XPSUS12AP
Preventa module Cat.4 features 2*XPSUAF + enabling movement 24vac/dc screw

Green Premium™

Main

Range of product	Preventa Safety automation
Product or component type	Preventa safety module
Safety module name	XPSUS
Safety module application	For electrical monitoring of two-hand control stations Monitoring antivalent contacts For emergency stop, guard and light curtain monitoring
Function of module	Emergency stop button with 2 NC contacts Guard monitoring with 1 or 2 limit switches Monitoring 2 PNP sensors Magnetic switch monitoring Light curtain monitoring RFID switch Monitoring of electro-sensitive protection equipment (ESPE)
Safety level	Can reach PL e/category 4 conforming to ISO 13849-1 Can reach SILCL 3 conforming to IEC 62061 Can reach SIL 3 conforming to IEC 61508
Safety reliability data	MTTFd > 30 years conforming to ISO 13849-1 Dcavg >= 99 % conforming to ISO 13849-1 PFHd = 1.13E-09 conforming to ISO 13849-1 HFT = 1 conforming to IEC 62061 PFHd = 1.13E-09 conforming to IEC 62061 SFF > 99% conforming to IEC 62061 HFT = 1 conforming to IEC 61508-1 PFHd = 1.13E-09 conforming to IEC 61508-1 SFF > 99% conforming to IEC 61508-1 Type = B conforming to IEC 61508-1
Electrical circuit type	NC pair PNP pair Antivalent 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 %

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24 V DC - 20...20 %

Complementary

Synchronisation time between inputs	0.5 s 2 s 4 s
Type of start	Automatic/manual/monitored
Power consumption in W	2 W 24 V DC
Power consumption in VA	5.0 VA 24 V AC 50/60 Hz
Input protection type	Internal, electronic
Safety outputs	2 NO
Safety inputs	2 safety input 24 V DC 5 mA
Maximum line resistance	60 Ohm
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 Antivalent pair conforming to ISO 14119 OSSD pair conforming to IEC 61496-1-2 Two-hand control conforming to EN 574/ISO 13851-III A 3-wire proximity sensors PNP
Output type	Relay output : 250 V AC, AC-1, B300 for normally open relay contact Relay output : 250 V AC, AC-15, D300 for normally closed relay contact Relay output : 24 V DC, DC-1, R300 for normally open relay contact Relay output : 24 V DC, DC-13, R300 for normally closed relay contact
[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	3 on/off configurable pulsed output
Input/Output type	Semiconductor pulsed diagnostic output 24 V DC, 20 mA Z1, not safety-related
[Ith] conventional free air thermal current	8 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	12 V for relay output
Maximum response time on input open	20 ms
[Ui] rated insulation voltage	250 V (pollution degree 2) conforming to EN/IEC 60947-1
[Uimp] rated impulse withstand voltage	4 kV overvoltage category II conforming to EN/IEC 60947-1
Local signalling	LED (green)power ON: LED (red)error: LED (yellow)safety output status: LED (yellow)start input: LED (yellow)safety input S12: LED (yellow)safety input S13: LED (yellow)safety input S22: LED (yellow)safety input S23:
Mounting support	35 mm symmetrical DIN rail
Depth	120 mm
Height	100 mm
Width	22.5 mm
Product weight	0.200 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 EN/IEC 60529
	IP40 (housing) conforming to EN/IEC 60529
	IP54 (mounting area) conforming to EN/IEC 60529
Ambient air temperature for storage	-25…85 °C
Relative humidity	5…95 % non-condensing

Offer Sustainability

Sustainable offer status	Green Premium product
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
	EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

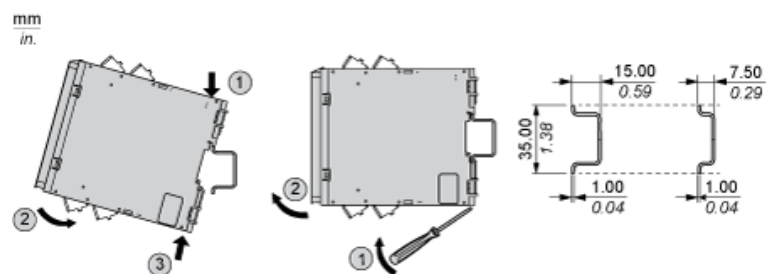| Warranty	18 months

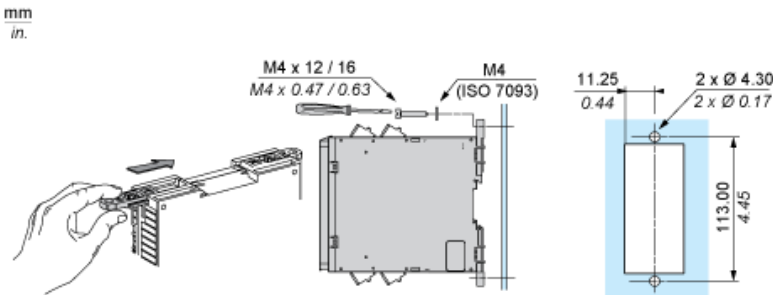## Dimensions

Front and Side Views
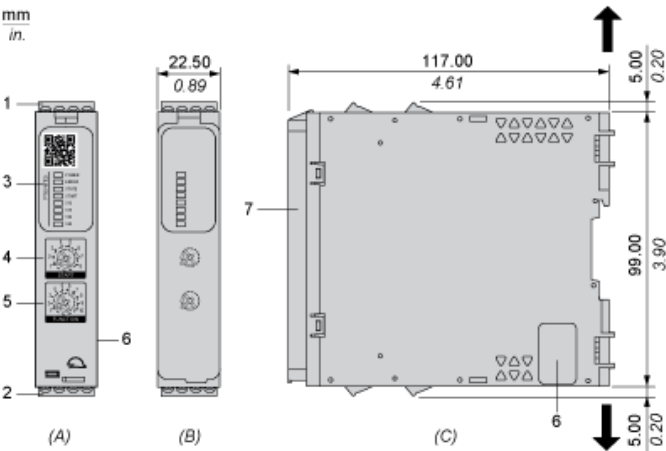
(A) :   Product drawing
(B) :   Screw clamp terminal
(C) :   Side view
(1) :   Removable terminal blocks, top
(2) :   Removable terminal blocks, bottom
(3) :   LED indicators
(4) :   Start function selector
(5) :   Function selector
(6) :   Connector for optional output extension module (lateral)
(7) :   Sealable transparent cover

mm / in.	7.0–8.0 0.28–0.31					
mm²		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

XPSUS12AP

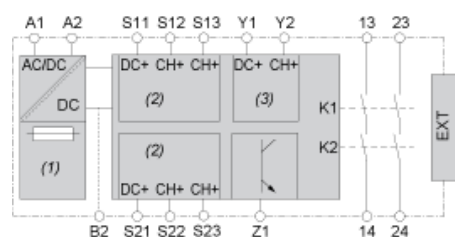## Screw-mounting

Wiring Drawing

(1) :   A1-A2 (Power supply)
(2) :   S11-S12-S13-S21-S22-S23 (Single-channel safety input)
(3) :   Y1-Y2 (Start)
13-23-14-24: Output
EXT :   Connector for optional extension module
B2 :   Common ground terminal
Z1 :   Pulsed output for diagnostics, not safety-related