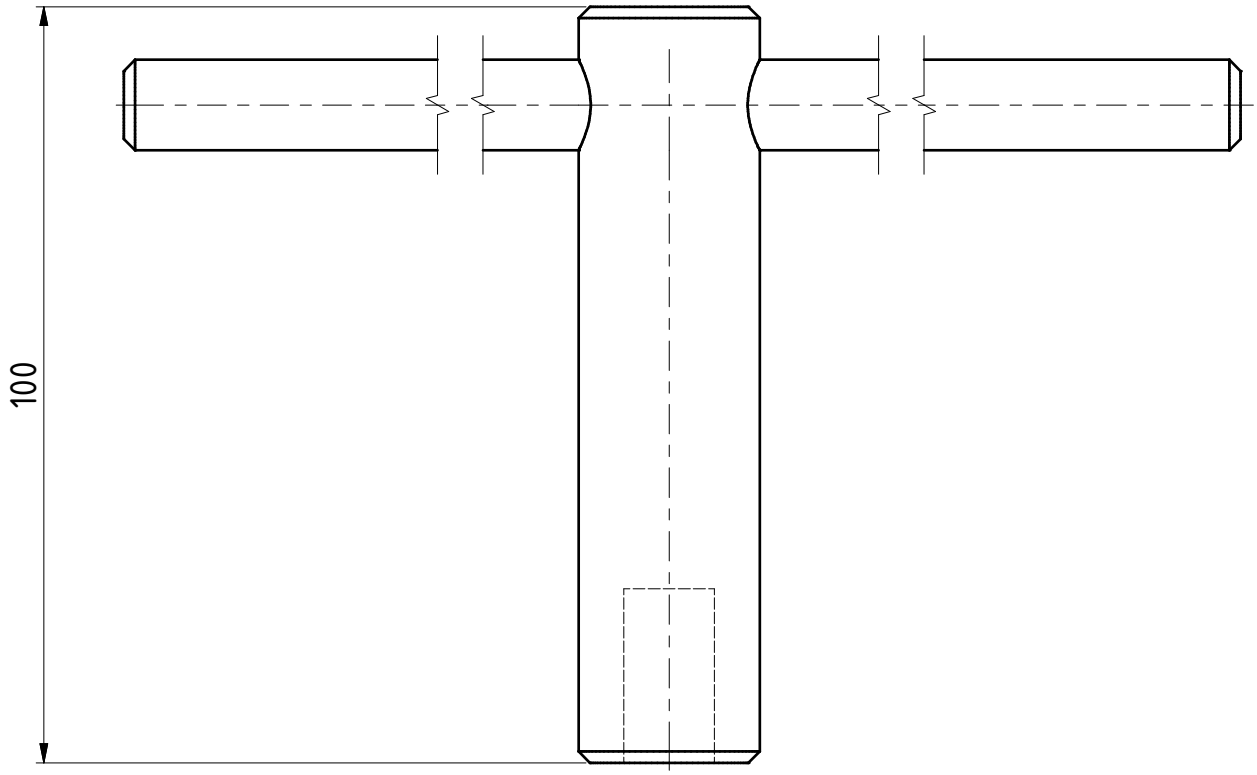




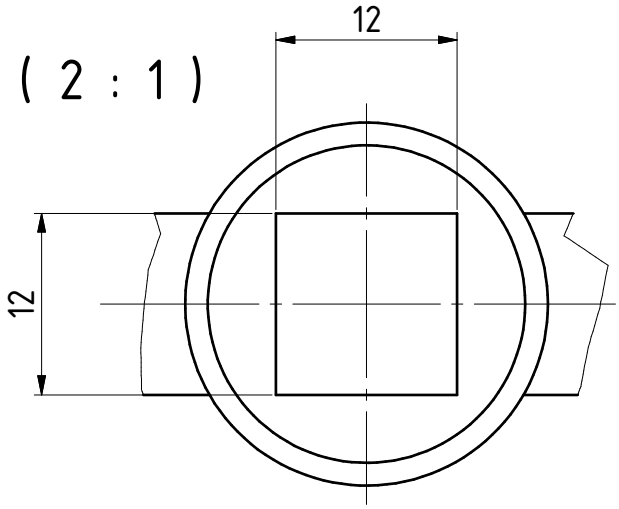
passend zu SWS080

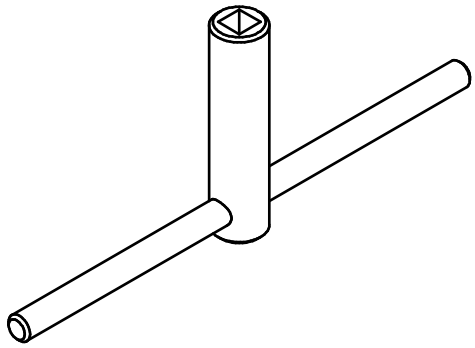
Datum 23.03.2020	Maßstab 1:1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer ZG-VKS080-SW10			





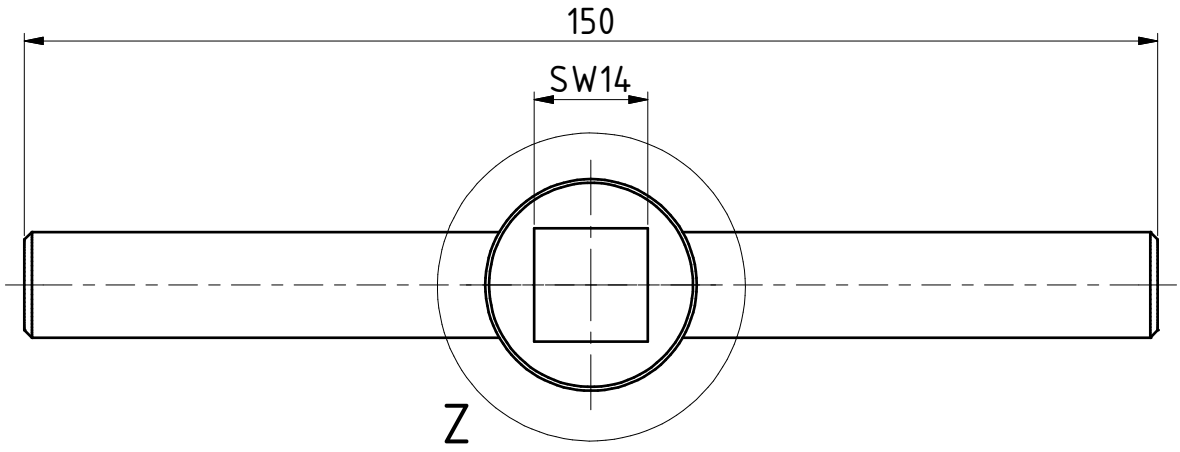
Z (2 : 1)

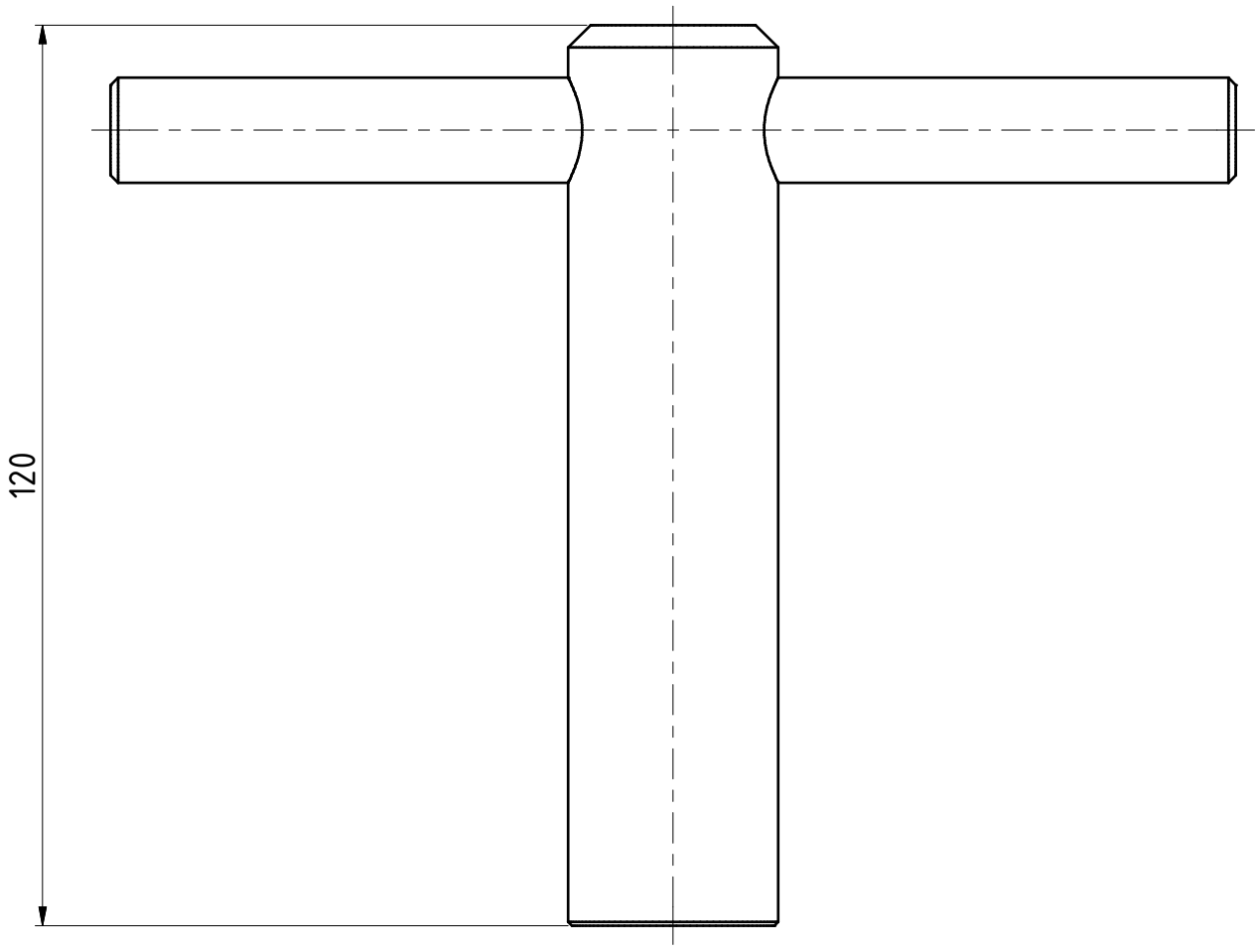




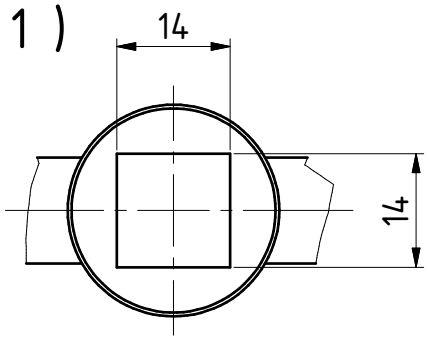
passend zu SWS100

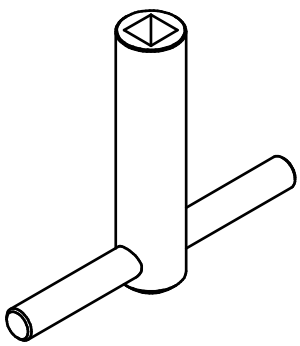
Datum 23.03.2020	Maßstab 1:2	
Zeichnungsnummer ZG-VKS100-SW12		GRIP GmbH Handhabungstechnik





