

Product datasheet

Specifications



safety controller XPS-MC - 24 V DC - 16 input - 32 LEDs signalling

XPSMC16ZPPACK

⚠ Discontinued on: 5 Aug 2021

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Main

Range of product	Preventa Safety automation
Product or component type	Kit configurable safety controller
Safety module name	XPSMC
Safety use category	Category 4 maximum conforming to EN 954-1/EN/ISO 13849-1 PLE maximum conforming to EN/ISO 13849-1 SIL 3 maximum conforming to IEC 61508
Type of start	Configurable
Standards	IEC 61508 EN/IEC 60947-5-1 EN/IEC 60204-1 EN/IEC 61496-1 EN 954-1/EN/ISO 13849-1 EN 1760-1/ISO 13856-1 EN 574/ISO 13851
Product certifications	TÜV CSA UL
[Us] rated supply voltage	24 V DC - 20...20 %
Number of inputs	16
Communication port protocol	Modbus with 1 RJ45 port(s), serial link, transmission rate: 1200 bps, 2400 bps, 4800 bps, 9600 bps or 19200 bps Profibus with 1 SUB-D 9-pin female port(s), serial link, transmission rate: 12 Mbps
Safety level	Can reach PL e/category 4 conforming to EN 954-1/EN/ISO 13849-1 Can reach SIL 3 conforming to IEC 61508

Complementary

Kit composition	Safety controller Set of screw terminals Connection cable Printed packaging label 80 x 50 mm Configuration software USB/RS485 converter Profibus connectors Set of cage clamp terminals VDE slot screwdriver 2.5 x 75 mm Packaging small model for software configuration Ethernet cable 2m
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Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Function of module	Dynamic monitoring of hydraulic valves on linear presses Eccentric press Emergency stop monitoring, with or without time delay, 1 or 2-channel wiring Enabling switch monitoring, 2 or 3 contacts Foot switch monitoring Guard monitoring for injection presses and blowing machines Guard monitoring with 1 or 2 limit switches Hydraulic press Magnetic switch monitoring Monitoring safety stop at top dead centre on eccentric press Muting function of light curtains Position selector Safety mat monitoring Safety time delays Shaft/chain breaking monitor Zero speed detection Light curtain monitoring category 4 conforming to EN/IEC 61496 Two-hand control category 3 conforming to EN 574/ISO 13851
Synchronisation time between inputs	Depending on configuration selected
Power consumption in W	12 W
Input protection type	External fuse 16 A
[Uc] control circuit voltage	28.8 V
Maximum line resistance	100 Ohm <2000 m
Output type	2 relays, 2 NO contacts (4 NO total) circuit(s) Solid state, 6 circuit(s), volt-free
Breaking capacity	180 VA holding AC-15 C300 relay output 1800 VA inrush AC-15 C300 relay output
Breaking capacity	2 A at 24 V for static output circuit 1.5 A at 24 V (DC-13) time constant: 50 ms for relay output
Output thermal current	4 A for both outputs simultaneously 6 A for 1 output and 2 A for the other for relay output
[Ith] conventional free air thermal current	16 A for relay output 6.5 A for static output circuit
Associated fuse rating	16 A gL for power supply 4 A gL for relay output 6 A fast blow for relay output
Minimum output current	10 mA for relay output
Minimum output voltage	17 V for relay output
Response time	Configurable : 20 ms or 30 ms with software XPSMCWIN
[Ui] rated insulation voltage	300 V (pollution degree 2) conforming to IEC 60647-5-1, DIN VDE 0110 part 1
[Uimp] rated impulse withstand voltage	4 kV overvoltage category III conforming to IEC 60647-5-1, DIN VDE 0110 part 1
Method of access	Slave
Exchange size	14 words
Number of addresses	1...125 for Profibus 1...247 for Modbus
Parity	Even for Modbus No for Modbus Odd for Modbus
Data format	1 start bit/8 data bits 1 stop bit even or odd 2 stop bits without parity RTU (Remote Terminal Unit) mode
Supported modbus function	01: 8-bit output data/32-bit input data 02: 32-bit input data/8-bit output data 03: information and errors
Local signalling	32 LEDs

