

# Product datasheet

Specifications



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

XPSMCMEN0100SCG

### Main

|                           |                              |
|---------------------------|------------------------------|
| Range of product          | Preventa Safety automation   |
| Product or component type | Safe speed monitoring module |
| Device short name         | XPSMCM                       |
| Electrical connection     | Spring 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 conforming to EN/ISO 13849-1<br>Can reach PL = e conforming to EN/ISO 13849-1<br>Type 4 conforming to EN/IEC 61496-1<br>SILCL 3 conforming to IEC 62061                                                                                                                                                                                                                                                                              |
| Quality labels             | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Number of terminal blocks  | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Local signalling           | 1 LED green with PWR marking for power ON<br>1 LED green with RUN marking for RUN (status)<br>1 LED red with E IN marking for internal error<br>1 LED red with E EX marking for external error<br>2 LEDs orange with ADDR marking for node address<br>1 LED yellow with ENC marking for encoder connection status<br>2 LEDs yellow with PROX marking for proximity sensors connection status<br>2 LEDs yellow with SH marking for speed monitoring status |
| Connections - terminals    | 1 spring clamp terminals, removable terminal block<br>2 spring clamp terminals, removable terminal block                                                                                                                                                                                                                                                                                                                                                  |
| Maximum input frequency    | 5 kHz for sensor<br>500 kHz for encoder SinCos                                                                                                                                                                                                                                                                                                                                                                                                            |
| Sensor type                | Inductive proximity sensor                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Electrical connection      | 1 connector RJ45 conforming to EIA/TIA-568-A                                                                                                                                                                                                                                                                                                                                                                                                              |
| Cable cross section        | 0.2...2.5 mm² - AWG 24...AWG 14 flexible cablewithout cable end<br>0.2...2.5 mm² - AWG 24...AWG 14 solid cablewithout cable end<br>0.25...2.5 mm² - AWG 23...AWG 14 flexible cablewith cable end, with bezel<br>0.25...2.5 mm² - AWG 23...AWG 14 flexible cablewith cable end, without bezel<br>0.5...1 mm² - AWG 20...AWG 18 flexible cablewith cable end, with double bezel                                                                             |
| Mounting support           | Omega 35 mm DIN rail conforming to EN 50022                                                                                                                                                                                                                                                                                                                                                                                                               |
| Depth                      | 22.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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

|                |          |
|----------------|----------|
| Height         | 99 mm    |
| Width          | 114.5 mm |
| Product weight | 0.28 kg  |

## Environment

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                              | EN/IEC 61800-5-1<br>IEC 62061<br>EN/IEC 61508<br>EN/ISO 13849-1<br>EN/IEC 61496-1                                                                                                                                                                                                                                                                                                                                                           |
| Product certifications                 | RCM<br>cULus<br>TÜV                                                                                                                                                                                                                                                                                                                                                                                                                         |
| IP degree of protection                | IP20 (enclosure)                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 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 EN/IEC 61800-5                                                                                                                                                                                                                                                                                                                                                                                                           |
| Insulation                             | 250 V AC between power supply and housing conforming to EN/IEC 61800-5-1                                                                                                                                                                                                                                                                                                                                                                    |
| Overvoltage category                   | II                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Electromagnetic compatibility          | Electrostatic discharge immunity test - test level: 6 kV (on contact) conforming to EN/IEC 61000-4-2<br>Electrostatic discharge immunity test - test level: 20 kV (on air) conforming to EN/IEC 61000-4-2<br>Susceptibility to electromagnetic fields - test level: 10 V/m (80...1000 MHz) conforming to EN/IEC 61000-4-3<br>Susceptibility to electromagnetic fields - test level: 30 V/m (1.4 GHz...2 GHz) conforming to EN/IEC 61000-4-3 |
| Vibration resistance                   | +/-0.35 mm (f= 10...55 Hz) conforming to EN/IEC 61496-1                                                                                                                                                                                                                                                                                                                                                                                     |
| Shock resistance                       | 10 gn (duration = 16 ms) for 1000 shocks on each axis conforming to EN/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             | 4.5 cm   |
| Package 1 Width              | 12.8 cm  |
| Package 1 Length             | 16.2 cm  |
| Package 1 Weight             | 241.0 g  |
| Unit Type of Package 2       | S01      |
| Number of Units in Package 2 | 6        |
| Package 2 Height             | 15.0 cm  |
| Package 2 Width              | 15.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 1.688 kg |

# Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## 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                      | <a href="#">Compliant</a>                                                   |
| REACH Regulation                       | <a href="#">Free of Substances of Very High Concern above the threshold</a> |
| PVC free                               | Yes                                                                         |

### Use Longer

| Lifetime extension |    |
|--------------------|----|
| Repair             | No |