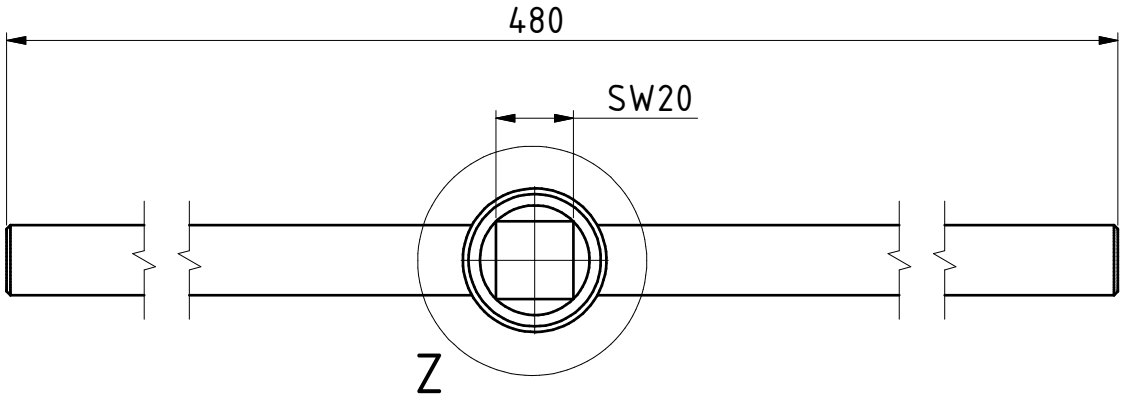
Z (1 : 1)

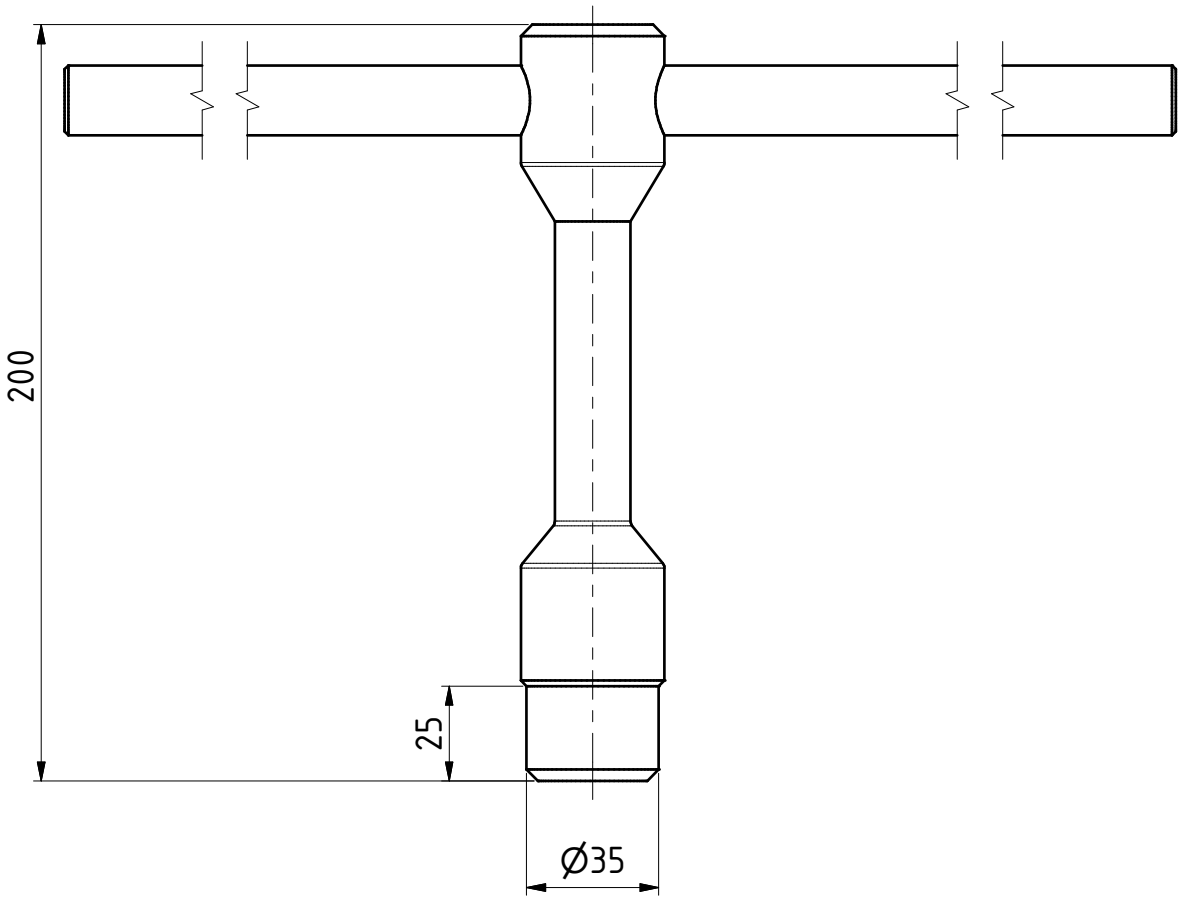




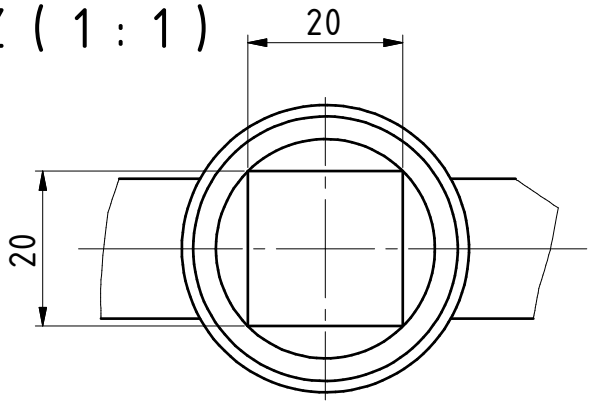
passend zu SWS125

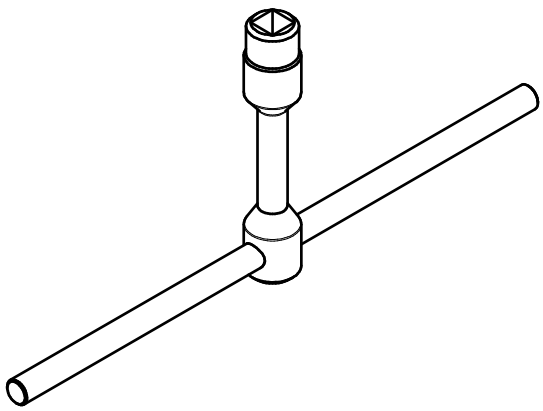
Datum 23.03.2020	Maßstab 1:2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer ZG-VKS125-SW14			





Z (1 : 1)



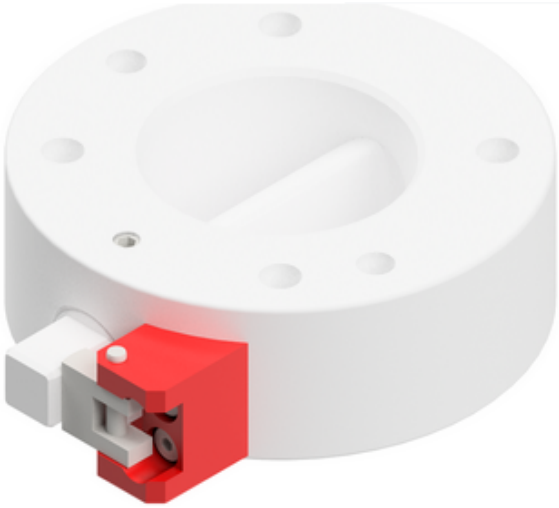


passend zu SWS160, 200, 250

Datum 12.04.2019	Maßstab 1:2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer ZG-VKS160-SW20			

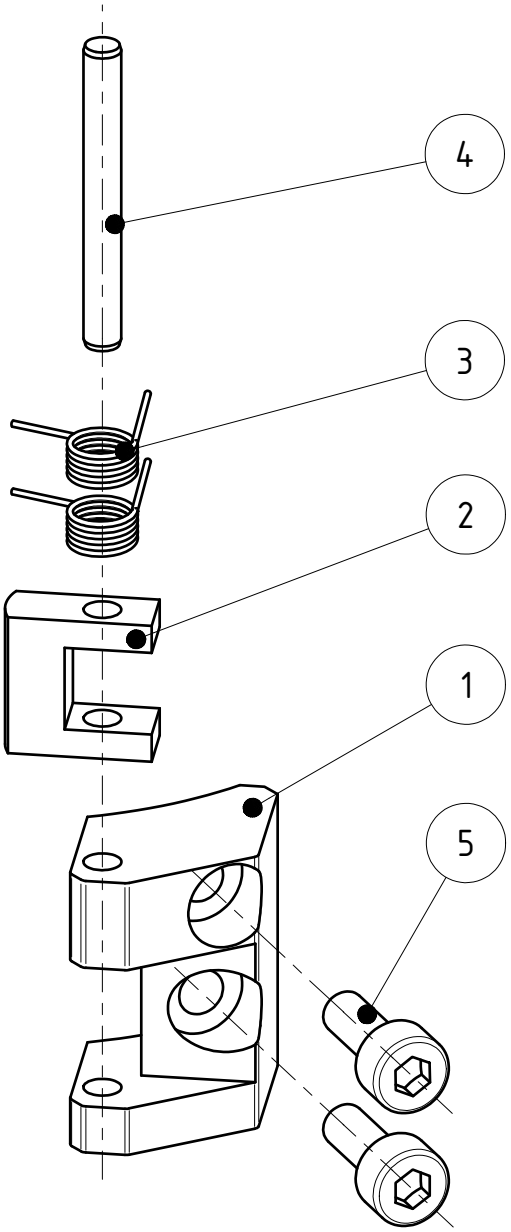
VS2 SAFETY LOCK

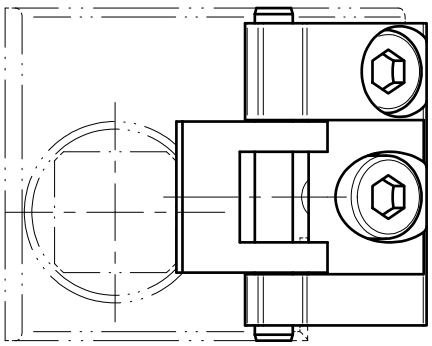
The VS2 Safety Lock is the optimal accessory for our connectors SWS050,063,080,100,125.
For sizes SWS160,200,250 the VS2 Safety Lock is standard and comes premounted.

