

Product data sheet

Specifications



Safety controller with embedded communication, Modicon MCM, 8 inputs 4 outputs, monitors expansion modules, screw

XPSMCMC10804E

Main

Range of product	Modicon MCM
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 input connection 4 digital interlock start/restart or external device monitoring
Number of outputs	4 safety outputs OSSD contactor/drive connection 4 test line control outputs 4 configurable diagnostic connection
Discrete input voltage	24 V
Discrete output current	400 mA
Discrete input current	100 mA
Discrete input type	Safety input NPN or PNP
Discrete output type	PNP or NPN
Function of module	Emergency stop ISO 13850 Guard monitoring EN/ISO 14119 Enabling switch monitoring IEC 60947-5-1 Light curtain monitoring IEC 61496-1 Foot switch monitoring IEC 60947-5-1 Light curtain monitoring EN/ISO 14119 Switch monitoring EN 574 Two-hand control EN/ISO 14119 Safety mat monitoring IEC 61326-1 Switch monitoring IEC 61800-5-2 Muting function of light curtains IEC 61800-5-2 Safety time delays Counter functions
Backplane connector	Without

Complementary

Synchronisation time between inputs	< 0.5 ms
Power dissipation in W	3 W
Maximum number of I/O expansion module	14 128 input 14 32.0 output
Integrated connection type	Backplane expansion bus USB 2.0 port
Data storage equipment	SD card optional)
Inductive load	2 mH

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

Load capacitance	0.82 µF
Safety level	Can reach category 4 ISO 13849-1 Can reach PL = e ISO 13849-1 Type 4 IEC 61496-1 SILCL 3 IEC 62061 Can reach SILCL 1 ISO 13849-1
Quality labels	CE
Local signalling	1 LED green PWR power ON 1 LED green RUN RUN (status) 1 LED red E IN internal error 1 LED red E EX external error 1 LED orange COM communication 1 LED blue EN master enable 8 LEDs yellow IN input status 2 LEDs yellow RST restart signal 2 LEDs yellow STATUS output channel 1 LED green/red MS module status 1 LED green/red NS network status
Connections - terminals	6 captive screw terminals, removable terminal block
Cable cross section	0.0003...0.002 in² (0.2...1.5 mm²) - AWG 24...AWG 16 flexible without cable end 0.0003...0.004 in² (0.2...2.5 mm²) - AWG 24...AWG 14 flexible without cable end 0.0004...0.002 in² (0.25...1 mm²) - AWG 23...AWG 18 flexible with cable end, without bezel 0.0004...0.004 in² (0.25...2.5 mm²) - AWG 23...AWG 14 flexible with cable end, with bezel 0.0004...0.002 in² (0.25...1.5 mm²) - AWG 23...AWG 16 flexible with cable end, without bezel 0.0008...0.002 in² (0.5...1.5 mm²) - AWG 20...AWG 16 flexible with cable end, with double bezel 0.0003...0.002 in² (0.2...1 mm²) - AWG 24...AWG 18 solid without cable end 0.0003...0.004 in² (0.2...2.5 mm²) - AWG 24...AWG 14 solid without cable end
Mounting support	Omega 35 mm DIN rail EN 50022
Depth	4.5 in (114.5 mm)
Height	3.9 in (99 mm)
Width	1.8 in (45 mm)
Net weight	0.496 lb(US) (0.225 kg)

Environment

Standards	IEC 61496-1 ISO 13849-1 IEC 61508 IEC 61800-5-1 IEC 62061
Product certifications	TÜV RCM cULus
IP degree of protection	IP20
Ambient air temperature for operation	14...131 °F (-10...55 °C)
Ambient air temperature for storage	-4...185 °F (-20...85 °C)
Relative humidity	10...95 %
Pollution degree	2
[Uimp] rated impulse withstand voltage	4 kV IEC 61800-5-1
Safety reliability data	high DC > 99 %
Insulation	250 V AC between power supply and housing IEC 61800-5-1
Overvoltage category	II

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 16 ms) 1000 shocks on each axis 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	6.417 in (16.300 cm)
Package 1 Width	5.039 in (12.800 cm)
Package 1 Length	2.756 in (7.000 cm)
Package 1 Weight	12.416 oz (352.000 g)
Unit Type of Package 2	S01
Number of Units in Package 2	4
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	5.906 in (15.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	3.684 lb(US) (1.671 kg)

Contractual warranty

Warranty (in months)	18
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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 >](#)



Environmental footprint

Total lifecycle Carbon footprint	310 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	23 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	287 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.4 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	No
Packaging without single use plastic	No

