### XPSUAK12AP

**Safety module, Harmony Safety Automation, Cat.4, features XPSUAF + PNP/NPN, safety mat, 24v AC/DC, screw**

#### Main

<table>
<thead>
<tr>
<th>Range of Product</th>
<th>Harmony Safety Automation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product or Component Type</td>
<td>Safety module</td>
</tr>
<tr>
<td>Safety module name</td>
<td>XPSUAK</td>
</tr>
</tbody>
</table>
| 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 ISO 13849-1  
Can reach SIL CL 3 for normally open relay contact IEC 62061  
Can reach SIL 3 for normally open relay contact IEC 61508  
Can reach PL c/category 1 for normally open relay contact ISO 13849-1  
Can reach SIL CL 1 for normally open relay contact IEC 62061  
Can reach SIL 1 for normally closed relay contact ISO 13849-1  
Can reach SIL CL 1 for normally closed relay contact IEC 61508  
Can reach SIL 1 for normally closed relay contact IEC 61508 |
| Safety reliability data | MTTFd > 30 years ISO 13849-1  
Dcavg >= 99 % ISO 13849-1  
PFHd = 1.13E-09 ISO 13849-1  
HFT = 1 IEC 62061  
PFHd = 1.13E-09 IEC 62061  
SFF > 99% IEC 62061  
HFT = 1 IEC 61508-1  
PFHd = 1.13E-09 IEC 61508-1  
SFF > 99% IEC 61508-1  
Type = B IEC 61508-1 |
| Electrical circuit type | NC pair  
PNP pair  
Antivalent pair  
OSSD pair |
| Connections - terminals | Removable screw terminal block, 0.2...2.5 mm² solid or flexible  
Removable screw terminal block, 0.25...2.5 mm² flexible with ferrule single conductor  
Removable screw terminal block, 0.2...1.5 mm² solid or flexible twin conductor  
Removable screw terminal block, 2 x 0.25...1.0 mm² flexible with ferrule without cable end, with bezel  
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 %  
24 V DC - 20...20 % |
### Complementary

| Synchronisation time between inputs | 0.5 s  
|-------------------------------------|--------|
|                                    | 2 s    
|                                    | 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 ISO 14119  
|                                    | XC limit switch ISO 14119  
|                                    | Mechanical contact ISO 14119  
|                                    | Normally closed circuit ISO 13850  
|                                    | Antivalent pair ISO 14119  
|                                    | OSSD pair 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 NO relay output circuit IEC 60947-1 |
| **Minimum output current**         | 10 mA relay output |
| **Minimum output voltage**         | 12 V relay output |
| **[U] rated insulation voltage**   | 250 V 2)EN/IEC 60947-1 |
| **[Uimp] rated impulse withstand voltage** | 4 kV II EN/IEC 60947-1 |
| **Mounting Support**               | 35 mm symmetrical DIN rail |
| **Depth**                          | 4.72 in (120 mm) |
| **Height**                         | 3.94 in (100 mm) |
| **Width**                          | 0.89 in (22.5 mm) |
| **Net Weight**                     | 0.44 lb(US) (0.200 kg) |

### Environment

<table>
<thead>
<tr>
<th>Ambient Air Temperature for Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>-13…131 °F (-25…55 °C)</td>
</tr>
</tbody>
</table>

**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)EN/IEC 60529
- IP40 housing)EN/IEC 60529
- IP54 mounting area)EN/IEC 60529

**Relative Humidity**
5…95 % non-condensing
Ordering and shipping details
Category: 22477-SAFETY MODULES (PREVENTA)

Discount Schedule: SAF2
GTIN: 3606489601652
Returnability: Yes
Country of origin: ID

Packing Units
Unit Type of Package 1: PCE
Number of Units in Package 1: 1
Package 1 Height: 2.56 in (6.500 cm)
Package 1 Width: 5.31 in (13.500 cm)
Package 1 Length: 6.10 in (15.500 cm)
Package 1 Weight: 9.66 oz (274 g)
Unit Type of Package 2: S03
Number of Units in Package 2: 16
Package 2 Height: 11.81 in (30.000 cm)
Package 2 Width: 11.81 in (30.000 cm)
Package 2 Length: 15.75 in (40.000 cm)
Package 2 Weight: 11.43 lb(US) (5.186 kg)
Unit Type of Package 3: P06
Number of Units in Package 3: 128
Package 3 Height: 29.53 in (75.000 cm)
Package 3 Width: 23.62 in (60.000 cm)
Package 3 Length: 31.50 in (80.000 cm)
Package 3 Weight: 110.95 lb(US) (50.324 kg)

Offer Sustainability
Sustainable offer status: Green Premium product
California proposition 65: WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACl Regulation: [REACH Declaration]
EU RoHS Directive: Pro-active compliance (Product out of EU RoHS legal scope) [EU RoHS Declaration]
Mercury free: Yes
China RoHS Regulation: [China RoHS Declaration]
RoHS exemption information: Yes
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
Product data sheet
XPSUAK12AP

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
Product data sheet

Mounting and Clearance

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)
13-23-31-14-24-32 : Output
EXT : Connector for optional extension module
B2 : Common ground terminal
Z1 : Pulsed output for diagnostics, not safety-related
Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Schneider Electric:
XPSUAK12AP