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

Part no. XIOC-16DX
Article no. 262322

Powering Business Worldwide

Delivery programme

Function			Digital modules
			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
Description			16 connections, 4 inputs, 12 freely parameterizable as inputs/outputs, 24 V DC outputs 0.5 A

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	0.16

Power supply

Rated voltage	U_e	V DC	24 (12)
Admissible range			20.4 – 28.8 (11.8 – 14.4)
Neutral poles			
Duration of dip		ms	10
Repetition rate		s	1
Residual ripple		%	≤ 5
Supply voltage			24 V DC (-15/+20%)
Overvoltage protection			Yes
Protection against polarity reversal			Yes
Potential isolation			
Power supply against I/O bus			Yes
Power supply against I/O			No
Internal current consumption (5 V DC)		mA	Normally 80
Terminations			Plug-in terminal block
Terminations			Plug-in terminal block
Status indication			LED
Maximum power loss	P_v	W	1.8

Inputs

Input type			DC input
Input voltage		V DC	24
Input current		mA	Normally 4

Voltage level to IEC 61131-2, limit value type 1			
ON		V	≥ 15 DC
OFF		V	≤ 5 DC
Input delay			
Off → On		ms	
Debounce ON		ms	Normally 0.1
On → Off		ms	
Debounce ON		ms	Normally 0.1
Inputs		Number	4, 12, configurable
		Number	
Channels with the same reference potential		Number	16

Outputs

Output type			Transistor (source type)
Output voltage		V DC	12/24 (-15…+20 %)
Output current		A	Normally 0.5
Outputs		Number	Max. 12, configurable
Channels with the same reference potential		Qty.	16
Overvoltage protection			Yes
Short-circuit tripping current		A	max. 1.2 over 3 ms per output
Lamp load		W	Max. 3
Off-delay (High → Low)		µs	Normally 100
Switching capacity			IEC/EN 60947-5-1, utilization category DC-13
Short-circuit rating			Yes
Short-circuit protection			Yes
Terminations			Plug-in terminal block
Internal current consumption (5 V DC)		mA	80
Short-circuit protection			Yes
Parallel connection of outputs			in groups 0 - 3, 4 - 7, 8 - 11; Actuation of the outputs within a group only in the same program cycle
Number of outputs that can be switched in parallel			3 max.
Total max. current	I	A	2 per group

Design verification as per IEC/EN 61439

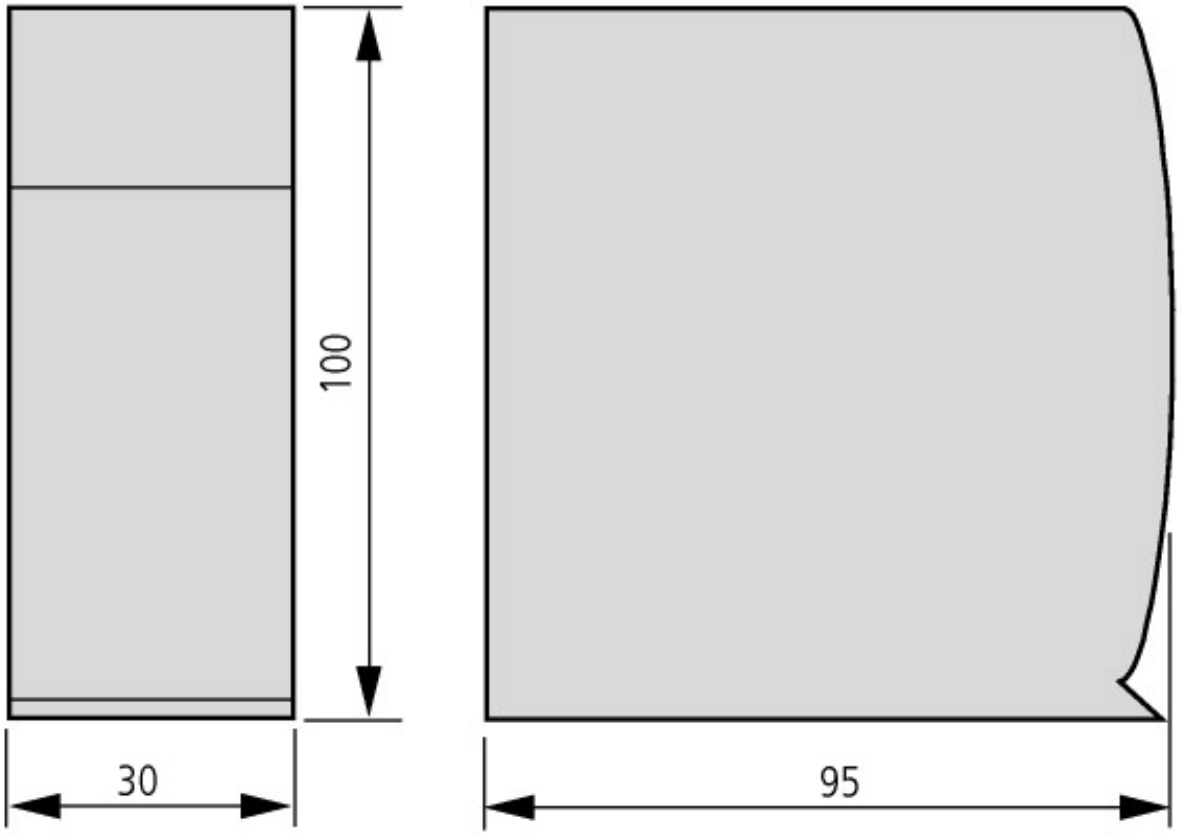
Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	0
Heat dissipation per pole, current-dependent	P_{vid}	W	0
Equipment heat dissipation, current-dependent	P_{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	1.8
Heat dissipation capacity	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.