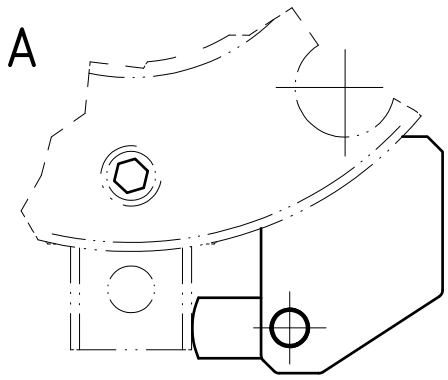


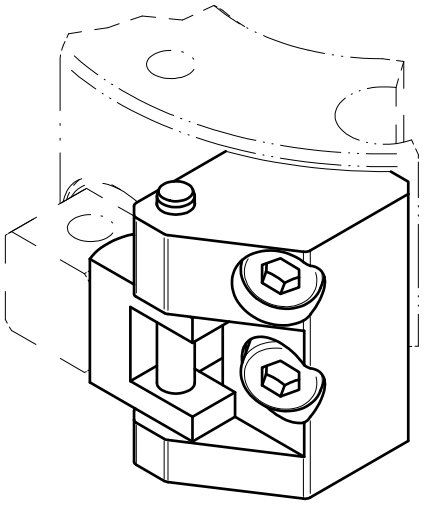
COMPATIBLE FOR

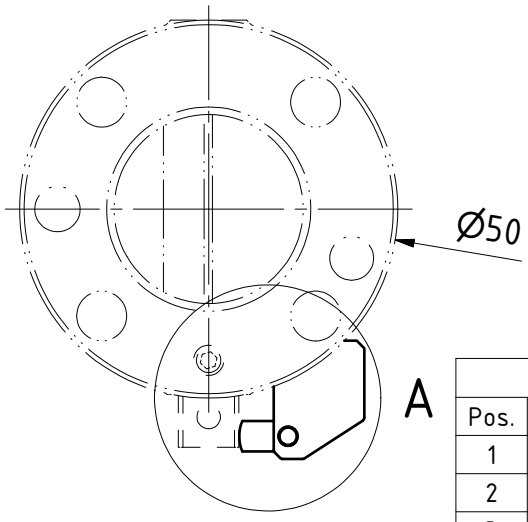
SWS











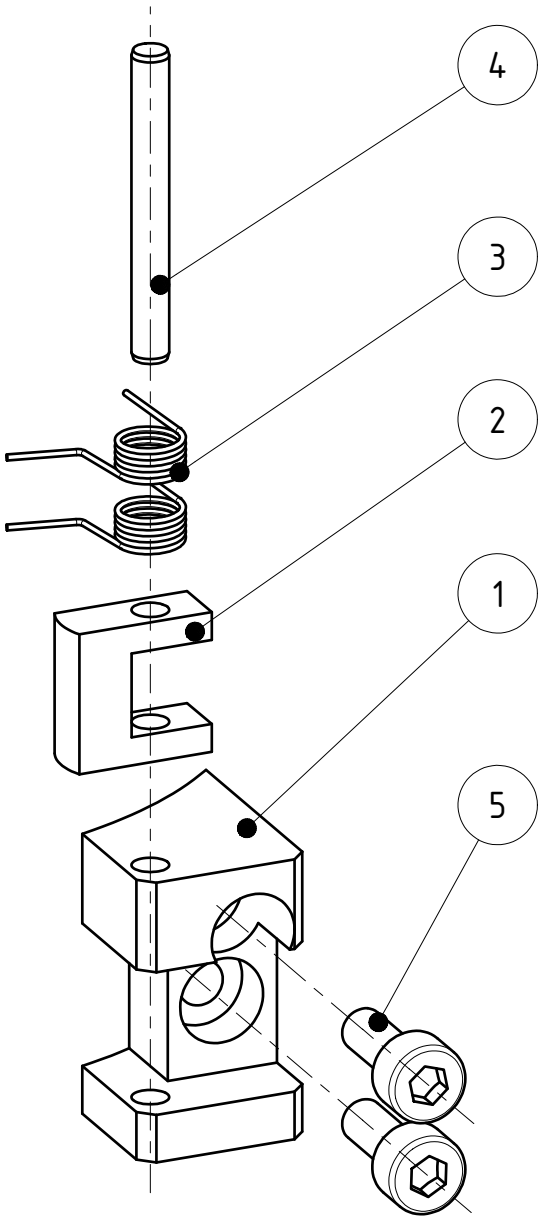
EG-SWS050-VS2			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	G-SWS050-3.1	Halter
2	1	G-SWS063-3.2	Klappe
3	2	M04R21	Drehfeder
4	1	ISO 8734 - 2,5 x 22 - A	Zylinderstift, gehärtet
5	2	DIN 912 - M3 x 8	Zylinderkopfschraube

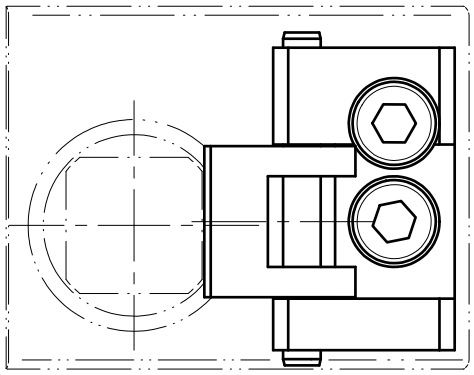
Datum 23.03.2020 | Maßstab 2:1

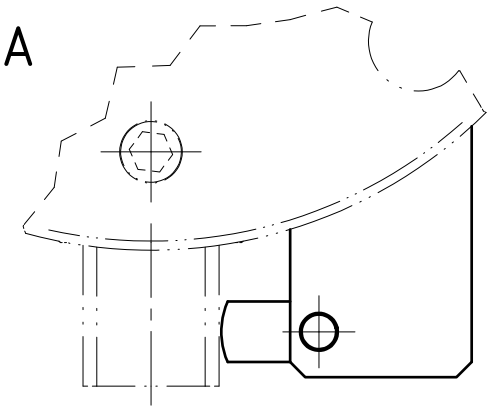
Zeichnungsnummer

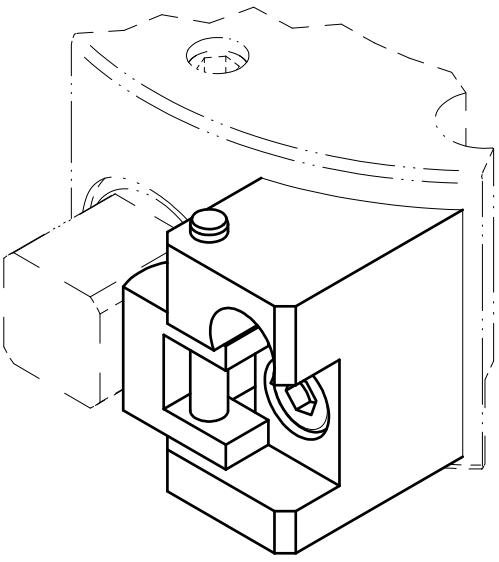
EG-SWS050-VS2

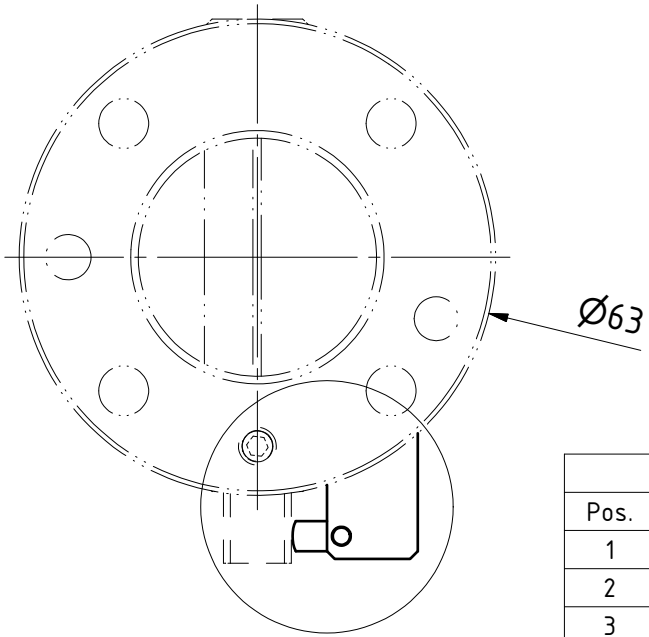
GRIP GmbH Handhabungstechnik











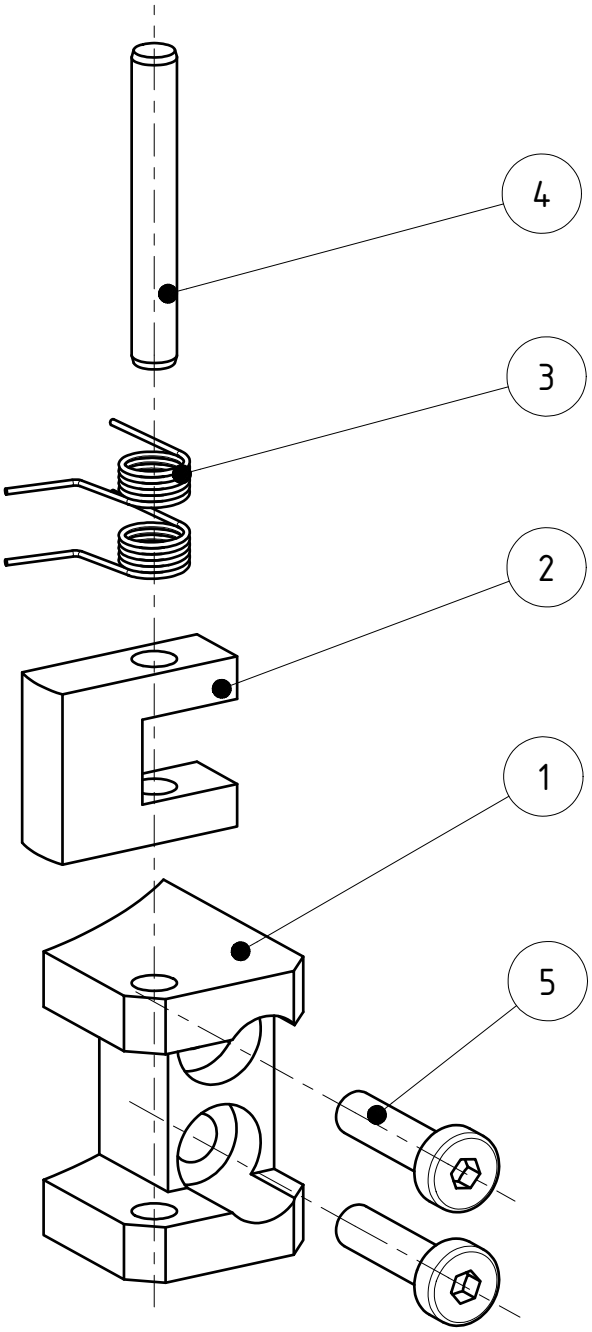
EG-SWS063-VS2			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	G-SWS063-3.1	Halter
2	1	G-SWS063-3.2	Klappe
3	2	M04R21	Drehfeder
4	1	ISO 8734 - 2,5 x 22 - A	Zylinderstift, gehärtet
5	2	ISO 4762 - M3 x 8	Innensechskantschraube

