

Product data sheet

Specifications



16 Input expansion module with screw term

XPSMCMDI1600

Main

Range of product	Preventa Safety automation
Product or component type	Safe input expansion module
Device short name	XPSMCM
Electrical connection	Screw terminal
[Us] rated supply voltage	24 V - 20...20 % DC
Number of inputs	16 digital
Number of outputs	4 test for line control
Discrete input type	Isolated
Discrete output type	PNP
Function of module	Monitoring safety detection for discrete input Monitoring safety dialogue for discrete input

Complementary

Power consumption in W	3 W
Power dissipation in W	3 W
Integrated connection type	Backplane expansion bus
Number of terminal blocks	6
Connections - terminals	2 captive screw clamp terminals, removable terminal block 1 captive screw clamp terminals, removable terminal block
Safety level	Can reach category 4 conforming to EN/ISO 13849-1 Can reach PL = e conforming to EN/ISO 13849-1 Can reach SIL 3 conforming to EN/IEC 61508 SILCL 3 conforming to IEC 62061
Quality labels	CE
Discrete input voltage	24 V DC
Local signalling	1 LED green with PWR marking for power ON 1 LED green with RUN marking for RUN (status) 1 LED red with E IN marking for internal error 1 LED red with E EX marking for external error 2 LEDs orange with ADDR marking for node address 16 LEDs yellow with IN marking for input status
Cable cross section	0.2...1.5 mm² - AWG 24...AWG 16 flexible cablewithout cable end 0.2...2.5 mm² - AWG 24...AWG 14 flexible cablewithout cable end 0.25...1 mm² - AWG 23...AWG 18 flexible cablewith cable end, without bezel 0.25...2.5 mm² - AWG 23...AWG 14 flexible cablewith cable end, with bezel 0.25...2.5 mm² - AWG 23...AWG 14 flexible cablewith cable end, without bezel 0.5...1.5 mm² - AWG 20...AWG 16 flexible cablewith cable end, with double bezel 0.2...1 mm² - AWG 24...AWG 18 solid cablewithout cable end

	0.2...2.5 mm² - AWG 24...AWG 14 solid cablewithout cable end
Mounting support	Omega 35 mm DIN rail conforming to EN 50022
Depth	22.5 mm
Height	99 mm
Width	114.5 mm
Net weight	0.25 kg

Environment

Standards	EN/IEC 61800-5-1 EN/IEC 61508 EN/ISO 13849-1 IEC 62061
Product certifications	RCM TÜV cULus
IP degree of protection	IP20 (enclosure)
Ambient air temperature for operation	-10...55 °C
Ambient air temperature for storage	-20...85 °C
Relative humidity	10...95 %
Pollution degree	2
[Uimp] rated impulse withstand voltage	4 kV conforming to EN/IEC 61800-5-1
Safety reliability data	DC > 99 % MTTFd < 100 years high PFHd = 7.09E-9 1/h
Insulation	250 V AC between power supply and housing conforming to EN/IEC 61800-5-1
Overvoltage category	II
Electromagnetic compatibility	Electrostatic discharge immunity test - test level: 6 kV (on contact) conforming to EN/IEC 61000-4-2 Electrostatic discharge immunity test - test level: 20 kV (on air) conforming to EN/IEC 61000-4-2 Susceptibility to electromagnetic fields - test level: 10 V/m (80...1000 MHz) conforming to EN/IEC 61000-4-3 Susceptibility to electromagnetic fields - test level: 30 V/m (1.4 GHz...2 GHz) conforming to EN/IEC 61000-4-3
Vibration resistance	+/-0.35 mm (f= 10...55 Hz) conforming to EN/IEC 61496-1
Shock resistance	10 gn (duration = 16 ms) for 1000 shocks on each axis conforming to EN/IEC 61496-1
Service life	20 year(s)

