

Connection, SmartWireDarwin, for NZM

Part no. NZM-XSWD-704
Article no. 135530

Powering Business Worldwide

Delivery programme

Product range			SmartWire-DT slave
Subrange			SmartWire-DT NZM module for circuit-breaker NZM
Product range			Accessories
Standard/Approval			IEC
Construction size			NZM2/3/4
Accessories			Accessories, diagnostics & communication
Function			The module implements the data connection between the NZM2/3/4 with electronic release and the SmartWire-DT.
Description			A switch with a remote operator can also be remotely operated with the module. Two digital inputs for the switch status 2 transistor outputs for remote switching Retentive memory for energy data (kWh) Energy data is transmitted through digital input (S0) from an external energy measuring module NZN...-XMC-SO.
Messages			Status data NZM: ON/OFF/TRIPPED Load warnings Reason for last trip Actual current value in A Switch type Actual settings of the rotary coding switches
Information about equipment supplied			A connection cable (1.90 m) for the circuit-breaker and two NZM auxiliary contacts (1 x NO, 1 x NC) are included as standard.
For use with			SmartWire-DT interface for NZM circuit-breakers
Connection to SmartWire-DT			yes

Technical data

General

Standards			IEC/EN 61131-2 EN 50178
Dimensions (W x H x D)		mm	35 x 90 x 101
Weight		kg	0.1
Mounting			Top-hat rail IEC/EN 60715, 35 mm
Mounting position			Vertical

Climatic environmental conditions

Relative humidity			
Condensation			Take appropriate measures to prevent condensation
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5 - 95

Ambient conditions, mechanical

Protection type (IEC/EN 60529, EN50178, VBG 4)			IP20
Vibrations (IEC/EN 61131-2:2008)			
Constant amplitude 3,5 mm		Hz	5 - 8.4
Constant acceleration 1 g		Hz	8.4 - 150
Mechanical shock resistance (IEC/EN 60068-2-27) semi-sinusoidal 15 g/11 ms		Impacts	9
Drop to IEC/EN 60068-2-31	Drop height	mm	50
Free fall, packaged (IEC/EN 60068-2-32)		m	0.3

Electromagnetic compatibility (EMC)

Overvoltage category			II
Pollution degree			2
Electrostatic discharge (IEC/EN 61131-2:2008)			
Air discharge (Level 3)		kV	8
Contact discharge (Level 2)		kV	4
Electromagnetic fields (IEC/EN 61131-2:2008)			

80 - 1000 MHz		V/m	10
1.4 - 2 GHz		V/m	3
2 - 2.7 GHz		V/m	1
Radio interference suppression (SmartWire-DT)			EN 55011 Class A
Burst (IEC/EN 61131-2:2008, Level 3)			
Supply cable		kV	2
Signal lines		kV	1
SmartWire-DT cables		kV	1
Radiated RFI (IEC/EN 61131-2:2008, Level 3)		V	10

SmartWire-DT network

Station type			SmartWire-DT slave
Setting the baud rate			automatic
Status SmartWire-DT		LED	Green
Connection			Plug, 8-pole Connection plug: External device plug SWD4-8SF2-5
Current consumption (15 V SWD supply)			**Electricity consumption** / Bus / AUX 24 V / With active remote operator / AUX 24 V / with remote operator inactive mA / mA / mA **NZM-XSWD-704** / 35 / 300 / 100

Connection supply and I/O

Terminal for I/O sensor			
Connection type			Push in terminals
Solid		mm^2	0.2 - 1.5 (AWG 24 - 16)
Flexible with ferrule		mm^2	0.25 - 1.5

Digital inputs

Quantity			8
Input current		mA	Normally 4 at 24 V DC
Limit value type 1			Low < 5V DC;High > 15V DC
Input delay			High->Low < 0.2 ms Low High typ. < 0.2 ms
Status display inputs		LED	yellow

Digital semi-conductor outputs

Quantity			4
Output current		A	Normally 0.5 at 24 V DC
Short-circuit tripping current		A	max. 1.2 over 3 ms
Lamp load	R_{LL}	W	≤ 3
Overload proof			yes, with diagnostics
Switching capacity			EN 60947-5-1 utilization category DC-13

Potential isolation

Inputs for SmartWire-DT			Yes
Outputs to SmartWire-DT			Yes

Design verification as per IEC/EN 61439

Technical data for design verification			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
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			Does not apply, since the entire switchgear needs to be evaluated.
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. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 6.0

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@ss8.1-27-24-26-08 [BAA073010])

