



### Main

Range of product	Preventa Safety automation
Product or component type	Preventa safety PLC compact
Safety module name	XPSMF30
Safety module application	For numerous machine safety functions and for the protection of personnel
Safety use category	Category 4 conforming to EN 954-1/ISO 13849-1 SIL 3 conforming to IEC 61508
Structure type	10BASE-T/100BASE-TX, Modbus TCP/IP 10BASE-T/100BASE-TX, safe Ethernet

### Complementary

Function of module	Monitoring safety actuators for discrete output Monitoring safety detection for discrete input Monitoring safety dialogue for discrete input Monitoring safety dialogue for discrete output
[Us] rated supply voltage	24 V DC - 15...20 %
No load current	0.5 A
Protection type	Internal fuse
Clock	With, supplied by backup capacitor for 1 week following loss of supply
Response time	Depending on size of application
Memory description	User logic 250 kB application User logic 250 kB data
Discrete input number	20 not isolated discrete input(s)
Voltage state 0 guaranteed	$\leq 5$ V for discrete input
Voltage state 1 guaranteed	$\geq 15$ V for discrete input
Current state 0 guaranteed	1.25...1.5 mA (discrete input)
Current state 1 guaranteed	$\geq 2$ mA (discrete input)
Discrete input voltage	20 V
Discrete input current	100 mA
Input protection type	Protected against short-circuit to earth Protected against short-circuit
Input overvoltage protection	500 V for discrete input conforming to IEC 61000-4-5
Switching voltage	7.5 V
Discrete output number	8

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

Discrete output voltage	24 V DC
Output voltage tolerance	+/- 2 %
Discrete output current	1 A at 60 °C (channels 4 and 8) 2 A at 50 °C (channels 4 and 8) 0.5 A at 60 °C (channels 1 to 3 and 5 to 7) <= 7 mA (all channels)
Minimum load	2 mA per discrete output
Maximum leakage current	1 mA, at 2 V at state 0 for discrete output
Overload protection	Shutdown of outputs concerned with cyclic reconnection
Communication port protocol	Modbus TCP/IP with 4 RJ45 port(s), transmission rate: 100 Mbps, 10 Mbps, medium: dual twisted pair cable, category 5D or better Safe Ethernet with 4 RJ45 port(s), transmission rate: 100 Mbps, 10 Mbps, medium: dual twisted pair cable, category 5D or better
Exchange mode	Half duplex, full duplex, autonegotiation Modbus TCP/IP Half duplex, full duplex, autonegotiation safe Ethernet
Method of access	Slave Modbus TCP/IP
Concept	Transparent Ready, Modbus TCP/IP
Web server	Class A10, Modbus TCP/IP
Web services	Modbus identification request, Modbus TCP/IP Modbus TCP/IP messaging (reading/writing of data words), Modbus TCP/IP Modbus TCP/IP server, Modbus TCP/IP Standard 502, Modbus TCP/IP
Operating distance	<= 100 m (between station) discrete input <= 100 m (between station) discrete output
Number of terminal blocks	1 for power supply 2 for discrete output 5 for discrete input
Connections - terminals	Discrete input/output circuit: captive screw clamp terminals, 2 x 0.5 mm <sup>2</sup> (AWG 20) flexible with cable end Discrete input/output circuit: captive screw clamp terminals, 1 x 0.14...1 x 1.5 mm <sup>2</sup> (AWG 28...AWG 16) flexible without cable end Discrete input/output circuit: captive screw clamp terminals, 1 x 0.14...1 x 1.5 mm <sup>2</sup> (AWG 28...AWG 16) solid without cable end Power supply: captive screw clamp terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 12) flexible without cable end Power supply: captive screw clamp terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 12) solid without cable end Discrete input/output circuit: captive screw clamp terminals, 1 x 0.25...1 x 0.5 mm <sup>2</sup> (AWG 22...AWG 20) flexible with cable end Discrete input/output circuit: captive screw clamp terminals, 1 x 0.25...1 x 1.5 mm <sup>2</sup> (AWG 22...AWG 16) flexible without cable end Power supply: captive screw clamp terminals, 1 x 0.25...1 x 2.5 mm <sup>2</sup> (AWG 22...AWG 16) flexible with cable end Power supply: captive screw clamp terminals, 1 x 0.25...1 x 2.5 mm <sup>2</sup> (AWG 22...AWG 16) flexible without cable end Discrete input/output circuit: captive screw clamp terminals, 2 x 0.14...2 x 0.5 mm <sup>2</sup> (AWG 28...AWG 20) solid without cable end Discrete input/output circuit: captive screw clamp terminals, 2 x 0.14...2 x 0.75 mm <sup>2</sup> (AWG 28...AWG 18) flexible without cable end Power supply: captive screw clamp terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (AWG 24...AWG 12) flexible without cable end Power supply: captive screw clamp terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (AWG 24...AWG 12) solid without cable end Discrete input/output circuit: captive screw clamp terminals, 2 x 0.25...2 x 0.34 mm <sup>2</sup> (AWG 22) flexible without cable end Power supply: captive screw clamp terminals, 2 x 0.25...2 x 1 mm <sup>2</sup> (AWG 22...AWG 18) flexible without cable end Power supply: captive screw clamp terminals, 2 x 0.5...2 x 1.5 mm <sup>2</sup> (AWG 22...AWG 16) flexible with cable end
Tightening torque	0.22...0.25 N.m
Wire stripping length	9 mm
Current consumption	8 A at 24 V DC on power supply
Mounting support	35 mm symmetrical DIN rail
Depth	66.5 mm
Height	113 mm
Width	253 mm

Net weight	1.2 kg
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## Environment

Standards	DIN V 19250 DIN V 0801 EN 50156 pending IEC 61131
Immunity to microbreaks	10 ms
IP degree of protection	IP20 (enclosure)
Ambient air temperature for operation	0...60 °C conforming to EN 61131-2
Ambient air temperature for storage	-40...85 °C conforming to EN 61131-2
Relative humidity	95 % supply not connected
Operating altitude	< 2000 m
Pollution degree	2
Electrical shock protection class	Class II conforming to EN/IEC 61131-2
Electromagnetic compatibility	EN/IEC 61131-2
Vibration resistance	1 gn conforming to EN 61131-2 (f = 10...150 Hz)
Shock resistance	15 gn for 11 ms conforming to EN 61131-2
Resistance to electrostatic discharge	4 kV contact conforming to EN/IEC 61000-4-2 8 kV on air conforming to EN/IEC 61000-4-2
Resistance to electromagnetic fields	10 V/m 26...1000 MHz conforming to EN/IEC 61000-4-3

## Offer Sustainability

REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
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
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