# Product datasheet

Specifications

**Green Premium™**

## Preventa module Cat.4 features XPSUAF + PNP/NPN, safety mat 24vac/dc screw

XPSUAK12AP

**EAN Code: 3606489601652**

## Main

| | |
|---|---|
| **Range Of Product** | Harmony Safety Automation |
| **Product Or Component Type** | Safety module |
| **Safety Module Name** | XPSUAK |
| **Safety Module Application** | Monitoring antivalent contacts<br>For emergency stop, guard and light curtain monitoring<br>Monitoring of pressure-sensitive 4-wire protective devices |
| **Function Of Module** | Emergency stop button with 2 NC contacts<br>Guard monitoring with 1 or 2 limit switches<br>Monitoring 2 PNP sensors<br>Magnetic switch monitoring<br>Light curtain monitoring<br>RFID switch<br>Monitoring of electro-sensitive protection equipment (ESPE)<br>Sensing mat/edges<br>Proximity sensor monitoring<br>Monitoring 1 PNP + 1 NPN sensor |
| **Safety Level** | Can reach PL e/category 4 for normally open relay contact conforming to ISO 13849-1<br>Can reach SILCL 3 for normally open relay contact conforming to IEC 62061<br>Can reach SIL 3 for normally open relay contact conforming to IEC 61508<br>Can reach PL c/category 1 for normally closed relay contact conforming to ISO 13849-1<br>Can reach SILCL 1 for normally closed relay contact conforming to IEC 62061<br>Can reach SIL 1 for normally closed relay contact conforming to IEC 61508 |
| **Safety Reliability Data** | MTTFd > 30 years conforming to ISO 13849-1<br>Dcavg >= 99 % conforming to ISO 13849-1<br>PFHd = 1.13E-09 conforming to ISO 13849-1<br>HFT = 1 conforming to IEC 62061<br>PFHd = 1.13E-09 conforming to IEC 62061<br>SFF > 99% conforming to IEC 62061<br>HFT = 1 conforming to IEC 61508-1<br>PFHd = 1.13E-09 conforming to IEC 61508-1<br>SFF > 99% 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 screw terminal block, 0.2...2.5 mm² solid or flexible<br>Removable screw terminal block, 0.25...2.5 mm² flexible with ferrule single conductor<br>Removable screw terminal block, 0.2...1.5 mm² solid or flexible twin conductor<br>Removable screw terminal block, 2 x 0.25...1 mm² flexible with ferrule without cable end, with bezel<br>Removable screw terminal block, 2 x 0.5...1.5 mm² flexible with ferrule with cable end, with bezel |
| **[Us] Rated Supply Voltage** | 24 V AC - 15...10 %<br>24 V DC - 20...20 % |

## Complementary

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| | |
|---|---|
| **Synchronisation Time Between Inputs** | 0.5 s<br>2 s<br>4 s |
| **Type Of Start** | Automatic/manual/monitored |
| **Power Consumption In W** | 2.0 W 24 V DC |
| **Power Consumption In Va** | 5.0 VA 24 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<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>3-wire proximity sensors PNP |
| **[Ie] 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>3 A DC-1 for normally closed relay contact<br>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 |
| **[Ui] Rated Insulation Voltage** | 250 V (pollution degree 2) conforming to IEC 60947-1 |
| **[Uimp] Rated Impulse Withstand Voltage** | 4 kV overvoltage category II conforming to IEC 60947-1 |
| **Mounting Support** | 35 mm symmetrical DIN rail |
| **Depth** | 120 mm |
| **Height** | 100 mm |
| **Width** | 22.5 mm |
| **Net Weight** | 0.200 kg |

# Environment

| | |
|---|---|
| **Ambient Air Temperature For Operation** | -25…55 °C |
| **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 |

