DATASHEET - XIOC-TC1

Communication module for XC100/200, 24 V DC, serial, modbus, SUCOM-A, DNP3

Part no.	**XIOC-TC1**
Catalog No.	**135265**
EL-Nummer (Norway)	**4560855**

Delivery program

Function		Communication 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		Serial interface RS232C, RS485, RS422 Modes of operation: Transparent mode MODBUS Master/Slave SUCOM-A DNP3-Protocol

Technical data

General

Standards			IEC/EN 61131-2 EN 50178
Ambient temperature		°C	0 - +55
Storage	θ	°C	-20 - +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/$\varnothing$ 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	0.2

Power supply

Rated voltage	U_e	V DC	24 (12)
Admissible range			20.4 – 28.8 (11.8 – 14.4)
Residual ripple		%	$\leqq$ 5
Neutral poles			
Duration of dip		ms	10
Repetition rate		s	1
Maximum power loss	P_v	W	6.6

Interfaces

Built-in interfaces			RS232(C), RS422, RS485
Protocol			Tranparent mode, Modbus Master/Slave, SUCOM-A, DNP3 protocol
Character formats			8E1, 8O1, 8N1, 8N2, 7E2, 7O2, 7N2, 7E1
Control and signal cables			RTS, CTS, DTR, DSR, DCD
Data transfer rate		kBit/s	0.3 …57.6
Potential isolation			Yes (RS485, RS422)
Transmit/receive data			250/500
Bus terminating resistors			Switchable for RS485, RS422
Plug arrangement			RS232: 9 pole SUB-D plug RS485, 422: plug terminal block
Current consumption	I_e	mA	275
Number of modules			XC200: 4

Slots			As required

Interface modules

Operating mode Transparent mode			
Data transfer rate		kBit/s	0.3 …57.6
Character formats			8E1, 8O1, 8N1, 8N2, 7E2, 7O2, 7N2, 7E1
Operating mode			
Transmit/receive data			250/500

Design verification as per IEC/EN 61439

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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	6.6
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 communication module (EC001423)	
Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / SPS communication module (ecl@ss10.0.1-27-24-22-08 [AKE531014])	
Number of HW-interfaces industrial Ethernet	0
Number of interfaces PROFINET	0
Number of HW-interfaces RS-232	1
Number of HW-interfaces RS-422	1
Number of HW-interfaces RS-485	1
Number of HW-interfaces serial TTY	0
Number of HW-interfaces USB	0
Number of HW-interfaces parallel	0

Number of HW-interfaces Wireless			0
Number of HW-interfaces other			0
With optical interface			No
Supporting protocol for TCP/IP			No
Supporting protocol for PROFIBUS			No
Supporting protocol for CAN			No
Supporting protocol for INTERBUS			No
Supporting protocol for ASI			No
Supporting protocol for KNX			No
Supporting protocol for MODBUS			Yes
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
Redundancy			No
Type of data transmission			Serial
Transmission rate		kBit/s	57.6
With potential separation			No
Category according to EN 954-1			
SIL according to IEC 61508			None
Suitable for safety functions			No
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

North America Certification			Request filed for UL and CSA
Specially designed for North America			No
Current Limiting Circuit-Breaker			No

Dimensions
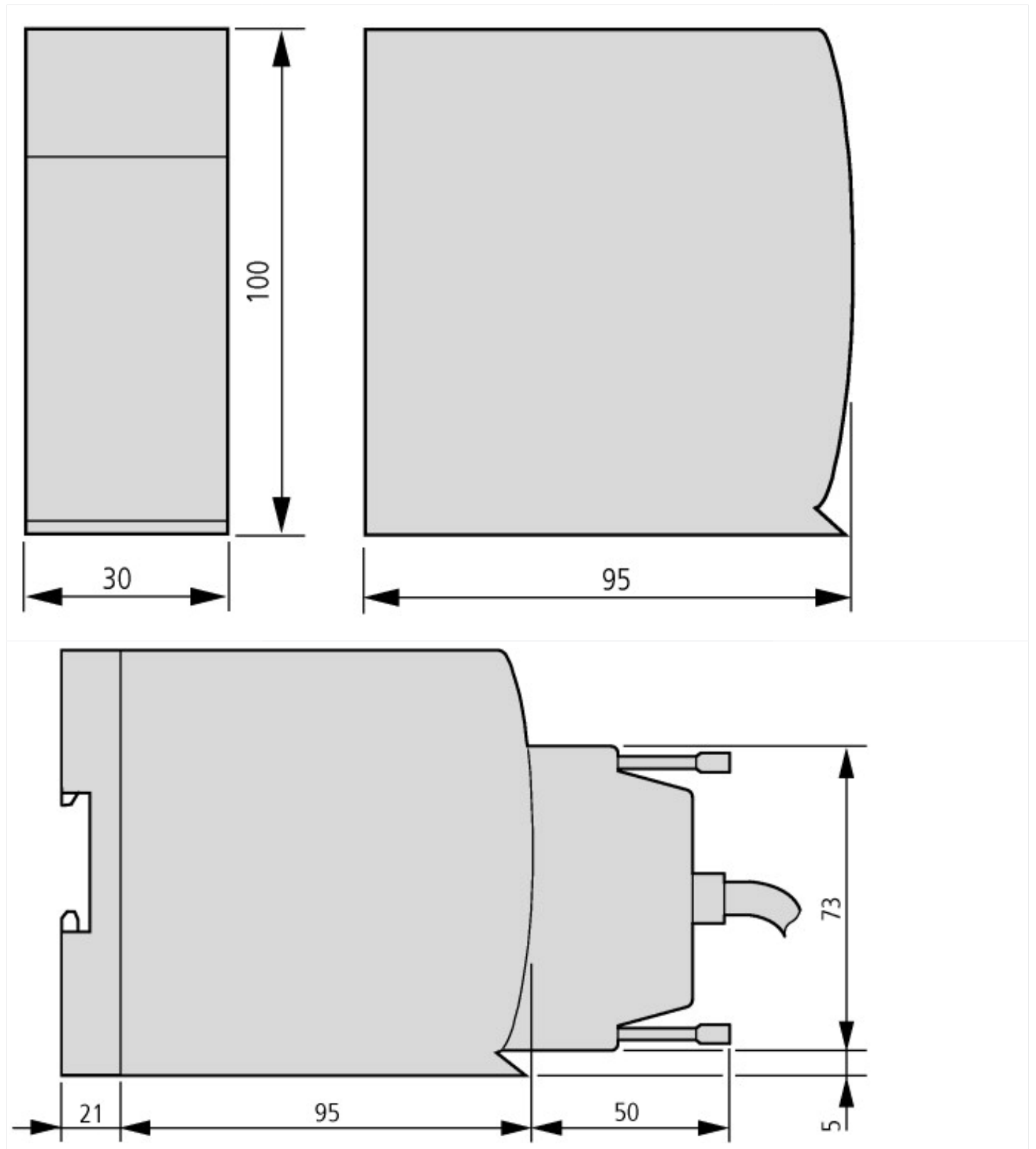
Additional product information (links)

Product overview (WEB)	http://www.eaton.eu/xion