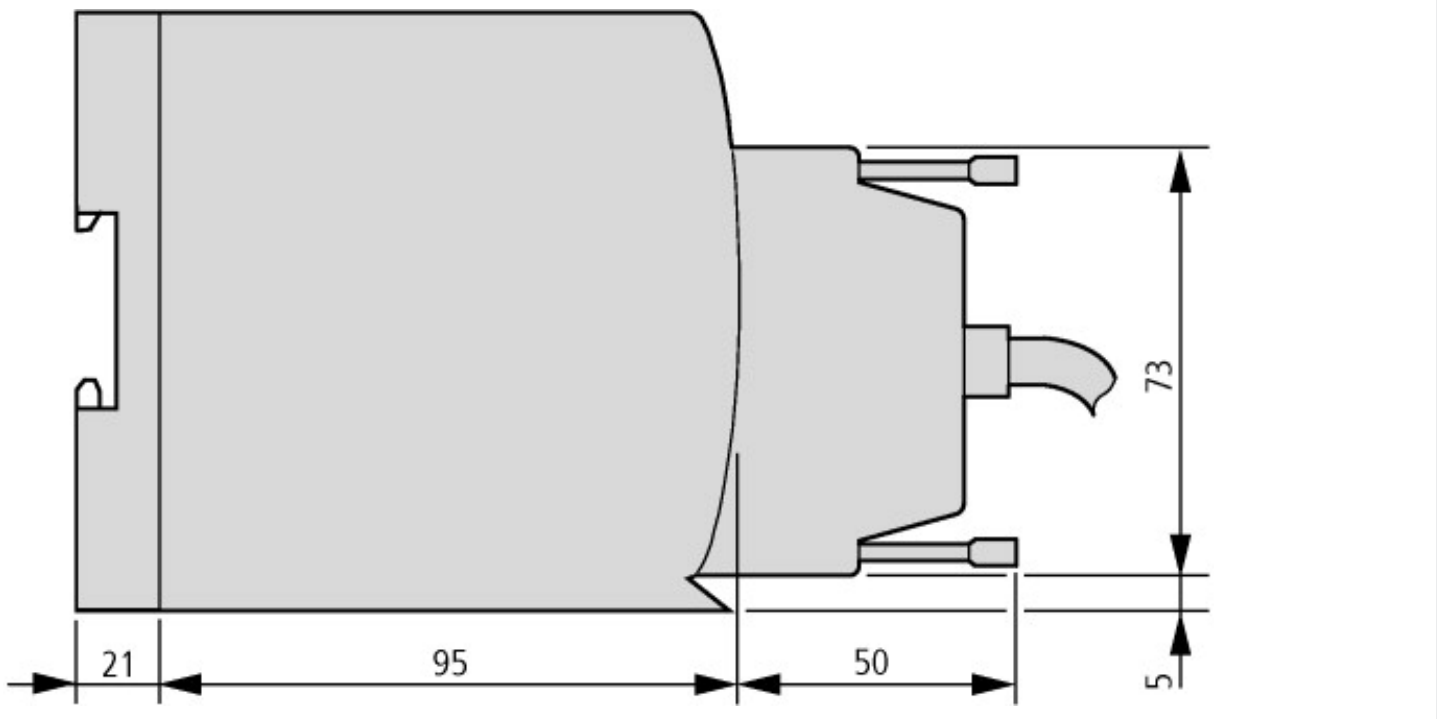
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES	Meets the product standard's requirements.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear 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.

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

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