

## Product data sheet

### Characteristics

# XPSBAC14AP

safety module, Harmony XPS, estop or guard,  
connected to supply terminals 24V AC or DC ,  
no inputs, screw





## Main

Range of product	Harmony Safety Automation
Product or component type	Safety module
Safety module name	XPSBAC
Safety module application	For emergency stop and protective guard applications
Function of module	Emergency stop button with 2 NC contacts Guard monitoring with 1 or 2 limit switches
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 for normally open relay contact Dcavg >= 99 % conforming to ISO 13849-1 for normally open relay contact PFHd = 0.95E-09 conforming to ISO 13849-1 for normally open relay contact HFT = 1 conforming to IEC 62061 for normally open relay contact PFHd = 0.95E-09 conforming to IEC 62061 for normally open relay contact SFF > 99% conforming to IEC 62061 for normally open relay contact HFT = 1 conforming to IEC 61508-1 for normally open relay contact PFHd = 0.95E-09 conforming to IEC 61508-1 for normally open relay contact SFF > 99% conforming to IEC 61508-1 for normally open relay contact Type = B conforming to IEC 61508-1 for normally open relay contact MTTFd > 30 years conforming to ISO 13849-1 for normally closed relay contact DC > 60 % conforming to ISO 13849-1 for normally closed relay contact PFHd = 0.95E-09 conforming to ISO 13849-1 for normally closed relay contact HFT=0 conforming to IEC 62061 for normally closed relay contact PFHd = 0.95E-09 conforming to IEC 62061 for normally closed relay contact SFF > 60% conforming to IEC 62061 for normally closed relay contact HFT=0 conforming to IEC 61508-1 for normally closed relay contact PFHd = 0.95E-09 conforming to IEC 61508-1 for normally closed relay contact SFF > 60% conforming to IEC 61508-1 for normally closed relay contact Type = B conforming to IEC 61508-1 for normally closed relay contact
Electrical circuit type	NC 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	24 V AC - 15...10 % 24 V DC - 20...20 %

## Complementary

Synchronisation time between inputs	Unlimited
Type of start	Automatic/manual/monitored
Power consumption in W	1.5 W 24 V DC
Power consumption in VA	3.5 VA 24 V AC 50/60 Hz
Input protection type	Internal, electronic
Safety outputs	4 NO + 1 NC
Safety inputs	0
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
Input terminal	Power supply
[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	0
[Ith] conventional free air thermal current	6 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	5 V for relay output
Response time	150 ms at 24 V AC 80 ms at 24 V DC
[Ui] rated insulation voltage	300 V (pollution degree 2) conforming to IEC 60947-1
[Uimp] rated impulse withstand voltage	4 kV overvoltage category II conforming to IEC 60947-1
Local signalling	LED green with power marking for power ON LED red with error marking for error LED yellow with state marking for status LED yellow with start1 marking for start input LED yellow with start2 marking for start input
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 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) conforming to IEC 60529 IP40 (housing) conforming to IEC 60529 IP54 (mounting area) conforming to IEC 60529
Relative humidity	5...95 % non-condensing

## Packing Units

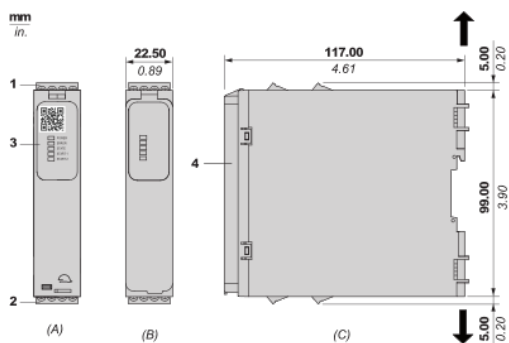
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.500 cm
Package 1 Width	13.500 cm
Package 1 Length	15.500 cm
Package 1 Weight	301.000 g
Unit Type of Package 2	S03
Number of Units in Package 2	16
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	5.556 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	52.000 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
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

Dimensions

Front and Side Views



(A) : Product drawing

(B) : Screw clamp terminal

(C) : Side view

(1) : Removable terminal blocks, top

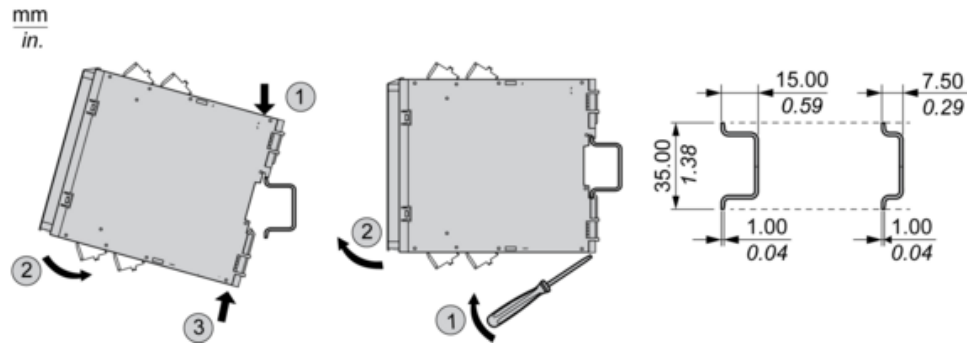
(2) : Removable terminal blocks, bottom

(3) : LED indicators

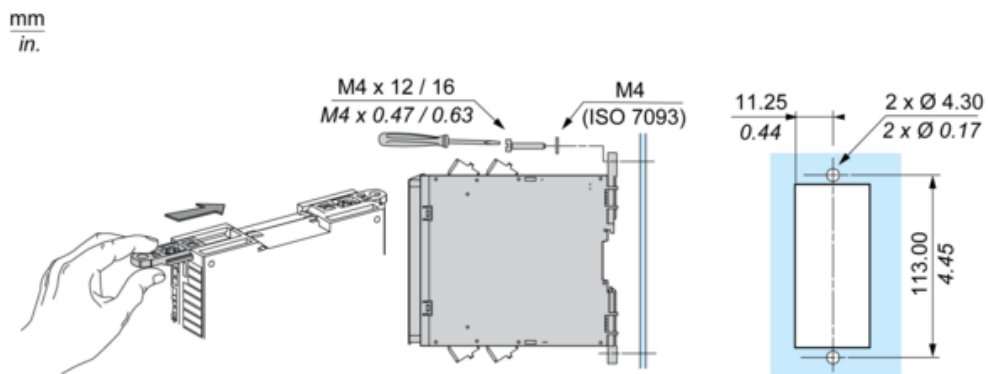
(4) : Sealable transparent cover

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

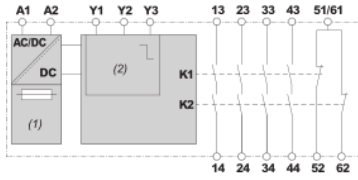
## Mounting to DIN rail



## Screw-mounting



## Wiring Diagram



(1) : A1-A2 (Power supply)

(2) : Y1 (Control output of Start/Restart input), Y2 (Input channel for automatic/manual start/restart), Y3 (Input channel for monitored start/restart with falling edge)

13-14-23-24-33-34-43-44-51/61-52-62 : Terminals of the safety-related outputs