

Specifications



Eaton 140037

Eaton XNE Analog input card XI/ON ECO, 24 V DC, 8AI(voltage, current)/4(PT, ni, R)

General specifications

PRODUCT NAME	Eaton XNE Accessory Input card
CATALOG NUMBER	140037
MODEL CODE	XNE-8AI-U/I-4PT/NI
EAN	7640130095311
PRODUCT LENGTH/DEPTH	161.5 mm
PRODUCT HEIGHT	74.5 mm
PRODUCT WIDTH	13 mm
PRODUCT WEIGHT	0.064 kg
CERTIFICATIONS	IEC/EN 61131-2 CE Rated data for terminations according to IEC/EN 60947-7-1 IEC/EN 61000-6-4 IEC/EN 6113-2 cULus IEC/EN 61000-6-2



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Ambient conditions, mechanical

DROP AND TOPPLE	According to IEC 60068-2-31, free fall according to IEC 60068-2-32
SHOCK RESISTANCE	Continuous according to IEC/EN 60068-2-29 Mechanical, According to IEC/EN 60068-2-27
VIBRATION RESISTANCE	According to IEC/EN 60068-2-6

Communication

CONNECTION	Connection of sensor types Pt100, Pt200, Pt500, Pt1000 and Ni100, Ni1000, NI1000TK5000 in 2- or 3-wire circuit
CONNECTION TYPE	Push-In spring-cage terminals, Connection design in TOP direction
PROTOCOL	Other bus systems

Climatic environmental conditions

AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT STORAGE TEMPERATURE - MAX	85 °C
AMBIENT OPERATING TEMPERATURE - MIN	0 °C
AMBIENT STORAGE TEMPERATURE - MIN	-25 °C
ENVIRONMENTAL CONDITIONS	Harmful gasses - SO ₂ : 10 ppm (relative humidity < 75%, no condensation) Harmful gasses - H ₂ S: 1 ppm (relative humidity < 75%, no condensation)
RELATIVE HUMIDITY	5 - 95 % (indoor, Level RH-2, non-condensing for storage at 45°C)

Design verification

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.
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)	Meets the product standard's requirements.

RADIATION	
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.
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	1.5 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	1.5 W

Electrical rating

RATED OPERATIONAL VOLTAGE	24 V DC (supply terminal)
SUPPLY VOLTAGE AT AC, 50 HZ - MAX	0 VAC
SUPPLY VOLTAGE AT AC, 50 HZ - MIN	0 VAC
SUPPLY VOLTAGE AT DC - MAX	28.8 VDC
SUPPLY VOLTAGE AT DC - MIN	20.4 VDC

Features & functions

ELECTRIC CONNECTION TYPE	Plug-in connection
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FEATURES	Analog outputs configurable Input, voltage Input, resistor Fieldbus connection over separate bus coupler possible Input signal, configurable Input, current Analog inputs configurable Input, resistance thermometer
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FITTED WITH:	Connectable nickel sensors: Ni100, Ni1000 (according to DIN 43760) Connectable platinum sensors: Pt100, Pt500, Pt1000 (according to DIN IEC 751)
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FUNCTIONS	Diagnosis function
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Electro magnetic compatibility

AIR DISCHARGE	According to EN 61100-4-2
BURST IMPULSE	According to IEC/EN 61000-4-4
CONTACT DISCHARGE	According to EN 61100-4-2
ELECTROMAGNETIC FIELDS	According to IEC EN 61100-4-2
EMITTED INTERFERENCE	230 - 1000 MHz (radiated, high frequency, according to EN 55016-2-3) 30 - 230 MHz (radiated, high frequency, according to EN 55016-2-3)
RADIATED RFI	IEC/EN 61100-4-6
SURGE RATING	According to IEC/EN 61000-4-5 Level 4
VOLTAGE DIPS	According to EN 61131-2 (Voltage fluctuations/voltage dips)

General information

CURRENT CONSUMPTION	30 mA, from module bus, Analog input modules 35 mA, from supply terminal
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DEGREE OF PROTECTION	IP20 NEMA 1
LIMIT FREQUENCY	1.5 Hz (- 3 db)
MOUNTING METHOD	Rail mounting possible
PRODUCT CATEGORY	XNE Slice module
TYPE	XI/ON I/O module
VOLTAGE TYPE	DC
NUMBER OF CHANNELS	8 (U/I)

Input/Output

INPUT	8 Analog input U/I 4 Analog inputs PT/Ni
INPUT CURRENT	40 mA (Analog input) 0/4 - 20 mA (Analog input)
INPUT IMPEDANCE	< 62 kΩ ≥ 200 kΩ
INPUT VOLTAGE	Max. 20 V DC -10/0 - 10 V DC (Analog input modules)
MEASURED VALUE REPRESENTATION	12-bit full range, flush left 16-bit signed integer Standard/extended range/PA (NE43)
MEASURED VARIABLES	Current Temperature (PT, Ni) Resistance Voltage
NUMBER OF INPUTS (ANALOG)	8
NUMBER OF OUTPUTS (ANALOG)	0
TIMING CYCLE	0.1 % Offset error

Terminal capacities

GAUGE PIN	A1 (according to IEC/EN 60947-1)
STRIPPING LENGTH (MAIN CABLE)	8 mm
TERMINAL CAPACITY	0.25 - 1.5 mm², flexible without ferrule, H07V-K 0.25 - 1.5 mm², solid, H07V-U 0.25 - 1.5 mm², with ferrules without plastic collar according to DIN 46228-1 (ferrules crimped gas-tight) 0.25 - 0.75 mm², with ferrules with plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)

Safety

EXPLOSION SAFETY CATEGORY FOR DUST	None
EXPLOSION SAFETY CATEGORY FOR GAS	None
POTENTIAL ISOLATION	Through optocoupler: yes

Resources

BROCHURES	eaton-xc300-modular-plc-brochure-br050008en-en-us.pdf Slice card modular I/O system for the machine building industry XN300 - brochure
DRAWINGS	eaton-io-modules-xion-xne-output-module-dimensions.eps eaton-io-modules-xne-output-module-3d-drawing.eps
ECAD MODEL	ETN.XNE-8AI-U I-4PT NI
MANUALS AND USER GUIDES	MN05002011Z_EN MN05002011Z_DE xne_8ai_u_i_4pt_ni.stp
MCAD MODEL	eaton-accessories-mcad-drawings-xne-8ai-u-i-4pt-ni.dwg

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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