

Analog output module XI/ON ECO, 24 V DC, 4A(voltage, current)

Part no. XNE-4AO-U/I
Article no. 140034

Powering Business Worldwide

Delivery programme

			I/O modules
			Analog output modules
Function			XNE Slice module
Short Description			4 Analog outputs -10/0 to +10 V DC 0/4 to 20 mA Switchable as channels

Technical data

General

Standards			EN 61000-6-2 EN 61000-6-4 EN 61131-2
Potential isolation			Yes, through optocoupler
Ambient temperature		°C	
Ambient temperature, operation		°C	0 - +55
Storage, transport	ϑ	°C	-25 - +85
Relative humidity		%	
Relative humidity			5 - 95 % (indoor), Level RH-2, no condensation (for storage at 45°C)
Ambient conditions, mechanical			
Degree of Protection			IP20
Harmful gases		ppm	SO_2: 10 (rel. humidity < 75%, no condensation) H_2S: 1.0 (rel. humidity < 75 %,no condensation)
Vibration resistance, operating conditions			according to IEC/EN 60068-2-6
Mechanical shock resistance		g	according to IEC 60068-2-27
Continuous shock resistance (IEC/EN 60068-2-29)			According to IEC 60068-2-29
Drop and topple			According to IEC 60068-2-31, free fall according to IEC 60068-2-32
Electromagnetic compatibility (EMC)			
ESD			EN 61100-4-2
Electromagnetic fields			EN 61100-4-2
Burst			EN 61100-4-4
Surge			EN 61100-4-5
HF unsymmetric			EN 61100-4-6
Emitted interference (radiated, high frequency)			EN 55016-2-3
Voltage fluctuations			EN 61131-2
Type test			to EN 61131-2
Approvals			CE, cULus
Other technical data (sheet catalogue)			Technical Data

Terminations

Rated data			according to VDE 0611 Part 1/8.92 / IEC/EN 60947-7-1
Connection design in TOP direction			Push-In spring-cage terminals
Stripping length		mm	8
Clamping range			max. 0.14 - 1.5 mm^2
Connectable conductors			
"e" solid H07V-U		mm^2	0.25 - 1.5
"f" flexible H 07V-K		mm^2	0.25 - 1.5
"f" with ferrules without plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)		mm^2	0.25 - 1.5
"f" with ferrules with plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)		mm^2	0.25 - 0.75
Connectable conductors			
"e" solid H07V-U		mm^2	0.25 - 1.5
"f" flexible H 07V-K		mm^2	0.25 - 1.5
"f" with ferrules without plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)		mm^2	0.25 - 1.5
"f" with ferrules with plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)		mm^2	0.25 - 0.75
Gauge pin IEC/EN 60947-1			A1

Analog input modules

Measured variables			Voltage, Current
Channels		Number	4
Rated voltage through supply terminal	U_L		24 V DC
Rated current consumption from supply terminal	I_L	mA	150
Rated current consumption from module bus	I_{MB}	mA	40
Heat dissipation		W	< 3
Offset error		%	0.1
Basic error limit at 23 °C		%	0.2
Temperature coefficient			200 ppm/°C of full-scale value
Measured value representation			16-bit signed integer 12-bit full range, flush left Standard/extended range/PA (NE43)

Analog output modules

Measured variables			Voltage, Current
Channels		Number	4
Rated voltage through supply terminal	U_L		24 V DC
Rated current consumption from supply terminal	I_L	mA	150
Rated current consumption from module bus	I_{MB}	mA	40
Heat dissipation		W	< 3
Output voltage		V DC	-10/0…+10
Output current		mA	0/4 - 20
Load resistance			
Resistive load		Ω	< 450 (Strom), > 1000 (Spannung)
Inductive load		h	< 0.001
Capacitive load		µF	>1
Short-circuit current		mA	40
Transfer frequency		Hz	20
Offset error		%	0.1
Basic error limit at 23 °C		%	0.2
Temperature coefficient			200 ppm/°C of full-scale value
Settling time			
Resistive load		ms	1
Inductive load		ms	2
Capacitive load		ms	2
Measured value representation			16-bit signed integer

			12-bit full range, flush left Standard/extended range/PA (NE43)

Digital output modules

Channels		Number	4
Rated voltage through supply terminal	U_L		24 V DC
Rated current consumption from the supply terminal (at load current = 0 mA)	I_L	mA	150
Rated current consumption from module bus	I_{MB}	mA	40
Power loss	P	W	Normally 3
Resistive load		Ω	< 450 (Strom), > 1000 (Spannung)
Inductive load		h	< 0.001

