## **DATASHEET - XNE-1SWIRE**



ECO gateway for XI/ON I/O system, SmartWire

Part no. XNE-1SWIRE Catalog No. 140043

EL-Nummer (Norway) 4520682



# **Delivery program**

Function	XI/ON technology modules
Function	XN Slice module
Short Description	Connection of up to 16 motor starters (Eaton) Up to 3 XNE-1SWIRE per XI/ON node

# 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 <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	(0.081) / (1,42) / (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)	(30230 MHz) / (2301000 MHz)	dB	EN 55016-2-3
Voltage fluctuations/voltage dips			EN 61131-2
Type test			to EN 61131-2
Approvals			EAC
Other technical data (sheet catalogue)			Technical Data

#### **Terminations**

Rated data according to VDE 0611 Part 1/8.92 /

			IEC/EN 60947-7-1
Connection design in TOP direction			Push-In spring-cage terminals
Stripping length		mm	8
Clamping range			max. 0.14 - 1.5 mm <sup>2</sup>
Connectable conductors			
"e" solid H07V-U		mm <sup>2</sup>	0.25 - 1.5
"f" flexible H 07V-K			0.25 - 1.5
		mm <sup>2</sup>	
"f" with ferrules without plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)		mm <sup>2</sup>	0.25 - 1.5
"f" with ferrules with plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)		mm <sup>2</sup>	0.25 - 0.75
Connectable conductors			
"e" solid H07V-U		$\mathrm{mm}^2$	0.25 - 1.5
"f" flexible H 07V-K		mm <sup>2</sup>	0.25 - 1.5
"f" with ferrules without plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)		mm <sup>2</sup>	0.25 - 1.5
"f" with ferrules with plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)		mm <sup>2</sup>	0.25 - 0.75
Analog input modules			
Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from supply terminal	IL	mA	0
Rated current consumption from module bus	I <sub>MB</sub>	mA	≦ 60
Diagnostics			4
Analog output modules			
Rated voltage through supply terminal	$U_{L}$		24 V DC
Rated current consumption from supply terminal	IL	mA	0
Rated current consumption from module bus	I <sub>MB</sub>	mA	≦ 60
Digital outputs			
Rated voltage through supply terminal	$U_{L}$		24 V DC
Rated current consumption from the supply terminal (at load current = 0 mA)	IL	mA	0
Rated current consumption from module bus	I <sub>MB</sub>	mA	≦ 60
Power loss	Р	W	Normally 1.5
Number of diagnostic bytes			4
Digital inputs			
Rated voltage through supply terminal	UL		24 V DC
Rated current consumption from supply terminal	IL	mA	0
Rated current consumption from module bus	$I_{MB}$	mA	≦ 60
Relay modules			
Rated voltage through supply terminal	U <sub>L</sub>		24 V DC
Rated current consumption from supply terminal	IL	mA	0
Rated current consumption from module bus	I <sub>MB</sub>	mA	≦ 60
Power loss	P	W	Normally 1.5
Power supply module			
Rated voltage through supply terminal	U <sub>L</sub>		24 V DC
Rated current consumption from supply terminal	IL	mA	0
Rated current consumption from module bus	I <sub>MB</sub>	mA	≦ 60
Supply voltage SWIRE	$U_{SW}$		24 V DC
Supply current SWIRE (LIN line at full load)			≦ 600 mA
Power supply SmartWire (contactor)  SWIRE connection			24 V DC 3 A  SWIRE-line: 1  XNE-1 SWIRE module per XI/ON station: ≦ 3  SWIRE modules per line: ≦ 16  Data per SWIRE module: max. 4I/4Q  Supply of SWIRE nodes (short-circuit proof): 17 V DC  Supply current of all nodes (short-circuit proof): ≦ 500
Diagnostics			4
Insulation voltage			

between interface and field voltage			None
Power loss	P	W	1.5
Counter module			
Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from supply terminal	IL	mA	0
Rated current consumption from module bus	I <sub>MB</sub>	mA	≦ 60
Measuring modes			
Diagnostics			4
Interfaces			
Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from supply terminal	IL	mA	0
Rated current consumption from module bus	I <sub>MB</sub>	mA	≦ 60
Power loss	Р	W	Normally 1.5
Insulation voltage			
between interface and module bus/system voltage		Veff	500
Number of diagnostic bytes			4

# **Design verification as per IEC/EN 61439**Technical data for design verification

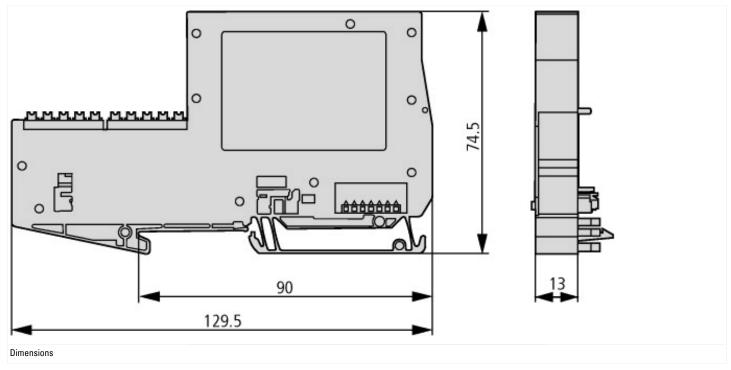
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	0
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	1.5
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
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 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	1	/	0 - 0
Supply voltage AC 60 Hz	,	/	0 - 0
Supply voltage DC	,		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 Supporting protocol for LON			No No
Supporting protocol for LON			No No
Supporting protocol for SERCOS			No
Supporting protocol for PROFINET ID			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	r	mm	13
Height		mm	129.5
Depth		mm	74.5
		1	

Approvals	
Product Standards	IEC/EN 6113-2; CE marking
North America Certification	Request filed for UL and CSA
Specially designed for North America	No
Current Limiting Circuit-Breaker	No
Degree of Protection	IEC: IP20, UL/CSA Type: -

## **Dimensions**



#### **Assets (links)**

#### **Declaration of CE Conformity**

00002416

#### Manuals

MN05002016Z\_DE (German) MN05002016Z\_EN (English)

## **Additional product information (links)**

User manual XI/ON technology module XNE-1SWIRE MN05002016Z		
Benutzerhandbuch XI/ON Technologiemodul XNE-1SWIRE MN05002016Z - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002016Z_DE.pdf	
User manual XI/ON technology module XNE-1SWIRE MN05002016Z - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05002016Z_EN.pdf	
Technical Data	http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=14.111	