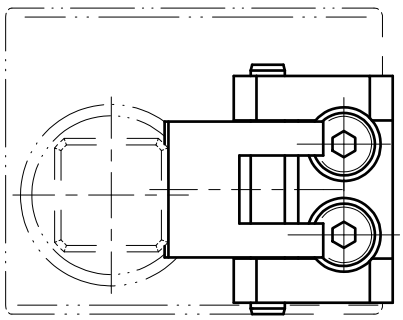
Datum 23.03.2020 | Maßstab 2:1

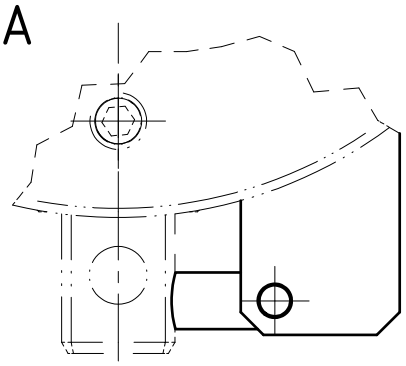
Zeichnungsnummer

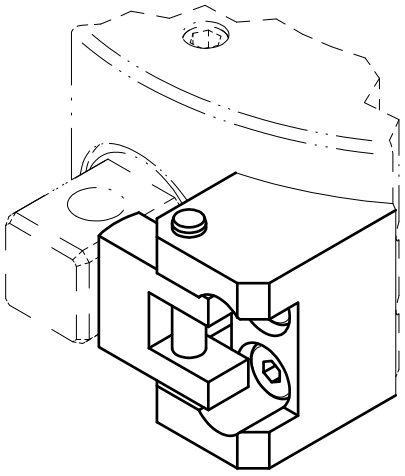
EG-SWS063-VS2

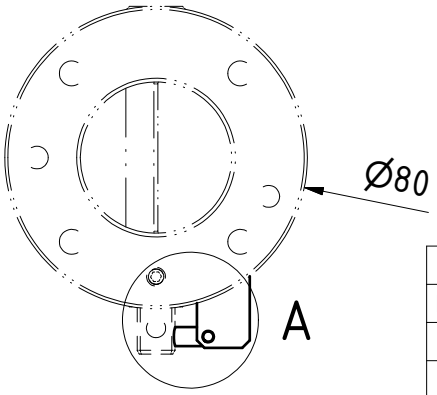
GRIP GmbH Handhabungstechnik











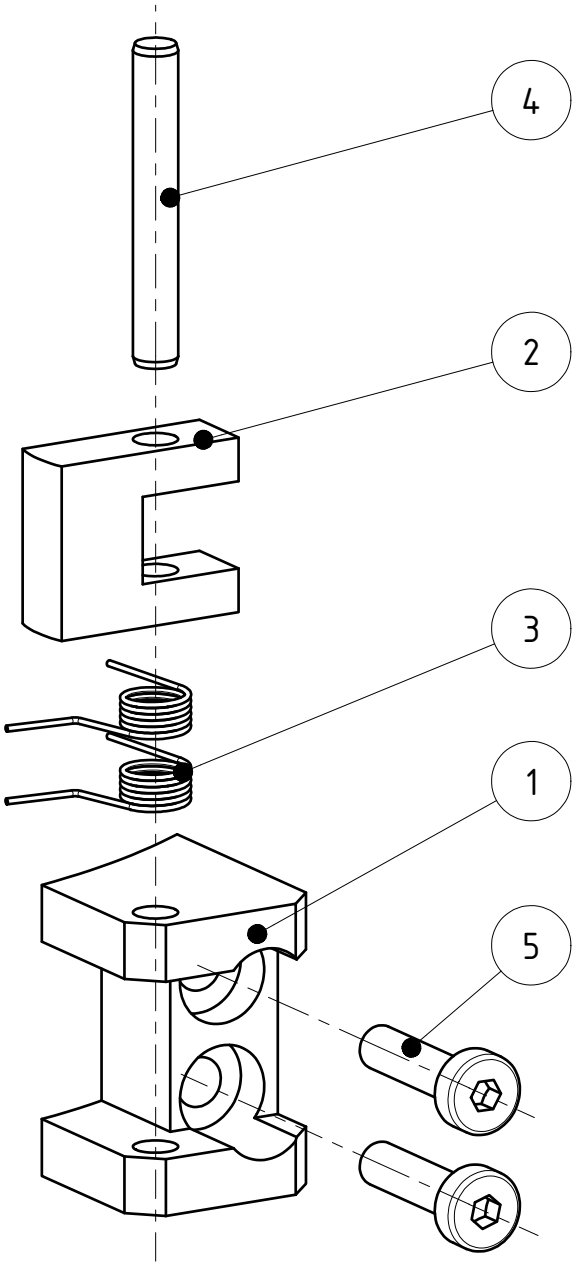
EG-SWS080-VS2			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	G-SWS080-3.1	Halter
2	1	G-SWS080-3.2	Klappe
3	2	M04R21	Drehfeder
4	1	ISO 8734 - 3 x 22 - A	Zylinderstift, gehärtet
5	2	DIN 7984 - M3 x 12	Zylinderkopfschraube

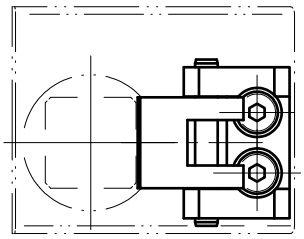
Datum 23.03.2020 | Maßstab 2:1

Zeichnungsnummer

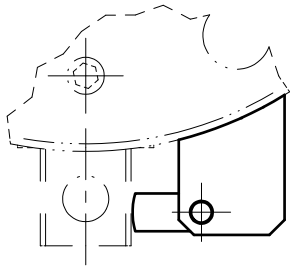
EG-SWS080-VS2

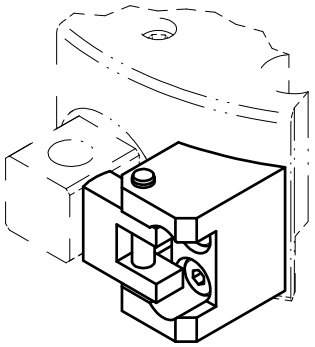
GRIP GmbH Handhabungstechnik

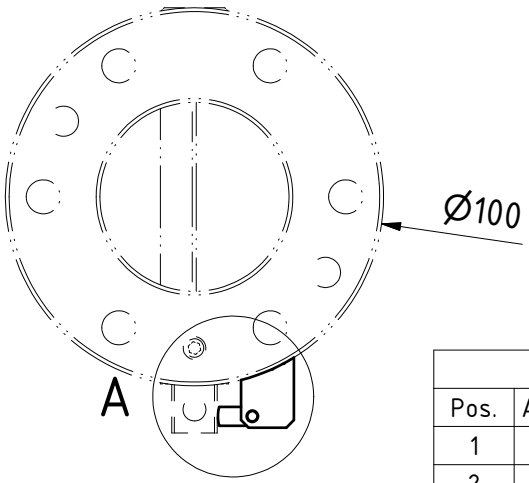




A







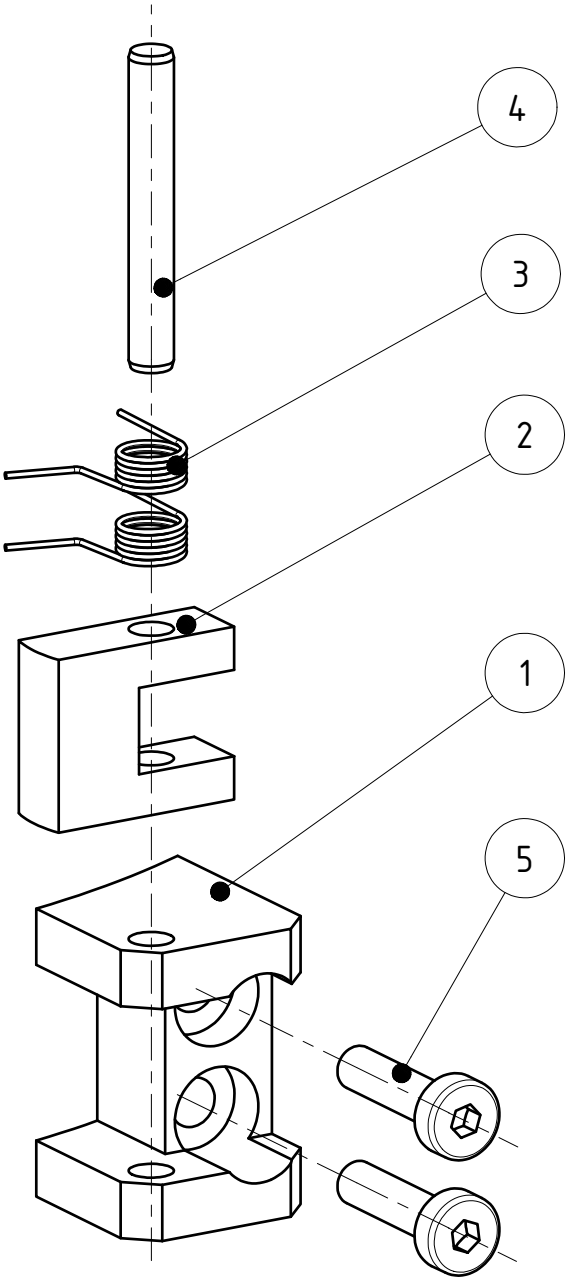
EG-SWS100-VS2			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	G-SWS100-3.1-Halter	G-SWS100-VS2 Halter
2	1	G-SWS080-3.2-Klappe	G-SWS100-VS2 Klappe
3	2	M04R21	Drehfeder
4	1	ISO 8734 - 3 x 22 - A	Zylinderstift, gehärtet
5	2	DIN 7984 - M3 x 12	Zylinderkopfschraube

