

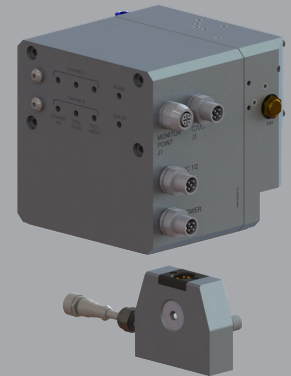
XCHANGE™ Utility Module

Safety Control Module

Safety Control Module (SCM) is a self-contained control system with safety function designed to prevent the disconnection of a tool changer in hazardous positions.

Advantages:

- Dual-channel safety architecture according to category 3 of ISO EN 13849 with a performance level e.
- Dual channel sensors for Tool Absent and Tool Stand Present
- Dual channel logic with cross monitoring
- Two 5/2 monostable valves are embedded for actuation
- Direct monitoring of the pneumatic actuator of the tool changer
- Diagnostic output (dual) for customer monitoring
- Status of sensors, pressure and control displayed via LEDs
- Galvanic isolation of power supplies of inputs and outputs
- IP65 when coupled



Compatible XCHANGE™ Tool Changers: E125, E160, E200, and E315

SPECIFICATIONS

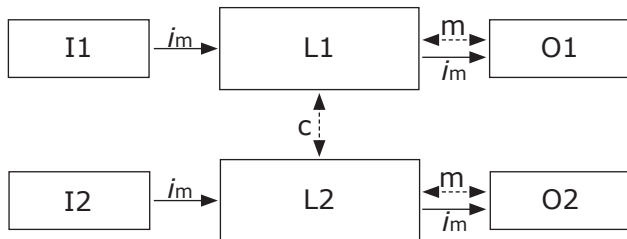
Model	Tool Changer Adaptor Side	Weight	Operating Voltage	Max. Current Consumption	Mission Time	Safety-related reliability	MTTFd	DC/CCF/Cat.	Operating Pressure	Standard Nominal Flow Rate	Transportation & Storage Temperature	Transportation & Storage Humidity
		kg (lb)	VDC	mA	TM (years)	PFHd (1/h)	(years)		bar (psi)	NLPM (SCFM)	°C (°F)	
SCM	Robot	1.75 (3.86)	24 V +/- 15%	250	20	8.5E-8	40.8	97.5%/75/3	5 - 7 (72 - 101)	550.0 (19.4)	-25 - 55 (-13 - 131)	Up to 75%, Temperature 10-40°C (50-104 °F)
	Tool	0.16 (0.35)										

Operating Temperature: 5 - 60 °C (40 - 140 °F)

Noise Emissions (Sound Pressure): ≤ 70 dB(A) in any direction

SAFETY CONTROL MODULE LOGIC

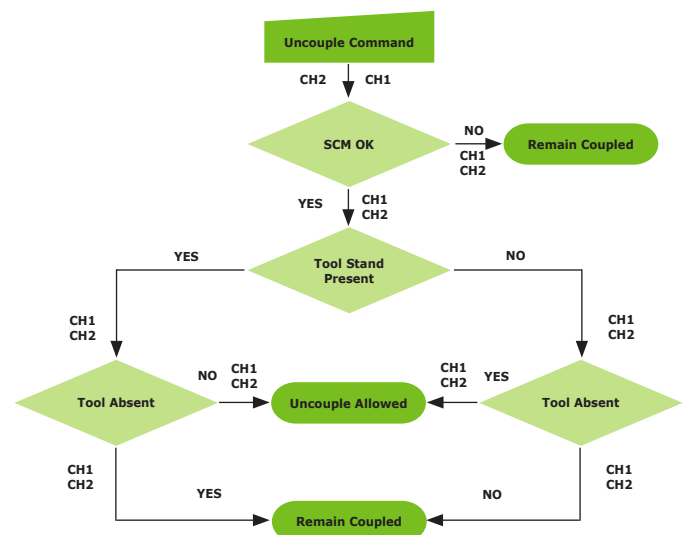
SCM Architecture



Dashed lines represent reasonably practicable fault detection.

im interconnecting means
c cross monitoring
 I1, I2 input device, e.g. sensor
 L1, L2 logic
 m monitoring
 O1, O2 output device, e.g. main contactor

