DATASHEET - XN-1RS232

Serial interface module XI/ON, RS232

Part no.	XN-1RS232
	140151
EL Number (Norway)	4520687

EAT·N

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General specifications

Product name		Eaton XN Communication module
Part no.		XN-1RS232
EAN		7640130120075
Product Length/Depth		55.4 millimetre
Product height		74.1 millimetre
Product width		12.6 millimetre
Product weight		0.031 kilogram
Certifications		UL Recognized
		IEC/EN 61131-2
		CSA Class No.: 2252-01, 2252-81
		IEC/EN 61000-6-4
		CULus
		IEC/EN 6113-2
		UL Category Control No.: NRAQ, NRAQ7
		CSA-C22.2 No. 142
		IEC/EN 61000-6-2
		UL report applies to both US and Canada
		Certified by UL for use in Canada
		CE
		UL 508
		UL File No.: E205091
Product Tradename		XN
Product Type		Communication module
Product Sub Type		None
Catalog Notes		-7 - 12

Features & Functions

Features		Fieldbus connection over separate bus coupler possible
Fitted with:		Potential separation

General information

Cable length		15 m, RS232 Interface
Channels		RxD, TxD, RTS, CTS
Current consumption		0 mA, from supply terminal
		140 mA, from module bus, Analog input modules
Degree of protection		IP20
Insulation resistance		500 V, Control/main circuit
		500 V, Control/main circuit enclosure
Mounting method		Rail mounting possible
Suitable for		Base modules without C-Connection, for sensor feeding: 4-wire
Type		RS232, Interface
		XI/ON technology module
Used with		XN-S4T-SBBS
		XN-S4S-SBBS
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 - H2S: 1 ppm (relative humidity < 75%, no condensation)

		Harmful gasses - SO2: 10 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		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)

Electrical rating

Power loss		Normally 1 W
Rated operational voltage		24 V DC (supply terminal)
Supply voltage at AC, 50 Hz - min		0 V
Supply voltage at AC, 50 Hz - max		0 V
Supply voltage at DC - min		18 V
Supply voltage at DC - max		30 V

Communication

Data transfer rate		Selectable up to 115200 Bit/s 64 Byte, Data buffer, Transmit Max. 115200 bit/s (parameterizable), default setting: 9600 Bit/s, 7 data bits, odd parity, 2 stop bits 128 Byte, Data buffer, Reception
Interfaces		Full-duplex RS232 interface
Number of bytes		4 parameter bytes 1 diagnostic byte
Protocol		Other bus systems

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		0 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 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.
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.

Technical data ETIM 9.0

Programmable logic controllers PLC (EG000024) / Fieldbus, decentr. periphery - communication module (EC001604)

Electric engineering, automation, process control engineering / Control, Process Control System (PCS) / Field bus, decentralized peripheral / Field bus, decentralized peripheral - communications module (ecl@ss13-27-24-26-08 [BAA073018])

Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	18 - 30
Voltage type (supply voltage)		DC
Number of HW-interfaces CAN		
Number of HW-interfaces industrial Ethernet		
Number of interfaces PROFINET		
Number of HW-interfaces RS-232		
Number of HW-interfaces RS-422		
Number of HW-interfaces RS-485		
Number of HW-interfaces serial TTY		
Number of HW-interfaces USB		
Number of HW-interfaces parallel		
Number of HW-interfaces wireless		
Number of HW-interfaces other		
Supporting protocol for EtherCAT		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		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for SERCOS		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		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 eGPRS		No
Radio standard GSM		No
Radio standard LTE		No
Radio standard UMTS		No

IO link master			No
System accessory			Yes
Degree of protection (IP)			IP20
With potential separation			Yes
Fieldbus connection over separate bus coupler possible			Yes
Rail mounting possible			Yes
Wall mounting/direct mounting			No
Front built-in possible			No
Rack-assembly possible			No
Suitable for safety functions			No
SIL according to IEC 61508			None
Performance level according 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
Certified for UL hazardous location class I			No
Certified for UL hazardous location class II			No
Certified for UL hazardous location class III			No
Certified for UL hazardous location division 1			No
Certified for UL hazardous location division 2			No
Certified for UL hazardous location group A (acetylene)			No
Certified for UL hazardous location group B (hydrogen)			No
Certified for UL hazardous location group C (ethylene)			No
Certified for UL hazardous location group D (propane)			No
Certified for UL hazardous location group E (metal dusts)			No
Certified for UL hazardous location group F (carbonaceous dusts)			No
Certified for UL hazardous location group G (non-conductive dusts)			No
Width		mm	12.6
Height		mm	74.1
Depth		mm	55.4