DATASHEET - XIOC-8AI-U1

Analog input card for XC100/200, 24 V DC, 8DI(0 to 10V)

Part no.	**XIOC-8AI-U1**
Catalog No.	**257899**
EL-Nummer (Norway)	**4519671**

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Delivery program

Function		Analog modules
		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
Description		Inputs 8 voltage input 0 - 10 V

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	0.18

Power supply

Rated voltage	U_e	V DC	24 (12)
Admissible range			20.4 – 28.8 (11.8 – 14.4)
Residual ripple		%	≦ 5
Neutral poles			
Duration of dip		ms	10
Repetition rate		s	1
Maximum power loss	P_v	W	0.5

Inputs

Input voltage		V DC	0 to 10
Resolution, digital		Bit	12
Conversion time			≦ 5 ms
Total error		%	≦ ±1 (of the full-scale value)
Input impedance		kΩ	100
Potential isolation			
Circuit within each channel			Opto-isolated
Between the input channels			No
Input channels		Qty.	8
Internal current consumption (5 V DC)		mA	Normally 100
Terminations			Plug-in terminal block
External power supply			24 V DC (-15/+20 %), approx. 150 mA
Connection type			2-core screened cable (≦20 m)

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	0.5
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 7.0

PLC's (EG000024) / PLC analogue I/O-module (EC001420)		
Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / SPS analog input/output module (ecl@ss10.0.1-27-24-22-01 [AKE524014])		
Number of analogue inputs		8
Number of analogue outputs		0
Analogue inputs configurable		Yes
Analogue outputs configurable		Yes
Input, current		No
Input, voltage		Yes
Input, resistor		No
Input, resistance thermometer		No
Input, thermocouple		No
Input signal, configurable		No
Resolution of the analogue inputs	Bit	12
Output, current		No
Output, voltage		No
Output signal configurable		No
Resolution of the analogue outputs	Bit	0
Type of electric connection		Screw-/spring clamp connection

Suitable for safety functions			No
Category according to EN 954-1			
SIL according to IEC 61508			None
Performance level acc. 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

21 95 50

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