# **Product data sheet**

Specifications





safety module, Harmony XPS, time delayed output, for Estop, guard, OSSD, 24V AC or DC, screw

XPSBAT12A1AP

#### Main

wain						
Range of product	Harmony Safety Automation					
product or component type	Safety module					
safety module name	XPSBAT					
safety module application	For emergency stop and protective guard applications For OSSD monitoring					
Function of module	Emergency stop button with 2 NC contacts Guard monitoring with 1 or 2 limit switches Light curtain monitoring RFID switch Monitoring of electro-sensitive protection equipment (ESPE)					
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 ISO 13849-1 Dcavg >= 99 % ISO 13849-1 PFHd = 0.98E-09 for SS0 ISO 13849-1 PFHd = 0.96E-09 for SS1 ISO 13849-1 HFT = 1 IEC 62061 PFHd = 0.98E-09 for SS0 IEC 62061 PFHd = 0.96E-09 for SS1 IEC 62061 SFF > 99% IEC 62061 HFT = 1 IEC 61508-1 PFHd = 0.98E-09 for SS0 IEC 61508-1 PFHd = 0.96E-09 for SS1 IEC 61508-1 SFF > 99% IEC 61508-1 Type = B IEC 61508-1					
Electrical circuit type	NC pair OSSD pair					
Connections - terminals	Removable screw terminal block, 0.22.5 mm² solid or flexible Removable screw terminal block, 0.252.5 mm² flexible with ferrule single conductor Removable screw terminal block, 0.21.5 mm² solid or flexible twin conductor Removable screw terminal block, 2 x 0.251 mm² flexible with ferrule without cable end, with bezel Removable screw terminal block, 2 x 0.51.5 mm² flexible with ferrule with cable end, with bezel					
[Us] rated supply voltage	24 V AC - 1510 % 24 V DC - 2020 %					

### Complementary

Synchronisation time between inputs	0.5 s 2 s
Type of start	Automatic/manual/monitored
Power consumption in W	2 W 24 V DC

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Power consumption in VA	5 VA 24 V AC 50/60 Hz					
Input protection type	Internal, electronic					
safety outputs	2 NO immediate 1 NO configurable					
safety inputs	2 positive safety input 24 V DC 5 mA					
maximum wire resistance	500 Ohm					
Time delay range	0900 s off					
Input compatibility	Normally closed circuit ISO 14119 Mechanical contact ISO 14119 OSSD pair IEC 61496-1-2 Normally closed circuit ISO 13850 3-wire proximity sensors PNP					
[le] 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					
control outputs	3 on/off configurable pulsed output					
Input/output type	Semiconductor output 24 V DC, 20 mA Z1, not safety-related					
[Ith] conventional free air thermal current	nal 12 A					
Associated fuse rating	6 A gG NO relay output circuit IEC 60947-1					
Minimum output current	20 mA relay output					
Minimum output voltage	24 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 power power ON LED red error error LED yellow state 1 safety output instantaneous LED yellow state 2 safety output delayed LED yellow start 1 start LED yellow start 2 start LED yellow S12 safety input S12 LED yellow S22 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)					
net weight	0.772 lb(US) (0.350 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 IEC 62061 functional safety standard IEC 62061 functional safety standard
Product certifications	TÜV cULus

IP degree of protection	IP20 terminals)IEC 60529 IP40 housing)IEC 60529 IP54 mounting area)IEC 60529	
Ambient air temperature for operation	-13131 °F (-2555 °C)	
Ambient air temperature for storage	-13185 °F (-2585 °C)	
Relative humidity	595 % non-condensing	

## **Packing Units**

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Unit Type of Package 1	PCE			
Number of Units in Package 1	1			
Package 1 Height	2.677 in (6.800 cm)			
Package 1 Width	5.433 in (13.800 cm)			
Package 1 Length	6.102 in (15.500 cm)			
Package 1 Weight	10.053 oz (285.000 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	11.667 lb(US) (5.292 kg)			

## Sustainability Screen Premium

**Green Premium**<sup>TM</sup> **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

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Transparency RoHS/REACh

#### Well-being performance



Mercury Free



Rohs Exemption Information

Yes

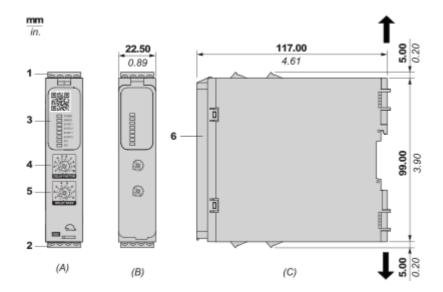
#### **Certifications & Standards**

Reach Regulation	REACh Declaration			
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)			
China Rohs Regulation	China RoHS declaration			
Environmental Disclosure	Product Environmental Profile			
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins			
Circularity Profile	End of Life Information			

#### **Dimensions Drawings**

#### **Dimensions**

#### Front and Side Views

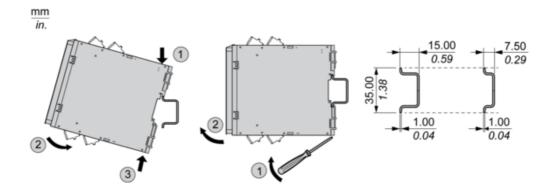


- (A): Product drawing
- (B): Screw clamp terminal
- (C): Side view
- (1): Removable terminal blocks, top
- (2): Removable terminal blocks, bottom
- (3): LED indicators
- (4) : Delay factor selector
- (5): Delay base selector
- (6): Sealable transparent cover

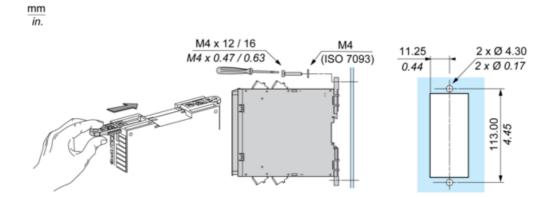
mm in.	7.0–8.0 0.28–0.31				<b>a</b>	
	mm²	0,2 2,5	0,252,5	0,21,5	0,251	1 0,51,5
	AWG	24 12	2412	2416	2418	3 2016
		()c@m		Nm	0.5 0.6	
Ø 3,5 mm (0.14 in)				lb-in	4,4 5,3	

Mounting and Clearance

#### Mounting to DIN rail

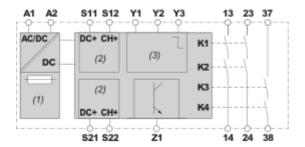


#### **Screw-mounting**



#### Connections and Schema

#### **Wiring Diagram**



- (1): A1-A2 (Power supply)
- (2): S11–S21 (Control outputs (DC+) of safety-related inputs), S12-S22 (Input channels (CH+) of safety-related inputs)
- (3): Y1 (Control output of Start/Restart input), Y2 (Input channel for automatic/manual start), Y3 (Input channel for monitored start with falling edge)
- 13-14-23-24: Terminals of the safety-related outputs (instantaneous)
- 37-38 : Terminals of the safety-related outputs (delayed)
- Z1 : Solid state output, not safety-related