Product data sheet
Characteristics

XPSUS12AP
safety module, Harmony XPSU, Cat 4, features 2 x XPSUAF with enabling movement, 24V AC or DC, screw



Main

Range of product	Harmony Safety Automation
Product or component type	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 For enabling switch 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) Enabling switch monitoring Proximity sensor monitoring Monitoring two-hand control station
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 b Removable screw terminal block, 2 x 0.5...1.5 mm² flexible with ferrule with cable end, with bez
[Us] rated supply voltage	24 V AC - 15...10 % 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
Auxiliary contact composition	2 NO
Number of inputs	2 safety input 24 V DC 5 mA
Maximum line resistance	500 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 Two-hand control conforming to EN 574/ISO 13851-III C 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 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
Number of 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 IEC 60947-1
[Uimp] rated impulse withstand voltage	4 KV overvoltage category II conforming to IEC 60947-1
Local signalling	LED (green) for power ON LED (red) for error LED (yellow) for safety output status LED (yellow) for start input LED (yellow) for safety input S12 LED (yellow) for safety input S13 LED (yellow) for safety input S22 LED (yellow) for safety input S23
Mounting support	35 mm symmetrical DIN rail
Depth	120 Mm
Height	100 Mm
Width	22.5 Mm
Net 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[RETURN]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 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	6.500 Cm
Package 1 Width	13.500 Cm
Package 1 Length	16.000 Cm
Package 1 Weight	279.000 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	5.133 Kg
Unit Type of Package 3	P06
Number of Units in Package 3	128
Package 3 Height	75.000 Cm
Package 3 Width	60.000 Cm
Package 3 Length	80.000 Cm
Package 3 Weight	47.500 Kg

Offer Sustainability

Recyclability potential, in %	0
Total lifecycle Carbon footprint	70 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	4.952434606749306
Carbon footprint of the manufacturing phase [A1 to A3]	5 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.1294835997091438
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.00997510709117689
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	64.56882742021409
Carbon footprint of the use phase [B2, B3, B4, B6]	65 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	0.6099192730880142
Carbon footprint of the end-of-life phase [C1 to C4]	0.6 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	70
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No

SCIP Number	152cf799-1df7-4892-81b4-4c890187f1d1
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which
PVC free	Yes
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

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised