Product data sheet

Specifications



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

XPSBAT12A1AP

Product availability: Stock - Normally stocked in distribution facility

Main

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, 0.2...2.5 mm² solid or flexible Removable screw terminal block, 0.25...2.5 mm² flexible with ferrule single conductor Removable screw terminal block, 0.2...1.5 mm² solid or flexible twin conductor Removable screw terminal block, 2 x 0.25...1 mm² flexible with ferrule without cable end, with bezel 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 % 24 V DC - 20...20 %

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
Power consumption in VA	5 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	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	0...900 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
[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
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	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 ISO 13849-1 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	-13…131 °F (-25…55 °C)
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	3606482034044
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	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 weight(Lbs)	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)

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**
EPA PFAS Regulation	Item contains PFAS Chemicals

Use Again

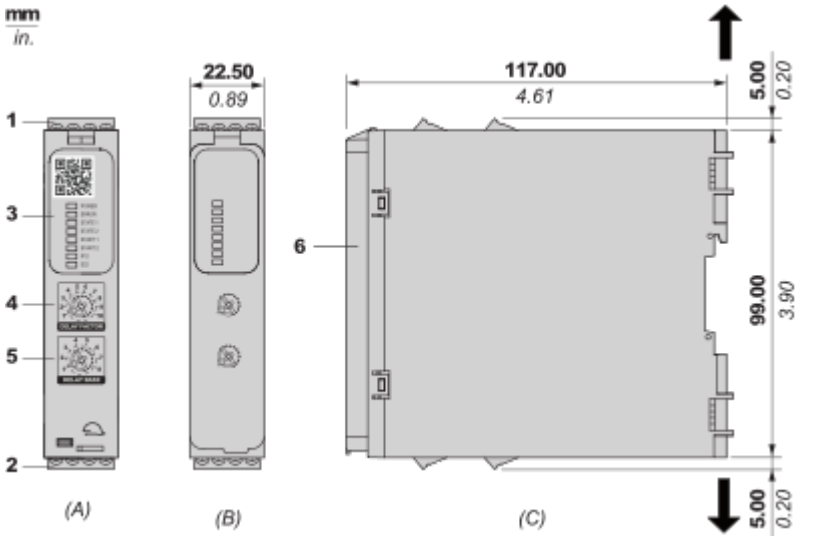
Repack and remanufacture

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

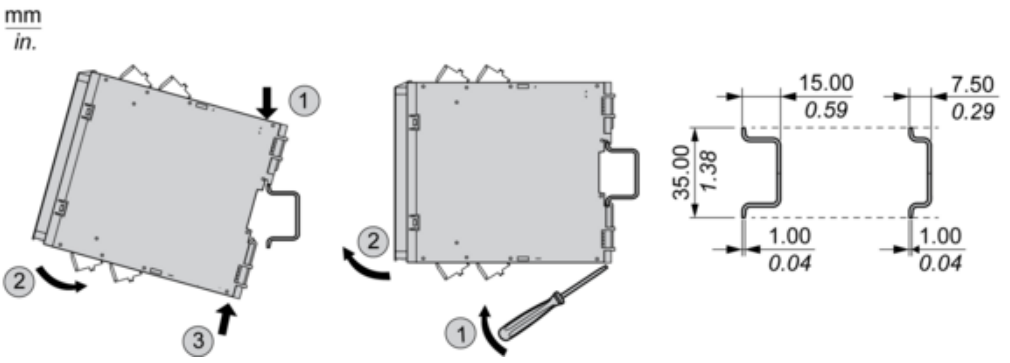


(A) : Product drawing
(B) : Screw clamp terminal
(C) : Side view
(1) : Removable terminal blocks, top
(2) : Removable terminal blocks, bottom
(3) : LED indicators
(4) : Delay factor selector
(5) : Delay base selector
(6) : Sealable transparent cover

