

# Product data sheet

Specifications



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

XPSMCMCP0802

## Main

Range of product	Modicon Safety automation
Product or component type	Safety controller CPU
Device short name	XPSMCM
Electrical connection	Screw terminal
[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 EN/ISO 13850 Guard monitoring conforming to EN/ISO 14119 Enabling switch monitoring conforming to EN/IEC 60947-5-1 Light curtain monitoring conforming to EN/IEC 61496-1 Foot switch monitoring conforming to EN/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 EN 61326-1 Muting function of light curtains conforming to EN/IEC 60947-5-1 Counter functions conforming to EN/IEC 61800-5-2 Speed monitoring conforming to EN/IEC 61800-5-2

## 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

<b>Load capacitance</b>	0.82 µF
<b>Safety level</b>	Can reach category 4 conforming to EN/ISO 13849-1 Can reach PL = e conforming to EN/ISO 13849-1 Type 4 conforming to EN/IEC 61496-1 SILCL 3 conforming to IEC 62061
<b>Quality labels</b>	CE
<b>Local signalling</b>	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
<b>Connections - terminals</b>	2 captive screw terminals, removable terminal block 1 captive screw terminals, removable terminal block
<b>Cable cross section</b>	0.2...1.5 mm <sup>2</sup> - AWG 24...AWG 16 flexible cablewithout cable end 0.2...2.5 mm <sup>2</sup> - AWG 24...AWG 14 flexible cablewithout cable end 0.25...1 mm <sup>2</sup> - AWG 23...AWG 18 flexible cablewith cable end, without bezel 0.25...2.5 mm <sup>2</sup> - AWG 23...AWG 14 flexible cablewith cable end, with bezel 0.25...1.5 mm <sup>2</sup> - AWG 23...AWG 16 flexible cablewith cable end, without bezel 0.5...1.5 mm <sup>2</sup> - AWG 20...AWG 16 flexible cablewith cable end, with double bezel 0.2...1 mm <sup>2</sup> - AWG 24...AWG 18 solid cablewithout cable end 0.2...2.5 mm <sup>2</sup> - AWG 24...AWG 14 solid cablewithout cable end
<b>Mounting support</b>	Omega 35 mm DIN rail conforming to EN 50022
<b>Depth</b>	114.5 mm
<b>Height</b>	99 mm
<b>Width</b>	22.5 mm
<b>Net weight</b>	0.25 kg
<b>Environment</b>	
<b>Standards</b>	EN/IEC 61508 EN/ISO 13849-1 EN/IEC 61496-1 EN/IEC 61800-5-1 IEC 62061
<b>Product certifications</b>	cULus RCM TÜV
<b>IP degree of protection</b>	IP20
<b>Ambient air temperature for operation</b>	-10...55 °C
<b>Ambient air temperature for storage</b>	-20...85 °C
<b>Relative humidity</b>	10...95 %
<b>Pollution degree</b>	2
<b>[Uimp] rated impulse withstand voltage</b>	4 kV conforming to EN/IEC 61800-5-1
<b>Safety reliability data</b>	PFHd = 6.06E-9 1/h DC > 99 % MTTFd < 100 years high
<b>Insulation</b>	250 V AC between power supply and housing conforming to EN/IEC 61800-5-1
<b>Overvoltage category</b>	II
<b>Electromagnetic compatibility</b>	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
<b>Vibration resistance</b>	+/-0.35 mm (f= 10...55 Hz) conforming to EN/IEC 61496-1

<b>Shock resistance</b>	10 gn (duration = 16 ms) for 1000 shocks on each axis conforming to EN/IEC 61496-1
<b>Service life</b>	20 year(s)

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	4.500 cm
<b>Package 1 Width</b>	12.500 cm
<b>Package 1 Length</b>	16.500 cm
<b>Package 1 Weight</b>	249.000 g
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	26
<b>Package 2 Height</b>	30.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	6.908 kg

