

Digital output module, 8 digital outputs short-circuit proof 24 V DC/0.5 A each, pulse-switching

Powering Business Worldwide*

Part no. XN-322-8DO-P05 Article no. 183175

Catalog No. XN-322-8DO-P05

Delivery programme

Photo	
Function	XN300 I/O slice modules
Connection technique	Push-in spring-cage terminal
Function	XN-322 digital output module for XN300
Short Description	8 digital outputs short-circuit proof 24 V DC/0.5 A each, pulse-switching
Description	Digital I/O module with eight 24 V DC / 0.5 A short-circuit proof outputs, featuring undervoltage diagnostics for the power supply rails.
For use with	XN-312

Technical data

Genera

General			
Standards			IEC/EN 61131-2 IEC/EN 61000-6-2 IEC/EN 61000-6-4
Electromagnetic compatibility (EMC)			
ESD	Air/contact discharge	kV	8/4
Electromagnetic fields	(0.081) / (1,42) / (2 2,7) GHz	V/m	10/3/1
Burst			
Supply cable		kV	2
Signal cable		kV	1
Surge			
Supply cable (balanced/unbalanced)		kV	0,5 / 0,5
Signal cable (unbalanced)		kV	1
Radiated RFI		V	10
Emitted interference (radiated, high frequency)	(30230 MHz) / (2301000 MHz)	dB	40 / 47 class A
Voltage fluctuations/voltage dips			Yes / 10 ms
Umgebungsbedingungen			
Klima			
Climatic proofing			Dry heat to IEC 60068-2-2 Damp heat as per EN 60068-2-3
Air pressure (operation)		hPa	795 - 1080
Relative humidity			0 - 95%, non condensing
Condensation			prevent with suitable measures
Temperature			

