# **Product datasheet**

Specification





## communication module, EcoStruxure I/O Smart Link, Modbus, RS485

A9XMSB11

### Main

| Range Of Product                | EcoStruxure  |  |
|---------------------------------|--|--|
| Product Name                    | EcoStruxure I/O Smart Link                                     |  |
| Product Or Component Type       | Smart communication module                                     |  |
| Device Short Name               | I/O Smart Link   |  |
| Application Type                | Load control Breaker status monitoring Basic energy metering E |  |
| Number Max Of Connected Devices | Up to 11 wired devices   |  |
| Group Of Channels               | 1 group of 11 digital channels                                 |  |
| Maximum Supply Current          | 1.5 A  |  |
| [Us] Rated Supply Voltage       | 24 V DC +/- 20 %   |  |
| Connectivity To Devices         | Digital input and output<br>Pulse output meter                 |  |
| Communication Service           | Modbus server for RS485  |  |
| Web Server                      | BMS controller compatible                                      |  |
| Web Services                    | Web page   |  |

### Complementary

| Application Specific I/O  | Pulse totalising counter Pulse converter                   |
|---------------------------|--|
| Protection Type           | Against reverse polarity for auxiliary supply              |
|                           | Against reverse polarity for input                         |
|                           | Overvoltage at 33 V DC for digital output                  |
| Immunity To Microbreaks   | 10 ms  |
| Reset                     | Factory reset on front face                                |
|                           | By booted push-button                                      |
|                           | By address encoder   |
|                           | By plug in, plug out the power supply                      |
| Input/Output Type         | 2 inputs + 1 output per digital channel                    |
| Input Type                | Current sink for digital input, 24 V DC +/- 20 % at 2.5 mA |
| Maximum Permanent Current | 5 mA for digital input                                     |
| Electronic Filtering Time | 2 ms for digital input from state 0 to state 1             |
| Output Type               | Logic current source: 24 V - DC - 100 mA                   |
| Maximum Voltage Drop      | <1 V at state 1 digital output                             |
| Inrush Current            | 0.5 A for digital output                                   |
|                           | 7 A for power supply                                       |

| Local Signalling             | Communication: 1 LED (yellow) Status: 1 LED (green, orange and red)   |
|------------------------------|---|
| Tuno Of Sotting              |   |
| Type Of Setting              | Modbus address 0199 for address encoders Reset for address encoders   |
|                              | Reset for plug in, plug out the auxiliary supply  |
| Mounting Position            | Horizontal and vertical on DIN rail   |
| Colour                       | White (RAL 9003)  |
| Location Of Connection       | Front   |
| Connections - Terminals      | Spring-loaded terminal Ti24 qty: 11 for digital input/output, ordered separately  |
|                              | Plug-in connector qty: 1 for supply circuit Plug-in connector qty: 1 for communication bus                                    |
| Clamping Connection Capacity | 2 x 0.22 x 1.5 mm² for twisted shielded pairs cable, flexible with cable end for  |
|                              | communication bus $2 \times 0.22 \times 1.5 \text{ mm}^2$ for twisted shielded pairs cable, flexible without cable end for    |
|                              | communication bus 2 x 0.22 x 1.5 mm² for twisted shielded pairs cable, rigid with cable end for                               |
|                              | communication bus   |
|                              | 2 x 0.22 x 1.5 mm² for twisted shielded pairs cable, rigid without cable end for communication bus                            |
|                              | 1 x 0.21 x 1.5 mm², flexible with cable end for control   |
|                              | 1 x 0.21 x 1.5 mm², flexible without cable end for control 1 x 0.21 x 1.5 mm², rigid with cable end for control               |
|                              | 1 x 0.21 x 1.5 mm², rigid without cable end for control   |
|                              | 2 x 0.22 x 1.5 mm², flexible with cable end for supply circuit  |
|                              | 2 x 0.22 x 1.5 mm², flexible without cable end for supply circuit 2 x 0.22 x 1.5 mm², rigid with cable end for supply circuit |
|                              | 2 x 0.22 x 1.5 mm², rigid with cable end for supply circuit   |
| Wire Stripping Length        | Control: 10 mm  |
|                              | Supply circuit: 7 mm  |
|                              | Communication bus: 7 mm   |
| Communication Network Type   | RS485 Modbus RTU client/server SUB-D 9 4800 bps, 9600 bps, 19200 bps, 38.4 Kbps   |
| 9 Mm Pitches                 | 0 useful  |
| Height                       | 22.5 mm   |
| Width                        | 359 mm  |
| Depth                        | 42 mm   |
| Net Weight                   | 188 g   |
| Provided Equipment           | Set of 1 bus connector  |
|                              | Set of 1 power supply connector Set of 2 locking clips  |
| Range Compatibility          | Acti 9 iTL auxiliary  |
| go companions                | Linergy Linergy FM  |
|                              | Acti 9 iOF+SD 24  |
|                              | Acti 9 iACT24 Acti 9 iATL24   |
|                              | PowerLogic pulse output meter   |
|                              | Acti 9 RCA iC60   |
|                              | Acti 9 Acti9 iCT auxiliary Acti 9 Acti9 iC60  |
|                              | Acti 9 Acti9 iID  |
|                              | Acti 9 Acti9 iSW-NA   |
|                              | Acti 9 Acti9 iDPN Vigi  |
|                              | Acti 9 Acti9 C40<br>Multi9 Multi9 C60   |
|                              | Acti 9 Acti9 DT40   |
|                              | Acti 9 Acti9 DT60   |
|                              | Acti 9 Acti9 I-NA   |
|                              | Acti 9 Acti9 ITG40<br>Acti 9 Acti9 iDPN   |
|                              | Acti 9 Acti9 Reflex iC60 Ti24 connector   |
| Commissioning Interface      | EcoStruxure Power Commission  |
|                              | Web page  |