Use Longer



Lifetime extension

Repair	No
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Use Again

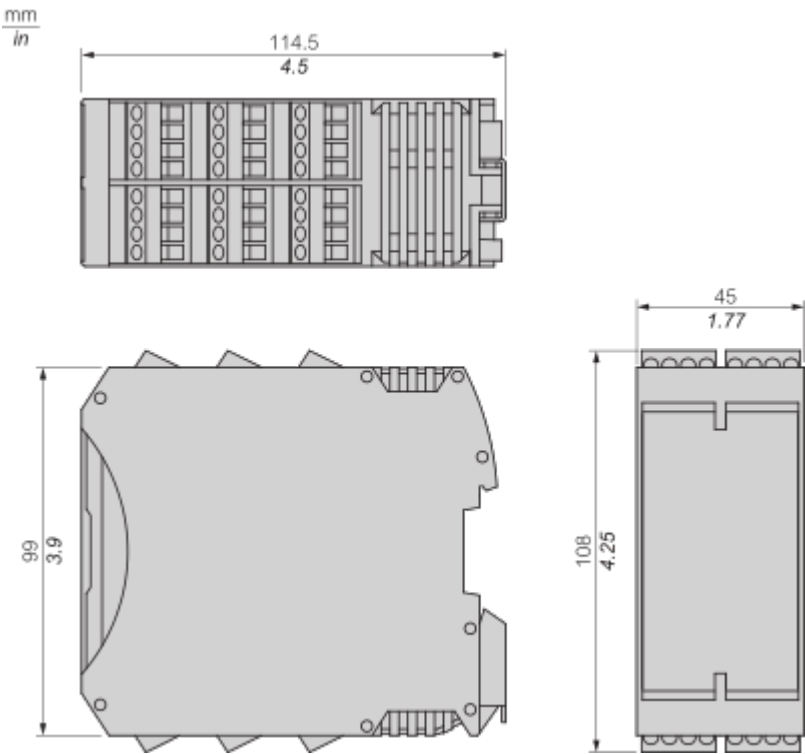


Repack and remanufacture

Recyclability potential, in %	0
Circularity Profile	End of Life Information
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

Dimensions Drawings

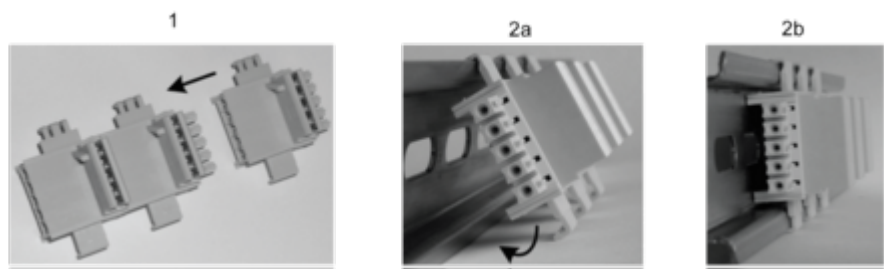
Dimensions



Mounting and Clearance

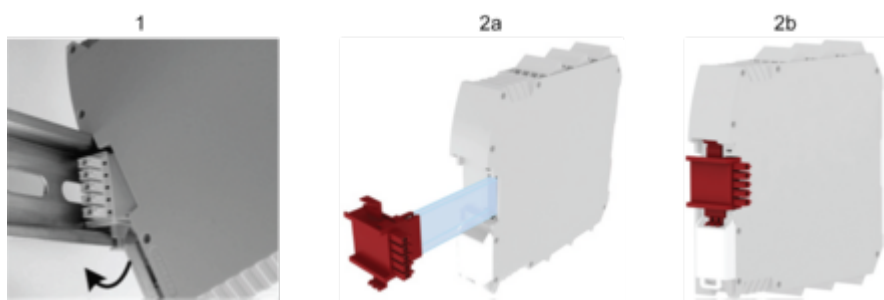
Mounting Safety Controller CPU with Module(s)

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)

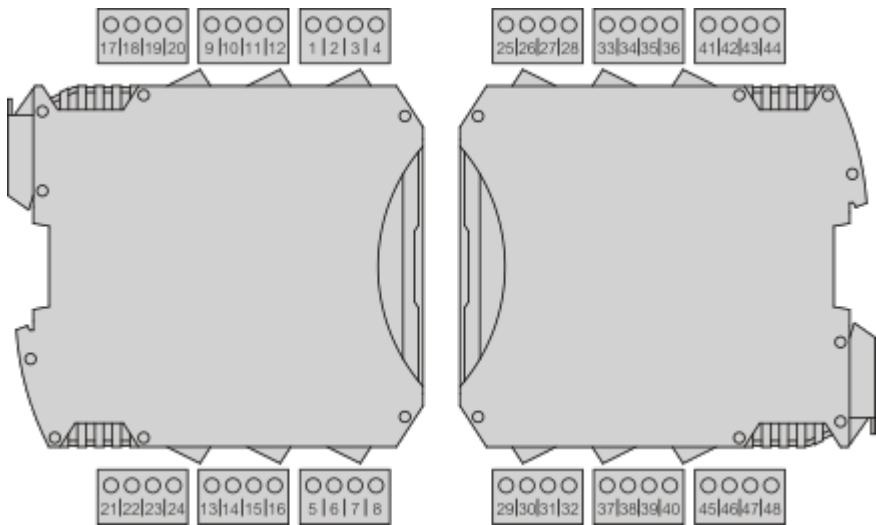


- 1 : Mount controller CPU and modules on rail.
- 2 : Make sure that the controller CPU or the module(s) are plugged on the BackPlane connector.