Marsage (Arranger)	Betrieb		°C	0 - +60
Part of Protection Protecti		Я		
Amount A		J	Ü	
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### Part		/-		
Section 1985 1997 1997 1997 1997 1997 1997 1997 199		-		
Securior of contenting material ground profession of material ground profession of material ground profession of material ground profession of control ground p	Mechanical shock resistance		Impacts	18
Management Ma	Terminations			
New operating voltage carring voltage and grow / pollution fiegers 19 19 19 19 19 19 19 1	Rated operational data			
Read controling voltage	Insulating material group			I
Makenum load currentroose-sectional area	Overvoltage category / pollution degree			III/3
Part	Rated operating voltage		V	160
Reging length (1947 1947 1947 1947 1947 1947 1947 1947	Maximum load current/cross-sectional area		A / mm²	X (not specified by plug manufacturer)
Part	Connection design in TOP direction			Push-in spring-cage terminal (plug-in connection)
The state of Month of Montho	Stripping length		mm	10
" r soid H37Y-U T r soid H37Y	Gauge pin IEC/EN 60947-1			A1
" r soid H37Y-U T r soid H37Y	Anschlussvermögen			
Thioxible H 07V-K 10	-		mm ²	0.2 - 1.5
Twinh ferrules without plastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) mark pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) pastic collar according to DIN 48228-1 (ferrules crimped gas-tight) pastic collar according to DIN 48228-1 (ferrules collar according to DIN 48228-1 (ferrules crimped gas-tight) pastic collar according to DIN 48228-1 (ferrules collar according to DIN 48228-1				
Twith farules with plastic collar according to DIN 48228-1 (ferrules crime of passing for the passing for pass				
AMB AMB 24 - 16			mm ²	0.25 - 1.5
Power suply function of pr 15 V power supply (internal) 1 m			mm ²	0.25-1,5
Power supply - Input Power supply Current consumption for +5 V power supply (internal) Current consumption for +2 V power supply (internal) Potential isolation Rated operating voltage Rated operating voltage Rated operating voltage Rated operational current Rated operational current Rated sissipation Potential isolation Rated dissipation (without active channels) Max. heat dissipation Notes on heat dissipation is specified as the maximum power produced inside the device is housing. Potential is location Notes on heat dissipation is specified as the maximum power produced inside the device is housing. Potential is location Notes on heat dissipation is specified as the maximum power produced inside the device is housing. Potential is location Notes on heat dissipation is specified as the maximum power produced inside the device is housing. Potential is location Notes on heat dissipation is specified as the maximum power produced inside the device is housing. Potential is location Notes on heat dissipation is specified as the maximum power produced inside the device is housing. Potential is location is potential is location in the maximum power produced inside the device is housing. Potential	Cable size		AWG	24 - 16
Current consumption for +5 V power supply (internal) I m A (γp.) 40 Current consumption for +24 V power supply I m A (γp.) none Potential isolation PE (colyesthylens) I m A (γp.) none Rated operating voltage Ue V 2 (4 (terminal +1) Rated operational current I le A 4 (4 m A 4	Supply Power supply - Input			
Current consumption for +22 V power supply Potential isolation Pictory Rated operating voltage Rated operational current Rated operational value Rated dissipation (internal, nominal value Rated operational value Rated dissipation (internal, nominal value Rated operational value Rated operational value Rated operational value Rated dissipation (internal, peractive channel) Rated operational value Rated operational value Rated dissipation (internal, peractive channel) Rated operational value Rated operational value Rated dissipation (internal, peractive channel) Rated operational value Rated dissipation (internal, peractive channel) Rated operational value Rated dissipation (Power supply			
Current consumption for +22 V power supply Potential isolation Pictory Rated operating voltage Rated operational current Rated operational value Rated dissipation (internal, nominal value Rated operational value Rated dissipation (internal, nominal value Rated operational value Rated operational value Rated operational value Rated dissipation (internal, peractive channel) Rated operational value Rated operational value Rated dissipation (internal, peractive channel) Rated operational value Rated operational value Rated dissipation (internal, peractive channel) Rated operational value Rated dissipation (internal, peractive channel) Rated operational value Rated dissipation (Current consumption for +5 V power supply (internal)	I	mA	(typ.) 40
Potential isolation Potential isolatio		ı		
Rated operating voltage		PE		
Rated operational current Potential isolation Potential				
Potential isolation Heat dissipation (without active channels) Max. heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation Notes on heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the device's housing. Note of the max. heat dissipation is specified as the maximum power produced inside the devic	Rated operating voltage	Ue	V	24 (terminal +1)
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Max. heat dissipation Notes on heat dissipation Signital outputs Channels Output voltage Output voltage, nominal value Low level High level Output current, nominal value Low signal Low signal High level High level High level High level A Output turrent, nominal value Low signal Ha A Output current, nominal value Low signal Ha Ha Ha Output current, nominal value Low signal Ha Ha Ha Output current, nominal value Low signal Ha Ha Ha Output current, nominal value Low signal Ha Ha Ha Output current, nominal value Low signal Ha Output current, nominal value Low signal Ha Ha Output current, nominal value Low Su V V Output current, nominal value Low Su V V Output current, volue V Output current, volue Low Su V V Output current, volue Low V V Output current A Output	Heat dissipation			
Notes on heat dissipation	Heat dissipation (without active channels)		W	0.225
Digital outputs Channels	Max. heat dissipation		W	1.472
Digital outputs Quantity 8 Channels Output voltage V DC 24 Dutput voltage, nominal value U _a L V D 24 Low level U _a L V 0V < U _a L < 1V	Notes on heat dissipation			
Channels Quantity 8 Output voltage Ua V DC 24 Output voltage, nominal value Ua V DC 24 Low level Ua V Ua L < 1V	Digital outputs			
Dutput voltage, nominal value Output voltage, nominal value Low level High level Output current Output current, nominal value Output current, nominal value Low signal Low signal High level High level High level High level High level Houtput current, nominal value Low signal High level Houtput current, nominal value Val	Channels		Quantity	8
Output voltage, nominal value $U_{a} V DC$ 24 $Low level \qquad U_{a}L \qquad V \qquad 0V < U_{a}L < 1V$ $U_{e} + 1V < U_{a} + V \qquad U_{e} + 1V < U_{a} + V \qquad U_{e} + 1V < U_{a} + V < U_{e} + V + V < $	Output voltage			
Low level U_aL V $V_aL < 1V$ $U_aL < $		Ua	V DC	24
High level U_aH V $U_a - 1V < U_aH < U_a$ $U_a + 1V < U_a$ U_a				
Output current, nominal value I _a L A 0.5 Low signal I _A mA 0 < Ia_< 0.5 High level I _a H mA 0 ≤ Ia_H ≤ 500 Short-circuit rating Yes Potential isolation N 0.995 Heat dissipation (internal, per active channel) W 0.095 Utilization factor % g 100% (Σ IAmax = 4A) Delay on signal change and resistive load μs < 100	High level		V	
Output current, nominal value I _a L A 0.5 Low signal I _A mA 0 < Ia_< 0.5 High level I _a H mA 0 ≤ Ia_H ≤ 500 Short-circuit rating Yes Potential isolation N 0.995 Heat dissipation (internal, per active channel) W 0.095 Utilization factor % g 100% (Σ IAmax = 4A) Delay on signal change and resistive load μs < 100	Output current		Α	
Low signal I_A I_B		I _a L		0.5
High level I aH mA 0 ≤ IaH ≤ 500 Short-circuit rating Yes Potential isolation no Heat dissipation (internal, per active channel) W 0.095 Utilization factor % g 100% (Σ IAmax = 4A) Delay on signal change and resistive load μs < 100				
Short-circuit rating Potential isolation Heat dissipation (internal, per active channel) W 0.095 Utilization factor Belay on signal change and resistive load from Low to High level yes 100 Yes 100 100 100 100 100 100 100 1	-			
Potential isolation no no leat dissipation (internal, per active channel) W 0.095 Utilization factor % g 100% (\$\Sigma \text{IAmax} = 4A) Delay on signal change and resistive load	-	ап	ША	
Heat dissipation (internal, per active channel) W 0.095 Utilization factor g 100% (Σ IAmax = 4A) Delay on signal change and resistive load from Low to High level μs < 100				
Utilization factor % g 100% (Σ IAmax = 4A) Delay on signal change and resistive load from Low to High level μs < 100				
Delay on signal change and resistive load from Low to High level μs < 100			W	
from Low to High level	Utilization factor	%	g	100% (Σ IAmax = 4A)
	Delay on signal change and resistive load			
From High to Low signal	-		μs	< 100
	From High to Low signal		μs	< 100

