



Analog output module for XC100/200, 24 V DC, 4AO(2x0-10V, 2x4-20mA)

Part no. XIOC-2AO-U1-2AO-I2
Catalog No. 257902

EL-Nummer (Norway) 4519674

Delivery program

| | | |
|-------------|--|--|
| Function | | Analog modules |
| Description | | 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 |
| | | Outputs 2 Outputs 0 - 10 V 2 outputs 4 - 20 mA |

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 |
| Overvoltage category/pollution degree | | | II/2 |
| Protection class | | | 1 |
| Degree of Protection | | | IP20 |
| Emitted interference | | | DIN/EN 55011/22, Class A |
| Weight | | kg | 0.18 |

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 | 0.5 |

Inputs

| | | | |
|-----------------------|--|-----|-------------------------------------|
| External power supply | | | 24 V DC (-15/+20 %), approx. 150 mA |
| Resolution | | Bit | 12 |
| Conversion time | | | ≤ 5 ms |

Outputs

| | | | |
|---------------------------------------|--|------|------------------------|
| Output voltage | | V DC | 0 - 10 |
| Output current | | A | 0.004 to 0.020 |
| Resolution | | Bit | 12 |
| Potential isolation | | | |
| Circuit within each channel | | | Opto-isolated |
| between channels | | | No |
| Terminations | | | Plug-in terminal block |
| Internal current consumption (5 V DC) | | mA | 100 |
| Conversion time | | | ≤ 5 ms |

| | | | |
|--------------------------|--|---|-------------------------------------|
| Total error | | % | ≤ ±1 (of the full-scale value) |
| External load resistance | | | |
| Voltage output | | | ≤ 10 kΩ |
| Current output | | Ω | 0 to 500 Ω |
| Quantity of outputs | | | |
| Output voltage | | | 2 (channels 0 and 1) |
| Output current | | | 2 (channels 2 and 3) |
| External power supply | | | 24 V DC (-15/+20 %), approx. 150 mA |
| Connection type | | | 2-core screened cable (≤20 m) |

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 | 0.5 |
| 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 7.0

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|--|--|-----|
| PLC's (EG000024) / PLC analogue I/O-module (EC001420) | | |
| Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / SPS analog input/output module (ecl@ss10.0.1-27-24-22-01 [AKE524014]) | | |
| Number of analogue inputs | | 0 |
| Number of analogue outputs | | 4 |
| Analogue inputs configurable | | Yes |
| Analogue outputs configurable | | Yes |
| Input, current | | No |
| Input, voltage | | No |

| | | |
|---------------------------------------|-----|--------------------------------|
| Input, resistor | | No |
| Input, resistance thermometer | | No |
| Input, thermocouple | | No |
| Input signal, configurable | | No |
| Resolution of the analogue inputs | Bit | 0 |
| Output, current | | Yes |
| Output, voltage | | Yes |
| Output signal configurable | | No |
| Resolution of the analogue outputs | Bit | 12 |
| Type of electric connection | | Screw-/spring clamp connection |
| 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 | 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

