



Gateway for XI/ON I/O system, integrated, bus refresh with

**Part no.** XN-GWBR-CANOPEN  
**Catalog No.** 140155

**EL-Nummer (Norway)** 0004520686

### Delivery program

|  |  |  |  |
|--|--|--|--|
| Function   |  |  | Gateways XI/ON   |
| Function   |  |  | XN-Gateway with integrated supply  |
| Short Description  |  |  | supports up to 74 disc-type modules (XN, XNE)<br>1 x Open Style Connector<br>Address set with two decimal rotary coding switches<br>Address range: 1 – 99 (dec.) |
| Field bus connection   |  |  | CANopen®   |
| Terminal capacity (field bus/supply voltage)   |  |  | Screw terminals  |
| Service interface  |  |  | PS/2 socket  |
| Data transfer rate   |  |  | 1000 Kbit/s<br>800 Kbit/s<br>500 Kbit/s<br>250 Kbit/s<br>125 kbit/s<br>50 Kbit/s<br>20 Kbit/s<br>10 Kbit/s   |
| Instructions Bus refreshing module is already integrated.  |  |  |  |
| Information about equipment supplied The delivery package for all gateways includes: 2 x end bracket XN-WEW-32/2-SW, 1 x end plate XN-ABPL |  |  |  |

### Technical data

#### General

|   |  |     |   |
|---|--|-----|---|
| Standards                                       |  |     | EN 61000-6-2<br>EN 61000-6-4<br>EN 61131-2  |
| Approvals                                       |  |     |   |
| Approvals                                       |  |     | CE, cULus   |
| Potential isolation                             |  |     | Yes, through optocoupler  |
| Ambient temperature                             |  | °C  | 0 - +55   |
| Storage   | ø                                      | °C  | -25 - +85   |
| Relative humidity                               |  |     | 5 - 95 % (indoor), Level RH-2, no condensation (for storage at 45°C)  |
| Harmful gases                                   |  | ppm | SO <sub>2</sub> : 10 (rel. humidity < 75%, no condensation)<br>H <sub>2</sub> S: 1.0 (rel. humidity < 75 %,no condensation) |
| Vibration                                       |  |     | according to IEC/EN 60068-2-6   |
| Mechanical shock resistance                     |  | g   | according to IEC 60068-2-27   |
| Continuous shock resistance (IEC/EN 60068-2-29) |  |     | According to IEC 60068-2-29   |
| Drop and topple                                 |  |     | According to IEC 60068-2-31, free fall according to IEC 60068-2-32  |
| Degree of Protection                            |  |     | IP20  |
| Electromagnetic compatibility (EMC)             |  |     |   |
| ESD   | Air/contact discharge                  | kV  | EN 61000-4-2  |
| Electromagnetic fields                          | (0.08...1) / (1,4...2) / (2...2,7) GHz | V/m | EN 61100-4-2  |
| Burst   |  |     | EN 61100-4-4  |
| Surge   |  |     | EN 61100-4-5  |
| Radiated RFI                                    |  | V   | EN 61100-4-6  |
| Emitted interference (radiated, high frequency) | (30...230 MHz) / (230...1000 MHz)      | dB  | EN 55016-2-3  |
| Voltage fluctuations/voltage dips               |  |     | EN 61131-2  |
| Type test                                       |  |     | to EN 61131-2   |

|  |          |   |                |
|--|----------|---|----------------|
| Approvals                                      |          |   | CE, cULus      |
| Static heat dissipation, non-current-dependent | $P_{vs}$ | W | 10             |
| Other technical data (sheet catalogue)         |          |   | Technical Data |

### Terminations

|                                    |  |                 |  |
|------------------------------------|--|-----------------|--|
| Rated data                         |  |                 | according to VDE 0611 Part 1/8.92/IEC/EN 60947-7-1 |
| Connection design in TOP direction |  |                 | Spring-loaded/screw terminal                       |
| Stripping length                   |  | mm              | 8  |
| Clamping range                     |  |                 | max. 0.5 - 2.5 mm <sup>2</sup>                     |
| Connectable conductors             |  |                 |  |
| Solid                              |  | mm <sup>2</sup> | 0.5 - 2.5  |
| Flexible without ferrule           |  | mm <sup>2</sup> | 0.5 - 1.5  |
| Flexible with ferrule              |  | mm <sup>2</sup> | 0.5 - 1.5  |
| Flexible with ferrule              |  | mm <sup>2</sup> | 0.5 - 1.5  |
| Gauge pin IEC/EN 60947-1           |  |                 | A1   |

