



**Serial interface module XI/ON, RS485/422**

**Part no.** XN-1RS485/422  
**Catalog No.** 140152

**EL-Nummer (Norway)** 0004520688

**Delivery program**

Function			XI/ON technology modules
Short Description			Transmission rate selectable up to 115200 Bit/s
For use with			XN-S4T-SBBS XN-S4S-SBBS

**Technical data**

**General**

Standards			EN 61000-6-2 EN 61000-6-4 EN 61131-2
Potential isolation			Yes, through optocoupler
Ambient temperature			
Ambient temperature, operation		°C	0 - +55
Storage, transport	0	°C	-25 - +85
Relative humidity			
Relative humidity			5 - 95 % (indoor), Level RH-2, no condensation (for storage at 45°C)
Ambient conditions, mechanical			
Degree of Protection			IP20
Harmful gases		ppm	SO <sub>2</sub> : 10 (rel. humidity < 75%, no condensation) H <sub>2</sub> S: 1.0 (rel. humidity < 75 %,no condensation)
Vibration resistance, operating conditions			according to IEC/EN 60068-2-6
Mechanical shock resistance		g	according to IEC 60068-2-27
Continuous shock resistance (IEC/EN 60068-2-29)			According to IEC 60068-2-29
Drop and topple			According to IEC 60068-2-31, free fall according to IEC 60068-2-32
Electromagnetic compatibility (EMC)			
ESD	Air/contact discharge	kV	EN 61000-4-2
Electromagnetic fields	(0.08...1) / (1.4...2) / (2...2,7) GHz	V/m	EN 61100-4-2
Burst			EN 61100-4-4
Surge			EN 61100-4-5
Radiated RFI		V	EN 61100-4-6
Emitted interference (radiated, high frequency)	(30...230 MHz) / (230...1000 MHz)	dB	EN 55016-2-3
Voltage fluctuations/voltage dips			EN 61131-2
Type test			to EN 61131-2
Approvals			CE, cULus
Other technical data (sheet catalogue)			Technical Data

**Analog input modules**

Rated voltage through supply terminal	U <sub>L</sub>		24 V DC
Rated current consumption from supply terminal	I <sub>L</sub>	mA	25
Rated current consumption from module bus	I <sub>MB</sub>	mA	≤ 90

Diagnostics			1
Base modules			
without C connection, for sensor feeding			4-wire XN-S4x-SBBS

### Analog output modules

Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from supply terminal	$I_L$	mA	25
Rated current consumption from module bus	$I_{MB}$	mA	$\leq 90$

### Digital outputs

Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from the supply terminal (at load current = 0 mA)	$I_L$	mA	25
Rated current consumption from module bus	$I_{MB}$	mA	$\leq 90$
Power loss	P	W	Normally 1
Number of diagnostic bytes			1

### Digital inputs

Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from supply terminal	$I_L$	mA	25
Rated current consumption from module bus	$I_{MB}$	mA	$\leq 90$

### Relay modules

Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from supply terminal	$I_L$	mA	25
Rated current consumption from module bus	$I_{MB}$	mA	$\leq 90$
Power loss	P	W	Normally 1

### Power supply module

Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from supply terminal	$I_L$	mA	25
Rated current consumption from module bus	$I_{MB}$	mA	$\leq 90$
Diagnostics			1
Insulation voltage			
between interface and module bus/system voltage		$V_{eff}$	500
Power loss	P	W	1

### Counter module

Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from supply terminal	$I_L$	mA	25
Rated current consumption from module bus	$I_{MB}$	mA	$\leq 90$

### Measuring modes

Diagnostics			1
parameters			4

### Base modules

without C connection, for sensor feeding			4-wire XN-S4x-SBBS
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### Interfaces

Type			RS 484/RS 422
Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from supply terminal	$I_L$	mA	25
Rated current consumption from module bus	$I_{MB}$	mA	$\leq 90$
Power loss	P	W	Normally 1
Transmission channels			RxD, TxD
Data buffer			
Reception		Byte	128
Transmit		Byte	64
Basic unit			
RS485			2-wire, half-duplex
RS422			2-wire, half-duplex or 4-wire, full-duplex
Bit transfer rate			Max. 115200 bit/s (parameterizable), default setting: 9600 Bit/s, 7 data bits, odd parity, 2 stop bits
Insulation voltage			

between interface and module bus/system voltage		V <sub>eff</sub>	500
between interface and field voltage		V <sub>eff</sub>	500
Conductor impedance		Ω	120
Bus termination			120 Ω (external)
Cable length RS232		m	max. 30
Number of diagnostic bytes			1
Number of parameter bytes			4
Base modules			
without C connection, for sensor feeding			4-wire XN-S4x-SBBS

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	A	0
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	1
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	55
Degree of Protection			IP20
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) / Fieldbus, decentr. periphery - communication module (EC001604)			
Electric engineering, automation, process control engineering / Control / Field bus, decentralized peripheral / Field bus, decentralized peripheral - communications module (ecI@ss10.0.1-27-24-26-08 [BAA073013])			
Supply voltage AC 50 Hz		V	0 - 0
Supply voltage AC 60 Hz		V	0 - 0
Supply voltage DC		V	18 - 30
Voltage type of supply voltage			DC