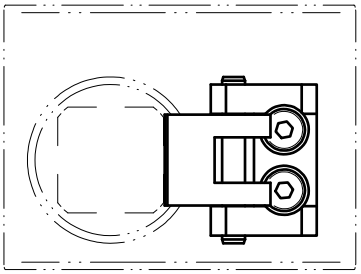
Datum 23.03.2020 | Maßstab 2:1

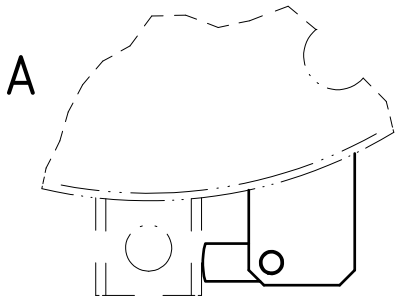
Zeichnungsnummer

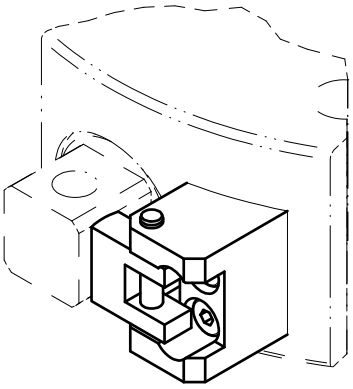
EG-SWS100-VS2

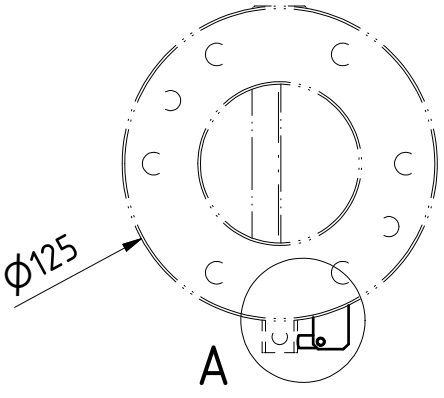
GRIP GmbH Handhabungstechnik











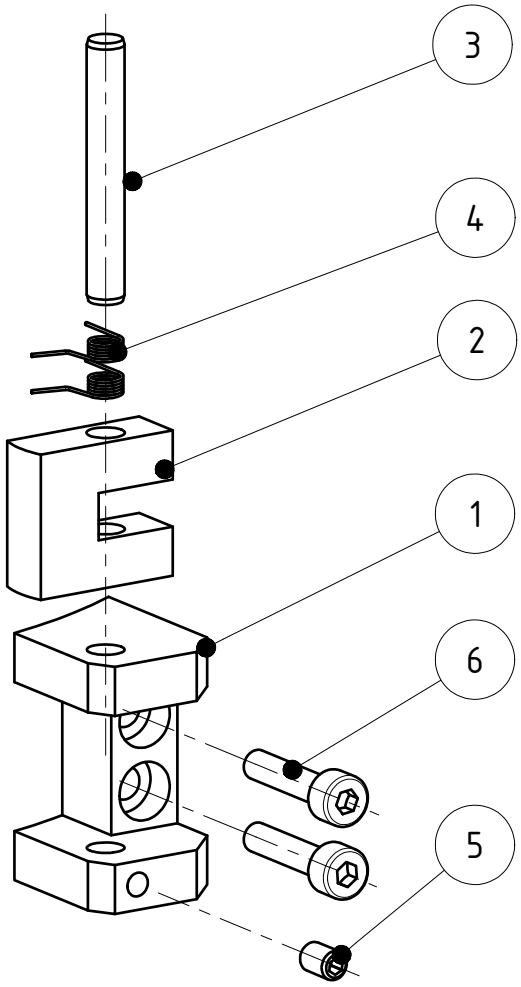
EG-SWS125-VS2			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	G-SWS125-3.1	Halter
2	1	G-SWS080-3.2	Klappe
3	2	M04R21	Drehfeder
4	1	ISO 8734 - 3 x 22 - A	Zylinderstift, gehärtet
5	2	DIN 7984 - M3 x 12	Zylinderkopfschraube

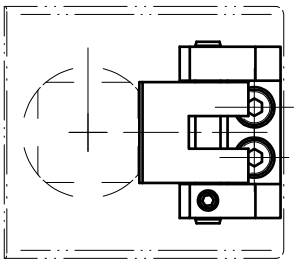
Datum 23.03.2020 | Maßstab 2:1

Zeichnungsnummer

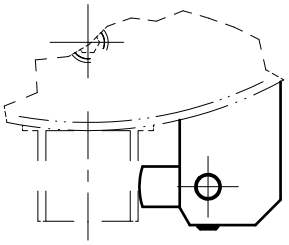
EG-SWS125-VS2

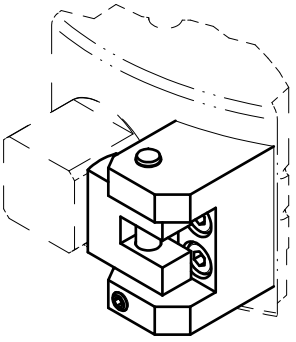
GRIP GmbH Handhabungstechnik

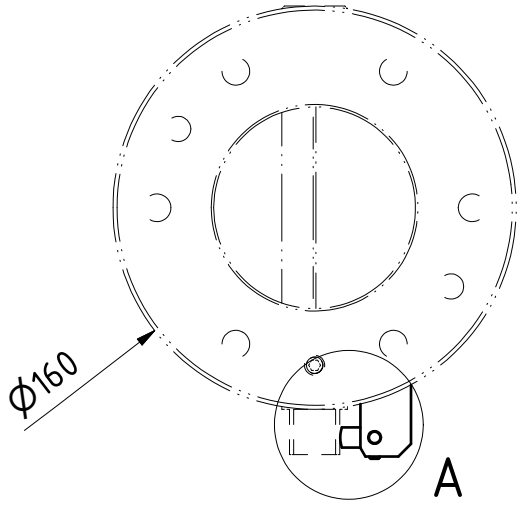




A







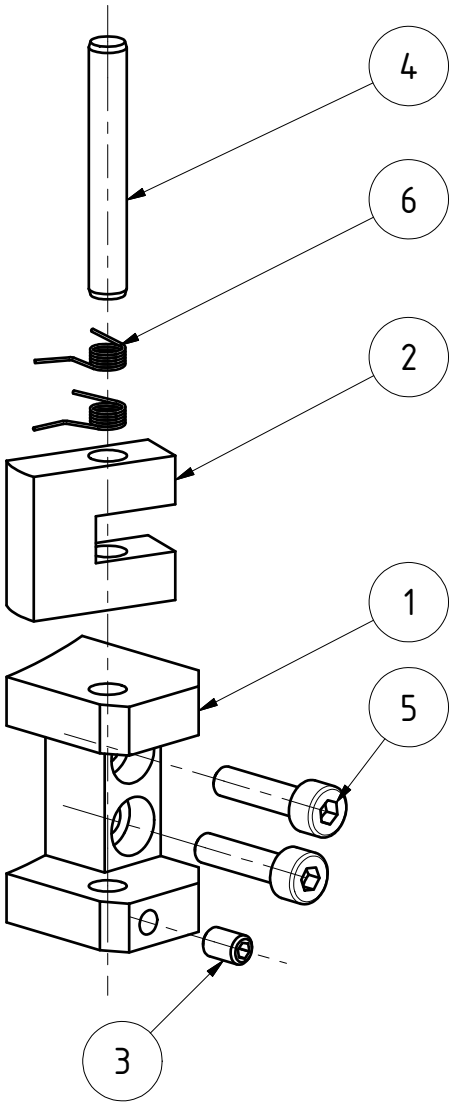
EG-SWS160-VS2			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	G-SWS160-3.1	Halter
2	1	G-SWS160-3.2	Klappe
3	1	ISO 8734 - 5 x 36 - A	Zylinderstift, gehärtet
4	2	M05R2124	
5	1	DIN 913 - M4 x 6	Gewindestift
6	2	ISO 4762 - M4 x 18	Innensechskantschraube

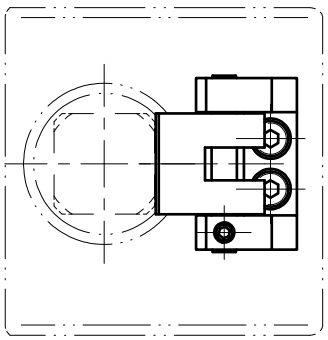
Datum 23.03.2020 | Maßstab 1:1

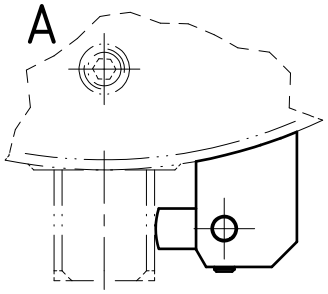
Zeichnungsnummer

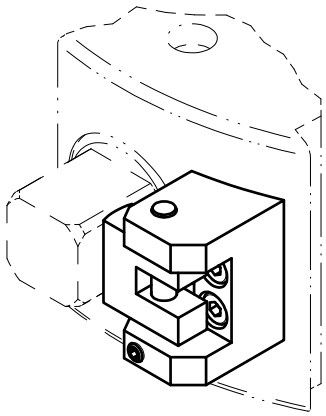
EG-SWS160-VS2

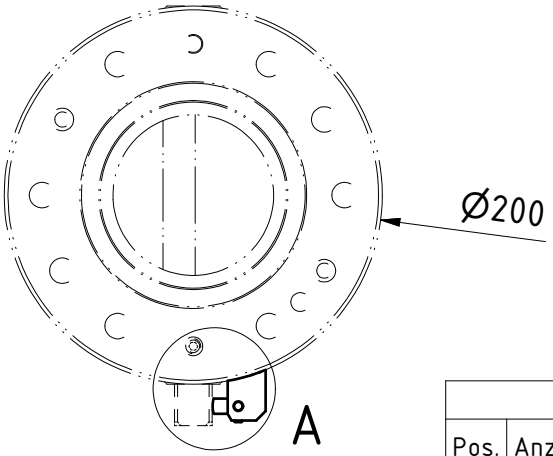
GRIP GmbH Handhabungstechnik











EG-SWS200-VS2			
Pos.	Anzahl	Benennung	Zchnr./ Bestnr. /Norm
1	1	G-SWS200-3.1	Halter
2	1	G-SWS160-3.2	Klappe
3	1	DIN 913 - M4 x 6	Gewindestift
4	1	ISO 8734 - 5 x 35 - A	Zylinderstift
5	2	DIN 912 - M4 x 16	Zylinderkopfschraube
6	2	M04R21	Drehfeder

Datum	Maßstab 1:1	
Zeichnungsnummer EG-SWS200-VS2		GRIP GmbH Handhabungstechnik

AC TRAY

The AC tray is responsible for securely holding the Auto Connector lower assembly and respective tool. Additional trays can be added at any time making for a highly flexible and adaptable system.

AC Tray Advantages:

- Provides a secure hold for the Auto Connector and tool
- The tray position can be easily changed depending upon application
- Is compatible with all major EAOT on the market

COMPATIBLE FOR

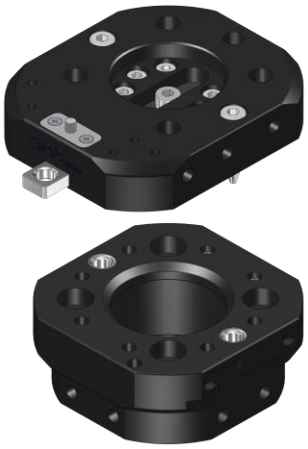
AC063

G-AC063

Technical specifications

Operating mode:
The upper assembly (1) and lower assembly (2) are automatically locked and unlocked by the robot's traverse path onto the tray.

