



SWD T-Connector counter module IP67, one counter input with supply, M12 I/O socket



Part no. EU1E-SWD-1CX
Article no. 174721
Catalog No. EU1E-SWD-1CX

Delivery programme

Photo			
Product range			SmartWire-DT slave
Basic function			Counter module
Function			For connecting a meter
Short Description			Meter/incremental encoder 24 V DC, max. 30 kHz
Inputs			
meter			1
Connection to SmartWire-DT			yes

Technical data

General

Standards			IEC/EN 61131-2
Dimensions (W x H x D)		mm	85.6 x 56.9 x 20.1
Weight		kg	0.07
Mounting			DIN-rail, screw fixing (M4), mounting section (Clip M20)
Mounting position			As required

Climatic environmental conditions

Climatic proofing			Dry heat to IEC 60068-2-2 Damp heat as per EN 60068-2-3
Air pressure (operation)		hPa	795 - 1080
Ambient temperature			
Operation	θ	°C	-25 - +70
Storage / Transport	θ	°C	-40 - +70
Relative humidity			
Condensation			permissible
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5 - 95

Ambient conditions, mechanical

Protection type (IEC/EN 60529, EN50178, VBG 4)			IP67
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 30 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			3
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
Surge (IEC/EN 61131-2:2008, Level 1)			
Surge power cables		kV	0.5
Surge I/O 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
Baud rate (data transfer speed)		kbps	maximum 2000
Status SmartWire-DT		LED	Green
SWD-IN			M12 plug (A-coded), 5 pole
SWD-OUT			M12 socket (A-coded), 5 pole
Current consumption (24V, without sensor and without I/O supply)		mA	
Current consumption (24 V SWD supply)		mA	57
Sensor supply			
Max. current consumption per M12 I/O plug		mA	70
Overload and short-circuit proof			yes, with diagnostics

Connection supply and I/O

Terminal for I/O sensor			
Connection type			5-pin M12 socket (A-keyed)

24 V DC supply for output supply

Power supply			
Power loss	P	W	1.4

Zähler-Eingänge

Quantity			1
Input rated voltage		V DC	24
Counter input frequency		kHz	Max. 30
Counter value		Bit	32
Funktion Inkrementalgeber			
Encoder inputs			A,B,reference
Encoding			X1, X2, X4
Frequency measurement		Hz	0-65535
Funktion Einfachzähler			
Counter inputs			Counter pulse, direction, reference mark
Encoding			1.2-way
Frequency measurement		Hz	0-65535
Counter status indicator		LED	yellow

Potential isolation

Inputs for SmartWire-DT			No
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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	1.4
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
Degree of Protection			IP67
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 6.0

