

# XPSUAB31CP

safety module, Harmony XPSU, Cat 1,  
potential free 2 NC, NO NC, 2 PNP, 48 to 240V  
AC or DC, screw



## Main

Range of Product	Harmony Safety Automation
Product or Component Type	Safety module
Safety module name	XPSUAB
Safety module application	For electrical monitoring of two-hand control stations For application with safety switchover contact For emergency stop, guard and light curtain monitoring Monitoring antivalent contacts
Function of module	Emergency stop monitoring 1-channel wiring Guard monitoring 1-channel wiring Monitoring 1 PNP sensor Monitoring two-hand control station type IIIA Magnetic switch monitoring Light curtain monitoring RFID switch Monitoring of electro-sensitive protection equipment (ESPE) Proximity sensor monitoring
Safety level	Can reach PL c/category 1 ISO 13849-1 Can reach SILCL 1 IEC 62061 Can reach SIL 1 IEC 61508
Safety reliability data	MTTFd $\geq$ 30 years ISO 13849-1 Dcavg < 60 % ISO 13849-1 PFHd = 1177E-09 1/h ISO 13849-1 HFT = 0 IEC 62061 PFHd = 1177E-09 1/h IEC 62061 SFF > 60% IEC 62061 HFT=0 IEC 61508-1 PFHd = 1177E-09 1/h IEC 61508-1 SFF > 60% 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 mm <sup>2</sup> solid or flexible Removable screw terminal block, 0.25...2.5 mm <sup>2</sup> flexible with ferrule single conductor Removable screw terminal block, 0.2...1.5 mm <sup>2</sup> solid or flexible twin conductor Removable screw terminal block, 2 x 0.25...1 mm <sup>2</sup> flexible with ferrule without cable end, with bezel Removable screw terminal block, 2 x 0.5...1.5 mm <sup>2</sup> flexible with ferrule with cable end, with bezel
[Us] Rated Supply Voltage	48...240 V AC/DC - 10...10 %

## Complementary

Synchronisation time between inputs	0.5 s 2.2 s
Type of start	Automatic/manual/monitored
Power consumption in W	2.0 W 48 V DC
Power consumption in VA	6.5 VA 240 V AC 50/60 Hz
Input protection type	Internal, electronic
Safety outputs	1 C/O

Safety inputs	1 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 Two-hand control EN 574/ISO 13851-III A 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 2 A DC-1 for normally closed relay contact 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
[Ith] conventional free air thermal current	3 A
Associated fuse rating	6 A gG relay output 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	For power ON LED (green) For error LED (red) For start LED (yellow) For safety status LED (yellow) For safety input S12 LED (yellow) For safety input S13 LED (yellow)
Mounting Support	35 mm symmetrical DIN rail
Depth	4.72 in (120 mm)
Ambient Air Temperature for Operation	-13...131 °F (-25...55 °C)
Height	3.94 in (100 mm)
Width	0.89 in (22.5 mm)
Net Weight	0.44 lb(US) (0.200 kg)

## Environment

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[RETURN]cULus
IP degree of protection	IP20 terminals)IEC 60529 IP40 housing)IEC 60529 IP54 mounting area)IEC 60529
Relative Humidity	5...95 % non-condensing

## Ordering and shipping details

Category	22477-SAFETY MODULES (PREVENTA)
Discount Schedule	SAF2
GTIN	3606489601591
Returnability	No
Country of origin	ID

## Packing Units

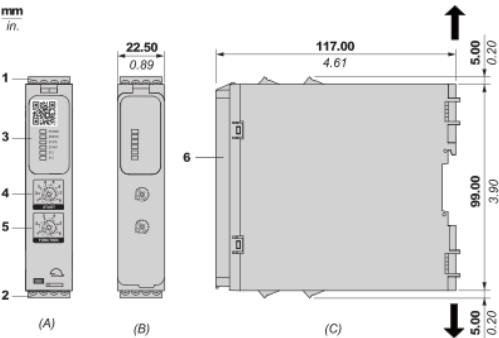
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.56 in (6.5 cm)
Package 1 Width	5.31 in (13.5 cm)
Package 1 Length	6.10 in (15.5 cm)
Package 1 Weight	9.24 oz (262.0 g)
Unit Type of Package 2	S03
Number of Units in Package 2	16
Package 2 Height	11.81 in (30 cm)
Package 2 Width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Package 2 Weight	10.89 lb(US) (4.939 kg)

