

# XPSMC16ZC

safety controller XPS-MC - 24 V DC - 16 input - 32 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<br>PLE maximum conforming to EN/ISO 13849-1<br>SIL 3 maximum conforming to IEC 61508                                                                                                                  |
| Type of start               | Configurable                                                                                                                                                                                                                                                   |
| Standards                   | EN 1760-1/ISO 13856-1<br>EN 574/ISO 13851<br>EN 954-1/EN/ISO 13849-1<br>EN/IEC 60204-1<br>EN/IEC 60947-5-1<br>EN/IEC 61496-1<br>IEC 61508                                                                                                                      |
| Product certifications      | CSA<br>TÜV<br>UL                                                                                                                                                                                                                                               |
| [Us] rated supply voltage   | 24 V DC - 20...20 %                                                                                                                                                                                                                                            |
| Number of inputs            | 16                                                                                                                                                                                                                                                             |
| Communication port protocol | CANopen with 1 SUB-D 9-pin male port(s), serial link, transmission rate: 20 kbps, 50 kbps, 125 kbps, 250 kbps, 500 kbps, 800 kbps or 1 Mbps<br>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<br>Can reach SIL 3 conforming to IEC 61508                                                                                                                                                     |

## Complementary

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Function of module                  | Dynamic monitoring of hydraulic valves on linear presses<br>Eccentric press<br>Emergency stop monitoring, with or without time delay, 1 or 2-channel wiring<br>Enabling switch monitoring, 2 or 3 contacts<br>Foot switch monitoring<br>Guard monitoring for injection presses and blowing machines<br>Guard monitoring with 1 or 2 limit switches<br>Hydraulic press<br>Magnetic switch monitoring<br>Monitoring safety stop at top dead centre on eccentric press<br>Muting function of light curtains<br>Position selector<br>Safety mat monitoring<br>Safety time delays<br>Shaft/chain breaking monitor<br>Zero speed detection<br>Light curtain monitoring (category 4) conforming to EN/IEC 61496<br>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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Line resistance                     | 100 Ohm 2000 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Output type                         | 2 relays, 2 NO contacts (4 NO total) circuit(s)<br>Solid state, 6 circuit(s), volt-free                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Breaking capacity                   | C300 : holding 180 VA AC-15 for relay output<br>C300 : inrush 1800 VA AC-15 for relay output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

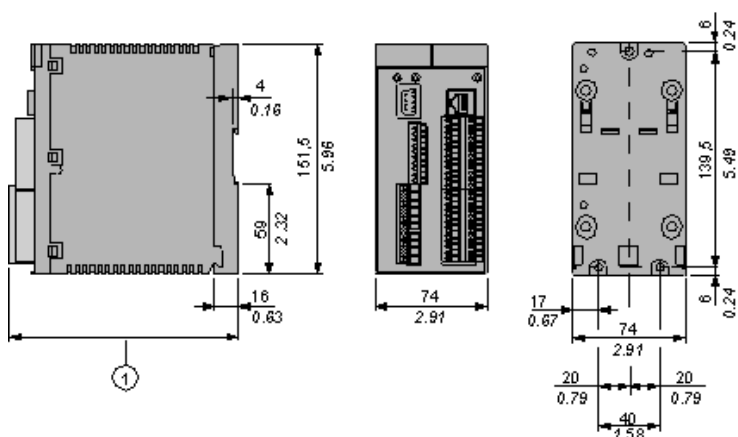
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|                                             |                                                                                                                    |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Breaking capacity                           | 1.5 A / 24 V - L/R = 50 ms, DC-13 for relay output<br>2 A / 24 V for static output circuit                         |
| Output thermal current                      | 4 A for both outputs simultaneously<br>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<br><= 6.5 A for static output circuit                                                     |
| Associated fuse rating                      | 16 A gL for power supply<br>4 A gL for relay output<br>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<br>1...127 for CANopen                                                                          |
| Parity                                      | Even for Modbus<br>No for Modbus<br>Odd for Modbus                                                                 |
| Data format                                 | 1 start bit/8 data bits<br>1 stop bit even or odd<br>2 stop bits without parity<br>RTU (Remote Terminal Unit) mode |
| Supported modbus function                   | 01: 8-bit output data/32-bit input data<br>02: 32-bit input data/8-bit output data<br>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

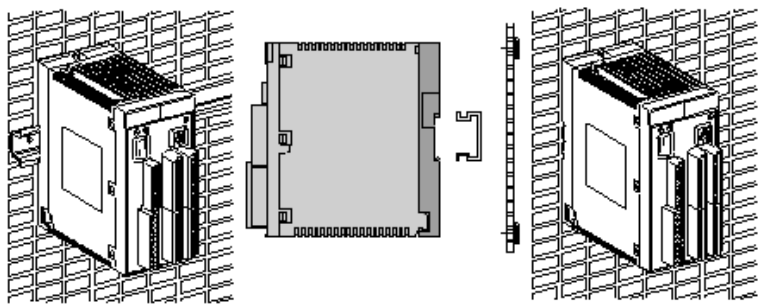
|                                       |                                 |
|---------------------------------------|---------------------------------|
| IP degree of protection               | IP20 conforming to EN/IEC 60529 |
| ambient air temperature for operation | -10...55 °C                   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

## 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](#)

Discover XPSAC5121 by

- Characteristics
- Dimensions Drawings
- Connections and Schema
- Technical Description
- Download & Documents**

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

Instruction sheet

XPSAC... Safety module for emergency stop and switch monitoringEnglish 2012-07-04pdf (29)

Image of product

Emergency stop and switch monitoring2010-11-10(Select : )

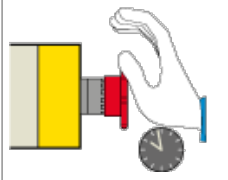
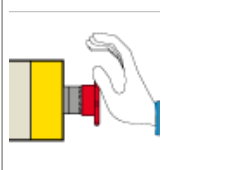
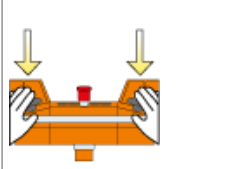
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1 Click on **Download & Documents**.

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Safety Functions

|                                                                                     |                                                                                                                                                                       |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <div>Emergency stop monitoring with time delay:</div> <div><div>1 channel wiring, with automatic start.</div><div>2 channel wiring, with start button.</div></div>    |
|  | <div>Emergency stop monitoring without time delay:</div> <div><div>1 channel wiring, with automatic start.</div><div>2 channel wiring, with start button.</div></div> |
|  | <div>Two-hand control.</div>                                                                                                                                          |

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|  |                                                                                                                                                                                                                                                                                                       |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <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