

# XPSMCMEN0100SC

## Speed monitoring 1 Sin/Cos encoder expansion module with screw term



### Main

|                           |                              |
|---------------------------|------------------------------|
| Range of Product          | Preventa Safety automation   |
| Product or Component Type | Safe speed monitoring module |
| Device short name         | XPSMCM                       |
| Electrical Connection     | Screw terminal               |
| [Us] rated supply voltage | 24 V - 20...20 % DC          |
| Discrete input voltage    | 24 V DC                      |
| Function of module        | Speed monitoring             |

### Complementary

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Consumption in W     | 3 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Power dissipation in W     | 3 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Integrated connection type | Backplane expansion bus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Safety level               | Can reach category 4 EN/ISO 13849-1<br>Can reach PL = e EN/ISO 13849-1<br>Type 4 EN/IEC 61496-1<br>SILCL 3 IEC 62061                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Quality labels             | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Number of terminal blocks  | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Local signalling           | 1 LED green PWR power ON<br>1 LED green RUN RUN (status)<br>1 LED red E IN internal error<br>1 LED red E EX external error<br>2 LEDs orange ADDR node address<br>1 LED yellow ENC encoder connection status<br>2 LEDs yellow PROX proximity sensors connection status<br>2 LEDs yellow SH speed monitoring status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Connections - terminals    | 2 captive screw clamp terminals, removable terminal block<br>1 captive screw clamp terminals, removable terminal block                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Maximum input frequency    | 5 KHz sensor<br>500 kHz encoder SinCos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Sensor Type                | Inductive proximity sensor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Electrical connection      | 1 connector RJ45 EIA/TIA-568-A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Cable cross section        | 0.00...0.00 In <sup>2</sup> (0.2...2.5 mm <sup>2</sup> ) - AWG 24...AWG 14 flexible without cable end<br>0.00...0.00 In <sup>2</sup> (0.2...2.5 mm <sup>2</sup> ) - AWG 24...AWG 14 solid without cable end<br>0.00...0.00 In <sup>2</sup> (0.25...2.5 mm <sup>2</sup> ) - AWG 23...AWG 14 flexible with cable end, with bezel<br>0.00...0.00 In <sup>2</sup> (0.25...2.5 mm <sup>2</sup> ) - AWG 23...AWG 14 flexible with cable end, without bezel<br>0.00...0.00 In <sup>2</sup> (0.2...1.5 mm <sup>2</sup> ) - AWG 24...AWG 16 flexible without cable end<br>0.00...0.00 In <sup>2</sup> (0.25...1 mm <sup>2</sup> ) - AWG 23...AWG 18 flexible with cable end, without bezel<br>0.00...0.00 In <sup>2</sup> (0.5...1.5 mm <sup>2</sup> ) - AWG 20...AWG 16 flexible with cable end, with double bezel<br>0.00...0.00 in <sup>2</sup> (0.2...1 mm <sup>2</sup> ) - AWG 24...AWG 18 solid without cable end |
| Mounting support           | Omega 35 mm DIN rail EN 50022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Depth                      | 0.89 in (22.5 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Height                     | 3.90 in (99 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Width                      | 4.51 in (114.5 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Net Weight                 | 0.62 lb(US) (0.28 kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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## Environment

|                                        |                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                              | EN/IEC 61496-1<br>EN/IEC 61508<br>EN/IEC 61800-5-1<br>IEC 62061<br>EN/ISO 13849-1                                                                                                                                                                                                                                       |
| Product Certifications                 | CULus<br>TÜV<br>RCM                                                                                                                                                                                                                                                                                                     |
| IP degree of protection                | IP20 enclosure)                                                                                                                                                                                                                                                                                                         |
| 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                                                                                                                                                                                                                                                                                                     |
| 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<br>Electrostatic discharge immunity test 20 kV on air) EN/IEC 61000-4-2<br>Susceptibility to electromagnetic fields 10 V/m 80...1000 MHz) EN/IEC 61000-4-3<br>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                  | 3606480748707                   |
| Nbr. of units in pkg. | 1                               |
| Package weight(Lbs)   | 8.01 oz (227.0 g)               |
| Returnability         | No                              |
| Country of origin     | IT                              |

## Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Package 1 Height             | 1.65 in (4.2 cm)       |
| Package 1 width              | 4.92 in (12.5 cm)      |
| Package 1 Length             | 6.34 in (16.1 cm)      |
| Unit Type of Package 2       | S01                    |
| Number of Units in Package 2 | 6                      |
| Package 2 Weight             | 3.50 lb(US) (1.587 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)       |

