



Communication module/power supply unit for remote text display via CANopen, 24 V DC



Part no. MFD-CP4-CO
Catalog No. 115736

EL-Nummer (Norway) 4560806

Delivery program

| | | | |
|----------------|--|--|--|
| Accessories | | | CANopen® interface for MFD80 |
| Product range | | | Multi-function-display MFD-Titan |
| | | | Communication module with CANopen® interface automatic baud rate setting up to 1 Mbaud Up to 64 display pages can be saved |
| Function | | | For use with display/operating unit MFD-80-B(-X) and connection cable EU4A-RJ45-CAB2 |
| Supply voltage | | | 24 V DC |
| For use with | | | EC4P XC100/200 Other devices with CANopen® interface |

Technical data

General

| | | | |
|------------------------|--|----|--|
| Standards | | | EN 61000-6-1/-2/-3/-4, IEC 60068-2-6, IEC 60068-2-27 |
| Dimensions (W x H x D) | | mm | 75 x 58 x 36.2 |
| Weight | | kg | 0.164 |
| Mounting | | | Fitted onto the fixing shaft of the display |

Terminal capacities

| | | | |
|------------------------|--|-----------------|-------------------------|
| Power supply | | | |
| Solid | | mm ² | 0.5 - 2.5 (AWG 20 - 14) |
| flexible with ferrules | | mm ² | 0.5 - 1.5 (AWG 20 - 16) |
| Standard screwdriver | | mm | 3.5 x 0.6 |
| Data cable | | | |
| Solid | | mm ² | 0.2 - 0.5 (AWG 24 - 20) |

Climatic environmental conditions

| | | | |
|---|--|-----|---|
| Operating ambient temperature | | °C | -25 to 55, cold as per IEC 60068-2-1, heat as per IEC 60068-2-2 |
| Condensation | | | Take appropriate measures to prevent condensation |
| Storage | | °C | - 40 - 70 |
| Relative humidity, non-condensing (IEC/EN 60068-2-30) | | % | 5 - 95 |
| Air pressure (operation) | | hPa | 795 - 1080 |

Ambient conditions, mechanical

| | | | |
|--|-------------|---------|------------------------|
| Pollution degree | | | 2 |
| Protection type (IEC/EN 60529, EN50178, VBG 4) | | | IP20 |
| Vibrations (IEC/EN 60068-2-6) | | Hz | |
| Constant amplitude 0.15 mm | | Hz | 10 - 57 |
| Constant acceleration 2 g | | Hz | 150 - 150 |
| Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms | | Impacts | 18 |
| Drop to IEC/EN 60068-2-31 | Drop height | mm | 50 |
| Free fall, packaged (IEC/EN 60068-2-32) | | m | 1 |
| Mounting position | | | Vertical or horizontal |

Electromagnetic compatibility (EMC)

| | | | |
|--|--|-----|------------------------------------|
| Overvoltage category/pollution degree | | | II/2 |
| Electrostatic discharge (IEC/EN 61000-4-2, Level 3, ESD) | | kV | |
| Air discharge | | kV | 8 |
| Contact discharge | | kV | 6 |
| Electromagnetic fields (RFI) to IEC EN 61000-4-3 | | V/m | 10 |
| Radio interference suppression | | | EN 55011 Class B, EN 55022 Class B |

| | | | |
|---|--|----|--------------------------------|
| Burst Impulse (IEC/EN 61000-4-4, Level 3) | | | |
| Supply cable | | kV | 2 |
| Signal lines | | kV | 2 |
| Power pulses (surge) (IEC/EN 61000-4-5) | | kV | 2 (supply cables, symmetrical) |
| power pulses (surge) (IEC/EN 61000-4-5, level 2) | | kV | 1 (supply cables, symmetrical) |
| Immunity to line-conducted interference to (IEC/EN 61000-4-6) | | V | 10 |

Insulation resistance

| | | | |
|---|--|--|--------------------------------------|
| Clearance in air and creepage distances | | | EN 50178, UL 508, CSA C22.2, No. 142 |
| Insulation resistance | | | EN 50178 |