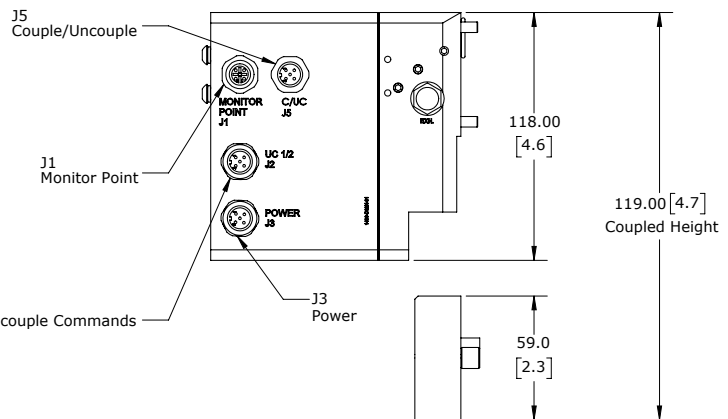
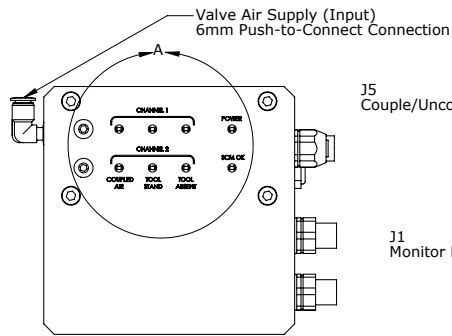
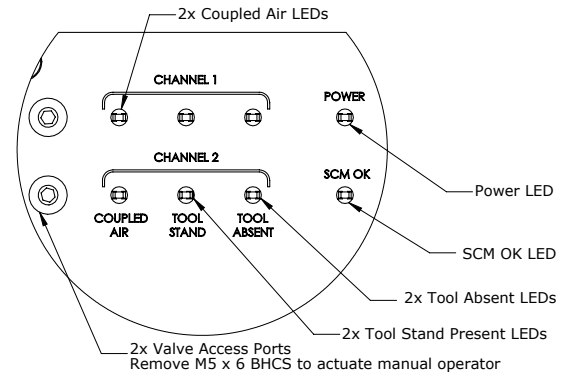
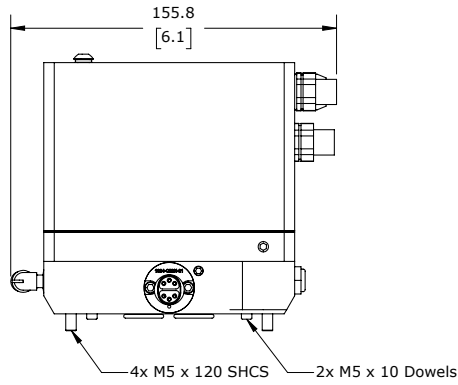
Safety Function Logic



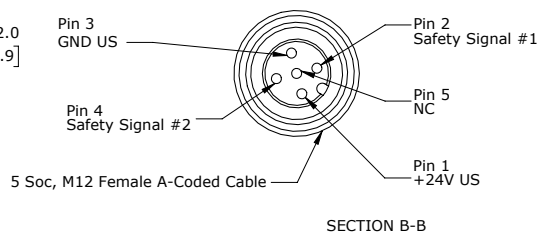
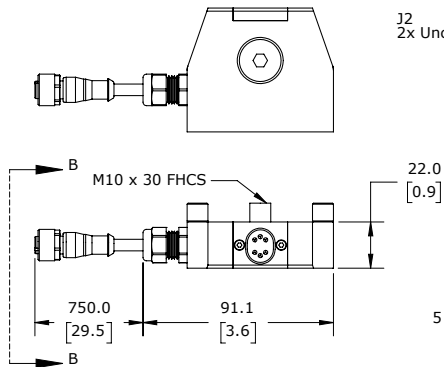
CH1: Channel 1
 CH2: Channel 2

PRODUCT INFORMATION

ROBOT ADAPTOR MODULE



TOOL ADAPTOR MODULE



* Dimensions are in millimeters (inches).

** All dimensions are descriptive and subject to variation for technical upgrading. We reserve the right to make variations without prior notification.



Applied Robotics
648 Saratoga Road
Glenville, NY 12302 USA
Tel. +1 518 384 1000 Fax +1.5183841200
info@appliedrobotics.com
www.appliedrobotics.com



EFFECTO GROUP S.p.A.
Via Roma, 141/143
28017 San Maurizio d'Opaglio (NO) - Italy
Tel. +39 0322 96142 Fax +39 0322 967453
info@effecto.com
www.effecto.com