### Networking

|                                 |           |        |   |
|---------------------------------|-----------|--------|---|
| Bus                             |           |        | CANopen®  |
| Bus protocol                    |           |        | CANopen®  |
| Maximum station configuration   |           |        | 74 cards (XN, XNE) of slice design or max. length of station: 1 m |
| System supply                   | $U_{sys}$ | V DC   | 24/5  |
| Coordination type "2"           | $U_{sys}$ | V DC   | 4.7 ... 5.3   |
| Coordination type "1"           | $U_{sys}$ | V DC   | 18 ... 30   |
| Field voltage                   | $U_L$     |        | 24 V DC   |
| Admissible range                |           |        | 18-30 V DC  |
| Residual ripple                 |           | %      | According to EN 61131-2   |
| Service interface               |           |        | PS/2 socket   |
| Connection design for field bus |           |        | Open style connector  |
| Data transfer rate              |           | kBit/s | 10, 20, 50, 125, 250, 500, 800, 1000                              |
| Data transfer rate setting      |           |        | Via DIP switch  |
| Addressing                      |           |        | 2 decimal rotary coding switch                                    |
| Field bus termination           |           |        | External  |
| Address range                   |           |        | 1 - 99 decimal  |

## Design verification as per IEC/EN 61439

|  |            |    |  |
|--|------------|----|--|
| Technical data for design verification   |            |    |  |
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 0  |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 0  |
| Equipment heat dissipation, current-dependent  | $P_{vid}$  | W  | 0  |
| Static heat dissipation, non-current-dependent   | $P_{vs}$   | W  | 10   |
| Heat dissipation capacity  | $P_{diss}$ | W  | 0  |
| Operating ambient temperature min.   |            | °C | 0  |
| Operating ambient temperature max.   |            | °C | 55   |
| Degree of Protection   |            |    | IP20   |
| IEC/EN 61439 design verification   |            |    |  |
| 10.2 Strength of materials and parts   |            |    |  |
| 10.2.2 Corrosion resistance  |            |    |  |
| 10.2.3.1 Verification of thermal stability of enclosures   |            |    | Meets the product standard's requirements.                         |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat   |            |    | Meets the product standard's requirements.                         |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects |            |    | Meets the product standard's requirements.                         |
| 10.2.4 Resistance to ultra-violet (UV) radiation   |            |    | Meets the product standard's requirements.                         |
| 10.2.5 Lifting   |            |    | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact   |            |    | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 Inscriptions  |            |    | Meets the product standard's requirements.                         |
| 10.3 Degree of protection of ASSEMBLIES  |            |    | Meets the product standard's requirements.                         |

|  |  |  |
|--|--|--|
| 10.4 Clearances and creepage distances                   |  | Meets the product standard's requirements.   |
| 10.5 Protection against electric shock                   |  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.6 Incorporation of switching devices and components   |  | Does not apply, since the entire switchgear needs to be evaluated.   |
| 10.7 Internal electrical circuits and connections        |  | Is the panel builder's responsibility.   |
| 10.8 Connections for external conductors                 |  | Is the panel builder's responsibility.   |
| 10.9 Insulation properties                               |  |  |
| 10.9.2 Power-frequency electric strength                 |  | Is the panel builder's responsibility.   |
| 10.9.3 Impulse withstand voltage                         |  | Is the panel builder's responsibility.   |
| 10.9.4 Testing of enclosures made of insulating material |  | Is the panel builder's responsibility.   |
| 10.10 Temperature rise                                   |  | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating                               |  | Is the panel builder's responsibility.   |
| 10.12 Electromagnetic compatibility                      |  | Is the panel builder's responsibility.   |
| 10.13 Mechanical function                                |  | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |

## Technical data ETIM 7.0

PLC's (EG000024) / Fieldbus, decentr. periphery - communication module (EC001604)

Electric engineering, automation, process control engineering / Control / Field bus, decentralized peripheral / Field bus, decentralized peripheral - communications module (ec@ss10.0.1-27-24-26-08 [BAA073013])