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| | |
|---|---|
| **Ip Degree Of Protection** | IP20 (terminals) conforming to IEC 60529<br>IP40 (housing) conforming to IEC 60529<br>IP54 (mounting area) conforming to 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 Height** | 6.500 cm |
| **Package 1 Width** | 13.500 cm |
| **Package 1 Length** | 15.500 cm |
| **Package 1 Weight** | 277.000 g |
| **Unit Type Of Package 2** | S03 |
| **Number Of Units In Package 2** | 16 |
| **Package 2 Height** | 30.000 cm |
| **Package 2 Width** | 30.000 cm |
| **Package 2 Length** | 40.000 cm |
| **Package 2 Weight** | 5.186 kg |
| **Unit Type Of Package 3** | P06 |
| **Number Of Units In Package 3** | 128 |
| **Package 3 Height** | 75.000 cm |
| **Package 3 Width** | 60.000 cm |
| **Package 3 Length** | 80.000 cm |
| **Package 3 Weight** | 50.324 kg |

# Contractual warranty

| | |
|---|---|
| **Warranty** | 18 months |

# Sustainability

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-$CO_2$ products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium ⟩

Guide to assess a product's sustainability ⟩

Transparency   RoHS/REACh

## Well-being performance

✓ Mercury Free

✓ Rohs Exemption Information          Yes

✓ Pvc Free

## Certifications & Standards

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

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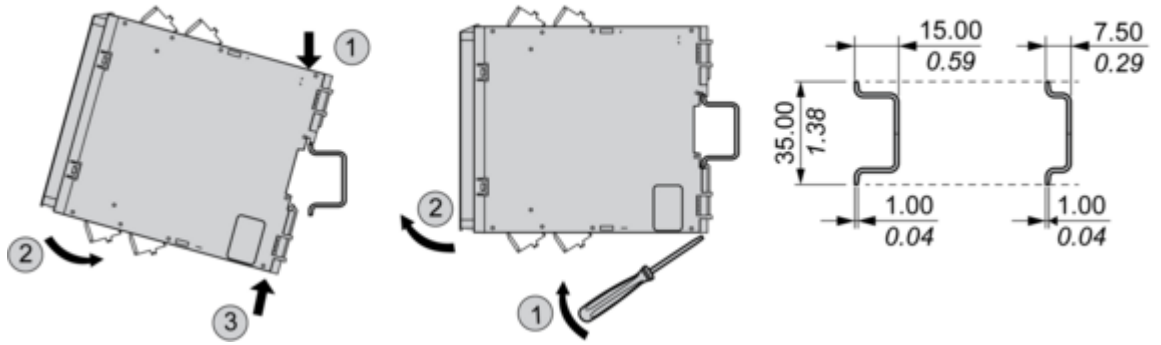
**Dimensions**

### Front and Side Views
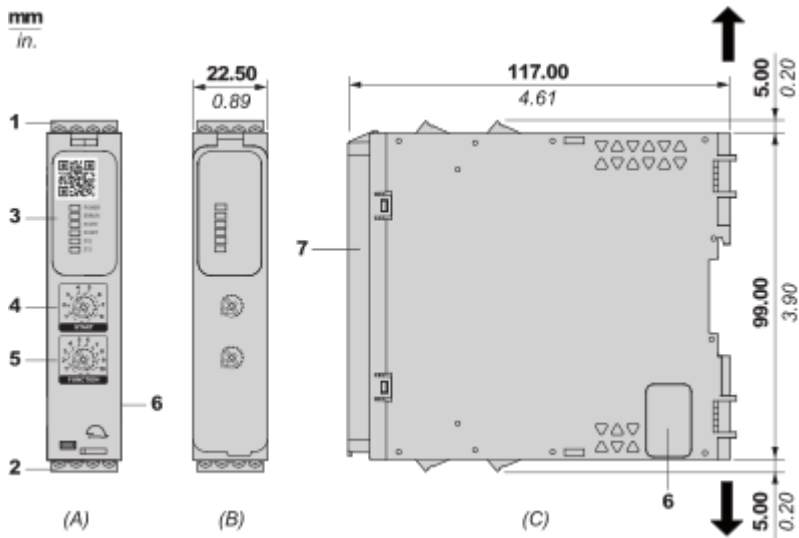


**(A) :** Product drawing
**(B) :** Screw clamp terminal
**(C) :** Side view
**(1) :** Removable terminal blocks, top
**(2) :** Removable terminal blocks, bottom
**(3) :** LED indicators
**(4) :** Start function selector
**(5) :** Function selector
**(6) :** Connector for optional output extension module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

