# Product data sheet

Specifications



## safety module, Harmony XPSU, Cat 4, potential free 2 NC, NO NC, 2 PNP, 24V AC or DC, screw

XPSUAF13AP

**Product availability: Stock - Normally stocked in distribution facility**

## Main

| | |
|---|---|
| **Range of Product** | Harmony Safety Automation |
| **Product or Component Type** | Safety module |
| **Safety module name** | XPSUAF |
| **Safety module application** | Monitoring antivalent contacts<br>For emergency stop, guard and light curtain monitoring |
| **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>Proximity sensor monitoring |
| **Safety level** | Can reach PL e/category 4 ISO 13849-1<br>Can reach SILCL 3 IEC 62061<br>Can reach SIL 3 IEC 61508 |
| **Safety reliability data** | MTTFd > 30 years ISO 13849-1<br>Dcavg >= 99 % ISO 13849-1<br>PFHd = 1.13E-09 ISO 13849-1<br>HFT = 1 IEC 62061<br>PFHd = 1.13E-09 IEC 62061<br>SFF > 99% IEC 62061<br>HFT = 1 IEC 61508-1<br>PFHd = 1.13E-09 IEC 61508-1<br>SFF > 99% IEC 61508-1<br>Type = B 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

| | |
|---|---|
| **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 |

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

| | |
|---|---|
| **Input protection type** | Internal, electronic |
| **safety outputs** | 3 NO |
| **safety inputs** | 2 safety input 24 V DC 5 mA |
| **maximum wire resistance** | 500 Ohm |
| **Input compatibility** | Normally closed circuit ISO 14119<br>XC limit switch ISO 14119<br>Mechanical contact ISO 14119<br>Normally closed circuit ISO 13850<br>Antivalent pair ISO 14119<br>OSSD pair 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 |
| **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** | 15 V relay output |
| **Maximum response time on input open** | 20 ms |
| **[Ui] rated insulation voltage** | 250 V 2)IEC 60947-1 |
| **[Uimp] rated impulse withstand voltage** | 4 kV II 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 S22 |
| **Mounting Support** | 35 mm symmetrical DIN rail |
| **Depth** | 4.7 in (120 mm) |
| **Height** | 3.9 in (100 mm) |
| **Width** | 0.9 in (22.5 mm) |
| **Product Weight** | 0.441 lb(US) (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)IEC 60529<br>IP40 housing)IEC 60529<br>IP54 mounting area)IEC 60529 |
| **Ambient Air Temperature for Storage** | -13…185 °F (-25…85 °C) |

| | |
|---|---|
| **Relative Humidity** | 5…95 % non-condensing |

## Ordering and shipping details

| | |
|---|---|
| **Category** | US1SAF222477 |
| **Discount Schedule** | SAF2 |
| **GTIN** | 3606489601614 |
| **Returnability** | Yes |
| **Country of origin** | ID |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Nbr. of units in pkg.** | 1 |
| **Package 1 Height** | 2.638 in (6.700 cm) |
| **Package 1 Width** | 5.394 in (13.700 cm) |
| **Package 1 Length** | 6.102 in (15.500 cm) |
| **Package weight(Lbs)** | 9.912 oz (281.000 g) |
| **Unit Type of Package 2** | S03 |
| **Number of Units in Package 2** | 16 |
| **Package 2 Height** | 11.811 in (30.000 cm) |
| **Package 2 Width** | 11.811 in (30.000 cm) |
| **Package 2 Length** | 15.748 in (40.000 cm) |
| **Package 2 Weight** | 11.244 lb(US) (5.100 kg) |
| **Unit Type of Package 3** | P06 |
| **Number of Units in Package 3** | 128 |
| **Package 3 Height** | 29.528 in (75.000 cm) |
| **Package 3 Width** | 23.622 in (60.000 cm) |
| **Package 3 Length** | 31.496 in (80.000 cm) |
| **Package 3 Weight** | 111.933 lb(US) (50.772 kg) |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **70 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **5 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0.1 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **65 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0.6 kg CO2 eq.** |
| Environmental Disclosure | **Product Environmental Profile** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **No** |
| SCIP Number | **152cf799-1df7-4892-81b4-4c890187f1d1** |
| EU RoHS Directive | **Compliant By Exemption** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |
| 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** |
| PVC free | **Yes** |

