



Counter module for XC100/200, 24 V DC, 2x100kHz, 4DO(T)

Part no. XIOC-2CNT-100KHZ
Article no. 257907

Delivery program

| | | |
|-------------|--|--|
| Function | | Counter modules |
| Description | | <p>Compact I/O system for connection to XC100/200 Modular PLCs XC100/200 expandable with up to 15 XI/OC modules Optionally, screw terminals or spring-loaded terminals for digital/analog modules</p> <p>2 inputs up to 100 kHz, (24 V DC or 5 V diff) 4 digital transistor outputs optocoupled, 24 V DC 30 pole connector required for counter module</p> |

Technical data



| General | | | |
|---------------------------------------|---|----|---|
| Standards | | | IEC/EN 61131-2 EN 50178 |
| Ambient temperature | | °C | 0 - +55 |
| Storage | θ | °C | -25 - +70 |
| Vibration resistance | | | 10 - 57 Hz ±0.075 mm 57 - 150 Hz ±1.0 mm |
| Mechanical shock resistance | | g | 15 Shock duration 11 ms |
| Impact resistance | | | 500 g/50 mm ±25 g |
| Current consumption | | mA | 200 |
| Overvoltage category/pollution degree | | | II/2 |
| Protection class | | | 1 |
| Degree of Protection | | | IP20 |
| Emitted interference | | | DIN/EN 55011/22, Class A |
| Weight | | kg | 0.16 |

Power supply

| | | | |
|--------------------|-------|------|---------------------------|
| Rated voltage | U_e | V DC | 24 (12) |
| Admissible range | | | 20.4 – 28.8 (11.8 – 14.4) |
| Residual ripple | | % | ≤ 5 |
| Neutral poles | | | |
| Duration of dip | | ms | 10 |
| Repetition rate | | s | 1 |
| Maximum power loss | P_v | W | 1.2 |

Inputs

| | | | |
|------------------------------|-------|------|------------------------------------|
| Counter limits | | | 0 - 4294967295 (32 bit) |
| Internal current consumption | I_e | mA | 200 |
| Frequency | | kHz | 100 (25 with four-fold resolution) |
| Quantity of channels | | | 2 |
| Input voltage | | V DC | 12 - 24 |
| Voltage for On | I_n | A | 10 |
| Voltage for Off | | VA/W | 4 |
| Input current | | mA | ≤ 4 |
| Input voltage differential | U_e | V DC | ± 5 |
| Voltage for On | | V DC | 2 - 5 |
| Voltage for Off | | V DC | -5 - 8 |
| Input current differential | | mA | 35 |

| | | | |
|---------------------------------|--|----|--|
| Minimum pulse width | | μs | On  4 Off  4 |
| Potential isolation | | | Opto-isolated |
| Connection for external cabling | | | 30-pole plug: XIOC-TERM30-CNT4 |
| External cabling | | | Screened, twisted pair cable |

Outputs

| | | | |
|---------------------------------|-------|------|--------------------------------|
| Output type | | | Transistor (open collector) |
| External power supply | | | 12/24 V DC (30 max.) |
| Minimum load current | | mA | 1 |
| Maximum load current | I_e | mA | 20 |
| Max. leakage current | | mA | 0.5 |
| Max. voltage dip at On | | V | 1.5 |
| Debounce OFF | | | |
| Off → On | | ms | |
| Debounce OFF | | ms | 1 |
| On → Off | | ms | |
| Debounce OFF | | ms | 1 |
| Output channels | | Qty. | 4 |
| Potential isolation | | | Opto-isolated |
| Connection for external cabling | | | 30-pole plug: XIOC-TERM30-CNT4 |
| External cabling | | | Screened, twisted pair cable |

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 | 1.2 |
| Heat dissipation capacity | P_{diss} | W | 0 |
| Operating ambient temperature min. | | °C | 0 |
| Operating ambient temperature max. | | °C | 55 |
| IEC/EN 61439 design verification | | | |
| 10.2 Strength of materials and parts | | | |
| 10.2.2 Corrosion resistance | | | |
| | | | Meets the product standard's requirements. |
| 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. |

