



Main

| | |
|---------------------------|--|
| Range of Product | Modicon Safety automation |
| Product or Component Type | Modular safety controller CPU kit |
| Device short name | XPSMCM |
| Electrical Connection | Spring terminal |
| [Us] rated supply voltage | 24 V - 20...20 % DC |
| Number of inputs | 8.0 digital input connection 4.0 digital interlock start/restart or external device monitoring |
| Number of outputs | 4.0 safety outputs OSSD contactor/drive connection 4.0 test line control outputs 4.0 configurable 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 |
| Kit composition | 1 safety controller CPU 1 backplane expansion connector |
| Function of module | Emergency stop EN/ISO 13850 Guard monitoring EN/ISO 14119 Enabling switch monitoring EN/IEC 60947-5-1 Light curtain monitoring EN/IEC 61496-1 Foot switch monitoring EN/IEC 60947-5-1 Light curtain monitoring EN/ISO 14119 Switch monitoring EN 574 Two-hand control EN/ISO 14119 Safety mat monitoring EN 61326-1 Switch monitoring EN/IEC 61800-5-2 Muting function of light curtains EN/IEC 61800-5-2 Safety time delays Counter functions |

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 | 2.4 mH |
| Load capacitance | 0.82 µF |
| Safety level | Can reach category 4 EN/ISO 13849-1 Can reach PL = e EN/ISO 13849-1 Type 4 EN/IEC 61496-1 SILCL 3 IEC 62061 |
| 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 green/red OUT output status 2 LEDs yellow RST restart signal 2 LEDs yellow STATUS output channel |
| Connections - terminals | 2 spring terminals, removable terminal block 1 spring terminals, removable terminal block |
| Cable cross section | 0.00...0.00 In ² (0.2...1.5 mm ²) - AWG 24...AWG 16 flexible without cable end 0.00...0.00 In ² (0.2...2.5 mm ²) - AWG 24...AWG 14 flexible without cable end 0.00...0.00 In ² (0.25...1 mm ²) - AWG 23...AWG 18 flexible with cable end, without bezel 0.00...0.00 In ² (0.25...2.5 mm ²) - AWG 23...AWG 14 flexible with cable end, with bezel 0.00...0.00 In ² (0.25...1.5 mm ²) - AWG 23...AWG 16 flexible with cable end, without bezel 0.00...0.00 In ² (0.5...1.5 mm ²) - AWG 20...AWG 16 flexible with cable end, with double bezel 0.00...0.00 In ² (0.2...1 mm ²) - AWG 24...AWG 18 solid without cable end 0.00...0.00 in ² (0.2...2.5 mm ²) - AWG 24...AWG 14 solid without cable end |
| Mounting support | Omega 35 mm DIN rail EN 50022 |
| Depth | 4.51 in (114.5 mm) |
| Height | 3.90 in (99 mm) |
| Width | 0.89 in (22.5 mm) |
| Net Weight | 0.34 lb(US) (0.155 kg) |

Environment

| | |
|--|---|
| Standards | EN/IEC 61496-1 EN/ISO 13849-1 EN/IEC 61508 EN/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 EN/IEC 61800-5-1 |
| Safety reliability data | PFHd = 1.35E-8 1/h high DC > 99 % MTTFd < 100 years |
| Insulation | 250 V AC between power supply and housing EN/IEC 61800-5-1 |
| Overvoltage category | II |
| Electromagnetic compatibility | Electrostatic discharge immunity test 6 kV on contact) EN/IEC 61000-4-2 Electrostatic discharge immunity test 20 kV on air) EN/IEC 61000-4-2 Susceptibility to electromagnetic fields 10 V/m 80...1000 MHz) EN/IEC 61000-4-3 Susceptibility to electromagnetic fields 30 V/m 1.4 GHz...2 GHz) EN/IEC 61000-4-3 |
| Vibration resistance | +/-0.35 mm 10...55 Hz)EN/IEC 61496-1 |
| Shock resistance | 10 gn 16 ms) 1000 shocks on each axis EN/IEC 61496-1 |
| Service Life | 20 year(s) |

Ordering and shipping details

| | |
|-----------------------|-----------------------------------|
| Category | 22477 - SAFETY MODULES (PREVENTA) |
| Discount Schedule | SAF2 |
| GTIN | 3606481987082 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 9.24 oz (262 g) |

| | |
|-------------------|----|
| Returnability | No |
| Country of origin | IT |

Packing Units

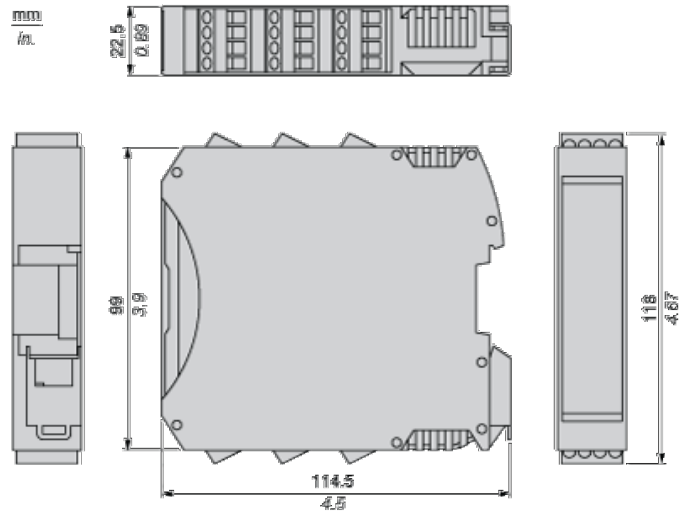
| | |
|------------------------------|------------------------|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 1.77 in (4.5 cm) |
| Package 1 width | 5.04 in (12.8 cm) |
| Package 1 Length | 6.46 in (16.4 cm) |
| Unit Type of Package 2 | S01 |
| Number of Units in Package 2 | 6 |
| Package 2 Weight | 4.05 lb(US) (1.838 kg) |
| Package 2 Height | 5.91 in (15 cm) |
| Package 2 width | 5.91 in (15 cm) |
| Package 2 Length | 15.75 in (40 cm) |