Power supply

| | | | |
|---------------------------|-------|------|--------------------------------|
| Rated operational voltage | U_e | V | 24 DC (-15/+20 %) |
| Admissible range | | V DC | |
| Min. admissible range | | V DC | 20.4 |
| Max. admissible range | | V DC | 28.8 |
| Residual ripple | | % | ≤ 5 |
| Input current | | | |
| at 24 V DC | | mA | Normally 185 |
| Voltage dips | | ms | ≤ 10 |
| Power loss | P | W | Normally 1.5 |
| Note on heat dissipation | | | Current consumption at 24 V DC |

Interfaces

| | | | |
|-------------------------------|--|----------|--|
| CANopen® | | | |
| Control contact rated current | | | to DS301V4 |
| PDO type | | | asynchronous (event controlled) |
| Addresses | | | 1 to 63, can be set through display |
| Baud rate/length | | kBd | 10 kByte up to 1 MByte, Automatic detection Manual setting via display possible. |
| Connection technique | | | 6-pole cage clamp terminal |
| Terminating resistor | | Ω | external 120 |

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 | 1.5 |
| Heat dissipation capacity | P_{diss} | W | 0 |
| Operating ambient temperature min. | | °C | -25 |
| Operating ambient temperature max. | | °C | 55 |
| 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

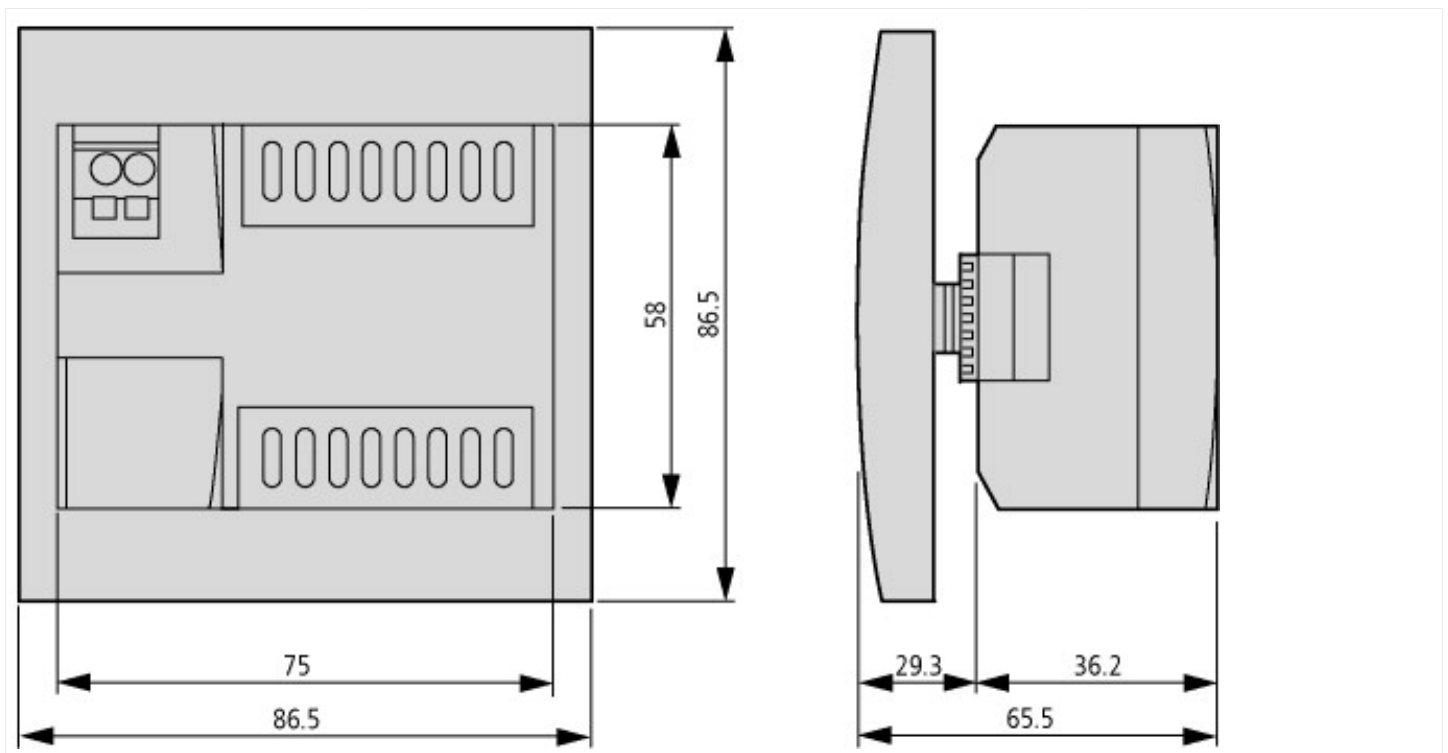
| | | |
|---|---|-------------|
| PLC's (EG000024) / Text panel (EC001426) | | |
| Electric engineering, automation, process control engineering / Display and control component / Panel (HMI) / Text panel (HMI) (ecl@ss10.0.1-27-33-02-03 [AFX018003]) | | |
| Supply voltage AC 50 Hz | V | 0 - 0 |
| Supply voltage AC 60 Hz | V | 0 - 0 |
| Supply voltage DC | V | 20.4 - 28.8 |
| Voltage type of supply voltage | | DC |
| Number of HW-interfaces industrial Ethernet | | 0 |
| Number of interfaces PROFINET | | 0 |
| Number of HW-interfaces RS-232 | | 0 |
| Number of HW-interfaces RS-422 | | 0 |
| Number of HW-interfaces RS-485 | | 0 |
| Number of HW-interfaces serial TTY | | 0 |
| Number of HW-interfaces USB | | 0 |
| Number of HW-interfaces parallel | | 0 |
| Number of HW-interfaces Wireless | | 0 |
| Number of HW-interfaces other | | 2 |
| 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 PROFINET IO | | No |
| Supporting protocol for PROFINET CBA | | No |
| Supporting protocol for SERCOS | | 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 |