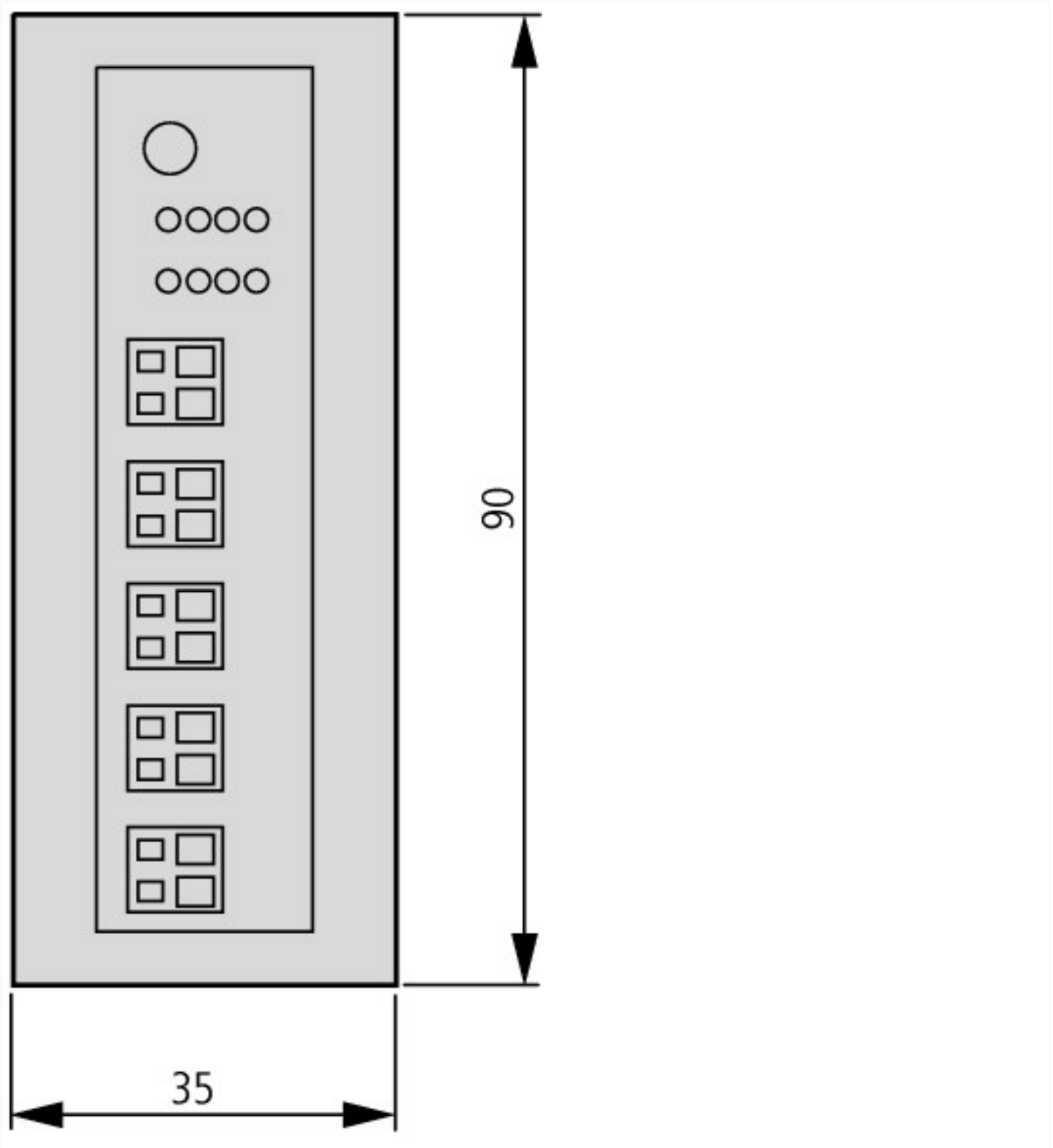
Supply voltage AC 50 Hz		V	0 - 0
Supply voltage AC 60 Hz		V	0 - 0
Supply voltage DC		V	24 - 24
Voltage type of supply voltage			DC
Supporting protocol for TCP/IP			No
Supporting protocol for PROFIBUS			No
Supporting protocol for CAN			No
Supporting protocol for INTERBUS			No
Supporting protocol for ASI			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			Yes
Radio standard Bluetooth			No
Radio standard WLAN 802.11			No
Radio standard GPRS			No
Radio standard GSM			No
Radio standard UMTS			No

