

# XPSUAB11CC

Preventa module Cat.1 potential free NC/NC,  
NO/NC & PNP/PNP 24vac/dc spring



## Main

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of product          | Preventa Safety automation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Product or component type | Preventa safety module                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Safety module name        | XPSUAB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Safety module application | For electrical monitoring of two-hand control stations<br>For application with safety switchover contact<br>For emergency stop, guard and light curtain monitoring<br>Monitoring antivalent contacts                                                                                                                                                                                                                                                                                                                      |
| Function of module        | Emergency stop monitoring 1-channel wiring<br>Guard monitoring 1-channel wiring<br>Monitoring 1 PNP sensor<br>Monitoring two-hand control station type IIIA<br>Magnetic switch monitoring<br>Light curtain monitoring<br>RFID switch<br>Monitoring of electro-sensitive protection equipment (ESPE)<br>Proximity sensor monitoring                                                                                                                                                                                        |
| Safety level              | Can reach PL c/category 1 conforming to ISO 13849-1<br>Can reach SILCL 1 conforming to IEC 62061<br>Can reach SIL 1 conforming to IEC 61508                                                                                                                                                                                                                                                                                                                                                                               |
| Safety reliability data   | MTTFd $\geq$ 30 years conforming to ISO 13849-1<br>Dcavg < 60 % conforming to ISO 13849-1<br>PFHd = 1177E-09 1/h conforming to ISO 13849-1<br>HFT = 0 conforming to IEC 62061<br>PFHd = 1177E-09 1/h conforming to IEC 62061<br>SFF > 60% conforming to IEC 62061<br>HFT=0 conforming to IEC 61508-1<br>PFHd = 1177E-09 1/h conforming to IEC 61508-1<br>SFF > 60% conforming to IEC 61508-1<br>Type = B conforming to IEC 61508-1                                                                                        |
| Electrical circuit type   | NC pair<br>PNP pair<br>Antivalent pair<br>OSSD pair                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Connections - terminals   | Removable spring terminal block, 0.2...2.5 mm <sup>2</sup> solid or flexible<br>Removable spring terminal block, 0.25...2.5 mm <sup>2</sup> flexible with ferrule single conductor<br>Removable spring terminal block, 0.2...1.5 mm <sup>2</sup> solid or flexible twin conductor<br>Removable spring terminal block, 2 x 0.25...1 mm <sup>2</sup> flexible with ferrule without cable end, with bezel<br>Removable spring terminal block, 2 x 0.5...1.5 mm <sup>2</sup> flexible with ferrule with cable end, with bezel |
| [Us] rated supply voltage | 24 V AC - 15...10 %<br>24 V DC - 20...20 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Complementary

|                                     |                            |
|-------------------------------------|----------------------------|
| Synchronisation time between inputs | 0.5 s<br>2.2 s             |
| Type of start                       | Automatic/manual/monitored |
| Power consumption in W              | 1.5 W 24 V DC              |
| Power consumption in VA             | 3.5 VA 24 V AC 50/60 Hz    |
| Input protection type               | Internal, electronic       |
| Safety outputs                      | 1 C/O                      |