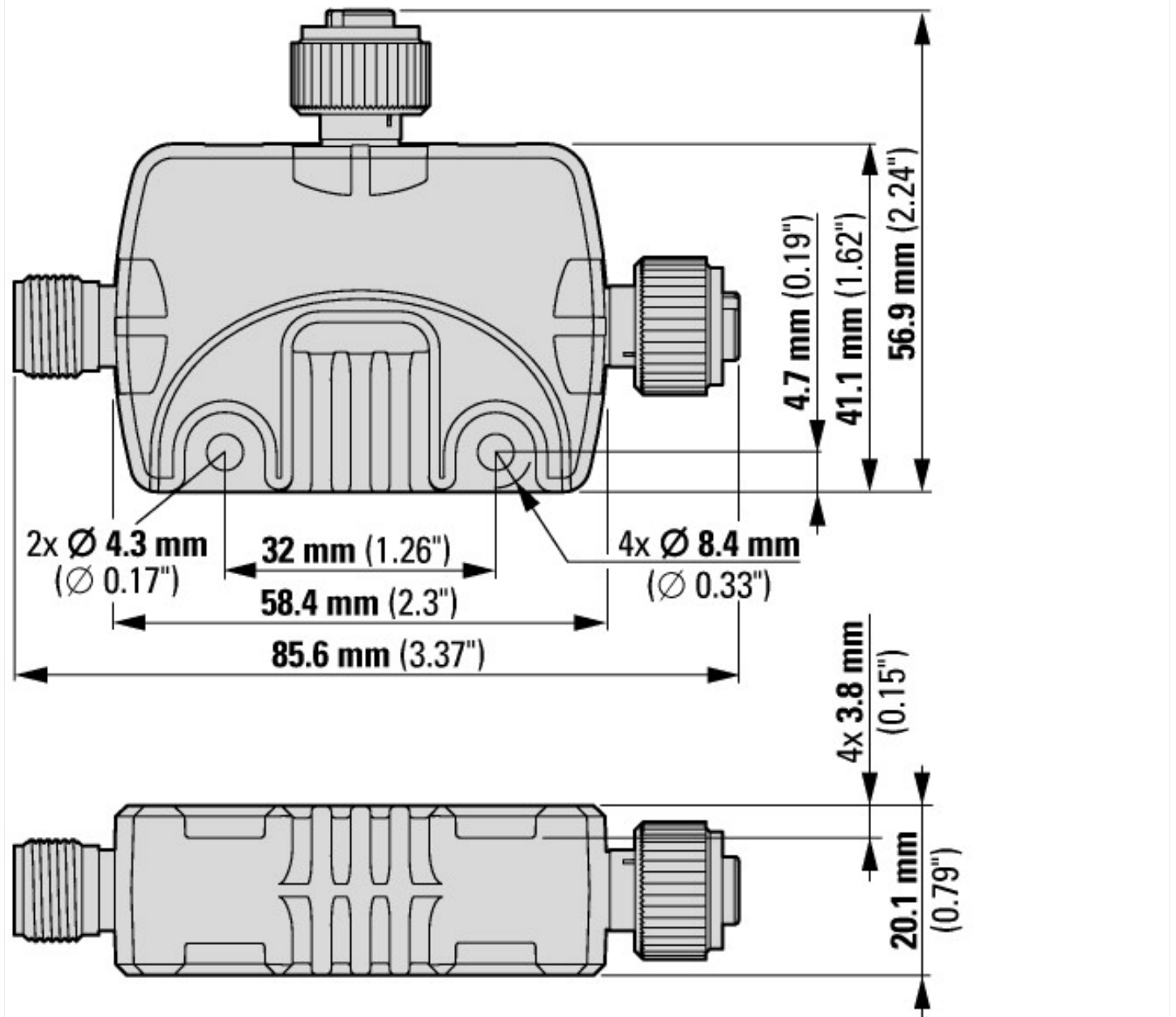
PLC's (EG000024) / PLC function/technology module (EC001422)		
Electric engineering, automation, process control engineering / Control / Programmable logic control (SPS) / SPS functional/technological module (ecl@ss8.1-27-24-22-05 [AKE528011])		
Number of functions		3
Redundancy		No
Suitable for counting		Yes
Suitable for weighting		No
Suitable for temperature control		No
Suitable for welding control		No
Suitable for pressure control		No
Suitable for NC		No
Function electronic positioning available		Yes
Suitable for CNC		No
Suitable for SSI		No
Suitable for incremental data detection		Yes
Suitable for detection absolute value		No
Flux controller possible		Yes
Suitable for flux measurement		No
Suitable for path controller		Yes
Suitable for cam controller		No
Suitable for flying saw		No
Suitable for multi-axis control		No
Single-axis controller possible		Yes
Suitable for multi-axis positioning		No
Single-axis positioning possible		Yes
Suitable for safety functions		No
Category according to EN 954-1		
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	85.6
Height	mm	56.9
Depth	mm	20.1

