

Communication module for XC100/200, 24 V DC, serial, modbus, SUCOMA, suconet ${\bf K}$

Powering Business Worldwide*

Part no. XIOC-SER Article no. 267191

	gram

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 Suconet-K slave

Technical data

General

Standards			IEC/EN 61131-2 EN 50178
Ambient temperature		°C	0 - +55
Storage	8	°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/ [©] 50 mm ±25 g
Overvoltage category/pollution degree			11/2
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		%	≦ 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-Modus, MODBUS Master/Slave, SUCOM-A, Suconet-K-Slave
Character formats		8E1, 8O1, 8N1, 8N2, 7E2, 7O2, 7N2, 7E1
Control and signal cables		RTS, CTS, DTR, DSR, DCD
Data transfer rate	kBi	it/s 0.357.6 187.5, 375 (Suconet)
Potential isolation		Yes (RS485, RS422)
Transmit/receive data		250 Byte per slave 120 Byte per slave (Suconet-K slave)
Bus terminating resistors		Switchable for RS485, RS422
Plug arrangement		RS232: 9 pole SUB-D plug RS485, 422: plug terminal block

Current consumption	l _e	mA	275
Number of modules			XC100: 2 XC200: 4
Slots			As required
Interface modules			
Number of modules (COM interfaces)			
XC100			2
XC200			4
Active interface/module			1
Max. internal current consumption		mA	275
Potential isolation			
RS232			No
RS 422/RS485			Yes
Connection options			
RS232			9-pole Sub-D connector (male)
RS 422/RS485			6-pole spring-loaded terminal block
Operating mode Transparent mode			
Type of interface			RS232, RS 422, RS485
Control and signal cables			RTS, CTS, DTR, DSR, DCD
Data transfer rate		kBit/s	0.357.6 187.5, 375 (Suconet)
Data transfer rate		kbit/s	0.3, 0.6, 1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6
Character formats			8E1, 8O1, 8N1, 8N2, 7E2, 7O2, 7N2, 7E1
Number of transmit bytes in one block Com2, 3, 4, 5			250 bytes per Com
Number of receive bytes in one block Com2, 3, 4, 5			250 bytes per Com
Operating mode			
			Suconet K (slave)
Type of interface		Number	RS485
Data transfer rate		KBit/s	187.5 or 375
Message format			Suconet K
Addresses			2 to 31
Transmit/receive data			250 Byte per slave 120 Byte per slave (Suconet-K slave)

Design verification as per IEC/EN 61439

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Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	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
EC/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 6.0

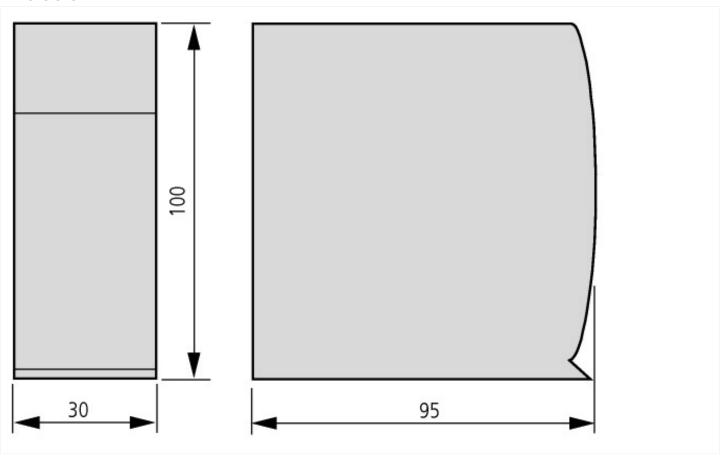
Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / SPS communication in Number of HW-interfaces industrial Ethernet 0 Number of HW-interfaces PROFINET 0 Number of HW-interfaces RS-232 1 Number of HW-interfaces RS-422 1 Number of HW-interfaces 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	odule (ecl@ss8.1-27-24-22-08 [AKE531011])
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Number of HW-interfaces USB 0 Number of HW-interfaces parallel 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 Yes	
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	
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	
Radio standard GPRS No	
Radio standard GSM No	
Radio standard UMTS No	
IO link master No	

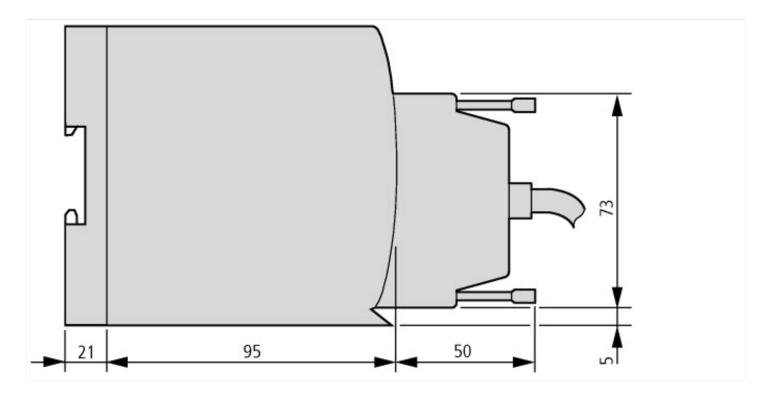
Redundancy		No
Type of data transmission		Serial
Transmission rate	kBit/s	375
With potential separation		No
Category according to EN 954-1		
SIL according to IEC 61508		None
Suitable for safety functions		No
Performance level acc. to EN ISO 13849-1		None
Appendant operation agent (Ex ia)		No
Appendant 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

- Pp. Grand	
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





Additional product information (links)

ridalitional product informa	tualitation product information (mino)				
MN05002002Z (AWB2725-1452) XIOC signal modules					
MN05002002Z (AWB2725-1452) XIOC- Signalmodule - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002002Z_DE.pdf				
MN05002002Z (AWB2725-1452) XIOC signal modules - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002002Z_EN.pdf				