| Market Segment     | Buildings<br>Small commercial |
|--------------------|-------------------------------|
| Compatibility Code | Acti 9 Smartlink              |
| <b></b>            |                               |

#### **Environment**

| Ip Degree Of Protection                  | IP20   |  |
|--|--|--|
| Ik Degree Of Protection                  | IK06 conforming to IEC 62262   |  |
| Pollution Degree                         | 3  |  |
| Electromagnetic Compatibility            | Resistance to electrostatic discharge (air discharge), class B, 8 kV, conforming to IEC 61000-4-2 Resistance to electrostatic discharge (contact discharge), class B, 4 kV, conforming to IEC 61000-4-2 Resistance to radiated electromagnetic fields (80 MHz3 GHz), class A, 10 V/m, conforming to IEC 61000-4-3 Power supply: resistance to radiated electromagnetic fields (1.46 GHz), class A, 3 V/m, conforming to IEC 61000-4-3 Power supply: resistance to fast transient (5100 kHz), class B, 2 kV, conforming to IEC 61000-4-4 Input/output: resistance to fast transient, class B, 1 kV, conforming to IEC 61000-4-4 Communication bus: resistance to fast transient (0.1580 MHz), class B, 1 kV, conforming to IEC 61000-4-4 Conducted EMC (0.1580 MHz), class A, 3 V, conforming to IEC 61000-4-6 Conducted emission (0.1530 MHz), class B, conforming to IEC 61026-1 Conducted emission (0.1530 MHz), class B, conforming to IEC 61326-1 Radiated emission (306000 MHz), class B, conforming to IEC 61326-1 Radiated emission (306000 MHz), class B, conforming to IEC 61326-1 Radiated emission (306000 MHz), class B, conforming to IEC 61326-1 Power supply: surges (DM coupling 42 Ohm), class B, 1 kV, conforming to IEC 61000-4-5 Power supply: surges (CM coupling 42 Ohm), class B, 1 kV, conforming to IEC 61000-4-5 Communication bus: surges (CM coupling 2 Ohm), class B, 1 kV, conforming to IEC 61000-4-5 |  |
| Environmental Characteristic             | Corrosive 3C2 conforming to IEC 60721-3-3 Salt mist 2 conforming to IEC 60068-2-52   |  |
| Vibration Resistance                     | 1 gn, amplitude = 3.5 mm (f = 5300 Hz)10 cycles conforming to EN/IEC 60068-2-6   |  |
| Shock Resistance                         | 15 gn for 11 ms conforming to IEC 60068-2-27   |  |
| Fire Resistance                          | Other parts: 650 °C ( 30 s ) conforming to IEC 60695-2-10 On connection terminals: 960 °C ( 30 s ) conforming to IEC 60695-2-10  |  |
| Tropicalisation                          | 2  |  |
| Relative Humidity                        | 093 % at 40 °C   |  |
| Operating Altitude                       | 02000 m  |  |
| Ambient Air Temperature For<br>Operation | -2560 °C   |  |
| Ambient Air Temperature For<br>Storage   | -4085 °C   |  |
| Standards                                | IEC 61010-2-201<br>IEC 61010-1   |  |

## **Packing Units**

| Unit Type Of Package 1       | PCE     |
|------------------------------|---------|
| Number Of Units In Package 1 | 1       |
| Package 1 Height             | 3.4 cm  |
| Package 1 Width              | 6.4 cm  |
| Package 1 Length             | 36.4 cm |
| Package 1 Weight             | 271.0 g |
| Unit Type Of Package 2       | S03     |

| Number Of Units In Package 2 | 32       |
|------------------------------|----------|
| Package 2 Height             | 30.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 9.063 kg |

## **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

### Well-being performance



Rohs Exemption Information

#### **Certifications & Standards**

| Reach Regulation         | REACh Declaration  |
|--------------------------|--|
| Eu Rohs Directive        | Pro-active compliance (Product out of EU RoHS legal scope) |
| China Rohs Regulation    | China RoHS declaration                                     |
| Environmental Disclosure | Product Environmental Profile                              |
| Circularity Profile      | End of Life Information                                    |