Mounting support	Mounting plate
Depth	153 mm
Height	151.5 mm
Width	74 mm
Product weight	0.82 kg

Environment

IP degree of protection	IP20 conforming to EN/IEC 60529
Ambient air temperature for operation	-10...55 °C
Ambient air temperature for storage	-25...85 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	25 cm
Package 1 Width	25 cm
Package 1 Length	27.5 cm
Package 1 Weight	2.466 kg

Contractual warranty

Warranty (in months)	18
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Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

 Environmental footprint	
Total lifecycle Carbon footprint	489 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	85 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	446 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	4 kg CO2 eq.

Use Better

 Materials and Substances	
EU RoHS Directive	Compliant By Exemption
PVC free	Yes

Use Longer

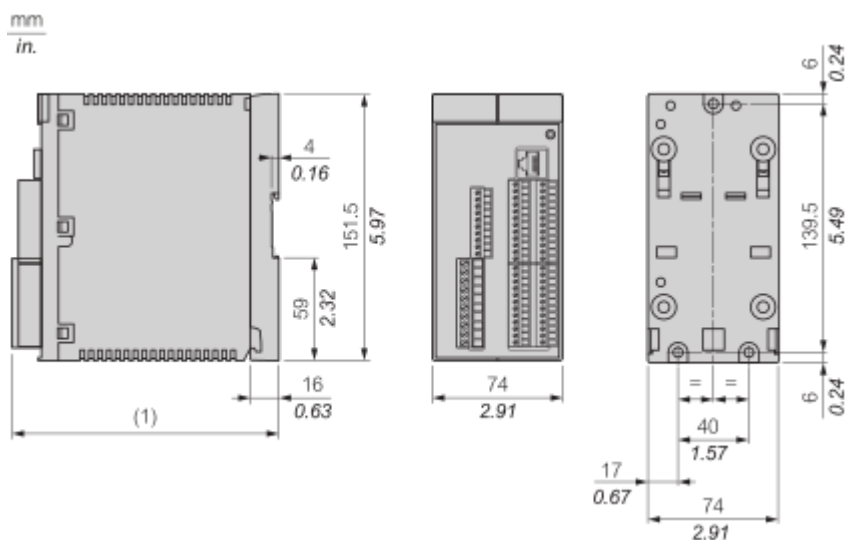
 Lifetime extension	
Repair	No

Use Again

 Repack and remanufacture	
Recyclability potential, in %	34
End of life manual availability	End of Life Information
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

Dimensions



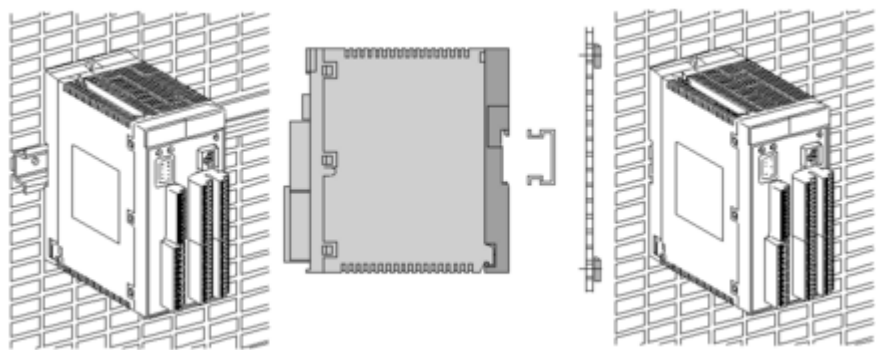
(1)

When using XPSMCTS• connectors, this dimension is 153 mm (6.02 in)

When using XPSMCTC• connectors, this dimension is 151.5 mm (5.96 in)