| mm / in. 7.0–8.0 / 0.28–0.31 | | | | | |
|---|---|---|---|---|---|
| mm² | 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 |
| Ø 3,5 mm (0.14 in) | | | | Nm | 0.5... 0.6 |
| | | | | lb-in | 4,4... 5,3 |

**XPSUAK12AP**

**Mounting to DIN rail**

## Screw-mounting

$\dfrac{mm}{in.}$

M4 x 12 / 16
*M4 x 0.47 / 0.63*

M4
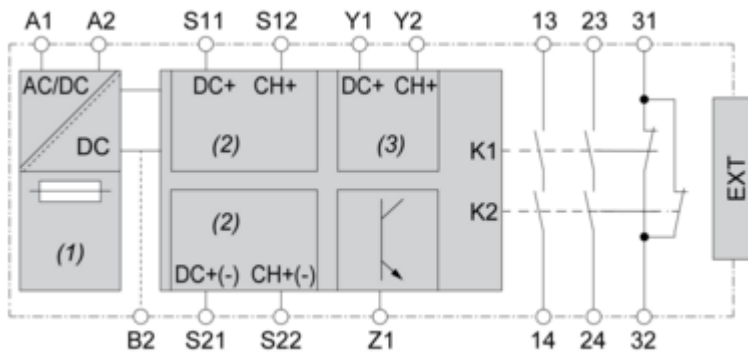(ISO 7093)

22.50
0.89

2 x Ø 4.30
2 x Ø 0.17

113.00
4.45
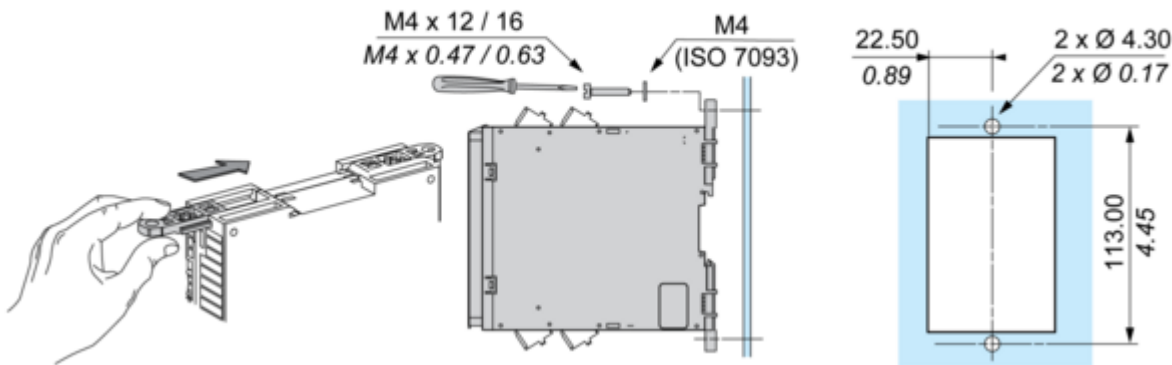
**Wiring Drawing**



**(1) :** A1-A2 (Power supply)
**(2) :** S11-S12-S21-S22 (Single-channel safety input)
**(3) :** Y1-Y2 (Start)
**13-23-31-14-24-32 :** Output
**EXT :** Connector for optional extension module
**B2 :** Common ground terminal
**Z1 :** Pulsed output for diagnostics, not safety-related

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