| | | | |
|---|--|-------|----------------------------------|
| Type of display | | | LCD with background illumination |
| Number of display lines | | | 4 |
| Number of characters per line | | | 16 |
| Max. character height, display | | mm | 32 |
| Useful project memory/user memory | | kByte | 0 |
| With numeric keyboard | | | No |
| With alpha numeric keyboard | | | No |
| Number of function buttons, programmable | | | 9 |
| Number of buttons with LED | | | 0 |
| Number of system buttons | | | 0 |
| With message indication | | | Yes |
| With message system (incl. buffer and confirmation) | | | No |
| Process value representation (output) possible | | | Yes |
| Process default value (input) possible | | | Yes |
| With recipes | | | No |
| Number of password levels | | | 1 |
| With printer output | | | No |
| Number of online languages | | | 1 |
| Degree of protection (IP), front side | | | IP65 |
| Degree of protection (NEMA) | | | 12 |
| Operation temperature | | °C | 25 - 55 |
| Graphic objects presentable | | | No |
| Suitable for safety functions | | | No |
| Width of the front | | mm | 86.5 |
| Height of the front | | mm | 86.5 |
| Built-in depth | | mm | 36.2 |

Approvals

| | | | |
|--------------------------------------|--|--|------------------------------|
| North America Certification | | | Request filed for UL and CSA |
| Specially designed for North America | | | No |
| Current Limiting Circuit-Breaker | | | No |

Dimensions



Assets (links)

Instruction Leaflets

IL05013023Z2018_02

Manuals

MN05013014Z_EN (English)

Additional product information (links)

Instruction leaflet "CANopen communication module for MFD-80" IL05013023Z (AWA2528-2492)

Instruction leaflet "CANopen communication module for MFD-80" IL05013023Z (AWA2528-2492) ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05013023Z2018_02.pdf

Manual "MFD-CP4-CO, MFD80, display/control system for CANopen®" MN05013014Z (AWB2528-1611)

Handbuch „MFD-CP4-CO, MFD80, Display-/Kontrollsystem für CANopen®“ MN05013014Z (AWB2528-1611) - Deutsch ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05013014Z_DE.pdf

Manual "MFD-CP4-CO, MFD80, display/control system for CANopen®" MN05013014Z (AWB2528-1611) - English ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05013014Z_EN.pdf