## Use Longer

### Lifetime extension

| | |
|---|---|
| Repair | **No** |

## Use Again

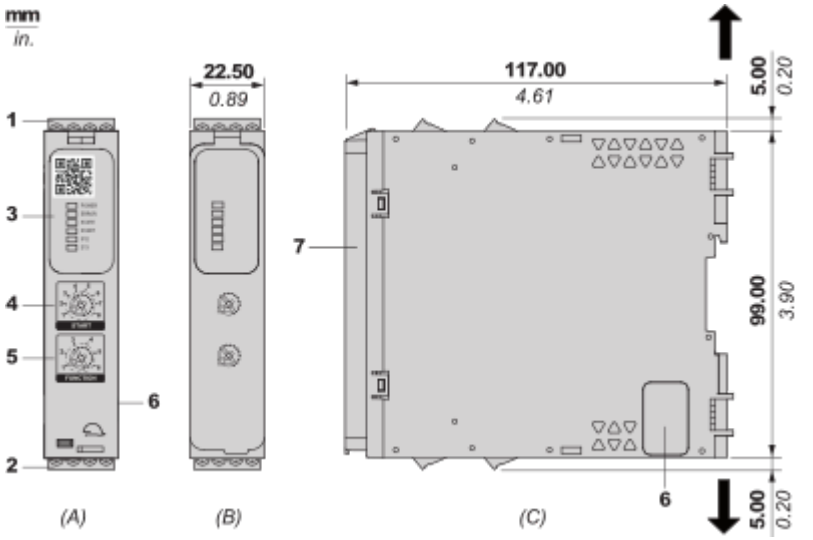
### Repack and remanufacture

| | |
|---|---|
| Recyclability potential, in % | **0** |
| Circularity Profile | **End of Life Information** |
| Take-back | **No** |
| WEEE Label | **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.** |

Dimensions Drawings

## Dimensions

### Front and Side Views

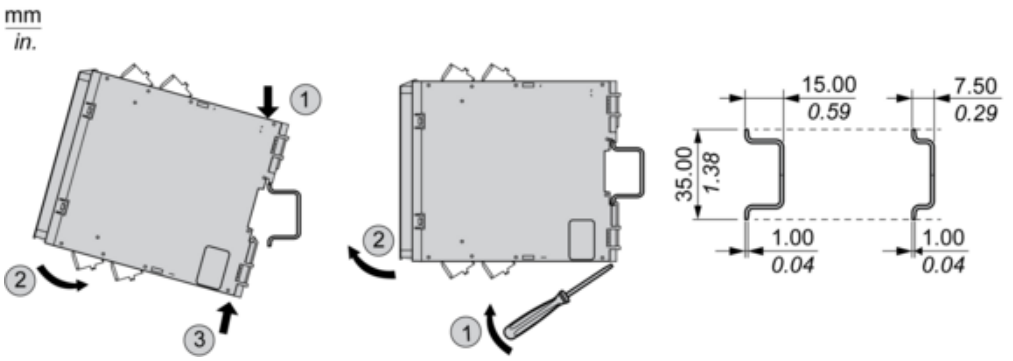



**(A) :** Product drawing
**(B) :** Screw clamp terminal
**(C) :** Side view
**(1) :** Removable terminal blocks, top
**(2) :** Removable terminal blocks, bottom
**(3) :** LED indicators
**(4) :** Start function selector
**(5) :** Function selector
**(6) :** Connector for optional output extension module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

| mm / in. 7.0–8.0 / 0.28–0.31 | | | | | |
|---|---|---|---|---|---|
| $mm^2$ | 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* |
| Ø 3,5 mm (*0.14 in*) | | C | | Nm | 0.5... 0.6 |
| | | | | *lb-in* | *4,4... 5,3* |