Packing Units

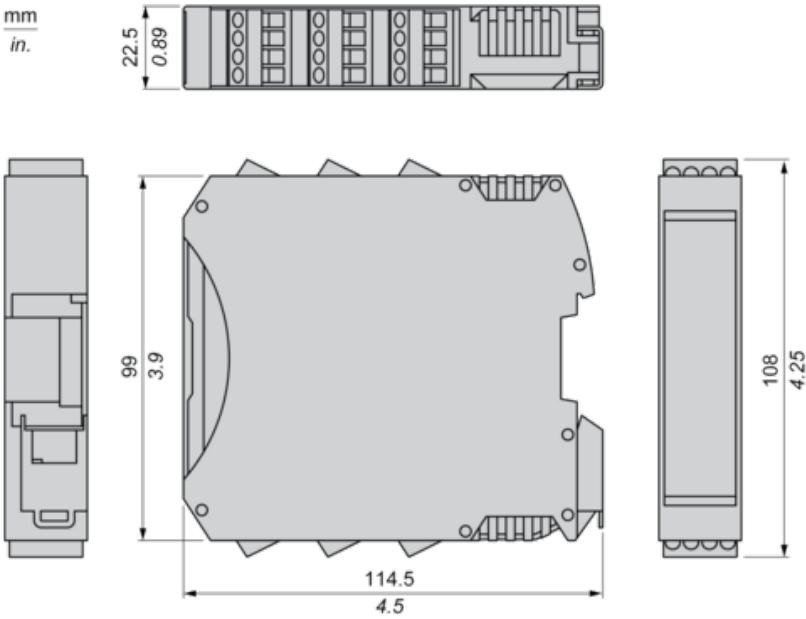
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.400 cm
Package 1 Width	12.200 cm
Package 1 Length	16.000 cm
Package 1 Weight	251.000 g
Unit Type of Package 2	S01
Number of Units in Package 2	6
Package 2 Height	15.000 cm
Package 2 Width	15.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	1.700 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
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
PVC free	Yes
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

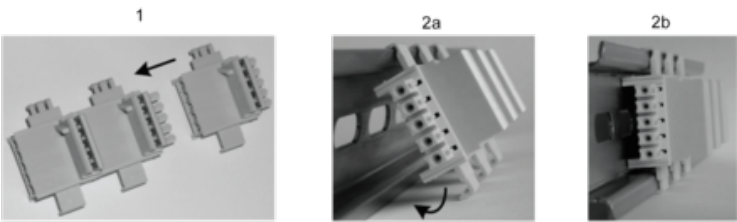
Dimensions

Screw Terminal



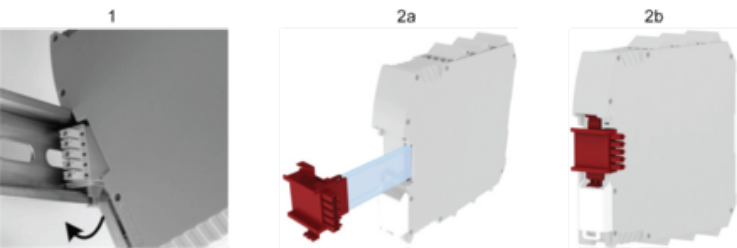
Mounting Safety Controller CPU with Module(s)

Mount BackPlane Connector on Rail



- 1 : Connect as much Backplane Connector as module to be install.
- 2 : Fix the connectors to the rail (Top first).

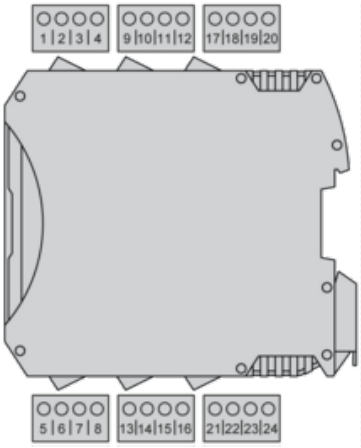
Mount Safety Controller CPU with Other Module(s)



- 1 : Mount controller CPU and modules on rail.
- 2 : Make sure that the controller CPU or the module(s) are plugged on the BackPlane connector.

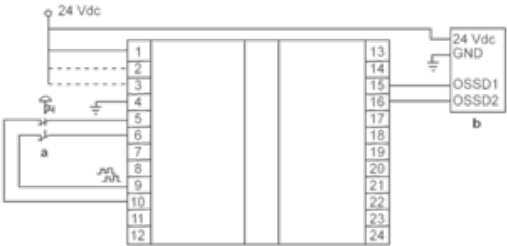
Wiring

Terminal Designation



Terminal	Signal	Description
1	24 VDC	24 Vdc power supply
2	NODE_ADDR0	Node selection
3	NODE_ADDR1	
4	0 VDC	
5	INPUT1	Digital input 1
6	INPUT2	Digital input 2
7	INPUT3	Digital input 3
8	INPUT4	Digital input 4
9	OUT_TEST1	Short circuit detected output
10	OUT_TEST2	
11	OUT_TEST3	
12	OUT_TEST4	
13	INPUT5	Digital input 5
14	INPUT6	Digital input 6
15	INPUT7	Digital input 7
16	INPUT8	Digital input 8
17	INPUT9	Digital input 9
18	INPUT10	Digital input 10
19	INPUT11	Digital input 11
20	INPUT12	Digital input 12
21	INPUT13	Digital input 13
22	INPUT14	Digital input 14
23	INPUT15	Digital input 15
24	INPUT16	Digital input 16

Wiring Example



a : Emergency stop
b : Light curtain

Recommended replacement(s)