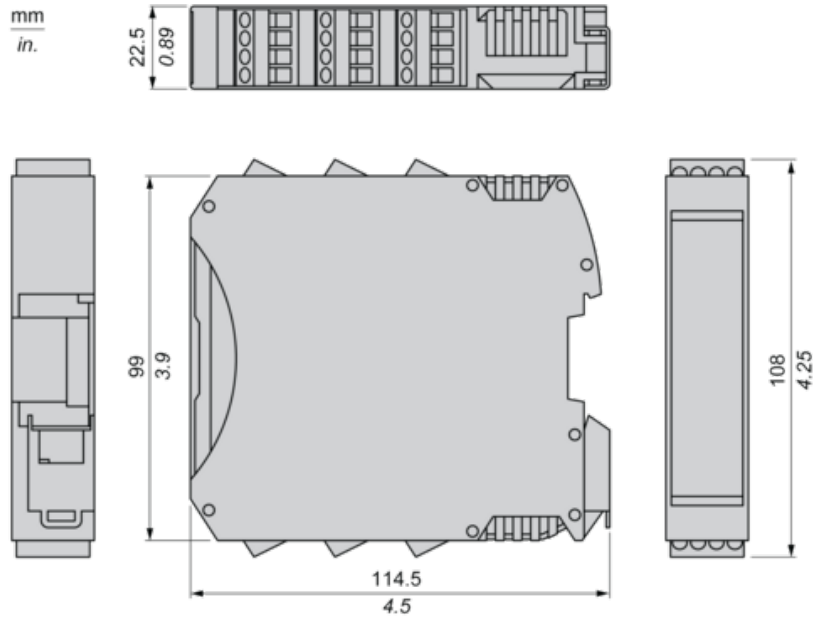
## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>PVC free</b>	Yes
<b>California proposition 65</b>	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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

Dimensions

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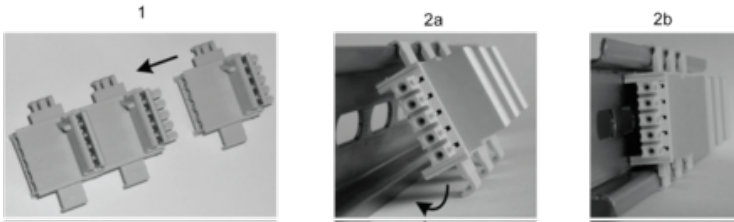
Screw Terminal



**Mounting Safety Controller CPU with Module(s)**

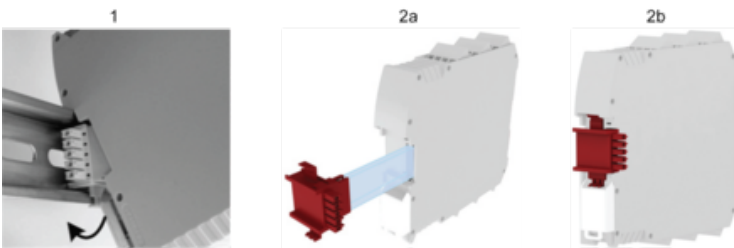
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**Mount BackPlane Connector on Rail**



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

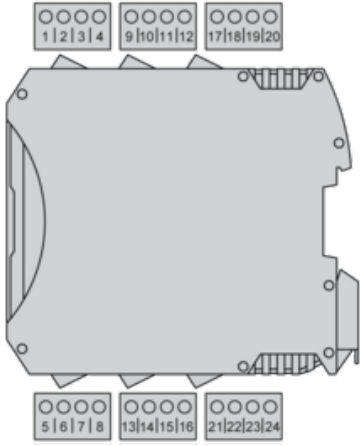
**Mount Safety Controller CPU with Other Module(s)**



- 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.

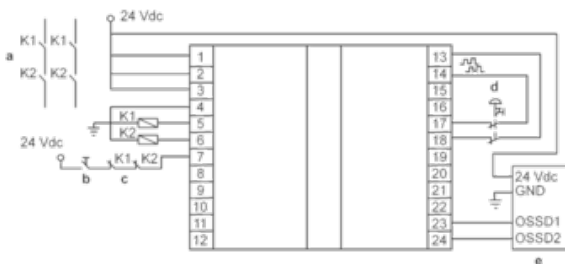
**Wiring**

**Terminal Designation**



Terminal	Signal	Description
1	24 VDC	24 Vdc power supply
2	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	
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

**Recommended replacement(s)**