Advantages:
Semi-automatic tool changing system
No external locking and unlocking energy required
Self-locking, secured locking mechanism
Withstands high loads with low dead weight
High repeat accuracy +/- 0.02 mm
Withstands over 100.000 changing cycles
Optional connection of a power coupling **SEK** for electrical ducts
Six integrated pneumatic ducts
Interface according to DIN EN ISO 9409-1



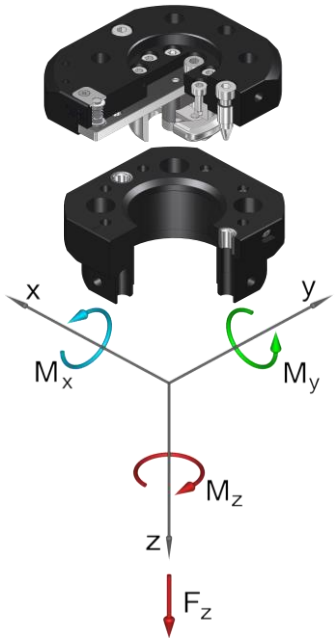
1

2

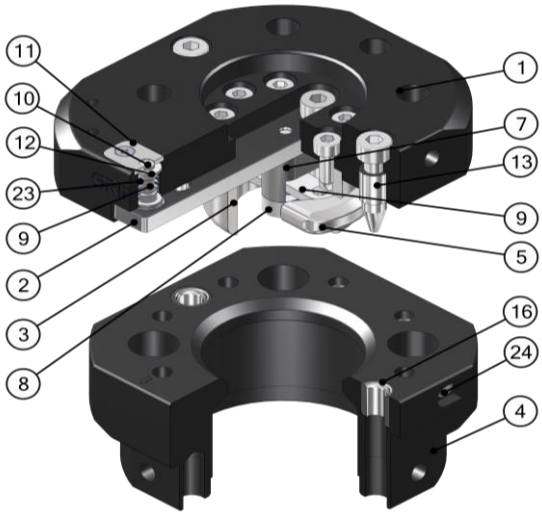
Technical specifications		AC063
Basic material		Al, anod.
External diameter x height [mm]		73 x 42
Pitch circle diameter [mm]		50
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		1875
Compression -Fz [kN]		65
Torsion Mz [Nm]		69
Bending Mx, My [Nm]		59
Mass [kg]	upper assembly	0,24
	lower assembly	0,15
Recommended load [kg]		15* / 20**
Locking stroke VH [mm]		1,5
Locking force VF [N]		30 - 100
Pneumatic ducts	connection	6 x M5
	max. pressure p [bar]	-1 bis 8

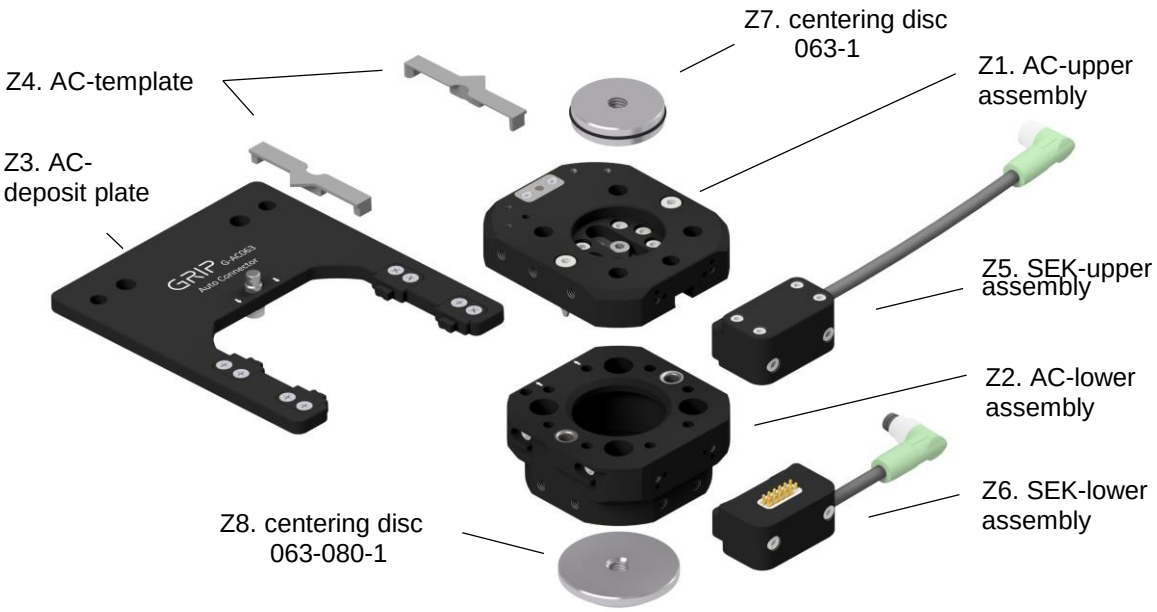
* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety

** This guideline applies to the following assumptions:
Acceleration: 5 m/s², gravity distance: 100 mm, double safety

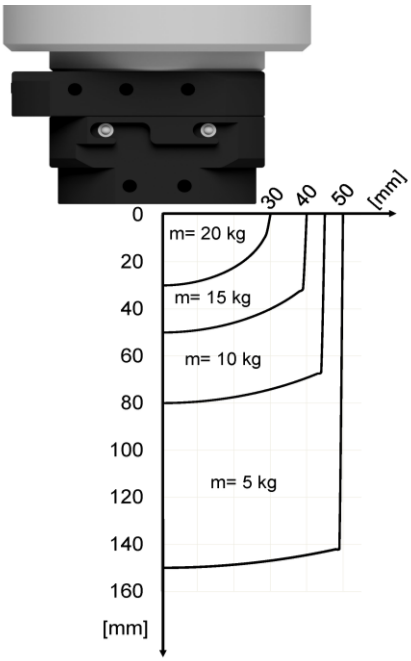


Pos.	Description
1	Upper assembly
2	Slider
3	Tappet
4	Lower assembly
5	Jaw 1
6	Jaw 2 (not visible)
7	Carrier
8	Connecting pin (slider)
9	Connecting pin (jaws)
10	Locking pin
11	Spring cover
12	Spring seat
13	Positioning pin
16	Drill bushing
23	Spring
24	Spring plunger



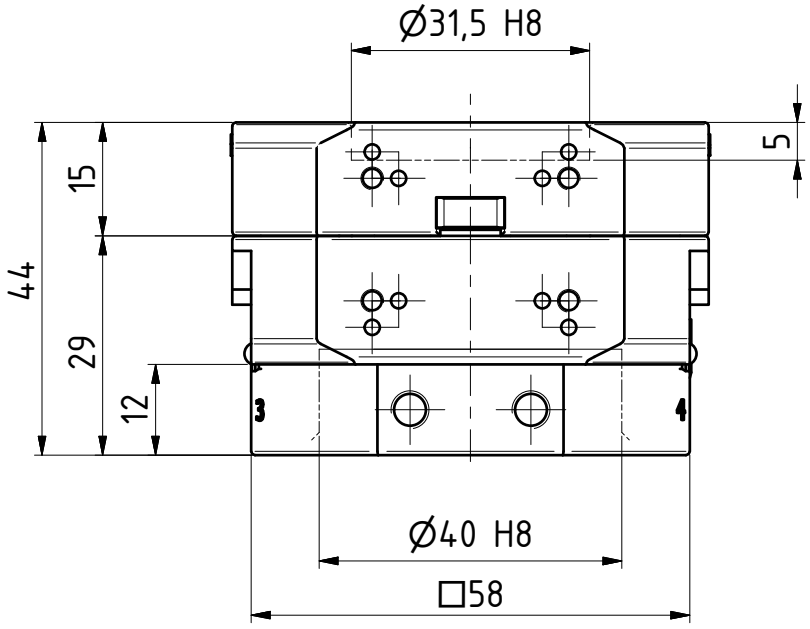


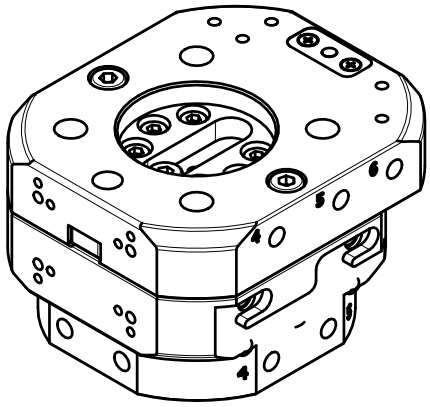
Pos.	Auto Connector Ø63, drilled acc. to ISO…	
Z1.	G-AC063-2OEP	upper assembly, E-Mount, 6 pneumatic ducts, Al, anodized
Z2.	G-AC063-2UEP	lower assembly, E-Mount, 6 pneumatic ducts, Al, anodized
	Accessory Auto Connector Ø63	
Z3.	G-AC063-A1-01	tray for AC063, single, Al, anodized
Z5.	G-SEK100-O-1FE12-300-M8	electric coupling, upper assembly, plug M8, 8-poles, female
Z6.	G-SEK100-U-1FE12-40-M8	electric coupling, lower assembly, plug M8, 8-poles, male
Z7.	G-ZS063-1	centering disc
Z8.	G-ZS063-080-1	centering disc
	Spare and wear parts Auto Connector Ø63	
17.	EG-AC063-DS	gasket kit (8 x O-ring)
23.	EG-AC063-DF01	spring
Z4.	EG-AC063-A1-S1	programming-template 063 (2x)