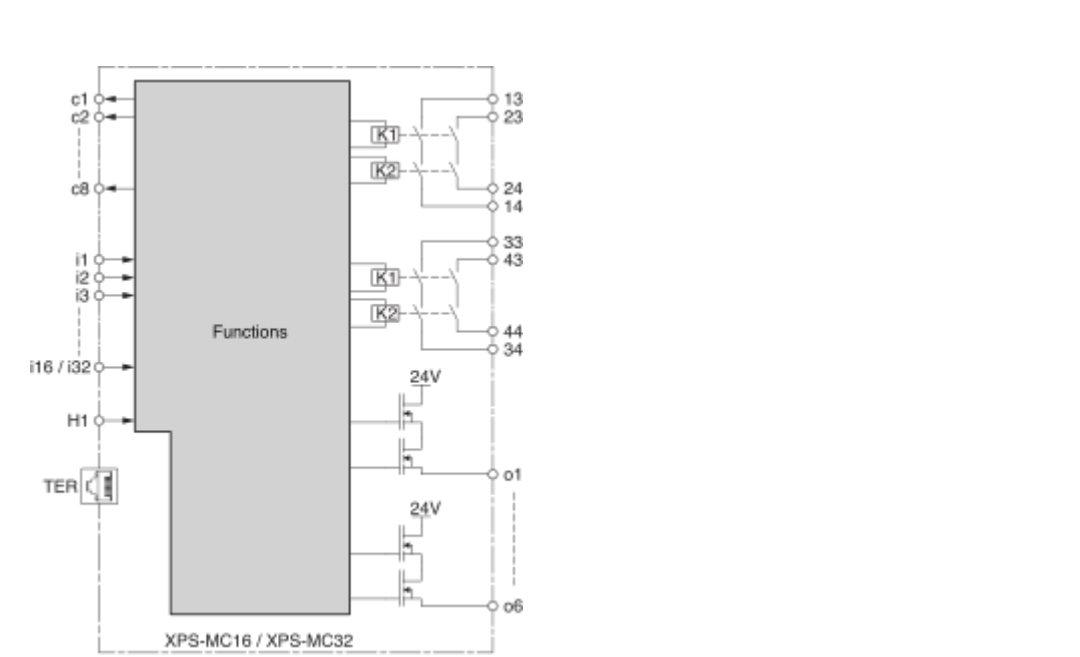
Mounting and Clearance

Installation



Metal adaptor for fixing on metal: DIN rail 35 mm/1.38 in.

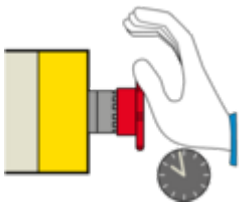
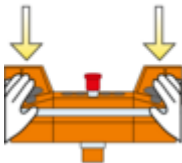
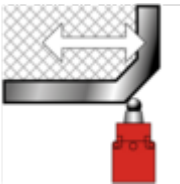
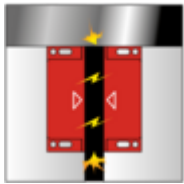
Function Diagram

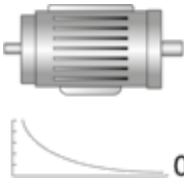
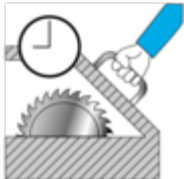


Note: Refer to the instruction sheet available in the documents section for a detailed connection diagram.

Technical Description

Safety Functions

	- Emergency stop monitoring with time delay: 1 channel wiring, with automatic start. 2 channel wiring, with start button.
	- Emergency stop monitoring without time delay: 1 channel wiring, with automatic start. 2 channel wiring, with start button.
	Two-hand control.
	- Guard monitoring: - with 1 limit switch. - with 2 limit switches. - with 2 limit switches, with guard locking.
	Magnetic switch monitoring.

	• Sensing mat monitoring.
	• Light curtains monitoring: ◦ Relay output type. ◦ Solid-state output type. • “Muting” function for light curtains.
	• Zero speed detection.
	• Safety time delays.
	• Enabling switching monitoring: ◦ 2 contact type. ◦ 3 contact type.

Other functions:

- Foot switch monitoring
- Position selector