

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

XPSMC16ZP

#### Main

Range Of Product	Preventa Safety automation
Product Or Component Type	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 ISO 13849-1 SIL 3 maximum conforming to IEC 61508
Type Of Start	Configurable
Standards	EN 1760-1/ISO 13856-1 EN 574/ISO 13851 IEC 60947-5-1 IEC 61508 IEC 60204-1 EN 954-1/EN/ISO 13849-1 IEC 61496-1
Product Certifications	UL CSA TÜV
[Us] Rated Supply Voltage	24 V DC - 2020 %
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

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 category 4 conforming to EN/IEC 61496
	Monitoring safety stop at top dead centre on eccentric press category 3 conforming
	to EN 574/ISO 13851
	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 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
Exchange Size  Number Of Addresses	14 words 1125 for Profibus 1247 for Modbus
	1125 for Profibus
Number Of Addresses	1125 for Profibus 1247 for Modbus  Even for Modbus No for Modbus
Number Of Addresses Parity	1125 for Profibus 1247 for Modbus  Even for Modbus No for Modbus Odd for Modbus  1 start bit/8 data bits 1 stop bit even or odd 2 stop bits without parity
Number Of Addresses  Parity  Data Format	1125 for Profibus 1247 for Modbus  Even for Modbus No for Modbus Odd for Modbus  1 start bit/8 data bits 1 stop bit even or odd 2 stop bits without parity RTU (Remote Terminal Unit) mode  01: 8-bit output data/32-bit input data 02: 32-bit input data/8-bit output data
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Number Of Addresses  Parity  Data Format  Supported Modbus Function  Local Signalling  Mounting Support	1125 for Profibus 1247 for Modbus  Even for Modbus No for Modbus Odd for Modbus  1 start bit/8 data bits 1 stop bit even or odd 2 stop bits without parity RTU (Remote Terminal Unit) mode  01: 8-bit output data/32-bit input data 02: 32-bit input data/8-bit output data 03: information and errors  32 LEDs  Mounting plate
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# **Environment**

Ip Degree Of Protection	IP20 conforming to IEC 60529
Ambient Air Temperature For Operation	-1055 °C
Ambient Air Temperature For Storage	-2585 °C

# **Packing Units**

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	9.000 cm
Package 1 Width	18.000 cm
Package 1 Length	26.000 cm
Package 1 Weight	1.270 kg
Unit Type Of Package 2	S04
Number Of Units In Package 2	6
Package 2 Height	30.000 cm
Package 2 Width	40.000 cm
Package 2 Length	60.000 cm
Package 2 Weight	8.430 kg

# **Contractual warranty**

Warranty 18 months

### Sustainability

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

## Well-being performance

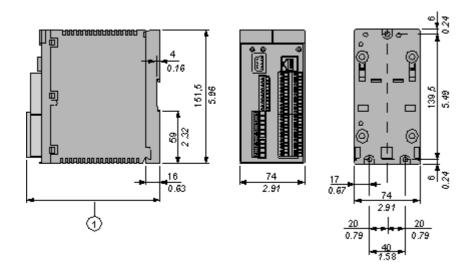


#### **Certifications & Standards**

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information
California Proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

**Dimensions Drawings** 

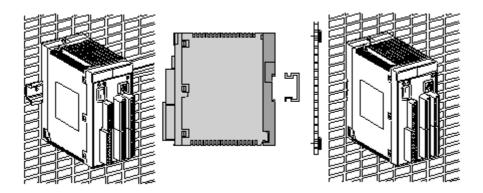
#### **Dimensions**



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.

### XPSMC16ZP

#### Connections and Schema

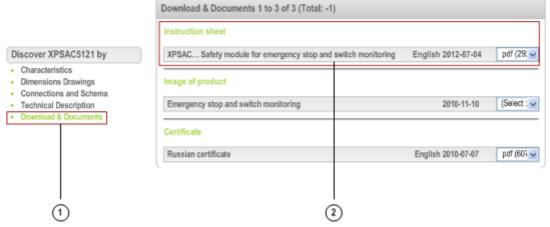
#### **Wiring Diagrams**

#### Refer to the Instruction Sheet

To download the instruction sheet, follow below procedure:



XPSAC5121
module XPSAC - Emergency stop - 24 V AC DC
Download XPSAC5121 product datasheet

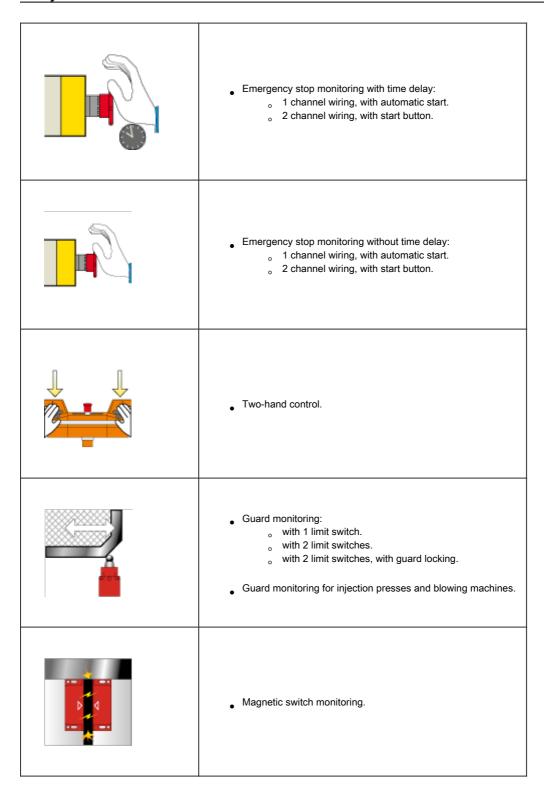


- 1 Click on Download & Documents.
- 2 Click on Instruction sheet.

### XPSMC16ZP

#### **Technical Description**

#### **Safety Functions**



# Product data sheet XPSMC16ZP

• Sensing mat monitoring.
Light curtains monitoring: Relay output type. Solid-state output type.  "Muting" function for light curtains.
Zero speed detection.
Dynamic monitoring of hydraulic valves on linear presses.
• Safety time delays.
<ul> <li>Monitoring safety stop at top dead centre on eccentric press.</li> <li>Hydraulic press.</li> <li>Eccentric press.</li> </ul>

# **Product data sheet**

### XPSMC16ZP



- Enabling switching monitoring:
  - 2 contact type.3 contact type.

#### Other functions:

- Foot switch monitoring
- Chain shaft breakage monitoring
- Position selector