

Digital output module for XC100/200, 24 V DC, 12DO(R)



**Part no.** XIOC-12DO-R  
**257897**  
**EL Number** 4519666  
**(Norway)**

| General specifications              |  |   |
|-------------------------------------|--|---|
| Product name                        |  | Eaton XIOC Output module  |
| Part no.                            |  | XIOC-12DO-R   |
| EAN                                 |  | 4015082578978   |
| Product Length/Depth                |  | 100 millimetre  |
| Product height                      |  | 95 millimetre   |
| Product width                       |  | 30 millimetre   |
| Product weight                      |  | 0.175 kilogram  |
| Certifications                      |  | CSA<br>CSA-C22.2 No. 142-M<br>UL508<br>UL Category Control No.: NRAQ<br>IEC/EN 61131-2<br>EN 50178<br>CE<br>CSA File No.: 012528<br>CSA-C22.2 No. 0-M<br>CSA Class No.: 2252-01<br>UL<br>UL File No.: E135462 |
| Product Tradename                   |  | XIOC  |
| Product Type                        |  | Output module   |
| Product Sub Type                    |  | None  |
| Features & Functions                |  |   |
| Electric connection type            |  | Screw-/spring clamp connection  |
| Functions                           |  | Overvoltage protection (external)   |
| General information                 |  |   |
| Admissible range                    |  | 20.4 – 28.8 V (11.8 – 14.4 V), Power supply   |
| Current consumption                 |  | 40 mA, Internal current consumption (5 V DC), Outputs   |
| Degree of protection                |  | IP20  |
| Number of channels                  |  | 12, Output  |
| Overvoltage category                |  | II  |
| Pollution degree                    |  | 2   |
| Protection                          |  | Protection class: 1   |
| Repetition rate                     |  | 1 s   |
| Residual ripple                     |  | ≤ 5 %   |
| Type                                |  | Digital module  |
| Used with                           |  | XC100/200 (expandable with up to 15 XI/OC modules)  |
| Voltage type                        |  | DC<br>AC/DC   |
| Ambient conditions, mechanical      |  |   |
| Impact resistance                   |  | 500 g/∅ 50 mm ±25 g   |
| Shock resistance                    |  | 15 g, Mechanical, Shock duration 11 ms  |
| Vibration resistance                |  | 57 - 150 Hz ± 1.0 mm<br>10 - 57 Hz, ± 0.075 mm  |
| Climatic environmental conditions   |  |   |
| Ambient operating temperature - min |  | 0 °C  |
| Ambient operating temperature - max |  | 55 °C   |
| Ambient storage temperature - min   |  | -25 °C  |
| Ambient storage temperature - max   |  | 70 °C   |
| Electro magnetic compatibility      |  |   |
| Emitted interference                |  | Class A (according to DIN/EN 55011/22)  |

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| Voltage dips   |  | 10 ms  |
| <b>Terminal capacities</b>   |  |  |
| Terminals  |  | Optionally, screw terminals or spring-loaded terminals for digital/analog modules                    |
| <b>Electrical rating</b>   |  |  |
| Leakage current  |  | 0.1 A  |
| Mains voltage tolerance  |  | 24 V DC (-15/+20 %, max. 70 mA)  |
| Power loss   |  | Max. 0.2 W   |
| Rated control voltage (Uc)   |  | 100/240 V AC   |
| Rated operational current (Ie)   |  | 5 A at AC-3, 230 V<br>2 A at DC-13, 110 V  |
| Rated operational voltage  |  | 24 (12) V DC   |
| Short-circuit protection   |  | Fuse, Outputs, External  |
| Supply voltage at AC, 50 Hz - min  |  | 0 V AC   |
| Supply voltage at AC, 50 Hz - max  |  | 0 V AC   |
| Supply voltage at DC - min   |  | 20.4 V DC  |
| Supply voltage at DC - max   |  | 28.8 V DC  |
| <b>Communication</b>   |  |  |
| Connection type  |  | Plug-in terminal block, Power supply   |
| LED indicator  |  | Status indication: Green LED   |
| <b>Input/Output</b>  |  |  |
| Delay time   |  | 10 ms typ., Outputs, Delay time from 1 to 0, Debounce OFF<br>10 ms, Outputs, Off -> On, Debounce OFF |
| Input current at signal 1  |  | 0 mA   |
| Load current   |  | Min. 1 mA  |
| Number of inputs (digital)   |  | 0  |
| Number of outputs (digital)  |  | 12   |
| Output   |  | 12 Relay Outputs<br>Relay  |
| Output current   |  | 2 A  |
| Output voltage   |  | 24 V DC  |
| <b>Safety</b>  |  |  |
| Explosion safety category for dust   |  | None   |
| Explosion safety category for gas  |  | None   |
| Potential isolation  |  | Outputs: Opto-isolated   |
| <b>Design verification</b>   |  |  |
| Equipment heat dissipation, current-dependent Pvid                               |  | 0 W  |
| Heat dissipation capacity Pdiss  |  | 0 W  |
| Heat dissipation per pole, current-dependent Pvid                                |  | 0 W  |
| Rated operational current for specified heat dissipation (In)                    |  | 0 A  |
| Static heat dissipation, non-current-dependent Pvs                               |  | 0.2 W  |
| 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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.   |
| 10.9.2 Power-frequency electric strength   |  | Is the panel builder's responsibility.   |

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| 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 9.0

|   |    |                                |
|---|----|--------------------------------|
| Programmable logic controllers PLC (EG000024) / PLC digital I/O-module (EC001419)   |    |                                |
| Electric engineering, automation, process control engineering / Control, Process Control System (PCS) / Programmable logic control (SPS) / SPS digital input/output module (ecl@ss13-27-24-22-04 [AKE527019]) |    |                                |
| 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 (supply voltage)   |    | DC                             |
| Number of digital inputs  |    | 0                              |
| Number of digital outputs   |    | 12                             |
| Digital inputs configurable   |    | No                             |
| Digital outputs configurable  |    | No                             |
| Power consumption   | W  |                                |
| Input current at signal 1   | mA | 0                              |
| Permitted voltage at input  | V  | 0 - 0                          |
| Type of voltage (input voltage)   |    | DC                             |
| Type of digital output  |    | Relay                          |
| Output current  | A  | 2                              |
| Permitted voltage at output   | V  | 100 - 240                      |
| Type of output voltage  |    | DC                             |
| Short-circuit protection, outputs available   |    | No                             |
| Redundancy  |    | No                             |
| Type of electric connection   |    | Screw-/spring clamp connection |
| Time delay at signal change   | ms | 10 - 10                        |
| Suitable for safety functions   |    | No                             |
| SIL according to IEC 61508  |    | None                           |
| Performance level according 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 | 95                             |
| Depth   | mm | 100                            |