

XPSUAK32AC

Preventa module Cat.4 features XPSUAF +
PNP/NPN, safety mat 48-240vac/dc spring



Main

| | |
|---------------------------|---|
| Range of product | Preventa Safety automation |
| Product or component type | Preventa safety module |
| Safety module name | XPSUAK |
| Safety module application | Monitoring antivalent contacts For emergency stop, guard and light curtain monitoring Monitoring of pressure-sensitive 4-wire protective devices |
| Function of module | Emergency stop button with 2 NC contacts Guard monitoring with 1 or 2 limit switches Monitoring 2 PNP sensors Magnetic switch monitoring Light curtain monitoring RFID switch Monitoring of electro-sensitive protection equipment (ESPE) Sensing mat/edges Proximity sensor monitoring Monitoring 1 PNP + 1 NPN sensor |
| Safety level | Can reach PL e/category 4 for normally open relay contact conforming to ISO 13849-1 Can reach SILCL 3 for normally open relay contact conforming to IEC 62061 Can reach SIL 3 for normally open relay contact conforming to IEC 61508 Can reach PL c/category 1 for normally closed relay contact conforming to ISO 13849-1 Can reach SILCL 1 for normally closed relay contact conforming to IEC 62061 Can reach SIL 1 for normally closed relay contact conforming to IEC 61508 |
| Safety reliability data | MTTFd > 30 years conforming to ISO 13849-1 Dcavg >= 99 % conforming to ISO 13849-1 PFHd = 1.61E-09 conforming to ISO 13849-1 HFT = 1 conforming to IEC 62061 PFHd = 1.61E-09 conforming to IEC 62061 SFF > 99% conforming to IEC 62061 HFT = 1 conforming to IEC 61508-1 PFHd = 1.61E-09 conforming to IEC 61508-1 SFF > 99% conforming to IEC 61508-1 Type = B conforming to IEC 61508-1 |
| Electrical circuit type | NC pair PNP pair Antivalent pair OSSD pair |
| Connections - terminals | Removable spring terminal block, 0.2...2.5 mm ² solid or flexible Removable spring terminal block, 0.25...2.5 mm ² flexible with ferrule single conductor Removable spring terminal block, 0.2...1.5 mm ² solid or flexible twin conductor Removable spring terminal block, 2 x 0.25...1 mm ² flexible with ferrule without cable end, with bezel Removable spring terminal block, 2 x 0.5...1.5 mm ² flexible with ferrule with cable end, with bezel |
| [Us] rated supply voltage | 48...240 V AC/DC - 10...10 % |

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Complementary

| | |
|---|--|
| Synchronisation time between inputs | 0.5 s 2 s 4 s |
| Type of start | Automatic/manual/monitored |
| Power consumption in W | 3.0 W 48 V DC |
| Power consumption in VA | 6.5 VA 240 V AC 50/60 Hz |
| Input protection type | Internal, electronic |
| Safety outputs | 2 NO + 1 NC |
| Safety inputs | 2 safety input 24 V DC 5 mA |
| Maximum wire resistance | 500 Ohm |
| Input compatibility | Normally closed circuit conforming to ISO 14119 XC limit switch conforming to ISO 14119 Mechanical contact conforming to ISO 14119 Normally closed circuit conforming to ISO 13850 Antivalent pair conforming to ISO 14119 OSSD pair conforming to IEC 61496-1-2 3-wire proximity sensors PNP |
| [Ie] rated operational current | 5 A AC-1 for normally open relay contact 3 A AC-15 for normally open relay contact 5 A DC-1 for normally open relay contact 3 A DC-13 for normally open relay contact 3 A AC-1 for normally closed relay contact 1 A AC-15 for normally closed relay contact 3 A DC-1 for normally closed relay contact 1 A DC-13 for normally closed relay contact |
| Control outputs | 3 on/off configurable pulsed output |
| Input/output type | Semiconductor pulsed diagnostic output 24 V DC, 20 mA Z1, not safety-related |
| [Ith] conventional free air thermal current | 8 A |
| Associated fuse rating | 10 A gG for NO relay output circuit conforming to IEC 60947-1 |
| Minimum output current | 10 mA for relay output |
| Minimum output voltage | 12 V for relay output |
| Maximum response time on input open | 20 ms |
| [Ui] rated insulation voltage | 250 V (pollution degree 2) conforming to EN/IEC 60947-1 |
| [Uimp] rated impulse withstand voltage | 4 kV overvoltage category II conforming to EN/IEC 60947-1 |
| Local signalling | LED (green) for power ON LED (red) for error LED (yellow) for start LED (yellow) for safety status LED (yellow) for safety input S12 LED (yellow) for safety input S22 |
| Mounting support | 35 mm symmetrical DIN rail |
| Depth | 120 mm |
| Width | 22.5 mm |
| Height | 100 mm |
| Net weight | 0.200 kg |

