

# XPSMC16Z

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



## 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 EN/ISO 13849-1 SIL 3 maximum conforming to IEC 61508
Type of start	Configurable
Standards	EN/IEC 60947-5-1 EN/IEC 60204-1 EN 954-1/EN/ISO 13849-1 IEC 61508 EN/IEC 61496-1 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
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
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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	12 W
Input protection type	External fuse 16 A
[Uc] control circuit voltage	28.8 V
Line resistance	100 Ohm, cable length: <= 2000 m
Output type	2 relays, 2 NO contacts (4 NO total) circuit(s) Solid state, 6 circuit(s), volt-free
Breaking capacity	C300 : holding 180 VA AC-15 for relay output C300 : inrush 1800 VA AC-15 for relay output
Breaking capacity	1.5 A / 24 V - L/R = 50 ms, DC-13 for relay output 2 A / 24 V for static output circuit
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, degree of pollution 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...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	30 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

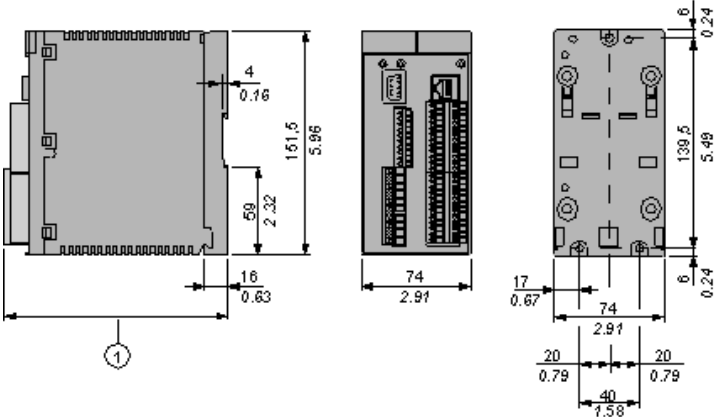
## Contractual warranty

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Warranty period	18 months
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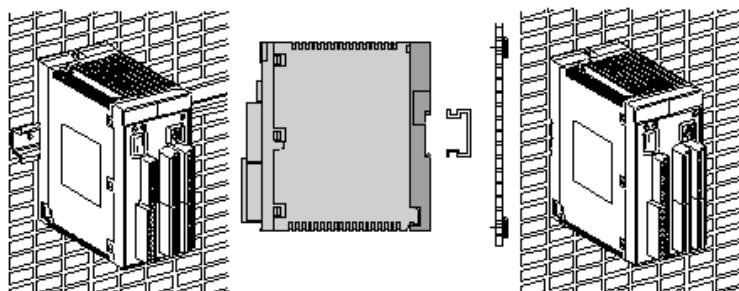
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Dimensions



- 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)

## Installation



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

## 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](#)

Download & Documents 1 to 3 of 3 (Total: -1)

**Instruction sheet**

XPSAC... Safety module for emergency stop and switch monitoring	English 2012-07-04	pdf (29)
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**Image of product**

Emergency stop and switch monitoring	2010-11-10	(Select :)
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**Certificate**

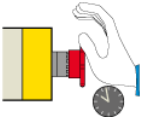
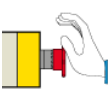
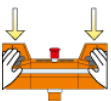




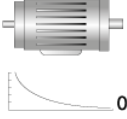
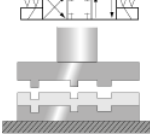

Russian certificate	English 2010-07-07	pdf (60)
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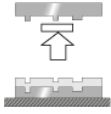

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- 1 Click on Download & Documents.
- 2 Click on Instruction sheet.

Safety Functions

	<ul style="list-style-type: none"> <li>• Emergency stop monitoring with time delay:           <ul style="list-style-type: none"> <li>○ 1 channel wiring, with automatic start.</li> <li>○ 2 channel wiring, with start button.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Emergency stop monitoring without time delay:           <ul style="list-style-type: none"> <li>○ 1 channel wiring, with automatic start.</li> <li>○ 2 channel wiring, with start button.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Two-hand control.</li> </ul>
	<ul style="list-style-type: none"> <li>• Guard monitoring:           <ul style="list-style-type: none"> <li>○ with 1 limit switch.</li> <li>○ with 2 limit switches.</li> <li>○ with 2 limit switches, with guard locking.</li> </ul> </li> <li>• Guard monitoring for injection presses and blowing machines.</li> </ul>
	<ul style="list-style-type: none"> <li>• Magnetic switch monitoring.</li> </ul>
	<ul style="list-style-type: none"> <li>• Sensing mat monitoring.</li> </ul>
	<ul style="list-style-type: none"> <li>• Light curtains monitoring:           <ul style="list-style-type: none"> <li>○ Relay output type.</li> <li>○ Solid-state output type.</li> </ul> </li> <li>• "Muting" function for light curtains.</li> </ul>
	<ul style="list-style-type: none"> <li>• Zero speed detection.</li> </ul>
	<ul style="list-style-type: none"> <li>• Dynamic monitoring of hydraulic valves on linear presses.</li> </ul>
	<ul style="list-style-type: none"> <li>• Safety time delays.</li> </ul>

	<ul style="list-style-type: none"> <li>• Monitoring safety stop at top dead centre on eccentric press.</li> <li>• Hydraulic press.</li> <li>• Eccentric press.</li> </ul>
	<ul style="list-style-type: none"> <li>• Enabling switching monitoring: <ul style="list-style-type: none"> <li>○ 2 contact type.</li> <li>○ 3 contact type.</li> </ul> </li> </ul>

Other functions:

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