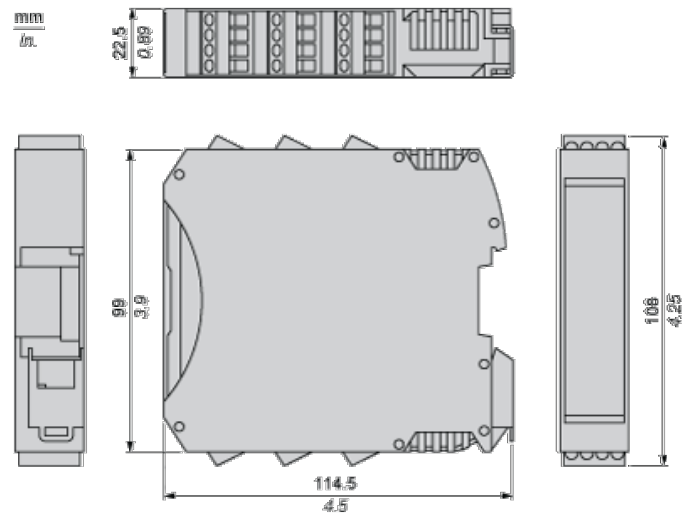
## Offer Sustainability

|                           |                                                                                                                                                                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation          |  <a href="#">REACH Declaration</a>                                                                                                                                                                       |
| REACH free of SVHC        | Yes                                                                                                                                                                                                                                                                                         |
| EU RoHS Directive         | Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a>                                                                                                        |

|                            |                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Mercury free               | Yes                                                                                                                             |
| RoHS exemption information |  <a href="#">Yes</a>                           |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>        |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a> |
| Circularity Profile        |  <a href="#">End Of Life Information</a>       |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.    |
| PVC free                   | Yes                                                                                                                             |

Dimensions

Screw Terminal

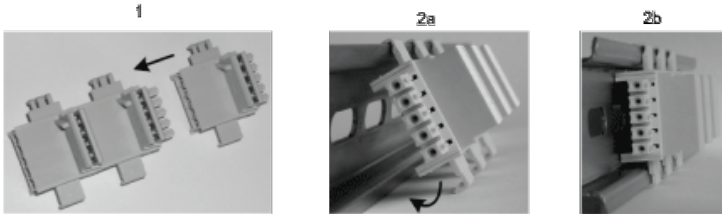


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Mounting Safety Controller CPU with Module(s)

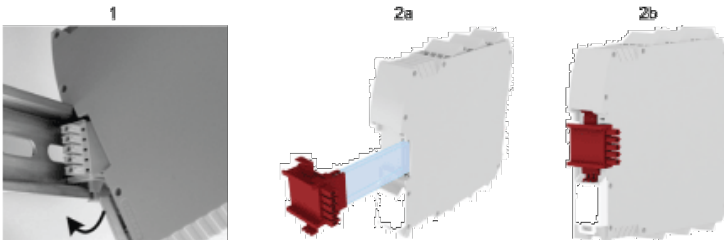
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Mount BackPlane Connector on Rail



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

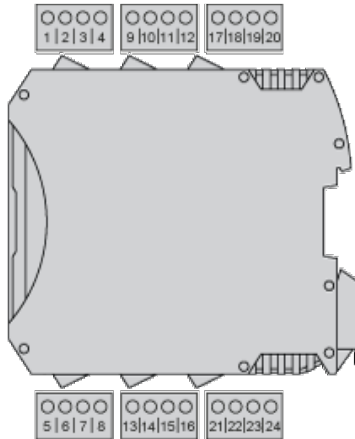
Mount Safety Controller CPU with Other Module(s)



- 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        | NODE_ADDR0    | Node selection          |
| 3        | NODE_ADDR1    |                         |
| 4        | 0 VDC         | 0 Vdc power supply      |
| 5        | PROXY1_24V    | PROXIMITY 1 connections |
| 6        | PROXY1_REF    |                         |
| 7        | PROXY1_NO     |                         |
| 8        | PROXY1_NC     |                         |
| 9        | PROXY2_24V    | PROXIMITY 2 connections |
| 10       | PROXY2_REF    |                         |
| 11       | PROXY2_NO     |                         |
| 12       | PROXY2_NC     |                         |
| 13       | not connected | not connected           |
| 14       |               |                         |
| 15       |               |                         |
| 16       |               |                         |