Safety controller, Modicon MCM, 8 inputs 2 outputs, monitors expansion modules, screw

XPSMCMCP0802

Main

Range of product	Modicon Safety automation
Device short name	XPSMCM
Electrical connection	Screw terminal
Product or component type	Safety controller CPU
[Us] rated supply voltage	24 V - 20...20 % DC
Number of inputs	8 digital for input connection 2 digital for interlock start/restart or external device monitoring
Number of outputs	2 safety outputs OSSD for contactor/drive connection 4 test for line control outputs 2 configurable for diagnostic connection
Discrete input voltage	24 V
Discrete output current	400 mA
Discrete input current	400 mA
Discrete input type	Safety input PNP
Discrete output type	PNP
Function of module	Emergency stop conforming to ISO 13850 Guard monitoring conforming to EN/ISO 14119 Enabling switch monitoring conforming to IEC 60947-5-1 Light curtain monitoring conforming to IEC 61496-1 Foot switch monitoring conforming to IEC 60947-5-1 Magnetic switch monitoring conforming to EN/ISO 14119 Two-hand control conforming to EN 574 Safety mat monitoring conforming to EN/ISO 14119 Enabling switch monitoring conforming to IEC 61326-1 Muting function of light curtains conforming to IEC 60947-5-1 Counter functions conforming to IEC 61800-5-2 Speed monitoring conforming to IEC 61800-5-2
Backplane connector	Without

Complementary

Synchronisation time between inputs	< 0.5 ms
Power dissipation in W	3 W
Maximum number of I/O expansion module	14 with 128 discrete output(s) for input 14 with 16 discrete output(s) for output
Integrated connection type	Backplane expansion bus USB 2.0 port
Data storage equipment	SD card (optional)
Inductive load	30 mH

Load capacitance	0.82 μF
Safety level	Can reach category 4 conforming to ISO 13849-1 Can reach PL = e conforming to ISO 13849-1 Type 4 conforming to IEC 61496-1 SILCL 3 conforming to IEC 62061
Quality labels	CE
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 1 LED orange with COM marking for communication 1 LED blue with EN marking for master enable 8 LEDs yellow with IN marking for input status 2 LEDs green/red with OUT marking for output status 2 LEDs yellow with RST marking for restart signal 2 LEDs yellow with STATUS marking for output channel
Connections - terminals	6 captive screw terminals, removable terminal block
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…1.5 mm² - AWG 23...AWG 16 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	114.5 mm
Height	99 mm
Width	22.5 mm
Net weight	0.25 kg

Environment

Standards	IEC 61508 ISO 13849-1 IEC 61496-1 IEC 61800-5-1 IEC 62061
Product certifications	cULus RCM TÜV
IP degree of protection	IP20
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 IEC 61800-5-1
Safety reliability data	PFHd = 6.06E-9 1/h DC > 99 % MTTFd < 100 years high
Insulation	250 V AC between power supply and housing conforming to IEC 61800-5-1
Overvoltage category	II

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Electromagnetic compatibility	Electrostatic discharge immunity test - test level: 6 kV (on contact) conforming to IEC 61000-4-2 Electrostatic discharge immunity test - test level: 20 kV (on air) conforming to IEC 61000-4-2 Susceptibility to electromagnetic fields - test level: 10 V/m (80...1000 MHz) conforming to IEC 61000-4-3 Susceptibility to electromagnetic fields - test level: 30 V/m (1.4 GHz...2 GHz) conforming to IEC 61000-4-3
Vibration resistance	+/-0.35 mm (f= 10…55 Hz) conforming to IEC 61496-1
Shock resistance	10 gn (duration = 16 ms) for 1000 shocks on each axis conforming to 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	16.510 cm
Package 1 Width	13.462 cm
Package 1 Length	5.080 cm
Package 1 Weight	249.476 g

⬤ 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 〉

Use Better

| ⬚ Materials and Substances	
Packaging made with recycled cardboard	**No**
Packaging without single use plastic	**Yes**
EU RoHS Directive	**Pro-active compliance (Product out of EU RoHS legal scope)**
REACh Regulation	**REACh Declaration**
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**
PVC free	**Yes**

Use Again

↻ Repack and remanufacture	
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**