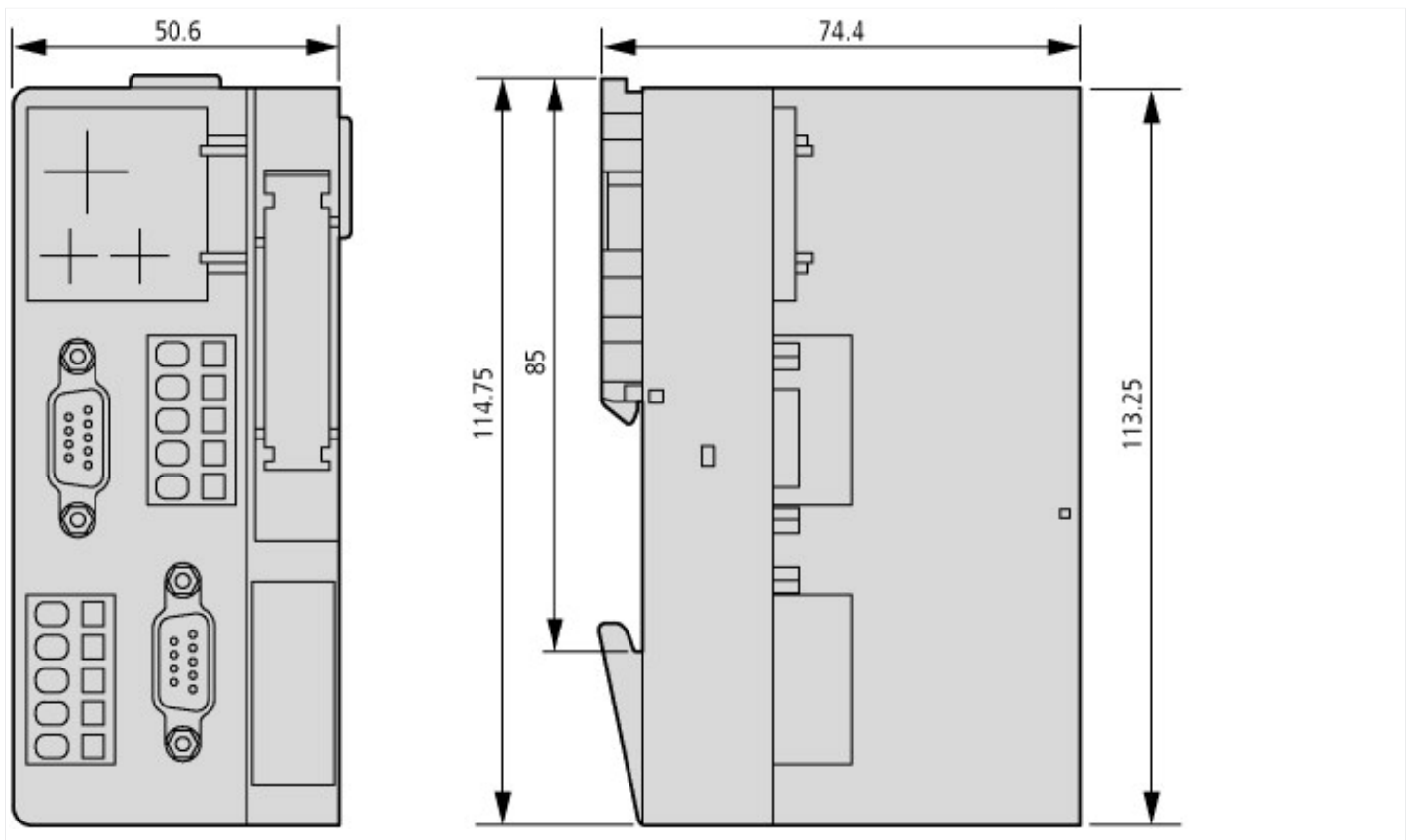
|  |   |         |
|--|---|---------|
| Supply voltage AC 50 Hz                                | V | 0 - 0   |
| Supply voltage AC 60 Hz                                | V | 0 - 0   |
| Supply voltage DC                                      | V | 18 - 30 |
| Voltage type of supply voltage                         |   | DC      |
| Supporting protocol for TCP/IP                         |   | No      |
| Supporting protocol for PROFIBUS                       |   | No      |
| Supporting protocol for CAN                            |   | Yes     |
| Supporting protocol for INTERBUS                       |   | No      |
| Supporting protocol for ASI                            |   | No      |
| Supporting protocol for KNX                            |   | No      |
| Supporting protocol for MODBUS                         |   | No      |
| Supporting protocol for Data-Highway                   |   | No      |
| Supporting protocol for DeviceNet                      |   | No      |
| Supporting protocol for SUCONET                        |   | No      |
| Supporting protocol for LON                            |   | No      |
| Supporting protocol for SERCOS                         |   | No      |
| Supporting protocol for PROFINET IO                    |   | No      |
| Supporting protocol for PROFINET CBA                   |   | No      |
| Supporting protocol for Foundation Fieldbus            |   | No      |
| Supporting protocol for EtherNet/IP                    |   | No      |
| Supporting protocol for AS-Interface Safety at Work    |   | No      |
| Supporting protocol for DeviceNet Safety               |   | No      |
| Supporting protocol for INTERBUS-Safety                |   | No      |
| Supporting protocol for PROFIsafe                      |   | No      |
| Supporting protocol for SafetyBUS p                    |   | No      |
| Supporting protocol for other bus systems              |   | No      |
| Radio standard Bluetooth                               |   | No      |
| Radio standard WLAN 802.11                             |   | No      |
| Radio standard GPRS                                    |   | No      |
| Radio standard GSM                                     |   | No      |
| Radio standard UMTS                                    |   | No      |
| IO link master   |   | No      |
| System accessory                                       |   | Yes     |
| Degree of protection (IP)                              |   | IP20    |
| With potential separation                              |   | Yes     |
| Fieldbus connection over separate bus coupler possible |   | Yes     |