Connections and Schema

Connections & Schema

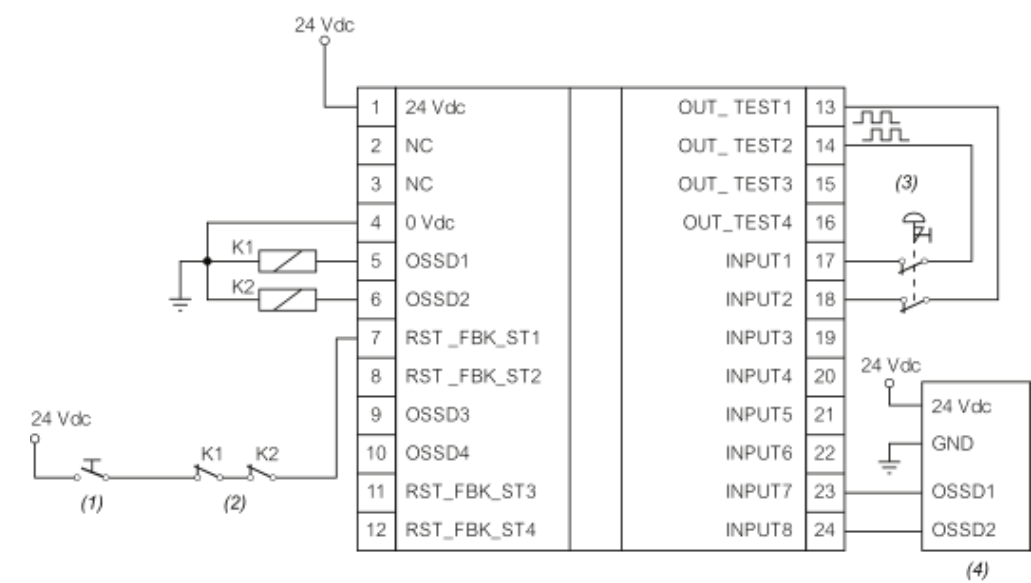
Terminal Designation



Terminal	Signal	LED	Type	Description	Operation
1	24 VDC	PWR	—	24 Vdc power supply	—
2	NC	—	—	—	—
3	NC	—	—	—	—
4	0 VDC	PWR	—	0 Vdc power supply	—
5	OSSD1	OSSD1	Output	Safety-related output 1	PNP active at Uv (24 Vdc ± 20%).
6	OSSD1	OSSD2	Output	Safety-related output 2	
7	RESTART_FBK1/ STATUS1	RST_FBK/ STATUS 1	Input/ Output	Feedback/Restart 1 for OSSD1	Input type 3 according to EN 61131-2. Maximum resistance 1.2 kΩ.
				Configurable output 1 for OSSD1	Configurable output (SIL 1/PL c in accordance with EN 61508:2010)
8	RESTART_FBK2/ STATUS2	RST_FBK/ STATUS 2	Input/ Output	Feedback/Restart 2 for OSSD2	Input type 3 according to EN 61131-2. Maximum resistance 1.2 kΩ.
				Configurable output 2 for OSSD2	Configurable output (SIL 1/PL c in accordance with EN 61508:2010)
9	OSSD3	OSSD 3	Output	Safety-related output 3	PNP active at Uv (24 Vdc ± 20%).
10	OSSD4	OSSD 4	Output	Safety-related output 4	

11	RESTART_FBK3/ STATUS3	RST_FBK/ STATUS 3	Input/ Output	Feedback/Restart 3 for OSSD3	Input type 3 according to EN 61131-2. Maximum resistance 1.2 kΩ.
				Configurable output 3 for OSSD3	Configurable output (SIL 1/PL c in accordance with EN 61508:2010)
12	RESTART_FBK4/ STATUS4	RST_FBK/ STATUS 4	Input/ Output	Feedback/Restart 4 for OSSD4	Input type 3 according to EN 61131-2. Maximum resistance 1.2 kΩ.
				Configurable output 4 for OSSD4	Configurable output (SIL 1/PL c in accordance with EN 61508:2010)
13	OUT_TEST1	-	Output	Test output for detection of short circuits/cross circuits in input circuits	PNP active at 24 Vdc.
14	OUT_TEST2	-			
15	OUT_TEST3	-			
16	OUT_TEST4	-			
17	INPUT1	IN 1	Input	Safety-related input 1	Input type 3 according to EN 61131-2. Maximum resistance 1.2 kΩ.
18	INPUT2	IN 2		Safety-related input 2	
19	INPUT3	IN 3		Safety-related input 3	
20	INPUT4	IN 4		Safety-related input 4	
21	INPUT5	IN 5		Safety-related input 5	
22	INPUT6	IN 6		Safety-related input 6	
23	INPUT7	IN 7		Safety-related input 7	
24	INPUT8	IN 8		Safety-related input 8	

Wiring Example



- (1) : Restart
- (2) : Feedback
- (3) : Emergency stop
- (4) : Light curtain

Image of product / Alternate images

Alternative