|                                                          |                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety inputs                                            | 1 safety input 24 V DC 5 mA                                                                                                                                                                                                                                                                                                                                              |
| Maximum wire resistance                                  | 500 Ohm                                                                                                                                                                                                                                                                                                                                                                  |
| Input compatibility                                      | Normally closed circuit conforming to ISO 14119<br>XC limit switch conforming to ISO 14119<br>Mechanical contact conforming to ISO 14119<br>Normally closed circuit conforming to ISO 13850<br>Antivalent pair conforming to ISO 14119<br>OSSD pair conforming to IEC 61496-1-2<br>Two-hand control conforming to EN 574/ISO 13851-III A<br>3-wire proximity sensors PNP |
| [I <sub>e</sub> ] rated operational current              | 5 A AC-1 for normally open relay contact<br>3 A AC-15 for normally open relay contact<br>5 A DC-1 for normally open relay contact<br>3 A DC-13 for normally open relay contact<br>3 A AC-1 for normally closed relay contact<br>1 A AC-15 for normally closed relay contact<br>2 A DC-1 for normally closed relay contact<br>1 A DC-13 for normally closed relay contact |
| Control Outputs                                          | 2 on/off configurable pulsed output                                                                                                                                                                                                                                                                                                                                      |
| Input/output type                                        | Semiconductor pulsed diagnostic output 24 V DC, 20 mA Z1, not safety-related                                                                                                                                                                                                                                                                                             |
| [I <sub>th</sub> ] conventional free air thermal current | 3 A                                                                                                                                                                                                                                                                                                                                                                      |
| Associated fuse rating                                   | 6 A gG for relay output conforming to IEC 60947-1                                                                                                                                                                                                                                                                                                                        |
| Minimum output current                                   | 10 mA for relay output                                                                                                                                                                                                                                                                                                                                                   |
| Minimum output voltage                                   | 15 V for relay output                                                                                                                                                                                                                                                                                                                                                    |
| Maximum response time on input open                      | 20 ms                                                                                                                                                                                                                                                                                                                                                                    |
| [U <sub>i</sub> ] rated insulation voltage               | 250 V (pollution degree 2) conforming to EN/IEC 60947-1                                                                                                                                                                                                                                                                                                                  |
| [U <sub>imp</sub> ] rated impulse withstand voltage      | 4 kV overvoltage category II conforming to EN/IEC 60947-1                                                                                                                                                                                                                                                                                                                |
| Local signalling                                         | LED (green) for power ON<br>LED (red) for error<br>LED (yellow) for start<br>LED (yellow) for safety status<br>LED (yellow) for safety input S12<br>LED (yellow) for safety input S13                                                                                                                                                                                    |
| Mounting support                                         | 35 mm symmetrical DIN rail                                                                                                                                                                                                                                                                                                                                               |
| Depth                                                    | 120 mm                                                                                                                                                                                                                                                                                                                                                                   |
| Ambient air temperature for operation                    | -25...55 °C                                                                                                                                                                                                                                                                                                                                                              |
| Height                                                   | 100 mm                                                                                                                                                                                                                                                                                                                                                                   |
| Width                                                    | 22.5 mm                                                                                                                                                                                                                                                                                                                                                                  |
| Net weight                                               | 0.200 kg                                                                                                                                                                                                                                                                                                                                                                 |

## Environment

|                         |                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards               | IEC 60947-5-1<br>IEC 61508-1 functional safety standard<br>IEC 61508-2 functional safety standard<br>IEC 61508-3 functional safety standard<br>IEC 61508-4 functional safety standard<br>IEC 61508-5 functional safety standard<br>IEC 61508-6 functional safety standard<br>IEC 61508-7 functional safety standard<br>ISO 13849-1 functional safety standard<br>IEC 62061 functional safety standard |
| Product certifications  | TÜV<br>CULus                                                                                                                                                                                                                                                                                                                                                                                          |
| IP degree of protection | IP20 (terminals) conforming to EN/IEC 60529<br>IP40 (housing) conforming to EN/IEC 60529<br>IP54 (mounting area) conforming to EN/IEC 60529                                                                                                                                                                                                                                                           |
| Relative humidity       | 5...95 % non-condensing                                                                                                                                                                                                                                                                                                                                                                               |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Weight             | 258 g   |
| Package 1 Height             | 6.8 cm  |
| Package 1 width              | 14 cm   |
| Package 1 Length             | 15.5 cm |

