

# Product data sheet

Specifications



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

XPSBAC14AP

## 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 ISO 13849-1 Can reach SILCL 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 closed relay contact ISO 13849-1 Can reach SILCL 1 for normally closed relay contact IEC 62061 Can reach SIL 1 for normally closed relay contact IEC 61508
Safety reliability data	MTTFd > 30 years for normally open relay contact ISO 13849-1 Dcavg >= 99 % for normally open relay contact ISO 13849-1 PFHd = 0.95E-09 for normally open relay contact ISO 13849-1 HFT = 1 for normally open relay contact IEC 62061 PFHd = 0.95E-09 for normally open relay contact IEC 62061 SFF > 99% for normally open relay contact IEC 62061 HFT = 1 for normally open relay contact IEC 61508-1 PFHd = 0.95E-09 for normally open relay contact IEC 61508-1 SFF > 99% for normally open relay contact IEC 61508-1 Type = B for normally open relay contact IEC 61508-1 MTTFd > 30 years for normally closed relay contact ISO 13849-1 DC > 60 % for normally closed relay contact ISO 13849-1 PFHd = 0.95E-09 for normally closed relay contact ISO 13849-1 HFT=0 for normally closed relay contact IEC 62061 PFHd = 0.95E-09 for normally closed relay contact IEC 62061 SFF > 60% for normally closed relay contact IEC 62061 HFT=0 for normally closed relay contact IEC 61508-1 PFHd = 0.95E-09 for normally closed relay contact IEC 61508-1 SFF > 60% for normally closed relay contact IEC 61508-1 Type = B for normally closed relay contact IEC 61508-1
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 %
<b>Complementary</b>	
Synchronisation time between inputs	Unlimited
Type of start	Automatic/manual/monitored
Power consumption in W	1.5 W 24 V DC

<b>Power consumption in VA</b>	3.5 VA 24 V AC 50/60 Hz
<b>Input protection type</b>	Internal, electronic
<b>Safety outputs</b>	4 NO + 1 NC
<b>Safety inputs</b>	0
<b>Input compatibility</b>	Normally closed circuit ISO 14119 XC limit switch ISO 14119 Mechanical contact ISO 14119 Normally closed circuit ISO 13850
<b>Input terminal</b>	Power supply
<b>[Ie] rated operational current</b>	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
<b>Control outputs</b>	0
<b>[Ith] conventional free air thermal current</b>	6 A
<b>Associated fuse rating</b>	10 A gG NO relay output circuit IEC 60947-1
<b>Minimum output current</b>	10 mA relay output
<b>Minimum output voltage</b>	5 V relay output
<b>Response time</b>	150 ms at 24 V AC 80 ms at 24 V DC
<b>[Ui] rated insulation voltage</b>	300 V 2)EN/IEC 60947-1
<b>[Uimp] rated impulse withstand voltage</b>	4 kV II EN/IEC 60947-1
<b>Local signalling</b>	LED green power power ON LED red error error LED yellow state status LED yellow start1 start input LED yellow start2 start input
<b>Mounting support</b>	35 mm symmetrical DIN rail
<b>Depth</b>	4.72 in (120 mm)
<b>Height</b>	3.94 in (100 mm)
<b>Width</b>	0.89 in (22.5 mm)
<b>Product weight</b>	0.44 lb(US) (0.200 kg)
<b>Environment</b>	
<b>Ambient air temperature for operation</b>	-13...131 °F (-25...55 °C)
<b>Standards</b>	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
<b>Product certifications</b>	TÜV cULus
<b>IP degree of protection</b>	IP20 terminals)EN/IEC 60529 IP40 housing)EN/IEC 60529 IP54 mounting area)EN/IEC 60529
<b>Relative humidity</b>	5...95 % non-condensing

## Packing Units

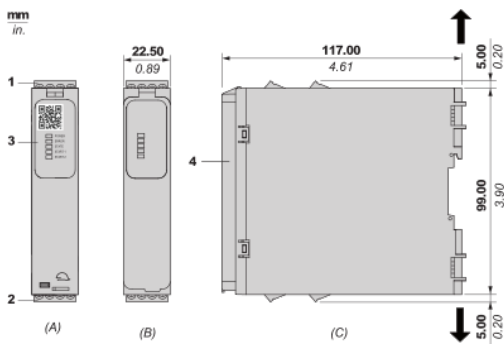
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.56 in (6.500 cm)
Package 1 Width	5.31 in (13.500 cm)
Package 1 Length	6.10 in (15.500 cm)
Package 1 Weight	10.16 oz (288.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	16
Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	11.78 lb(US) (5.344 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	114.64 lb(US) (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) <a href="#">EU RoHS Declaration</a>
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**

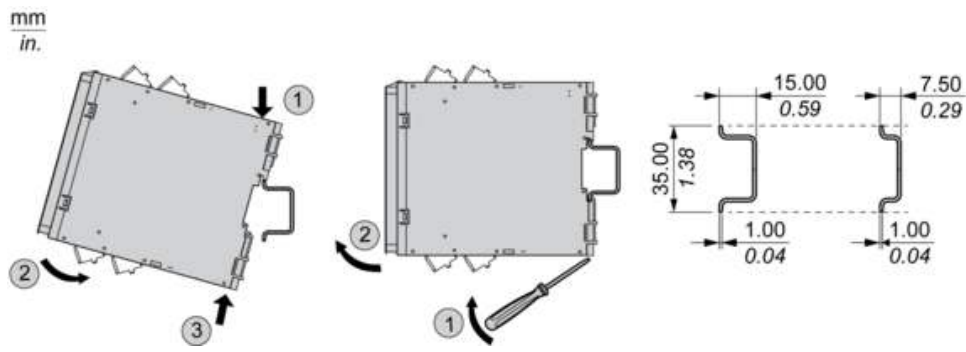
**Front and Side Views**



- (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

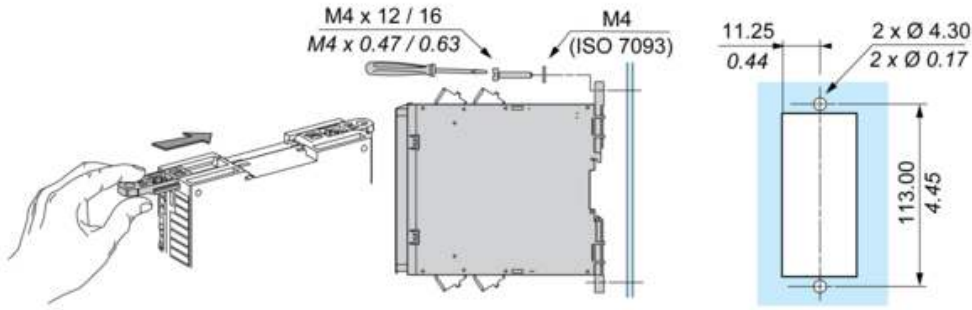
Mounting to DIN rail



## Screw-mounting

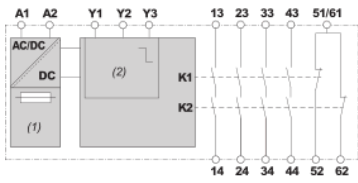
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mm  
in.



**Wiring Diagram**

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(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

**Recommended replacement(s)**