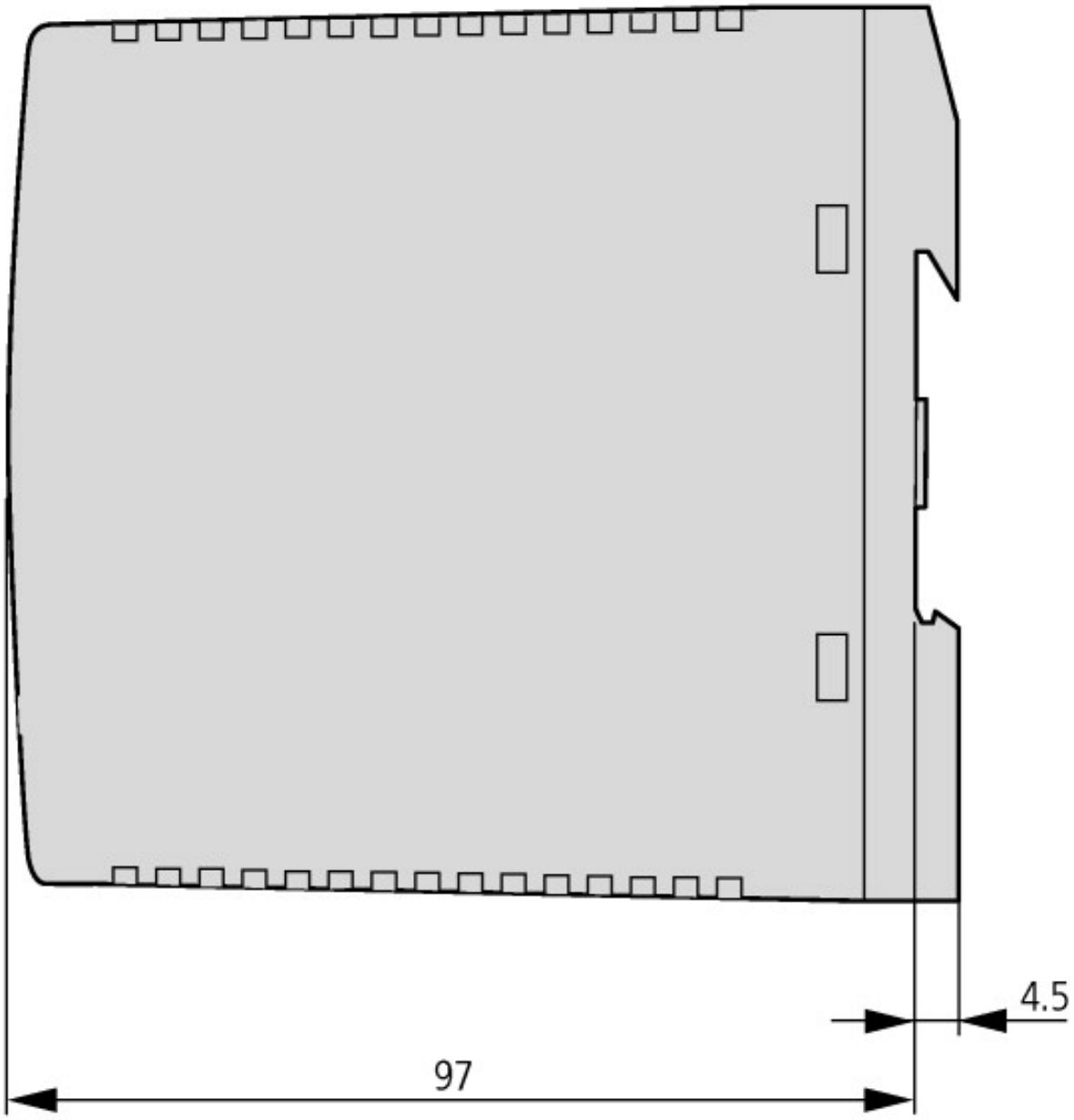
IO link master			No
System accessory			Yes
Degree of protection (IP)			IP20
With potential separation			Yes
Fieldbus connection over separate bus coupler possible			Yes
Rail mounting possible			Yes
Wall mounting/direct mounting			Yes
Front build in possible			No
Rack-assembly possible			No
Suitable for safety functions			No
Category according to EN 954-1			B
SIL according to IEC 61508			None
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	35
Height		mm	90
Depth		mm	101

Approvals

North America Certification			Request filed for UL and CSA

Dimensions





Additional product information (links)

IL05006005Z (AWA2723-2721) SmartWire-DT: NZM Interface	
IL05006005Z (AWA2723-2721) SmartWire-DT: NZM Interface	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05006005Z2013_07.pdf
IL05006005Z SmartWire-DT: NZM Interface	
IL05006005Z SmartWire-DT: NZM Interface	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05006005Z2013_07.pdf
MN05006001Z (AWB2723-1613) SWD modules	
MN05006001Z (AWB2723-1613) SWD-Teilnehmer - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006001Z_DE.pdf
MN05006001Z (AWB2723-1613) SWD modules - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006001Z_EN.pdf
MN05006001Z (AWB2723-1613) udente SWD - italiano	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006001Z_IT.pdf

© 12/2015 by Eaton Industries GmbH