Resistive load		
Resistive load	Ω	> 48
Notes on digital outputs		Protective devices must be installed directly at the inductive load in order to prevent interference.

Design verification as per IEC/EN 61439

3			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	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	1.472
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	55
Degree of Protection			IP20
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. $\label{eq:continuous}$

Technical data ETIM 6.0

PLC's (EG000024) / Fieldbus, decentr. periphery - digital I/O module (EG001599)

Electric engineering, automation, process control engineering / Control / Field bus, decentralized peripheral / Field bus, decentralized peripheral - digital I/O module (ecl@ss8.1-27-24-26-04

[BAA055011])			
Supply voltage AC 50 Hz	V		0 - 0
Supply voltage AC 60 Hz	V		0 - 0
Supply voltage DC	V		18 - 30
Voltage type of supply voltage			DC
Number of digital inputs			0
Number of digital outputs			8
Digital inputs configurable			No
Digital outputs configurable			No
Input current at signal 1	m	ıΑ	0
Permitted voltage at input	V		0 - 0

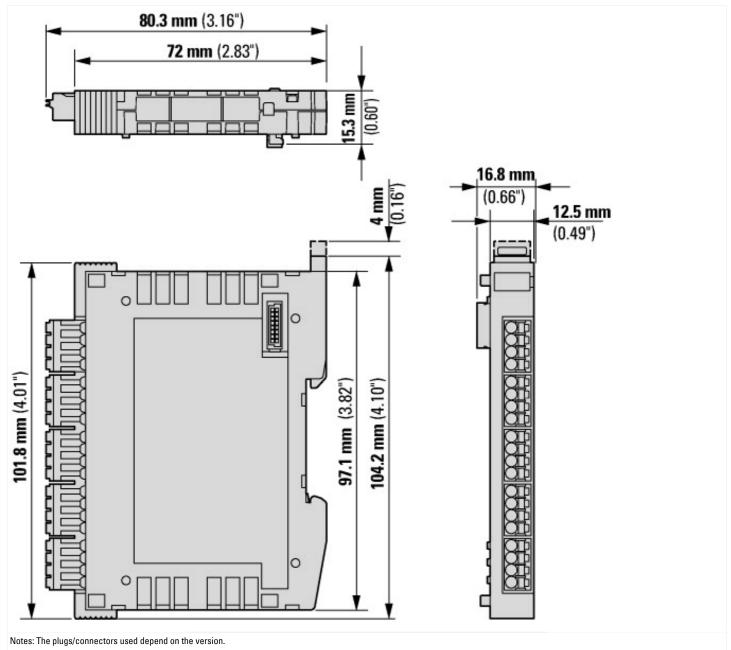
Type of voltage (input voltage)		DC
Type of voltage (input voltage)		None
	Δ.	
Output current Permitted voltage at output	A V	0.5 0 - 30
	V	
Type of output voltage		DC
Short-circuit protection, outputs available		Yes
Number of HW-interfaces industrial Ethernet		0
Number of HW-interfaces PROFINET		0
Number of HW-interfaces RS-232		0
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		0
Number of HW-interfaces serial TTY		0
Number of HW-interfaces parallel		0
Number of HW-interfaces Wireless		0
Number of HW-interfaces other		1
With optical interface		No
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		Yes
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for MODBUS		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		Yes
Radio standard Bluetooth		No
Radio standard WLAN 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
IO link master		No
System accessory		Yes
Degree of protection (IP)		IP20
Type of electric connection		Screw-/spring clamp connection
Time delay at signal exchange	ms	0 - 0.1
Fieldbus connection over separate bus coupler possible		No
Rail mounting possible		Yes
Wall mounting/direct mounting		No
Front build in possible		No
Rack-assembly possible		No
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	16.8
Height	mm	104.2
Depth	mm	80.3

Approvals

Product Standards	CE, cULus
UL File No.	E135462

Dimensions



Additional product information (links)

MN050002 Manual XN300 digital I/O modules, analog I/O modules, power supply modules, technology modules

MN050002 Manual XN300 digital I/O modules, analog I/O modules, power supply modules, technology modules - Deutsch ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN050002_DE.pdf

MN050002 Manual XN300 digital I/O modules, analog I/O modules, power supply modules, technology modules - English ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN050002_EN.pdf