

Digital I/O module for XC100/200, 24 V DC, 4DI and 12DI/DO



**Part no.** XIOC-16DX  
**262322**  
**EL Number** 4519667  
**(Norway)**

General specifications	
Product name	Eaton XIOC I/O module
Part no.	XIOC-16DX
EAN	4015082623227
Product Length/Depth	100 millimetre
Product height	95 millimetre
Product width	30 millimetre
Product weight	0.145 kilogram
Certifications	CSA-C22.2 No. 142-M UL File No.: E135462 CSA File No.: 012528 EN 50178 CSA-C22.2 No. 0-M IEC/EN 61131-2 CE UL UL508 UL Category Control No.: NRAQ CSA CSA Class No.: 2252-01
Product Tradename	XIOC
Product Type	I/O module
Product Sub Type	None
Features & Functions	
Electric connection type	Screw-/spring clamp connection
Features	Digital inputs configurable Digital outputs configurable
Functions	Overvoltage protection
General information	
Admissible range	20.4 – 28.8 V (11.8 – 14.4 V), Power supply
Current consumption	2 A per group, Total max. current, Outputs 80 mA, Internal current consumption (5 V DC), Outputs
Degree of protection	IP20
Number of channels	16 Channels with the same reference potential (Inputs, Outputs)
Overvoltage category	II
Pollution degree	2
Protection	Protection class: 1
Repetition rate	1 s
Residual ripple	≤ 5 %
Switching capacity	IEC/EN 60947-5-1, utilization category DC-13, Digital outputs
Switching level	≤ 15 V DC, ON, Voltage level to IEC 61131-2, limit value type 1, Inputs ≤ 5 V DC, OFF, Voltage level to IEC 61131-2, limit value type 1, Inputs
Type	Digital module Plug-in terminal block
Used with	XC100/200 (expandable with up to 15 XI/OC modules)
Voltage type	DC
Ambient conditions, mechanical	
Impact resistance	500 g/∅ 50 mm ±25 g
Shock resistance	15 g, Mechanical, Shock duration 11 ms
Vibration resistance	10 - 57 Hz, ± 0.075 mm 57 - 150 Hz ± 1.0 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
<b>Electro magnetic compatibility</b>		
Emitted interference		Class A (according to DIN/EN 55011/22)
Voltage dips		10 ms
<b>Terminal capacities</b>		
Terminals		Optionally, screw terminals or spring-loaded terminals for digital/analog modules
<b>Electrical rating</b>		
Power loss		Max. 1.8 W
Rated operational voltage		24 (12) V DC
Short-circuit protection		Yes, Outputs Yes, Short-circuit rating, Outputs
Short-circuit tripping current		Max. 1.2 A over 3 ms per output, Outputs
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		16 connections, 4 inputs, 12 freely parameterizable as inputs/outputs, 24 V DC outputs 0.5 A
Connection type		Plug-in terminal block, Power supply
LED indicator		Status indication of Power supply: LED
<b>Input/Output</b>		
Delay time		0.1 ms typ., Digital inputs 24 V DC, Delay time from 1 to 0, Debounce ON 0.1 ms typ., Digital inputs 24 V DC, Delay time from 0 to 1, Debounce ON 100 µs typ., Digital outputs, High -> Low, Off-delay
Input		Voltage (DC)
Input current		4 mA
Input current at signal 1		4 mA
Input voltage		24 V DC (modules)
Lamp load		Max. 3 W (without Rv per channel)
Number of inputs (digital)		16
Number of outputs (analog)		3
Number of outputs (digital)		12
Output		Transistor (source type)
Output current		0.5 A
Output voltage		12/24 V DC (-15 %/+20 %)
Parallel switching		In groups 0 - 3, 4 - 7, 8 - 11 Actuation of the outputs within a group only in the same program cycle
<b>Safety</b>		
Explosion safety category for dust		None
Explosion safety category for gas		None
Potential isolation		Power supply against I/O bus: yes
Protection against polarity reversal		Yes
<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		1.8 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.
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 (ec@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		16
Number of digital outputs		12
Digital inputs configurable		Yes
Digital outputs configurable		Yes
Power consumption	W	
Input current at signal 1	mA	4
Permitted voltage at input	V	20.4 - 28.8
Type of voltage (input voltage)		DC
Type of digital output		Transistor
Output current	A	0.5
Permitted voltage at output	V	20.4 - 28.8
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	0.1 - 0.1
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