|                                       |    |       |
|---------------------------------------|----|-------|
| Rail mounting possible                |    | Yes   |
| Wall mounting/direct mounting         |    | No    |
| Front build in possible               |    | No    |
| Rack-assembly possible                |    | No    |
| Suitable for safety functions         |    | No    |
| Category according to EN 954-1        |    |       |
| SIL according to IEC 61508            |    | None  |
| Performance level acc. EN ISO 13849-1 |    | None  |
| Appendant operation agent (Ex ia)     |    | No    |
| Appendant operation agent (Ex ib)     |    | No    |
| Explosion safety category for gas     |    | None  |
| Explosion safety category for dust    |    | None  |
| Width                                 | mm | 50.6  |
| Height                                | mm | 114.8 |
| Depth                                 | mm | 74.4  |

## Approvals

|                                      |  |  |
|--------------------------------------|--|--|
| Product Standards                    |  | UL 508; CSA-C22.2 No. 142; IEC/EN 6113-2; CE marking |
| UL File No.                          |  | E205091  |
| UL Category Control No.              |  | NRAQ, NRAQ7  |
| CSA File No.                         |  | UL report applies to both US and Canada              |
| CSA Class No.                        |  | 2252-01, 2252-81                                     |
| North America Certification          |  | UL recognized, certified by UL for use in Canada     |
| Specially designed for North America |  | No   |
| Current Limiting Circuit-Breaker     |  | No   |
| Degree of Protection                 |  | IEC: IP20, UL/CSA Type: -                            |

## Dimensions



Notes: The plugs/connectors used depend on the version.

Dimensions

## Assets (links)

### Declaration of CE Conformity

00002588

### Manuals

MN05002005Z\_DE (German)

MN05002005Z\_EN (English)

## Additional product information (links)

### User manual XI/ON gateways for CANopen MN05002005Z

|  |   |
|--|---|
| Benutzerhandbuch XI/ON-Gateways für<br>CANopen MN05002005Z - Deutsch | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002005Z_DE.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002005Z_DE.pdf</a>     |
| User manual XI/ON gateways for CANopen<br>MN05002005Z - English      | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002005Z_EN.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002005Z_EN.pdf</a>     |
| Technical Data   | <a href="http://ecat.moeller.net/flip-cat/?edition=HPLEN&amp;startpage=14.111">http://ecat.moeller.net/flip-cat/?edition=HPLEN&amp;startpage=14.111</a> |