Digital input modules

Channels		Number	4
Rated voltage through supply terminal	U_L		24 V DC
Rated current consumption from supply terminal	I_L	mA	150
Rated current consumption from module bus	I_{MB}	mA	40
Heat dissipation		W	< 3

Relay modules

Rated voltage through supply terminal	U_L		24 V DC
Rated current consumption from supply terminal	I_L	mA	150
Rated current consumption from module bus	I_{MB}	mA	40
Power loss	P	W	Normally 3

Power supply module

Rated voltage through supply terminal	U_L		24 V DC
Rated current consumption from supply terminal	I_L	mA	150
Rated current consumption from module bus	I_{MB}	mA	40
Power loss	P	W	3

Counter module

Channels		Number	4
Rated voltage through supply terminal	U_L		24 V DC
Rated current consumption from supply terminal	I_L	mA	150
Rated current consumption from module bus	I_{MB}	mA	40
Heat dissipation		W	< 3

Measuring modes

Temperature coefficient			200 ppm/°C of full-scale value

Interfaces

Rated voltage through supply terminal	U_L		24 V DC
Rated current consumption from supply terminal	I_L	mA	150
Rated current consumption from module bus	I_{MB}	mA	40
Power loss	P	W	Normally 3

Data for design verification according to IEC/EN 61439

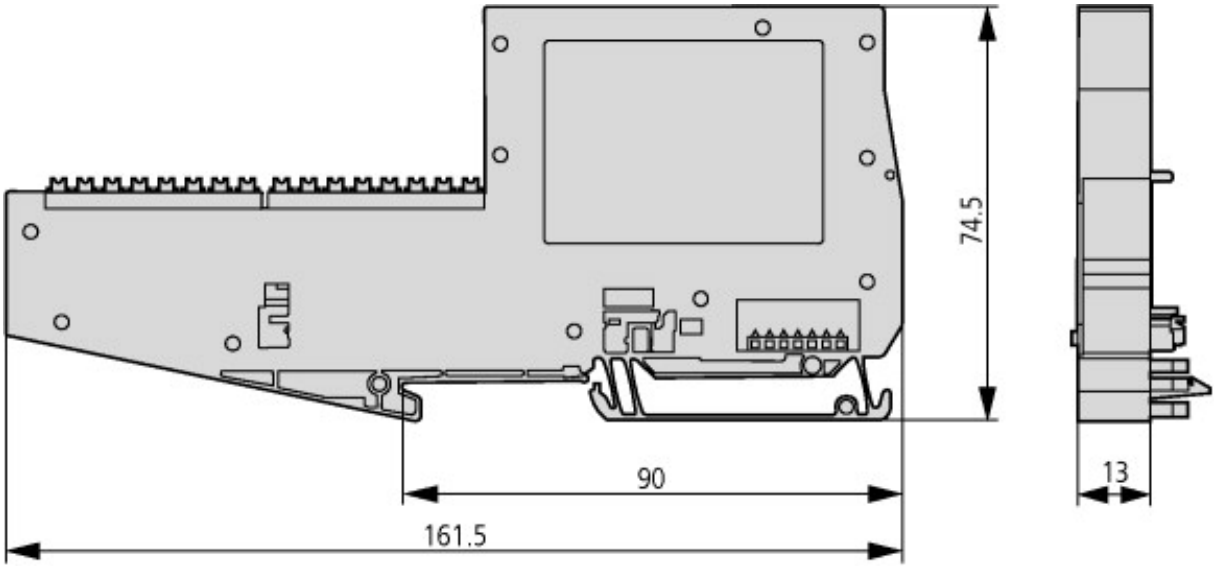
Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	0
Heat dissipation per pole, current-dependent	P_{vid}	W	0
Equipment heat dissipation, current-dependent	P_{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	3
Heat dissipation capacity	P_{diss}	W	0
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/EN 6113-2; CE marking
North America Certification		Request filed for UL and CSA
Specially designed for North America		No
Current Limiting Circuit-Breaker		No

Dimensions



Dimensions

Additional product information (links)

MN05002011Z Manual XI/ON analog I/O modules	
MN05002011Z Handbuch XI/ON Analoge I/O-Module - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002011Z_DE.pdf
MN05002011Z Manual XI/ON analog I/O modules - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002011Z_EN.pdf
Technical Data	http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=14.111

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