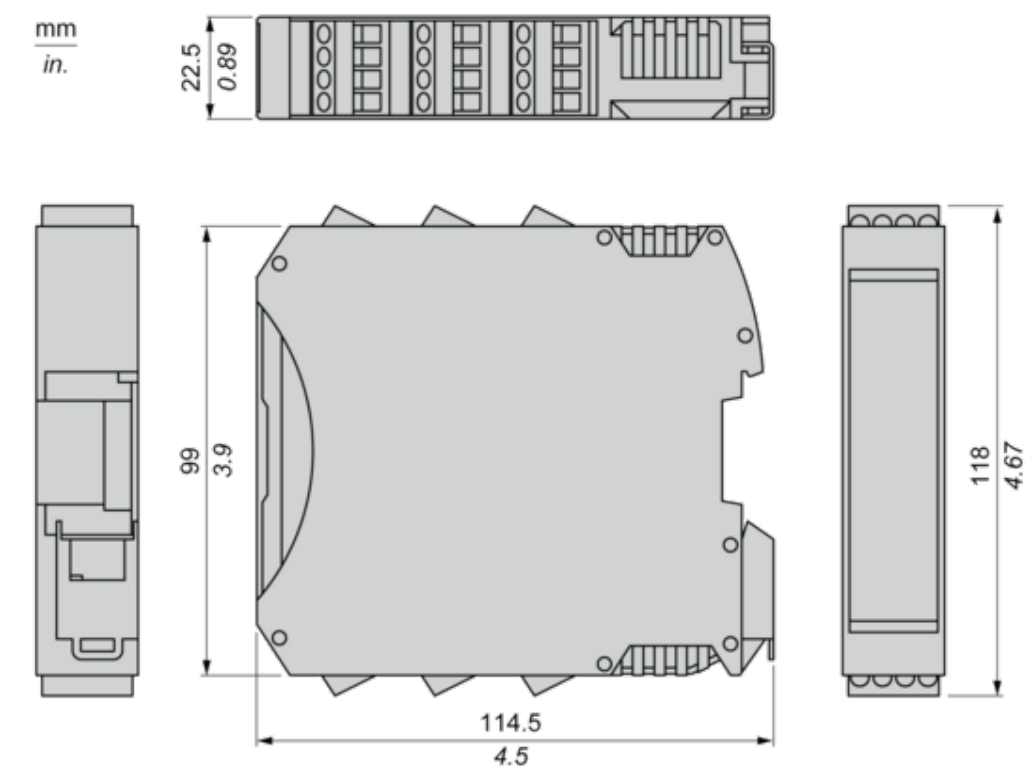
### Use Again

| 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 |

Dimensions Drawings

Dimensions

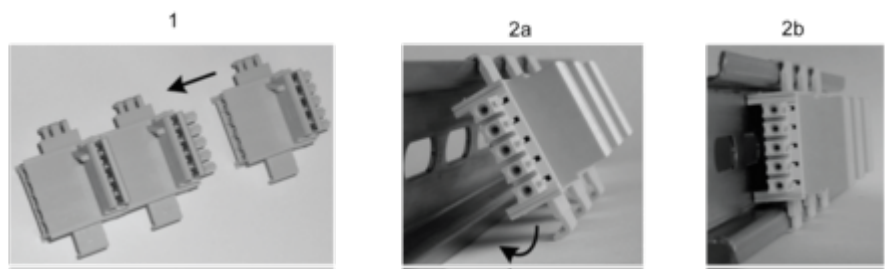
Spring Terminal



Mounting and Clearance

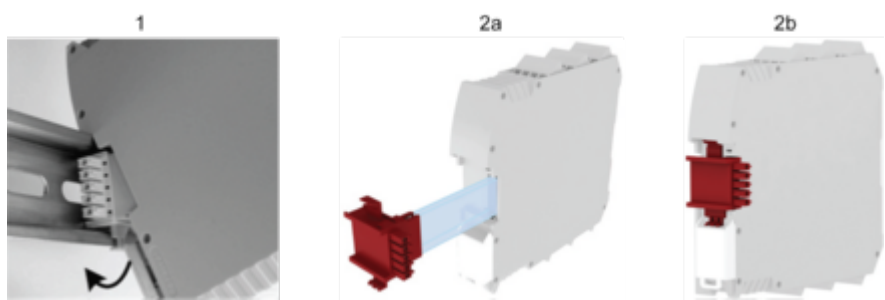
Mounting Safety Controller CPU with Module(s)

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)

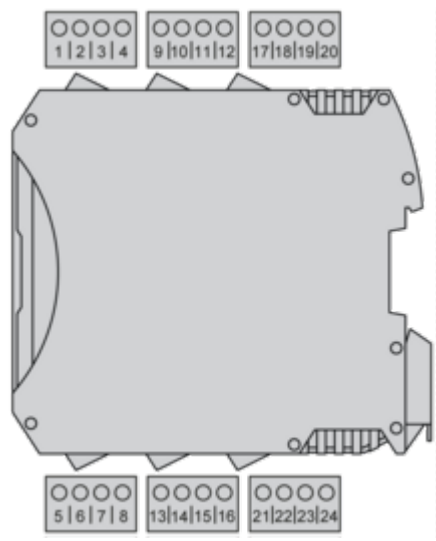


- 1 : Mount controller CPU and modules on rail.
- 2 : Make sure that the controller CPU or the module(s) are plugged on the BackPlane connector.

Connections and Schema

Wiring

Terminal Designation



| Terminal | Signal        | Description             |
|----------|---------------|-------------------------|
| 1        | 24 VDC        | 24 VDC power supply     |
| 2        | 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       |               |                         |



Technical Illustration

Dimensions