Offer Sustainability

| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| 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 |
| 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 |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS Declaration |
| 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. |

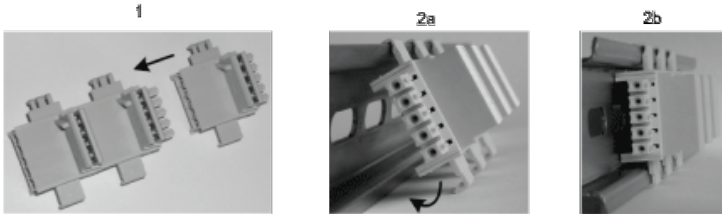
Dimensions

Spring Terminal



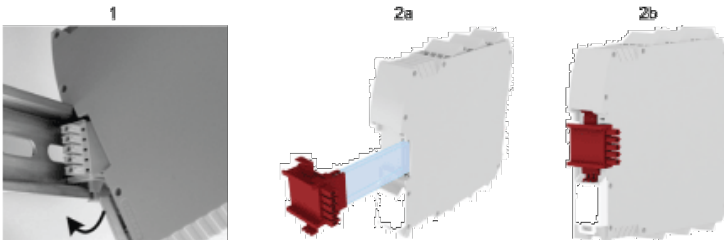
Mounting Safety Controller CPU with Module(s)

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).

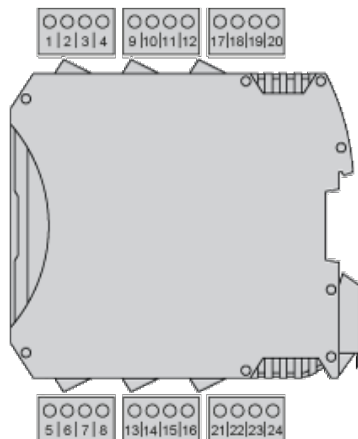
Mount Safety Controller CPU with Other Module(s)



- 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

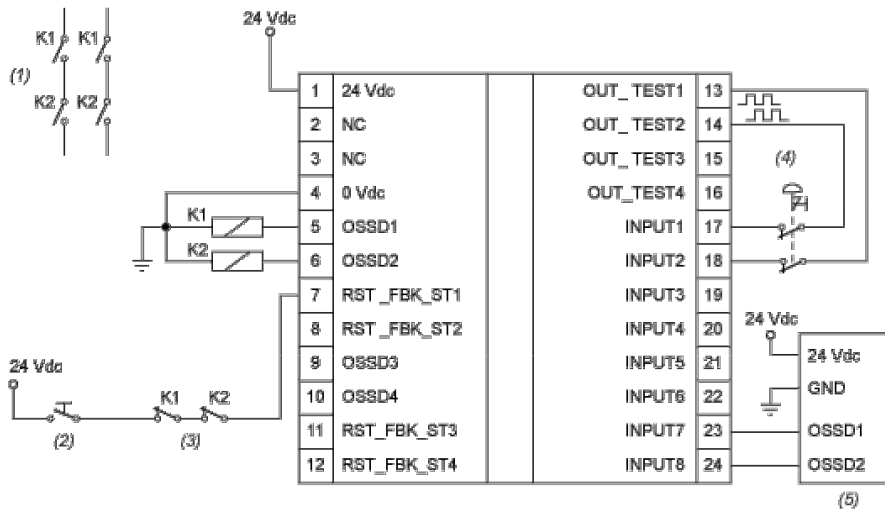
Terminal Designation



| Terminal | Signal | Description |
|---------------------------------|-----------------------|--|
| 1 | 24 VDC | 24 Vdc power supply |
| 2 | NC | – |
| 3 | NC | – |
| 4 | 0 VDC | 0 Vdc power supply |
| 5 | OSSD1 | Safety-related output 1 |
| 6 | OSSD2 | Safety-related output 2 |
| 7 | RESTART_FBK1/ STATUS1 | Feedback/Restart 1 for OSSD1 |
| Configurable output 1 for OSSD1 | | |
| 8 | RESTART_FBK2/ STATUS2 | Feedback/Restart 2 for OSSD2 |
| Configurable output 2 for OSSD2 | | |
| 9 | OSSD3 | Safety-related output 3 |
| 10 | OSSD4 | Safety-related output 4 |
| 11 | RESTART_FBK3/ STATUS3 | Feedback/Restart 3 for OSSD3 |
| Configurable output 3 for OSSD3 | | |
| 12 | RESTART_FBK4/ STATUS4 | Feedback/Restart 4 for OSSD2 |
| Configurable output 4 for OSSD2 | | |
| 13 | OUT_TEST1 | Test output for detection of short circuits/cross circuits in input circuits |
| 14 | OUT_TEST2 | |
| 15 | OUT_TEST3 | |
| 16 | OUT_TEST4 | |
| 17 | INPUT1 | Safety-related input 1 |
| 18 | INPUT2 | Safety-related input 2 |
| 19 | INPUT3 | Safety-related input 3 |
| 20 | INPUT4 | Safety-related input 4 |
| 21 | INPUT5 | Safety-related input 5 |

| Terminal | Signal | Description |
|----------|--------|------------------------|
| 22 | INPUT6 | Safety-related input 6 |
| 23 | INPUT7 | Safety-related input 7 |
| 24 | INPUT8 | Safety-related input 8 |

Wiring Example



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