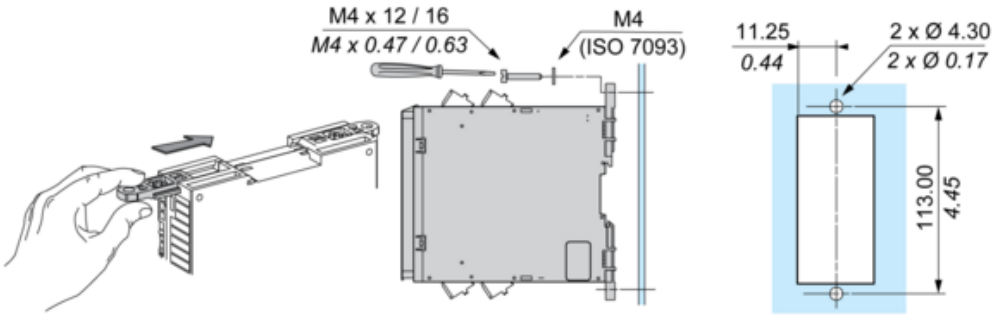
Mounting and Clearance

**Mounting to DIN rail**



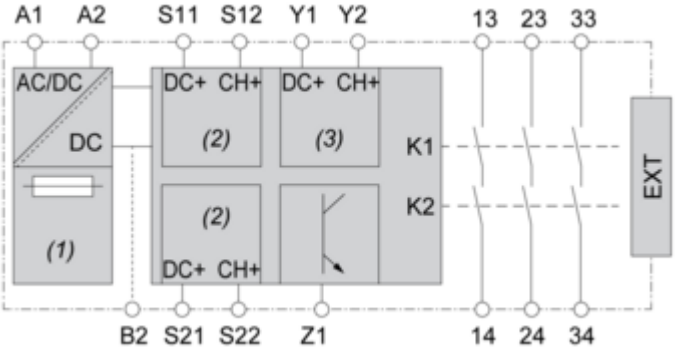
## Screw-mounting

mm
*in.*



Connections and Schema

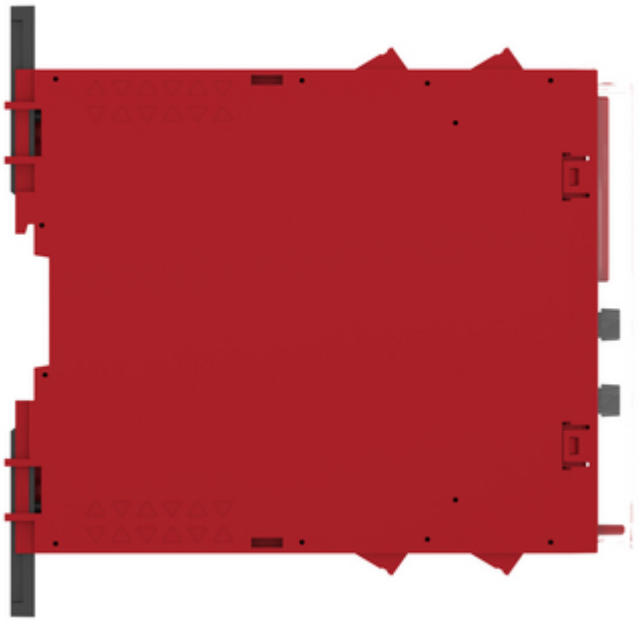
## Wiring Drawing



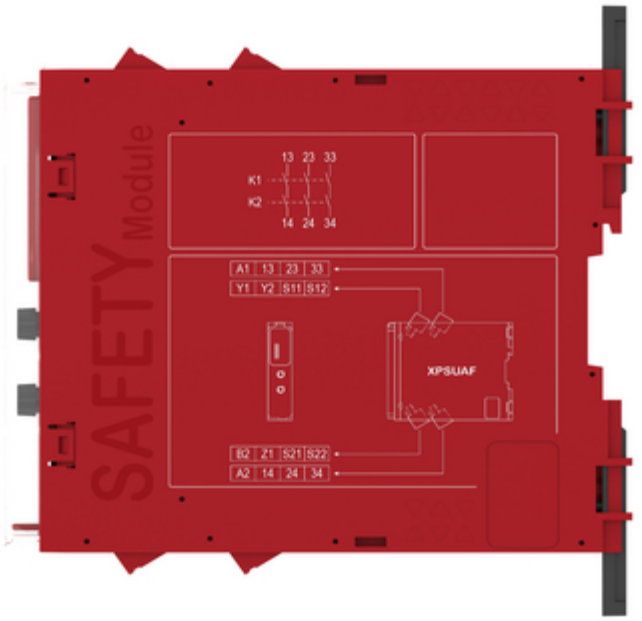

**(1) :** A1-A2 (Power supply)
**(2) :** S11-S12-S21-S22 (Single-channel safety input)
**(3) :** Y1-Y2 (Start)
**13-23-33-14-24-34 :** Output
**EXT :** Connector for optional extension module
**B2 :** Common ground terminal
**Z1 :** Pulsed output for diagnostics, not safety-related

Image of product / Alternate images

**Alternative**






SAFETY Module
13 23 33
K1
K2
14 24 34
A1 13 23 33
Y1 Y2 S11 S12
XPSUAF
B2 Z1 S21 S22
A2 14 24 34




A1 13 23 33
Y1 Y2 S11 S12


B2 Z1 S21 S22
A2 14 24 34