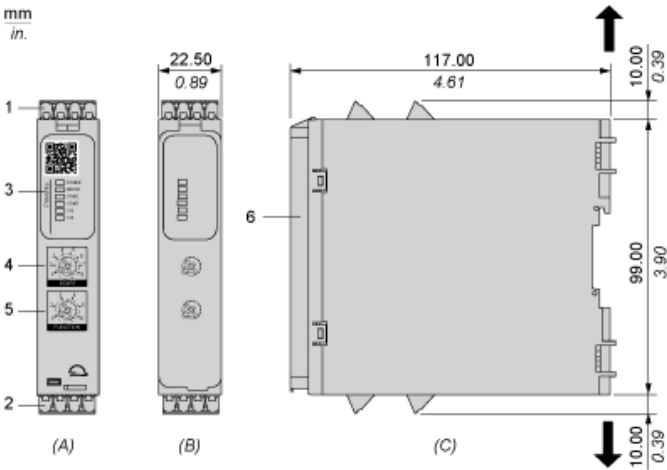
|                              |          |
|------------------------------|----------|
| Unit Type of Package 2       | BB1      |
| Number of Units in Package 2 | 1        |
| Package 2 Weight             | 315 g    |
| Package 2 Height             | 6.4 cm   |
| Package 2 width              | 13.3 cm  |
| Package 2 Length             | 15.3 cm  |
| Unit Type of Package 3       | S03      |
| Number of Units in Package 3 | 16       |
| Package 3 Weight             | 4.963 kg |
| Package 3 Height             | 30 cm    |
| Package 3 width              | 30 cm    |
| Package 3 Length             | 40 cm    |

## Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>                              |
| Mercury free               | Yes                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                      |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile        | <a href="#">End Of Life Information</a>                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| PVC free                   | Yes                                                                                                                         |

Dimensions

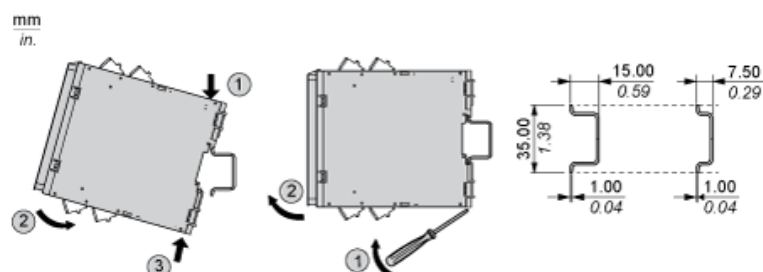
Front and Side Views



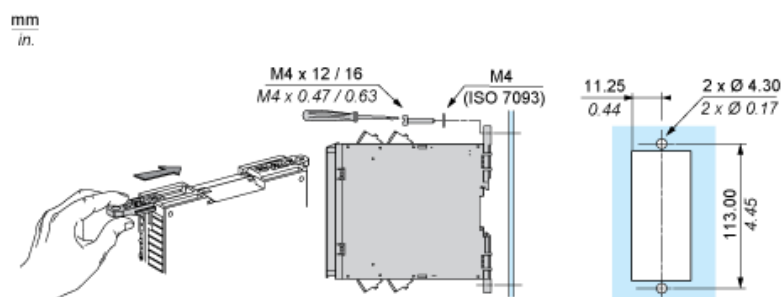
- (A) : Product drawing
- (B) : Spring Terminal
- (C) : Side view
- (1) : Removable terminal blocks, top
- (2) : Removable terminal blocks, bottom
- (3) : LED indicators
- (4) : Start function selector
- (5) : Function selector
- (6) : Sealable transparent cover

|                 |              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------|--------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| mm<br>in.       | 12.0<br>0.47 |  |  |  |  |  |
| mm <sup>2</sup> | 0.2...2,5    | 0.25...2,5                                                                          | 0.2...1,5                                                                           | 0.25...1                                                                            | 0.5...1,5                                                                           |                                                                                     |
| AWG             | 24...12      | 24...12                                                                             | 24...16                                                                             | 24...18                                                                             | 20...16                                                                             |                                                                                     |

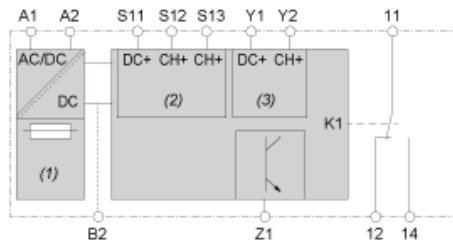
## Mounting to DIN rail



## Screw-mounting



## Wiring Drawing



- (1) : A1-A2 (Power supply)
- (2) : S11-S12-S13 (Single-channel safety input)
- (3) : Y1-Y2 (Start)
- 11-12 Output
- B2 : Common ground terminal
- Z1 : Pulsed output for diagnostics, not safety-related