Specifications

Eaton 140035

Eaton XNE Digital input card XI/ON ECO, 24 V DC, 8DI

General specifications	
PRODUCT NAME	Eaton XNE Accessory Input card
CATALOG NUMBER	140035
EAN	7640130120556
PRODUCT LENGTH/DEPTH	129.5 mm
PRODUCT HEIGHT	74.5 mm
PRODUCT WIDTH	13 mm
PRODUCT WEIGHT	0.055 kg
CERTIFICATIONS	CE CSA Class No.: 2252-01, 2252-81 IEC/EN 61000-6-2 CSA-C22.2 No. 142 UL Recognized UL report applies to both US and Canada UL Category Control No.: NRAQ, NRAQ7 IEC/EN 61000-6-4 Certified by UL for use in Canada IEC/EN 6113-2 UL File No.: E205091 cULus IEC/EN 61131-2 UL 508 Rated data for terminations according to IEC/EN 60947-7-1
CATALOG NOTES	Base modules without C-Connection already built in
MODEL CODE	XNE-8DI-24VDC-P

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Features & Functions

ELECTRIC CONNECTION TYPE	Plug-in connection
FEATURES	Fieldbus connection over separate bus coupler possible
FUNCTIONS	Positive switching

General

CURRENT CONSUMPTION	15 mA, from module bus, Analog input modules 1.5 mA, from supply terminal
DEGREE OF PROTECTION	IP20
MOUNTING METHOD	Rail mounting possible
NUMBER OF CHANNELS	8
PRODUCT CATEGORY	XNE Slice module
TYPE	I/O module
VOLTAGE TYPE	DC

Ambient conditions, mechanical

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

Climatic environmental conditions

AMBIENT OPERATING TEMPERATURE - MIN	0 °C
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT STORAGE TEMPERATURE - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MAX	85 °C
ENVIRONMENTAL CONDITIONS	Harmful gasses - SO2: 10 ppm (relative humidity < 75%, no condensation) Harmful gasses - H2S: 1 ppm (relative humidity < 75%, no condensation)
RELATIVE HUMIDITY	5 - 95 % (indoor, Level RH-2, non-condensing for storage at 45°C)

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	30 - 230 MHz (radiated, high frequency, according to EN 55016-2-3) 230 - 1000 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)

Terminal capacities

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

Electrical rating

RATED INSULATION VOLTAGE (UI)	500 V
RATED OPERATIONAL VOLTAGE	24 V DC (supply terminal)
SUPPLY VOLTAGE AT AC, 50 HZ - MIN	0 VAC
SUPPLY VOLTAGE AT AC, 50 HZ - MAX	0 VAC
SUPPLY VOLTAGE AT DC - MIN	18 VDC
SUPPLY VOLTAGE AT DC - MAX	30 VDC

Communication

CONNECTION TYPE	Push-In spring-cage terminals, Connection design in TOP direction
PROTOCOL	Other bus systems

Input/Output

INPUT CURRENT	-1 - 1.5 mA (Digital inputs, low level) 2 - 5 mA (Digital inputs, high level)
INPUT CURRENT AT SIGNAL 1	2 mA
INPUT DELAY	100 µ s (rising edge) 200 µ s (falling edge)
INPUT VOLTAGE	-5 - 5 V (Digital inputs, low level) 11 - 30 V (Digital inputs, high level) 24 V DC (Digital inputs)
NUMBER OF INPUTS (DIGITAL)	8
NUMBER OF OUTPUTS (DIGITAL)	0
OUTPUT CURRENT	0 A

Safety

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

Design verification

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
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) 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.

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-digital-input-module-xne-communication-module-dimensions.eps eaton-io-modules-xne-output-module-3d-drawing.eps
ECAD MODEL	DA-CE-ETN.XNE-8DI-24VDC-P
MANUALS AND USER GUIDES	MN05002010Z_EN
MCAD MODEL	DA-CS-xne_8di_24vdc_p DA-CD-xne_8di_24vdc_p

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.
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.

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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