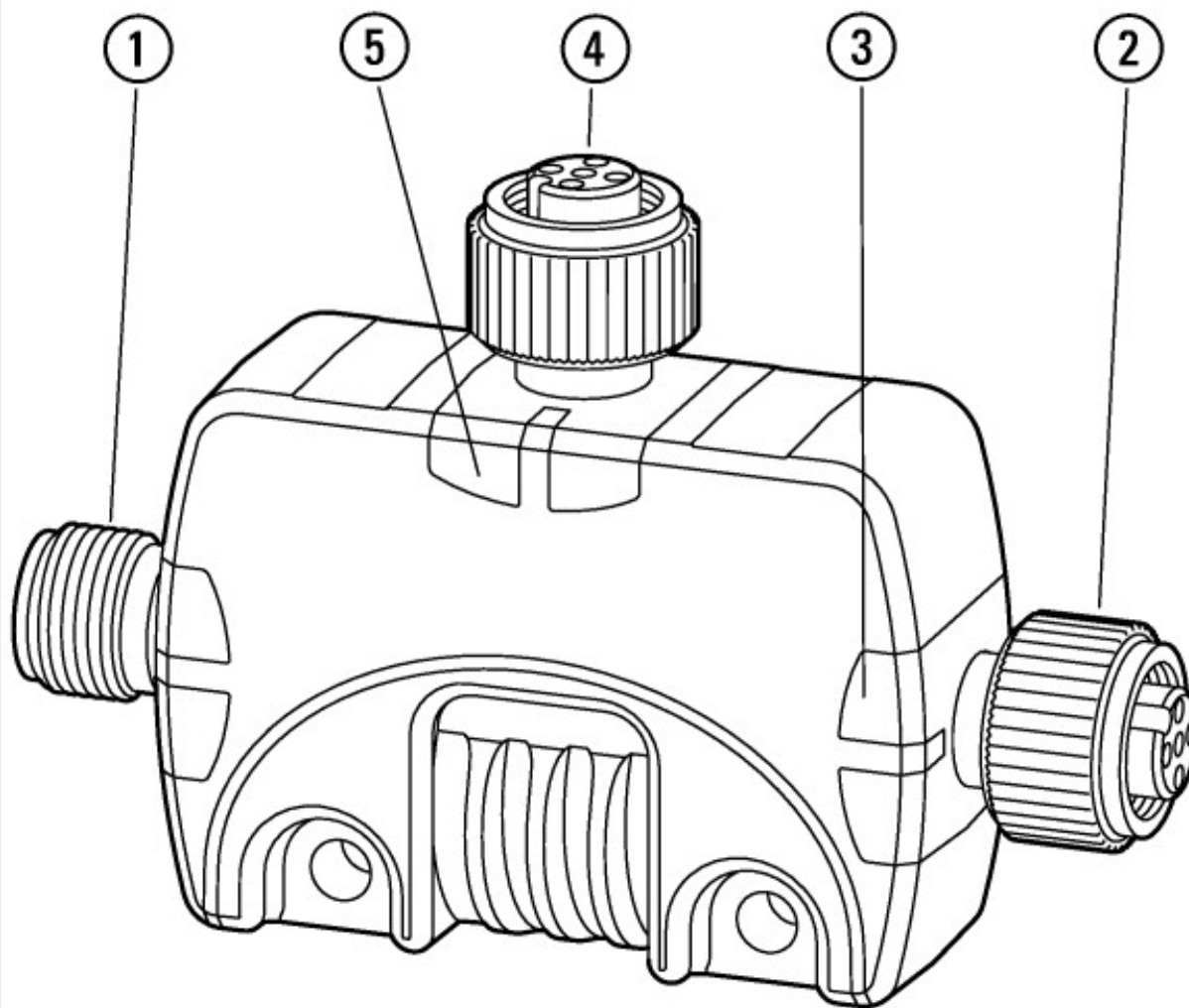
Approvals

UL File No.		E170645
North America Certification		UL listed, CSA certified
Specially designed for North America		No

Dimensions



SmartWire-DT I/O modules (IP67) EU1E-SWD-...



- ① SmartWire-DT connection SWD IN
- ② SmartWire-DT connection SWD OUT
- ③ SmartWire-DT diagnostics LED
- ④ I/O connection X1
- ⑤ status display

Additional product information (links)

MN120006 Handbuch SmartWire-DT, SWD-Teilnehmer IP67

MN120006 SmartWire-DT Teilnehmer – IP67 - Deutsch ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN120006_DE.pdf

MN120006 SmartWire-DT modules – IP67 - English ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN120006_EN.pdf

MN05006002Z Handbuch SmartWire-DT, Das System

MN05006002Z Handbuch SmartWire-DT, Das System - Deutsch ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_DE.pdf

MN05006002Z Handbuch SmartWire-DT, Das System - English ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_EN.pdf

MN05006002Z Handbuch SmartWire-DT, Das System - italiano ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_IT.pdf

<http://ecat.moeller.net/flip-cat/?edition=SWCAT&startpage=Title;Product Range Catalog SmartWire-DT>

Technical data <http://ecat.moeller.net/flip-cat/?edition=SWCAT&startpage=32>

SWD-ASSIST <http://downloadcenter.moeller.net/en/software.a487d8b7-da91-486f-b3ba-a7ca2035db99>