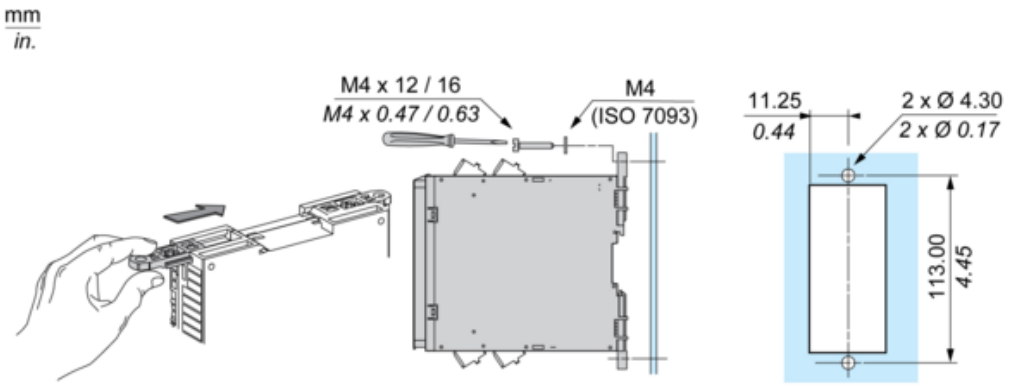
mm / in. 7.0–8.0 / 0.28–0.31					
mm^2	0,2... 2,5	0,25...2,5	0,2...1,5	0,25...1	0,5...1,5
AWG	*24... 12*	*24...12*	*24...16*	*24...18*	*20...16*
Ø 3,5 mm (*0.14 in*)		C		Nm	0.5... 0.6
				lb-in	*4,4... 5,3*

Mounting and Clearance

Mounting to DIN rail

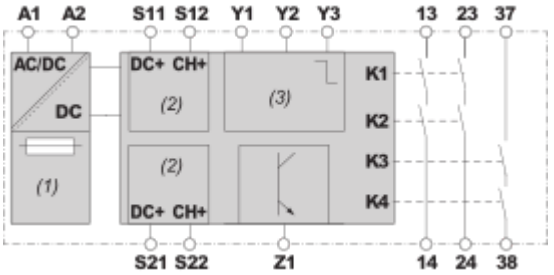


Screw-mounting



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

Image of product / Alternate images

Alternative

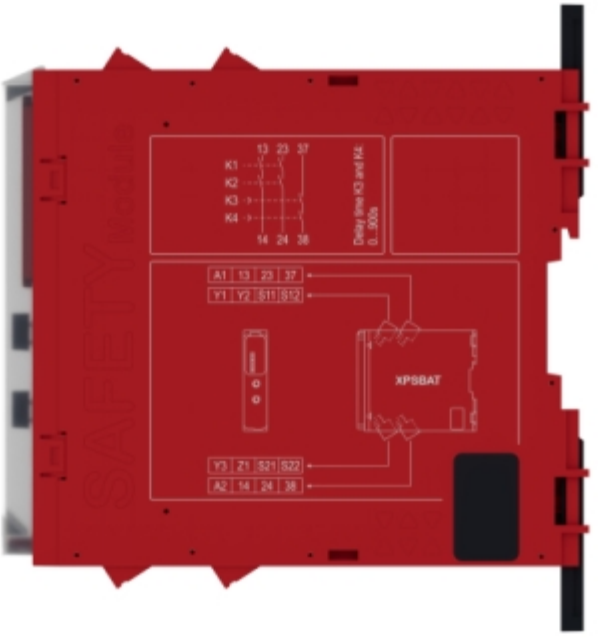







Harmony
POWER
ERROR
STATE1
STATE2
START1
START2
S12
S22
DELAY FACTOR
DELAY BASE
Schneider Electric
XPSBAT


A1 13 23 37
Y1 Y2 S11 S12


13 23 37
K1
K2
K3
K4
14 24 38
A1 13 23 37
Y1 Y2 S11 S12
XPSBAT
Y3 Z1 S21 S22
A2 14 24 38