Environment

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|---------------------------------------|---|
| Ambient air temperature for operation | -25...55 °C |
| Standards | IEC 60947-5-1 IEC 61508-1 functional safety standard IEC 61508-2 functional safety standard IEC 61508-3 functional safety standard IEC 61508-4 functional safety standard IEC 61508-5 functional safety standard IEC 61508-6 functional safety standard IEC 61508-7 functional safety standard ISO 13849-1 functional safety standard IEC 62061 functional safety standard |
| Product certifications | TÜV CULus |
| IP degree of protection | IP20 (terminals) conforming to EN/IEC 60529 IP40 (housing) conforming to EN/IEC 60529 IP54 (mounting area) conforming to EN/IEC 60529 |
| Relative humidity | 5...95 % non-condensing |

Packing Units

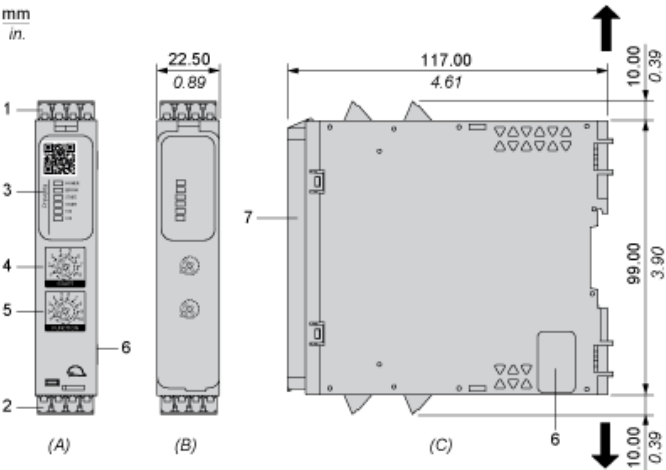
| | |
|------------------------------|---------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 300 g |
| Package 1 Height | 6.5 cm |
| Package 1 width | 13.5 cm |
| Package 1 Length | 15.5 cm |

Offer Sustainability

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|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS Declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End Of Life Information |
| 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

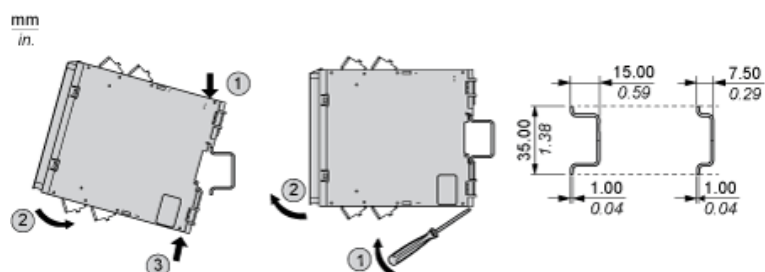
Front and Side Views



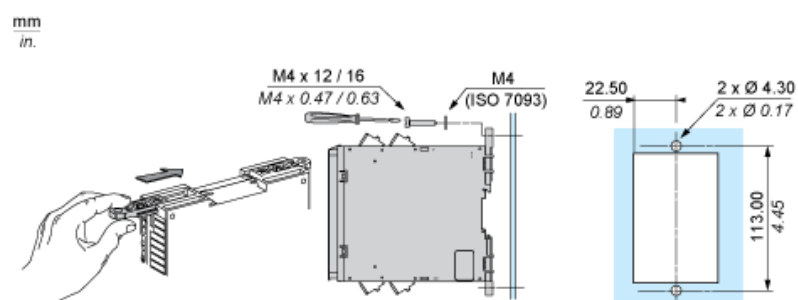
- (A) : Product drawing
(B) : Spring Terminal
(C) : Side view
(1) : Removable terminal blocks, top
(2) : Removable terminal blocks, bottom
(3) : LED indicators
(4) : Start function selector
(5) : Function selector
(6) : Connector for optional output extension module (lateral)
(7) : Sealable transparent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

| | | | | | | |
|-----------------|--------------|------------|-----------|----------|-----------|--|
| mm in. | 12.0 0.47 | | | | | |
| mm ² | 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 | |

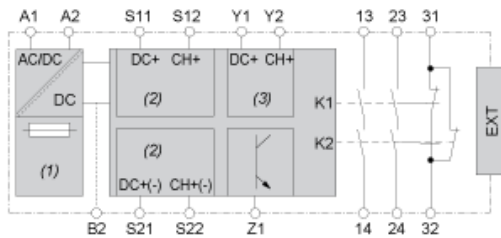
Mounting to DIN rail



Screw-mounting



Wiring Drawing



- (1) : A1-A2 (Power supply)
 (2) : S11-S12-S21-S22 (Single-channel safety input)
 (3) : Y1-Y2 (Start)
 13-23 Output 14-24 :
 EXT :Connector for optional extension module
 B2 : Common ground terminal
 Z1 : Pulsed output for diagnostics, not safety-related