



Serial interface module XI/ON, SSI

Part no. XN-1SSI
Catalog No. 140153
EL-Nummer (Norway) 0004520689

Delivery program

Function			XI/ON technology modules
Short Description			Connection of SSI encoders up to max. 32-bit. Transmission rate selectable up to 1MBit/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	θ	°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 ₂ : 10 (rel. humidity < 75%, no condensation) H ₂ 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 _L		24 V DC
Rated current consumption from supply terminal	I _L	mA	25

Rated current consumption from module bus	I_{MB}	mA	≤ 50
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	≤ 50

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	≤ 50
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	≤ 50

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	≤ 50
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	≤ 50
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	≤ 50

Measuring modes

Diagnostics			1
parameters			4

Base modules

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

Interfaces

Type			SSI
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	≤ 50
Power loss	P	W	Normally 1
Transmission channels			CL, D
Basic unit			
RS422			4-wire, full-duplex (clock output/signal input)
Bit transfer rate			Max. 1 MHz (parameterizable), default settings: 500 kBit/s
Insulation voltage			
between interface and module bus/system voltage		V_{eff}	500
between interface and field voltage		V_{eff}	500
Conductor impedance		Ω	120

Bus termination			Internal
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
Note for table header			The figures for nominal current from the supply terminal apply when there is no sensor/transmitter current.

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	1
Heat dissipation capacity	P_{diss}	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

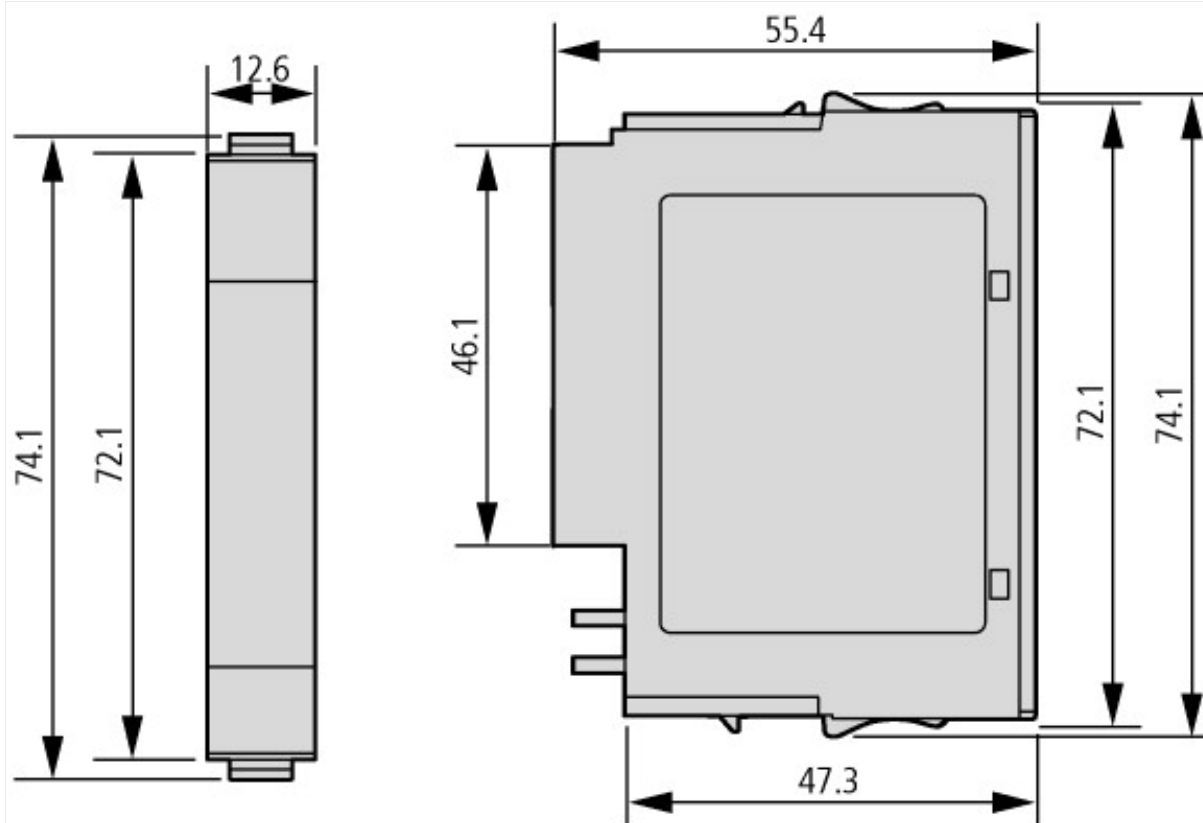
PLC's (EG000024) / Fieldbus, decentr. periphery - communication module (EC001604)			
Electric engineering, automation, process control engineering / Control / Field bus, decentralized peripheral / Field bus, decentralized peripheral - communications module (ecl@ss10.0.1-27-24-26-08 [BAA073013])			
Supply 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

Dimensions



Dimensions

Assets (links)

Declaration of CE Conformity

00002416

Manuals

MN05002015Z_DE (German)

MN05002015Z_EN (English)

Additional product information (links)

User manual XI/ON technology module XN-1SSI MN05002015Z

Benutzerhandbuch XI/ON Technologiemodul XN-1SSI MN05002015Z - Deutsch ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002015Z_DE.pdf

User manual XI/ON technology module XN-1SSI MN05002015Z - English ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002015Z_EN.pdf

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