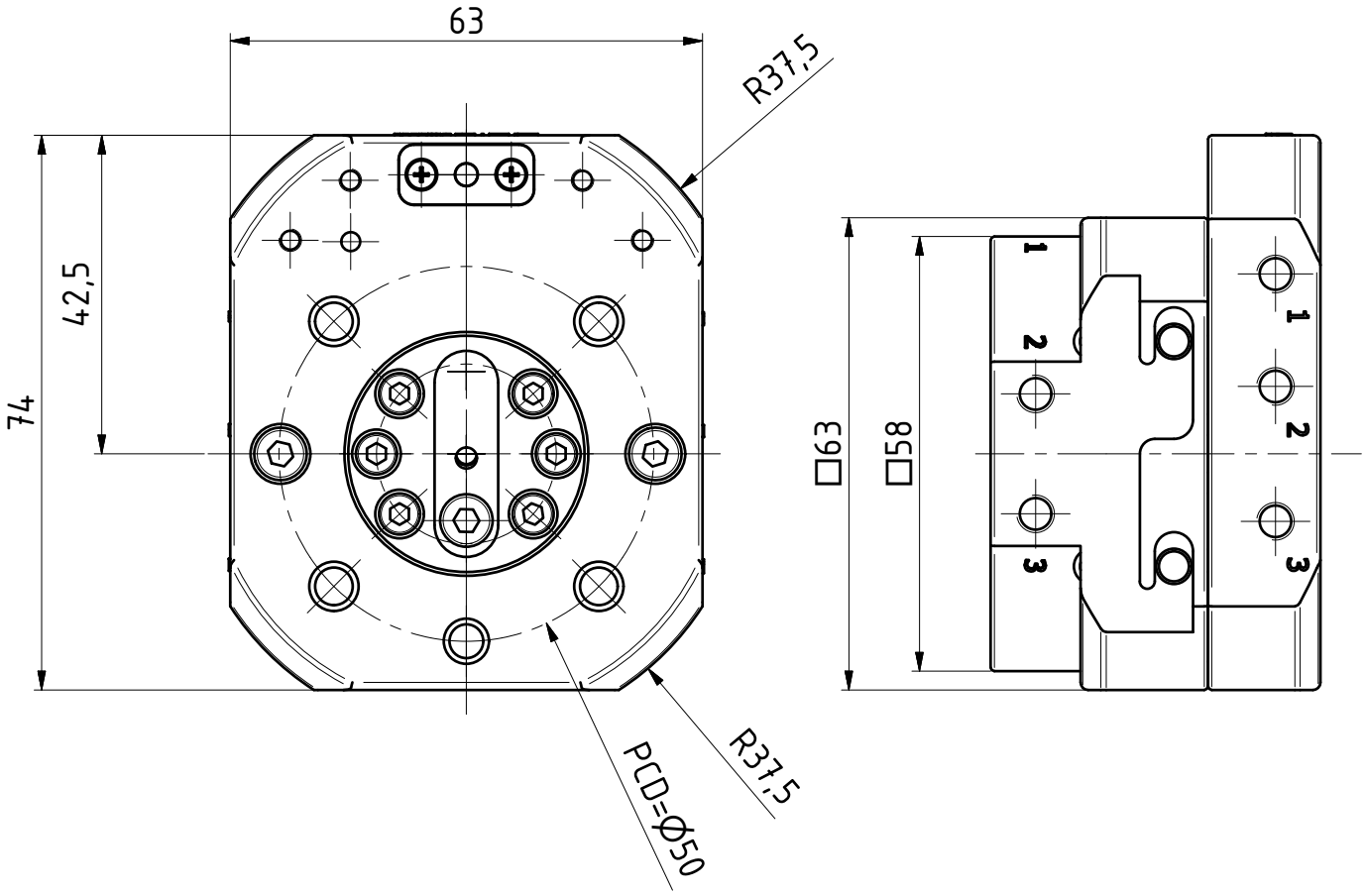


AC063 payload

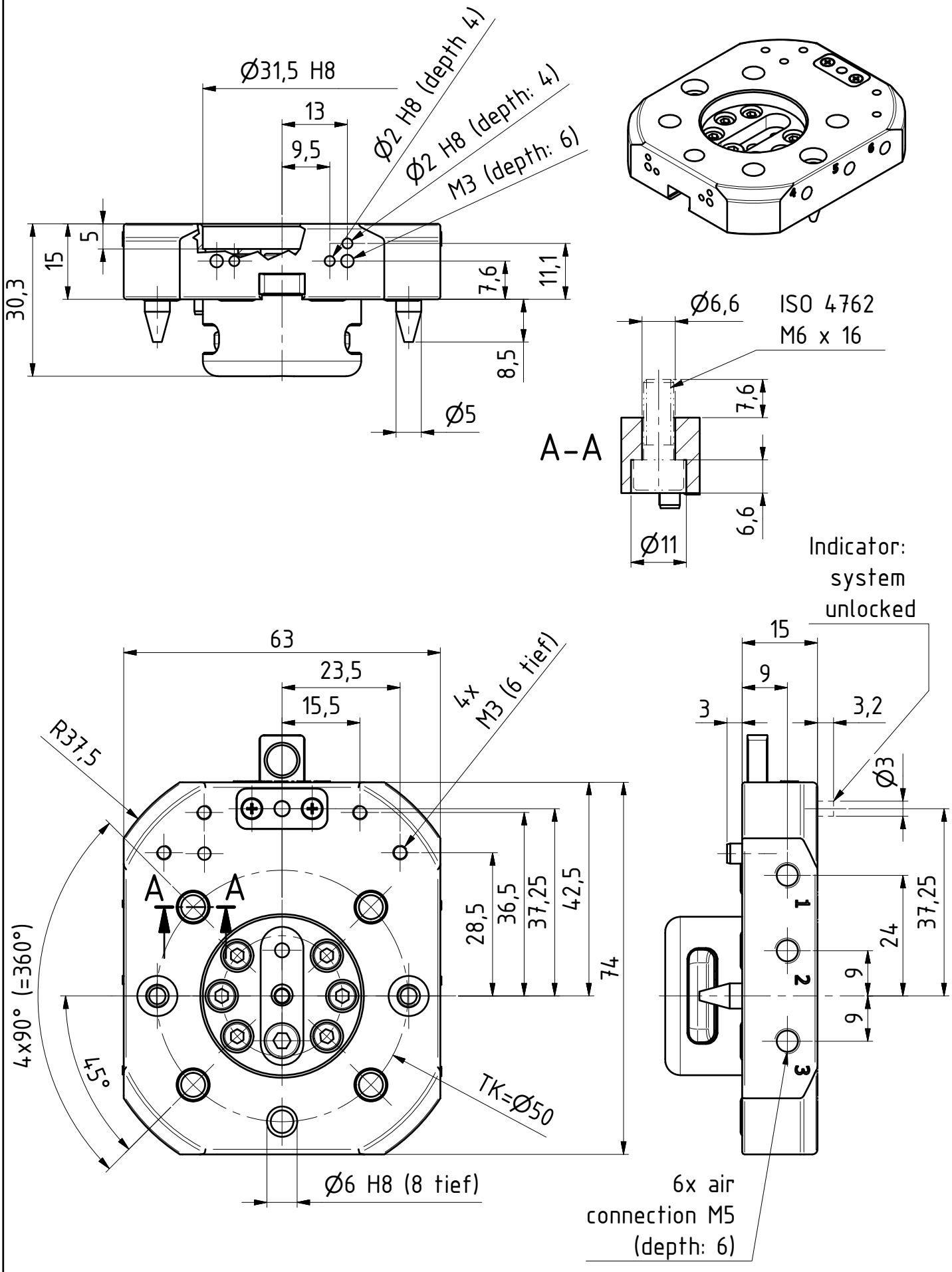
payload as a function of center of mass distance



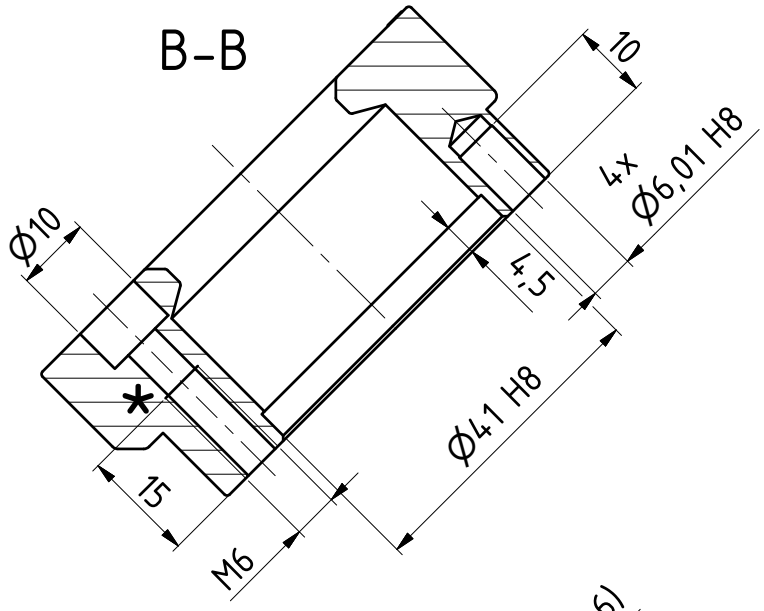


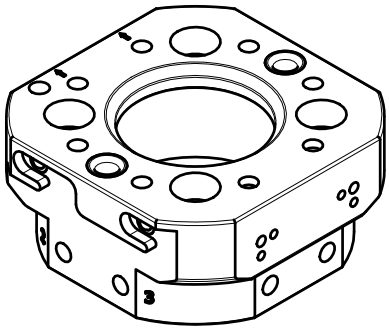


Datum 08.07.21	Maßstab 1 : 1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer 2D G-AC063-2ZEP			



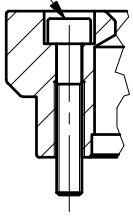
Datum 08.07.21	Maßstab 1 : 1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-AC063-20EP			