## Offer Sustainability






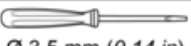

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
RoHS exemption information	<a href="#">Yes</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

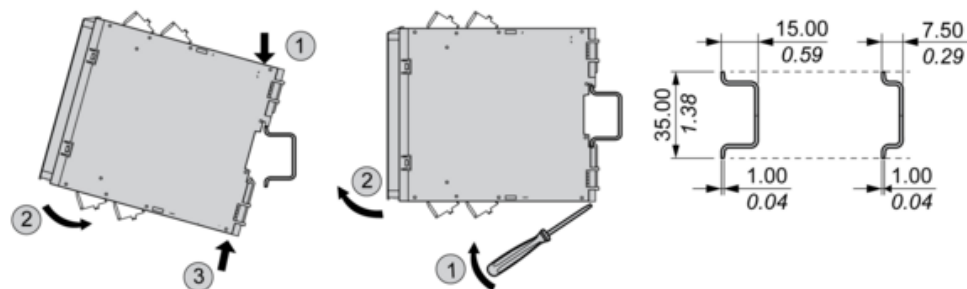


- (A) : Product drawing  
(B) : Screw clamp terminal  
(C) : Side view  
(1) : Removable terminal blocks, top  
(2) : Removable terminal blocks, bottom  
(3) : LED indicators  
(4) : Start function selector  
(5) : Function selector  
(6) : Sealable transparent cover

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

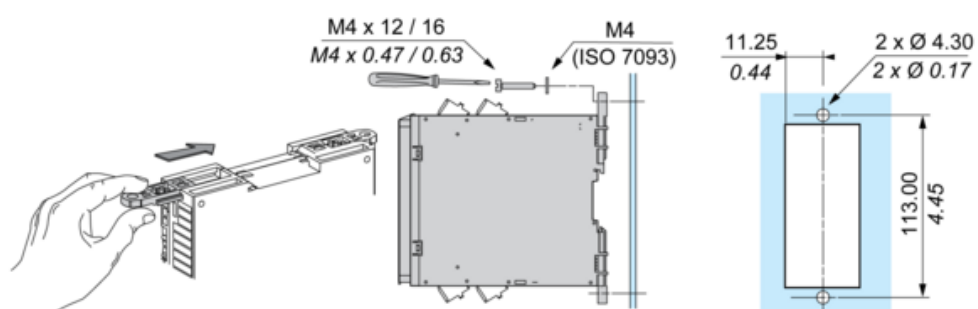
### Mounting to DIN rail

mm  
in.

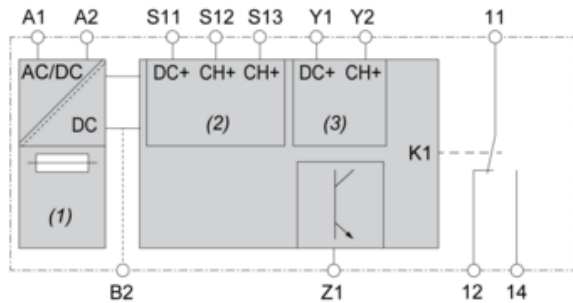


### Screw-mounting

mm  
in.



## Wiring Drawing



(1) : A1-A2 (Power supply)

(2) : S11-S12-S13 (Single-channel safety input)

(3) : Y1-Y2 (Start)

11-12-14 : Output

B2 : Common ground terminal

Z1 : Pulsed output for diagnostics, not safety-related