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Dimensions Drawings

Dimensions

Screw Terminal

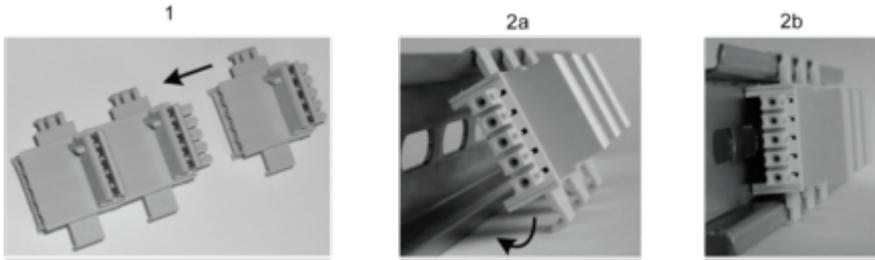$\dfrac{mm}{in.}$

22.5 / 0.89

99 / 3.9

114.5 / 4.5

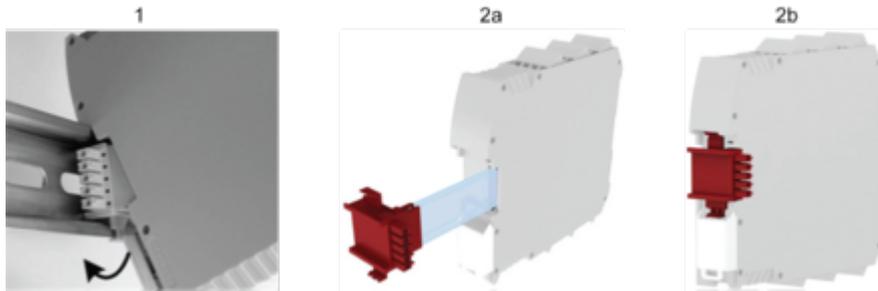108 / 4.25
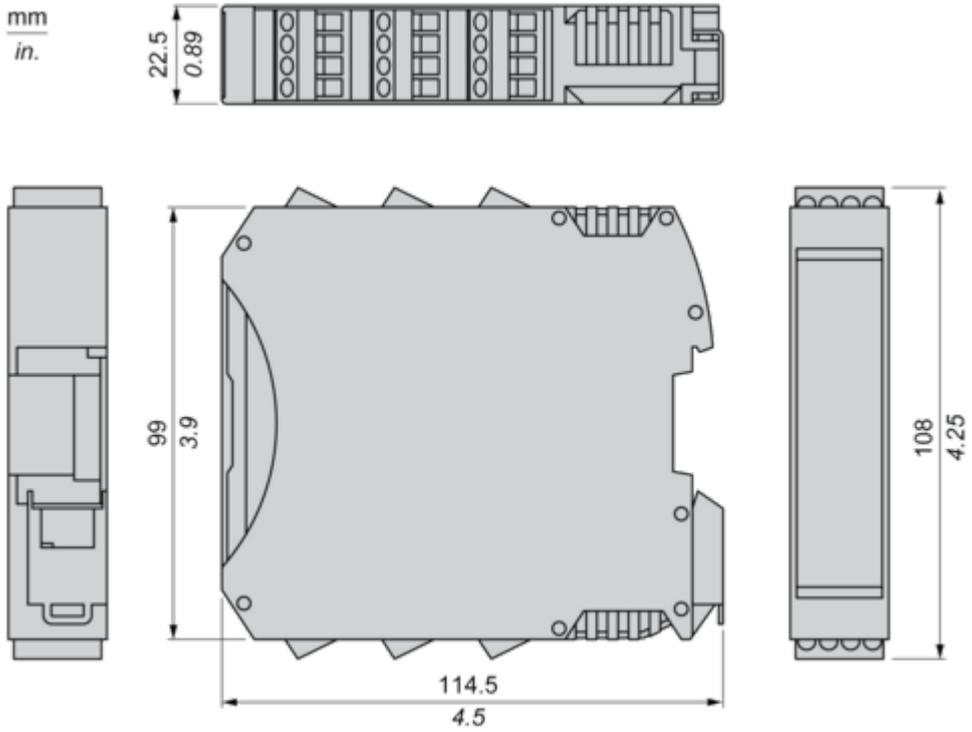
Mounting and Clearance

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).

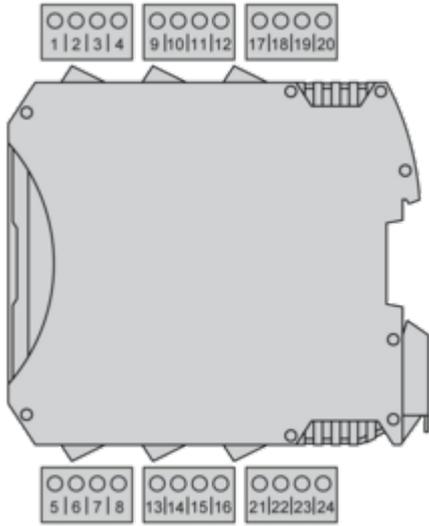### Mount Safety Controller CPU with Other Module(s)

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.

Connections and Schema

Wiring

Terminal Designation

Terminal	Signal	Description
1	24 VDC	24 Vdc power supply
2	MASTER_ENABLE1	Master enable 1
3	MASTER_ENABLE2	Master enable 2
4	0 VDC	0 Vdc power supply
5	OSSD1_A	Static output 1
6	OSSD1_B	
7	RESTART1	Feedback/Restart 1
8	OUT_STATUS 1	Programmable digital output
9	OSSD2_A	Static output 2
10	OSSD2_B	
11	RESTART2	Feedback/Restart 2
12	OUT_STATUS 2	Programmable digital output
13	OUT_TEST1	Short circuit detected output
14	OUT_TEST2	
15	OUT_TEST3	
16	OUT_TEST4	

Terminal	Signal	Description
17	INPUT1	Digital input 1
18	INPUT2	Digital input 2
19	INPUT3	Digital input 3
20	INPUT4	Digital input 4
21	INPUT5	Digital input 5
22	INPUT6	Digital input 6
23	INPUT7	Digital input 7
24	INPUT8	Digital input 8

Wiring Example
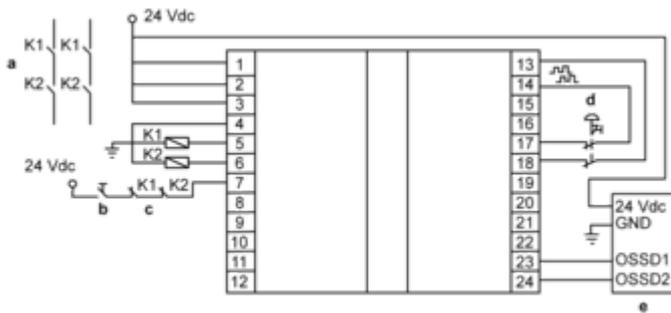
a : Contactors
b : Restart
c : Feedback
d : Emergency stop
e : Light curtain

Image of product / Alternate images

Alternative

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