

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

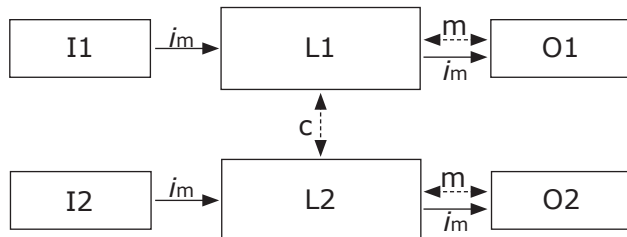
Model	Tool Changer Adaptor Side	Weight	Operating Voltage	Max. Current Consumption	Mission Time	Safety-related reliability	MTTFd	DC/CCF/Cat.	Operating Pressure	Standard Nominal Flow Rate	Transportation & Storage Temperature	Transportation & Storage Humidity
		kg (lb)	VDC	mA	TM (years)	PFHd (1/h)	(years)		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

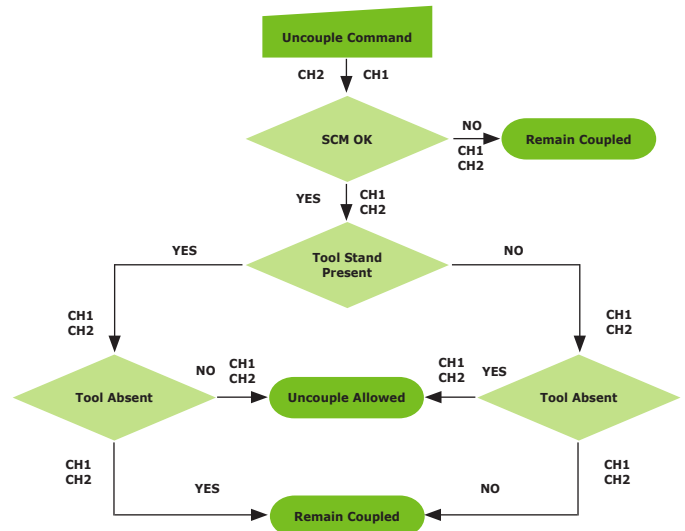
SCM Architecture



Dashed lines represent reasonably practicable fault detection.

$\dot{im}$ 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

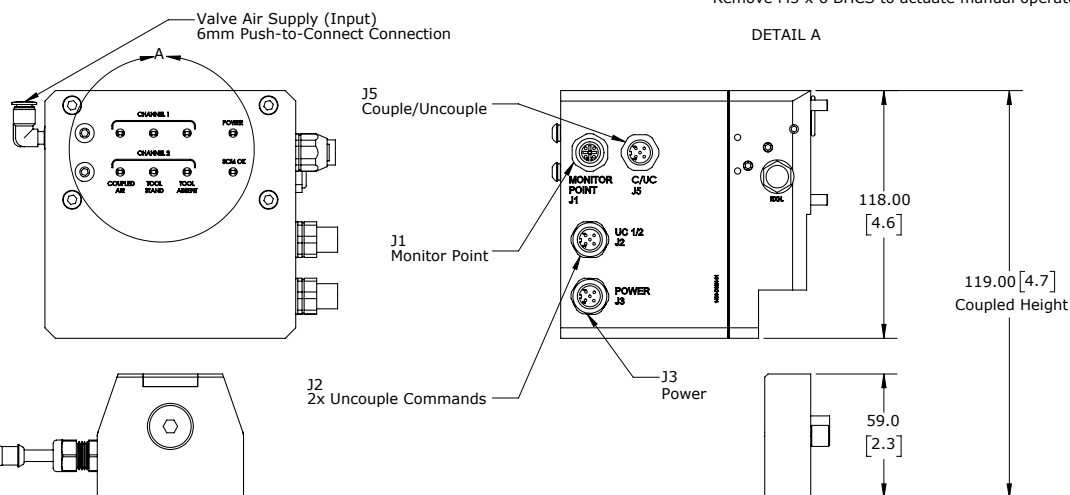
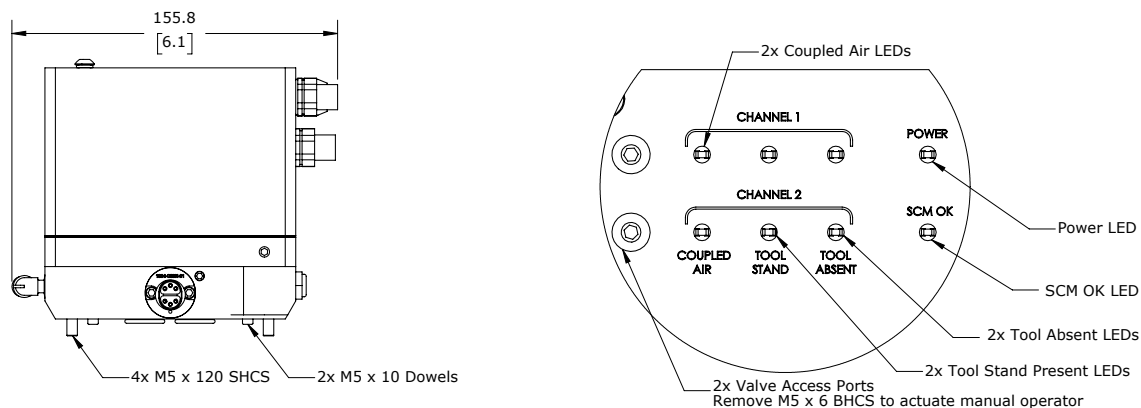
Safety Function Logic



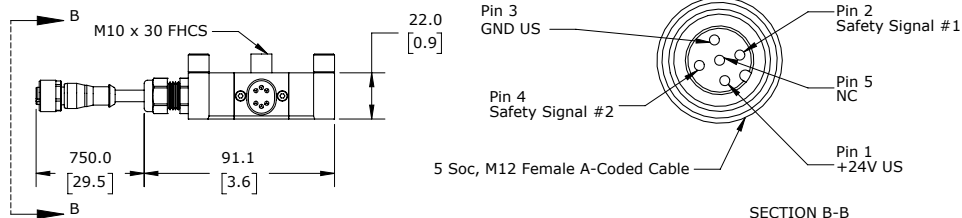
CH1: Channel 1
CH2: Channel 2

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.



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