

Product datasheet

Specifications



Time delayed output, Harmony XPS, for Estop, guard, OSSD, 24 V AC/DC, screw

XPSBAT12A1AP

EAN Code: 3606482034044

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 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 Dcavg >= 99 % conforming to ISO 13849-1 PFHd = 0.98E-09 conforming to ISO 13849-1 for SS0 PFHd = 0.96E-09 conforming to ISO 13849-1 for SS1 HFT = 1 conforming to IEC 62061 PFHd = 0.98E-09 conforming to IEC 62061 for SS0 PFHd = 0.96E-09 conforming to IEC 62061 for SS1 SFF > 99% conforming to IEC 62061 HFT = 1 conforming to IEC 61508-1 PFHd = 0.98E-09 conforming to IEC 61508-1 for SS0 PFHd = 0.96E-09 conforming to IEC 61508-1 for SS1 SFF > 99% conforming to IEC 61508-1 Type = B conforming to IEC 61508-1
Electrical circuit type	NC pair OSSD pair
Connections - terminals	Removable screw terminal block, 0.2...2.5 mm ² solid or flexible Removable screw terminal block, 0.25...2.5 mm ² flexible with ferrule single conductor Removable screw terminal block, 0.2...1.5 mm ² solid or flexible twin conductor Removable screw terminal block, 2 x 0.25...1 mm ² flexible with ferrule without cable end, with bezel Removable screw terminal block, 2 x 0.5...1.5 mm ² 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

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

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	0...900 s off delay
Input compatibility	Normally closed circuit conforming to ISO 14119 Mechanical contact conforming to ISO 14119 OSSD pair conforming to IEC 61496-1-2 Normally closed circuit conforming to 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 for NO relay output circuit conforming to IEC 60947-1
Minimum output current	20 mA for relay output
Minimum output voltage	24 V for relay output
Maximum response time on input open	20 ms
[Ui] rated insulation voltage	250 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 1 marking for safety output instantaneous LED yellow with state 2 marking for safety output delayed LED yellow with start 1 marking for start LED yellow with start 2 marking for start LED yellow with S12 marking for safety input S12 LED yellow with S22 marking for safety input S22
Mounting support	35 mm symmetrical DIN rail
Depth	120 mm
Height	100 mm
Width	22.5 mm
Product weight	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) conforming to IEC 60529 IP40 (housing) conforming to IEC 60529 IP54 (mounting area) conforming to IEC 60529
Ambient air temperature for operation	-25...55 °C
Ambient air temperature for storage	-25...85 °C
Relative humidity	5...95 % non-condensing

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.800 cm
Package 1 Width	13.800 cm
Package 1 Length	15.500 cm
Package 1 Weight	285.000 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	5.292 kg

Logistical informations

Country of origin	ID
-------------------	----

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

Use Longer



Lifetime extension

Repair	No
--------	----

Use Again



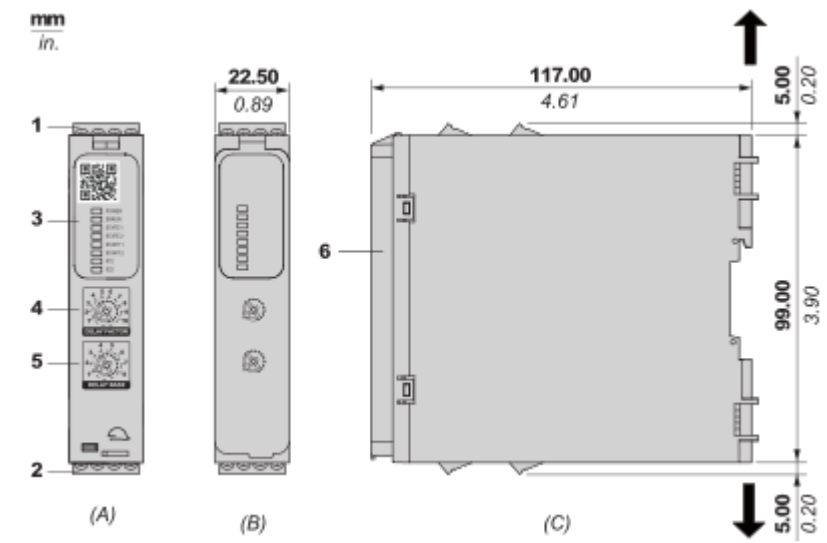
Repack and remanufacture

Recyclability potential, in %	0
End of life manual availability	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