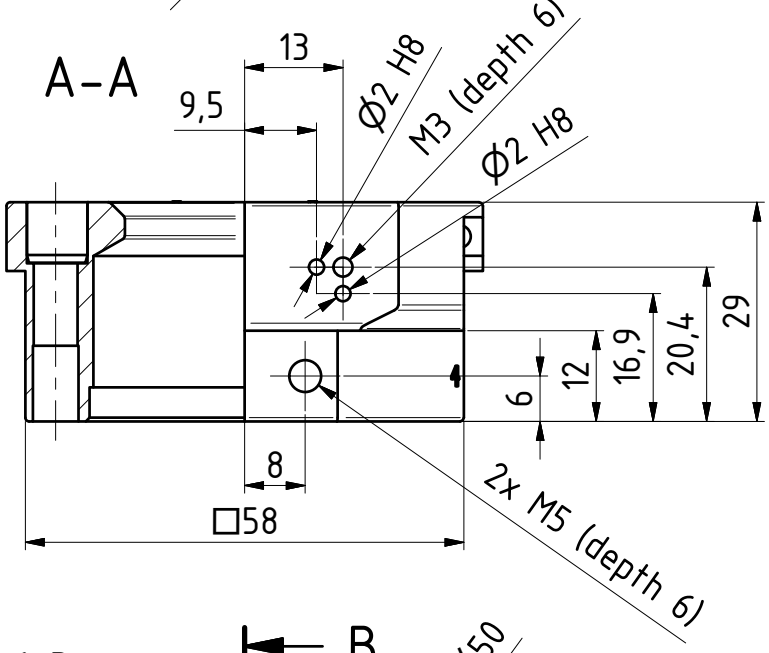




*A

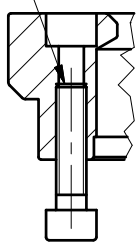
ISO 4762 M5

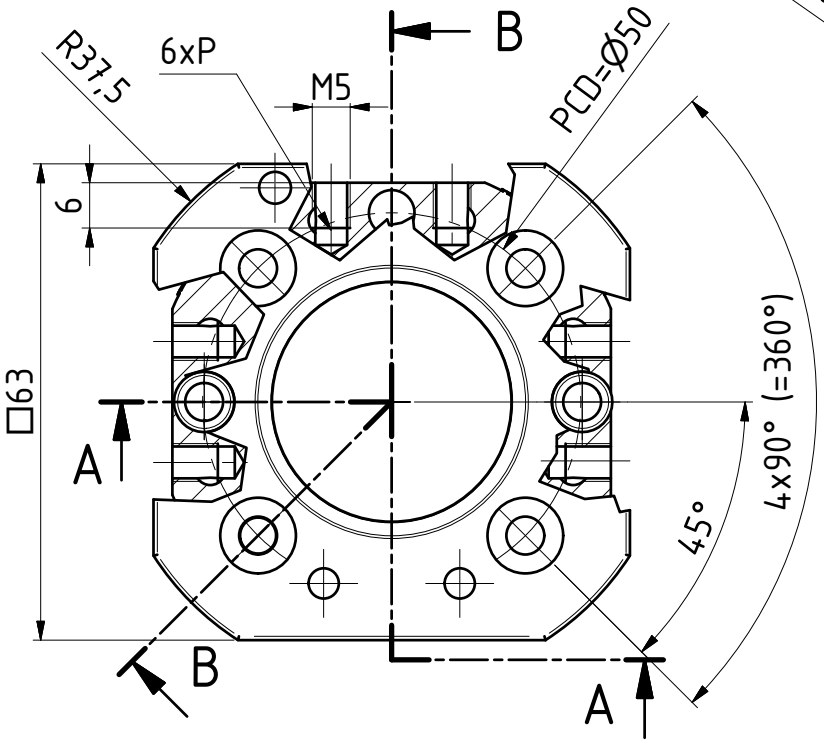


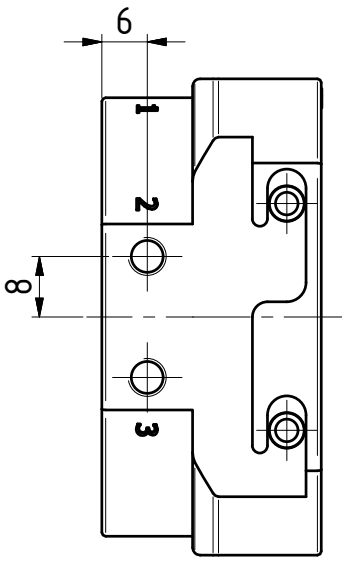


*B

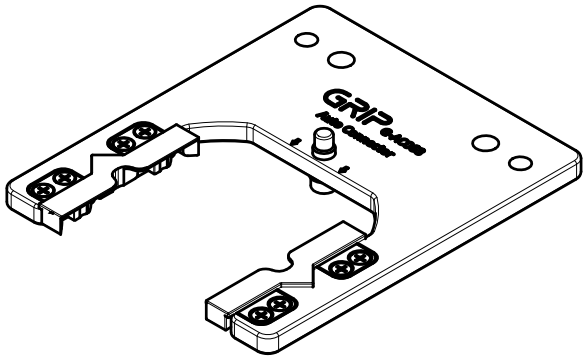
ISO 4762 M6

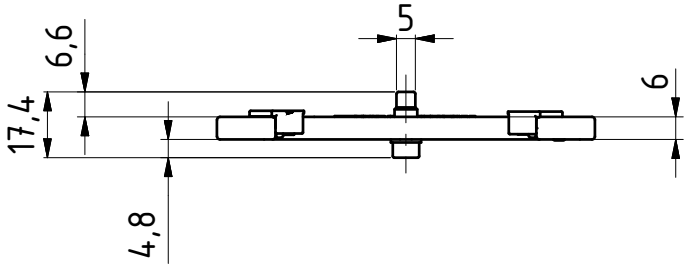


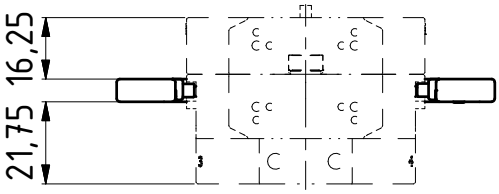


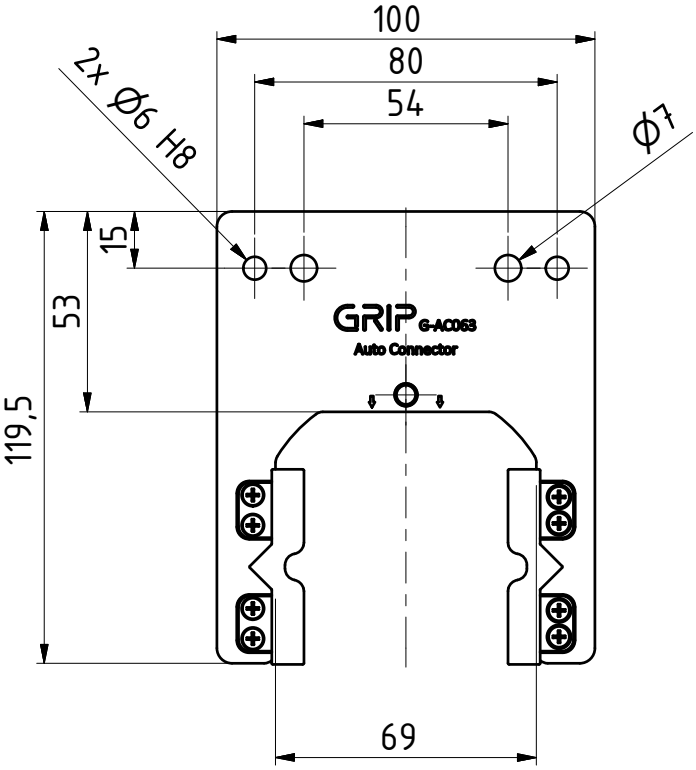


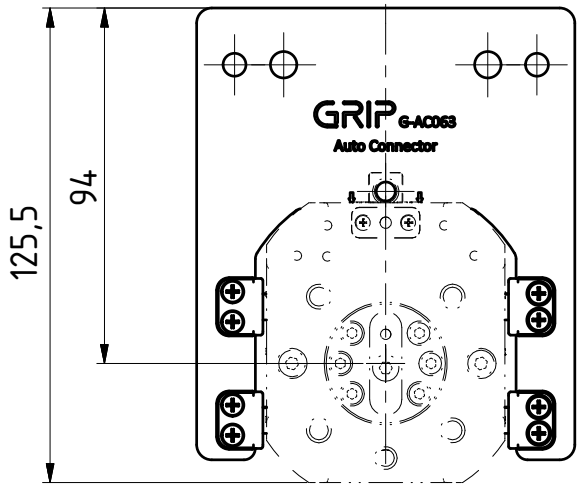
Datum 08.07.21	Maßstab 1 : 1		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-AC063-2UEP			



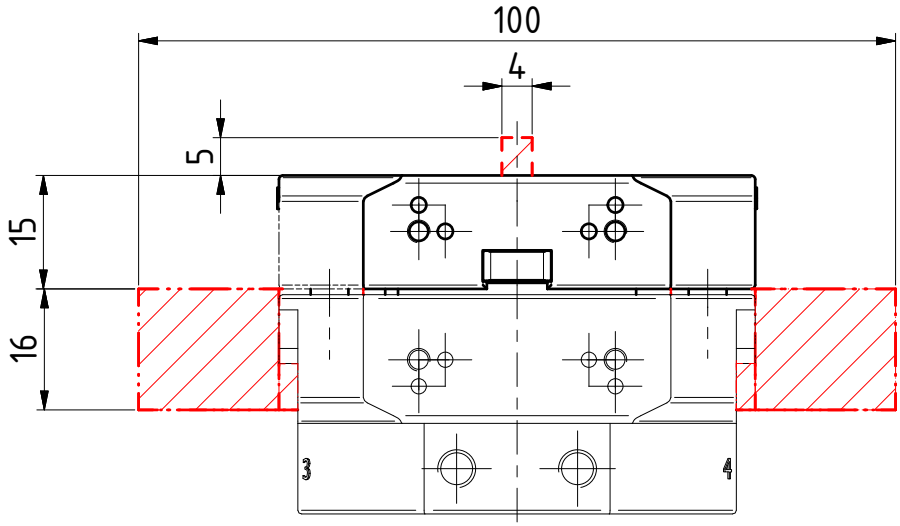


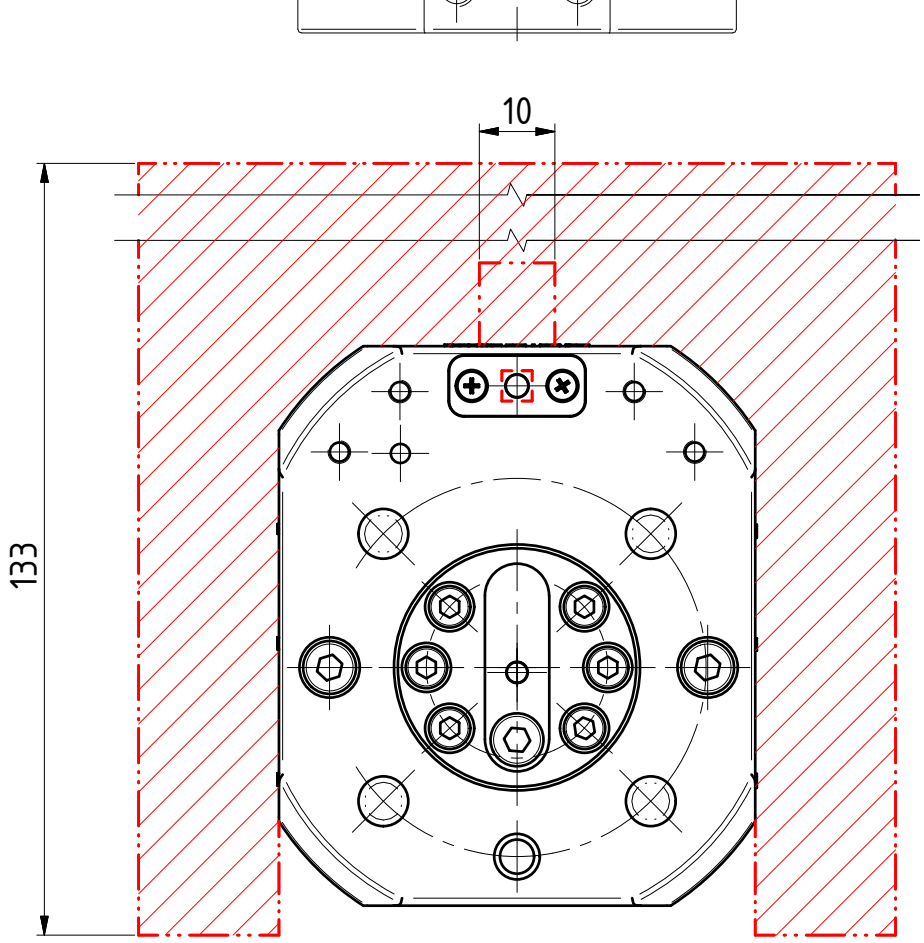


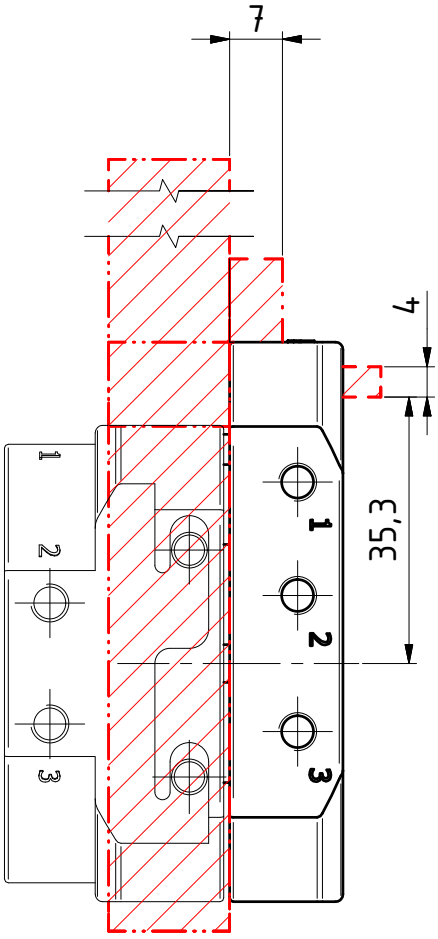


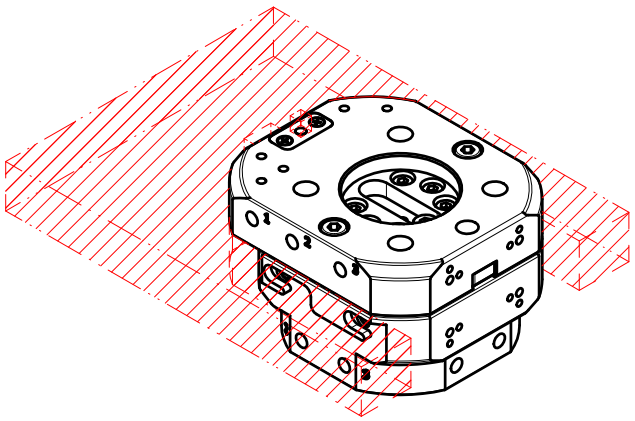


Datum 08.07.21	Maßstab 1 : 2		GRIP GmbH Handhabungstechnik
Zeichnungsnummer G-AC063-A1-01			









Collision area!

Keep clear!

Do not mount tools in this area.
Risk of collision.

Datum 08.07.21	Maßstab	
Zeichnungsnummer G-AC063 Collision Area		GRIP GmbH Handhabungstechnik

PRODUCT CATALOGUE

GRIP

MN SYSTEMS
Motion Solution