

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
Electro magnetic compatibility		
Emitted interference		Class A (according to DIN/EN 55011/22)
Voltage dips		10 ms
Terminal capacities		
Terminals		Optionally, screw terminals or spring-loaded terminals for digital/analog modules
Electrical rating		
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
Communication		
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
Input/Output		
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
Safety		
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
Design verification		
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