



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


**Part no.** XIOC-16DX  
**Article no.** 262322

### Delivery program


Function			Digital 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
			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 <sub>e</sub>	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 <sub>v</sub>	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.

## Technical data ETIM 6.0

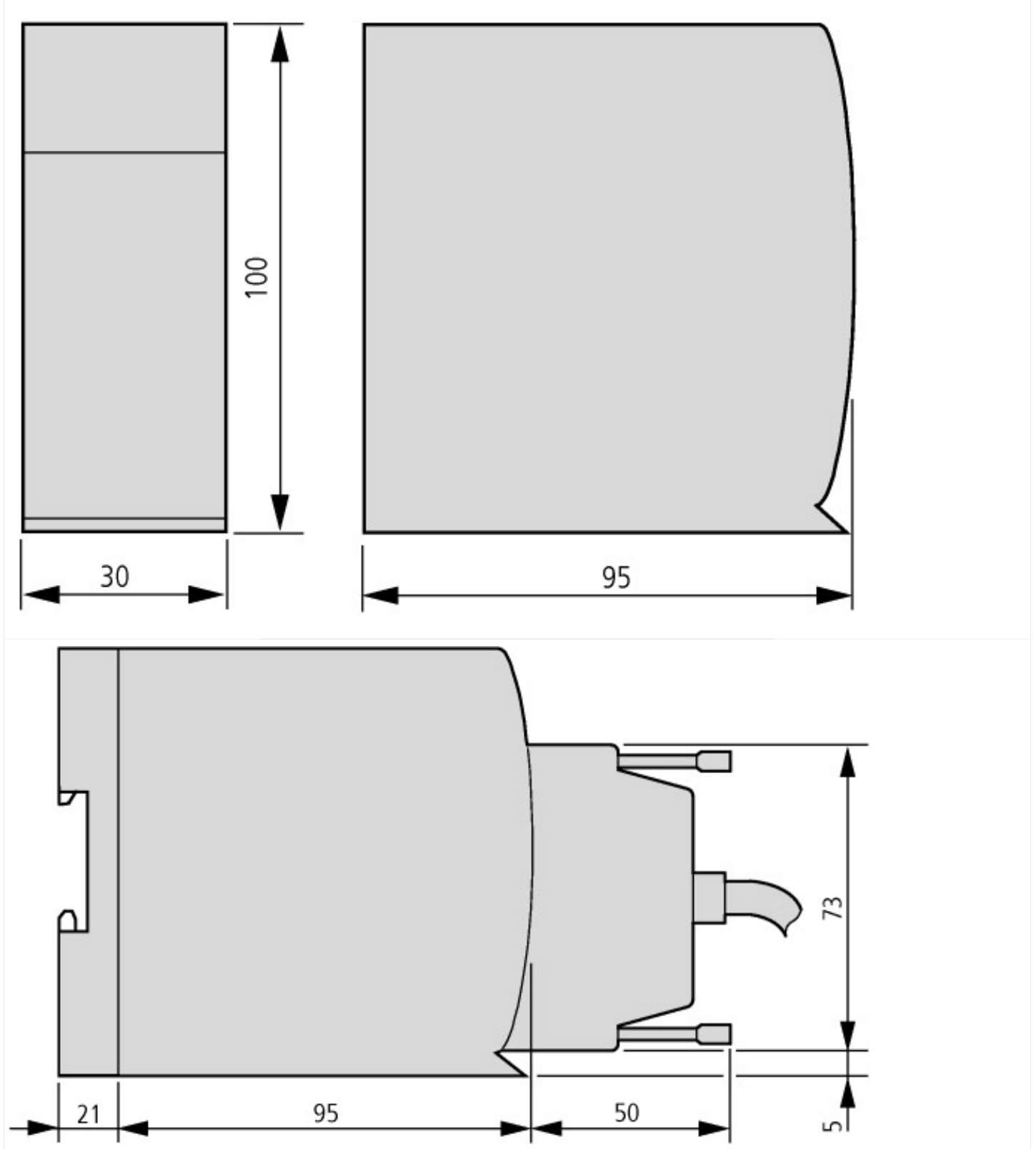
PLC's (EG000024) / PLC digital I/O-module (EC001419)		
Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / SPS digital input/output module (ecl@ss8.1-27-24-22-04 [AKE527011])		
Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	20.4 - 28.8
Voltage type of supply voltage		DC
Number of digital inputs		16
Number of digital outputs		12
Digital inputs configurable		Yes
Digital outputs configurable		Yes
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 exchange	ms	0.1 - 0.1
Suitable for safety functions		No
Category according to EN 954-1		
SIL according to IEC 61508		None
Performance level acc. 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	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



## 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](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](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002002Z_EN.pdf)