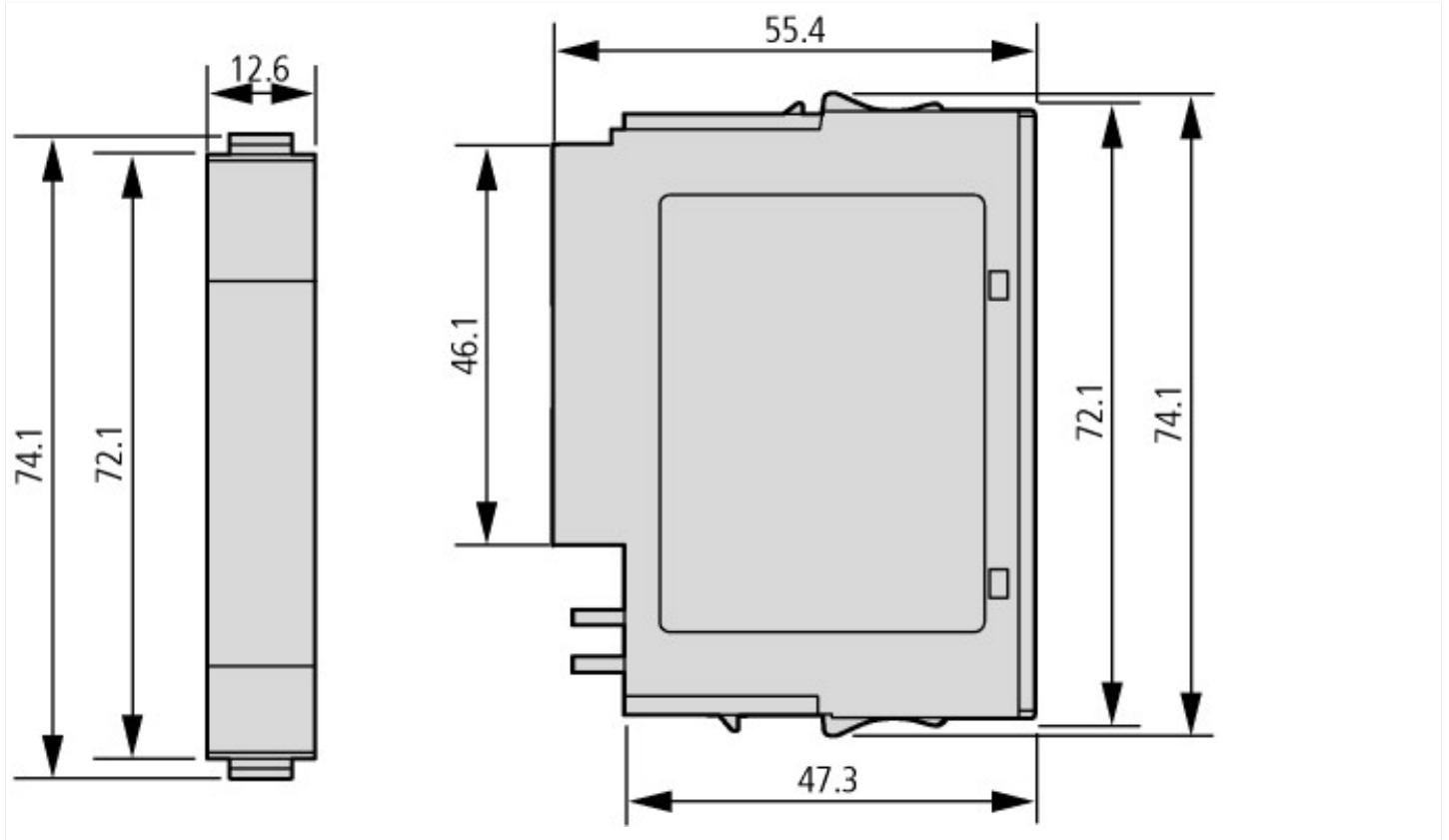
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for MODBUS		No
Supporting protocol for Data-Highway		No
Supporting protocol 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		No
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
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 build in possible		No
Rack-assembly possible		No
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	12.6
Height	mm	74.1
Depth	mm	55.4

## Approvals

Product Standards		UL 508; CSA-C22.2 No. 142; IEC/EN 6113-2; CE marking
UL File No.		E205091
UL Category Control No.		NRAQ, NRAQ7
CSA File No.		UL report applies to both US and Canada
CSA Class No.		2252-01, 2252-81
North America Certification		UL recognized, certified by UL for use in Canada

Specially designed for North America	No
Current Limiting Circuit-Breaker	No
Degree of Protection	IEC: IP20, UL/CSA Type: -

## Dimensions



Dimensions

## Assets (links)

### Declaration of CE Conformity

00002416

### Manuals

MN05002014Z\_DE (German)

MN05002014Z\_EN (English)

## Additional product information (links)

### User manual XI/ON technology module XN-1RS485/422 MN05002014Z

Benutzerhandbuch XI/ON Technologiemodul  
XN-1RS485/422 MN05002014Z - Deutsch

[ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05002014Z\\_DE.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002014Z_DE.pdf)

User manual XI/ON technology module  
XN-1RS485/422 MN05002014Z - English

[ftp://ftp.moeller.net/DOCUMENTATION/AWB\\_MANUALS/MN05002014Z\\_EN.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002014Z_EN.pdf)

Technical Data

<http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=14.111>