# **Product datasheet**





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

Local distributor code:

407169722

XPSMC16ZC

! Discontinued on: 9 Feb 2023

EAN Code: 3389119010252

! Discontinued

#### 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                   | IEC 61496-1<br>EN 574/ISO 13851<br>EN 1760-1/ISO 13856-1<br>IEC 61508<br>EN 954-1/EN/ISO 13849-1<br>IEC 60947-5-1<br>IEC 60204-1  |
| Product Certifications      | UL<br>TÜV<br>CSA  |
| [Us] Rated Supply Voltage   | 24 V DC - 2020 %  |
| 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 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 press |
|--------------------|--|
| Function Of Module | Dynamic monitoring of hydraulic valves on linear press |

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

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

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| 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)<br>Solid state, 6 circuit(s), volt-free                    |
| Breaking Capacity                              | 180 VA holding AC-15 C300 relay output<br>1800 VA inrush AC-15 C300 relay output                           |
| Breaking Capacity                              | 2 A at 24 V for static output circuit<br>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<br>Thermal Current | 16 A for relay output<br>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                            | 1127 for CANopen<br>1247 for Modbus  |
| Parity   | Even for Modbus<br>No for Modbus<br>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  |
| Net Weight                                     | 0.82 kg  |

## **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             | 9.500 cm  |
| Package 1 Width              | 18.000 cm |
| Package 1 Length             | 26.000 cm |
| Package 1 Weight             | 1.265 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             | 8.459 kg  |

# **Contractual warranty**

Warranty 18 months



**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.

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Transparency RoHS/REACh

## Well-being performance

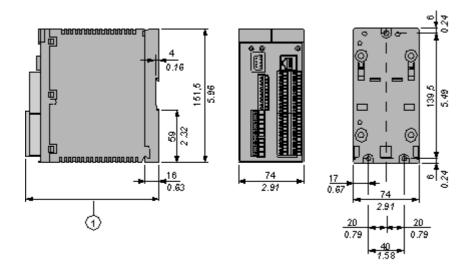


### **Certifications & Standards**

| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
|--------------------------|---|
| Environmental Disclosure | Product Environmental Profile   |
| China Rohs Regulation    | China RoHS declaration  |
| Eu Rohs Directive        | Pro-active compliance (Product out of EU RoHS legal scope)  |
| Reach Regulation         | REACh Declaration   |

### **Dimensions Drawings**

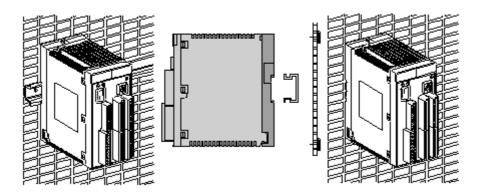
#### **Dimensions**



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.

## XPSMC16ZC

#### Connections and Schema

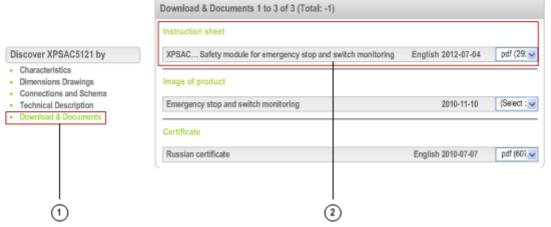
#### **Wiring Diagrams**

#### 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.

## XPSMC16ZC

# **Technical Description**

## **Safety Functions**

| <ul> <li>Emergency stop monitoring with time delay:         <ul> <li>1 channel wiring, with automatic start.</li> <li>2 channel wiring, with start button.</li> </ul> </li> </ul>    |
|--|
| <ul> <li>Emergency stop monitoring without time delay:         <ul> <li>1 channel wiring, with automatic start.</li> <li>2 channel wiring, with start button.</li> </ul> </li> </ul> |
| • Two-hand control.  |
| Guard monitoring:  with 1 limit switch. with 2 limit switches. with 2 limit switches, with guard locking.  Guard monitoring for injection presses and blowing machines.              |
| Magnetic switch monitoring.  |

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|   | • Sensing mat monitoring.   |
|---|---|
|   | <ul> <li>Light curtains monitoring:         <ul> <li>Relay output type.</li> <li>Solid-state output type.</li> </ul> </li> <li>"Muting" function for light curtains.</li> </ul> |
| 0 | Zero speed detection.   |
|   | <ul> <li>Dynamic monitoring of hydraulic valves on linear presses.</li> </ul>   |
|   | • 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>   |

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

#### Other functions:

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