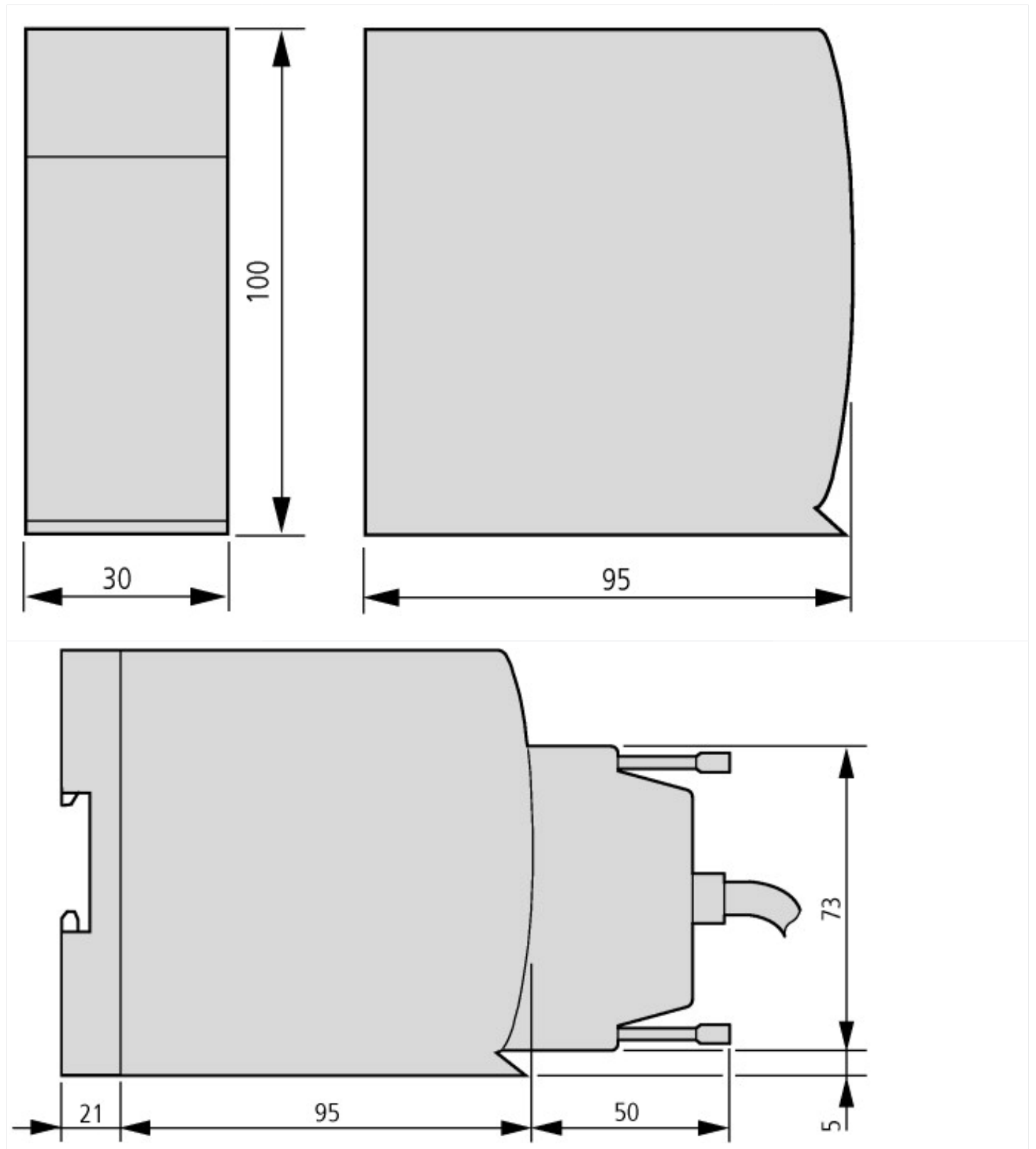
Technical data ETIM 6.0

| | | | |
|--|--|----|------|
| PLC's (EG000024) / PLC function/technology module (EC001422) | | | |
| Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / SPS functional/technological module (ecl@ss8.1-27-24-22-05 [AKE528011]) | | | |
| Number of functions | | | 2 |
| Redundancy | | | No |
| Suitable for counting | | | Yes |
| Suitable for weighting | | | No |
| Suitable for temperature control | | | No |
| Suitable for welding control | | | No |
| Suitable for pressure control | | | No |
| Suitable for NC | | | No |
| Function electronic positioning available | | | No |
| Suitable for CNC | | | No |
| Suitable for SSI | | | No |
| Suitable for incremental data detection | | | Yes |
| Suitable for detection absolute value | | | No |
| Flux controller possible | | | No |
| Suitable for flux measurement | | | No |
| Suitable for path controller | | | No |
| Suitable for cam controller | | | No |
| Suitable for flying saw | | | No |
| Suitable for multi-axis control | | | No |
| Single-axis controller possible | | | Yes |
| Suitable for multi-axis positioning | | | No |
| Single-axis positioning possible | | | Yes |
| Suitable for safety functions | | | No |
| Category according to EN 954-1 | | | |
| SIL according to IEC 61508 | | | None |
| Performance level acc. to 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 | 30 |
| Height | | mm | 100 |
| Depth | | mm | 95 |

Approvals

| | | | |
|--------------------------------------|--|--|--|
| Product Standards | | | IEC: see Technical Data; UL508; CSA-C22.2 No. 0-M; CSA-C22.2 No. 142-M; CE marking |
| UL File No. | | | E135462 |
| UL Category Control No. | | | NRAQ |
| CSA File No. | | | 012528 |
| CSA Class No. | | | 2252-01 |
| North America Certification | | | UL listed, CSA certified |
| Specially designed for North America | | | No |
| Current Limiting Circuit-Breaker | | | No |
| Degree of Protection | | | IEC: IP20, UL/CSA Type: - |

Dimensions



Additional product information (links)

MN05002002Z (AWB2725-1452) XIOC signal modules

MN05002002Z (AWB2725-1452) XIOC-Signalmodule - Deutsch

ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002002Z_DE.pdf

MN05002002Z (AWB2725-1452) XIOC signal modules - English

ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002002Z_EN.pdf