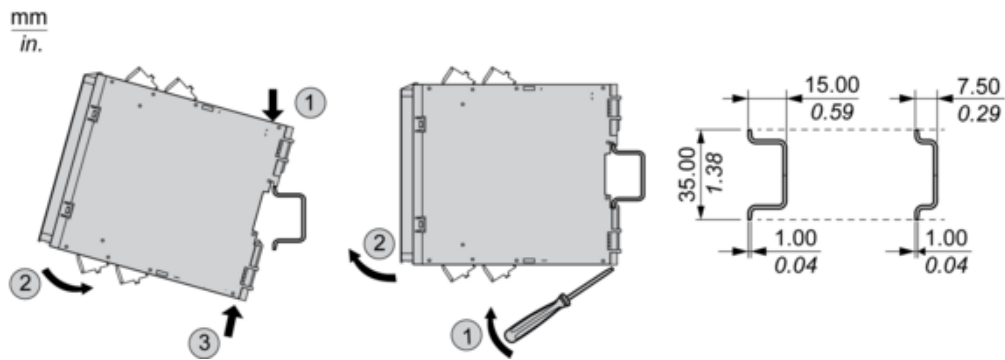


- (A) : Product drawing
(B) : Screw clamp terminal
(C) : Side view
(1) : Removable terminal blocks, top
(2) : Removable terminal blocks, bottom
(3) : LED indicators
(4) : Delay factor selector
(5) : Delay base selector
(6) : Sealable transparent cover

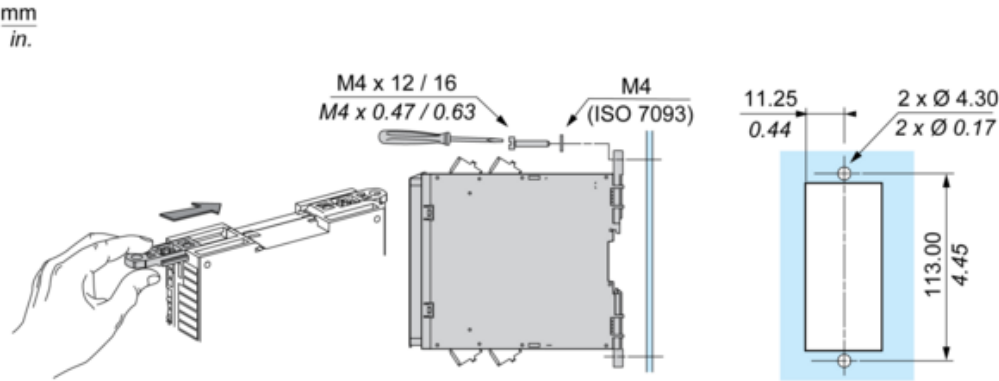
mm in. 7.0–8.0 0.28–0.31					
mm ²	0,2... 2,5	0,25...2,5	0,2... 1,5	0,25...1	0,5...1,5
AWG	24... 12	24...12	24...16	24...18	20...16
 Ø 3,5 mm (0.14 in)				Nm	0.5... 0.6
				lb-in	4,4... 5,3

Mounting and Clearance

Mounting to DIN rail

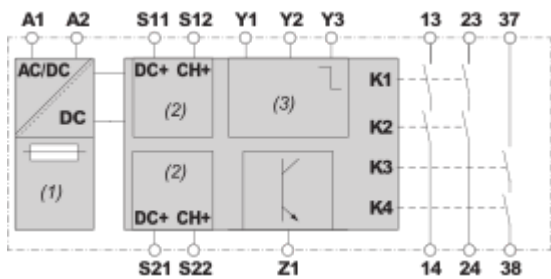


Screw-mounting



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

