

Gateway, SWD, 99 SmartWire-DT cards on Powerlink

EU5C-SWD-POWERLINK Part no. Article no. 171797 Catalog No. **EU5C-SWD-POWERLINK**





Delivery program

Product range	SmartWire-DT coordinators
Function	For connection to a POWERLINK field bus as a slave
Short Description	Used to connect the SmartWire-DT communication system to industrial field bus systems. Powers SmartWire-DT modules and switchgear
Description	SmartWire-DT gateway for connecting up to 99 SmartWire-DT modules to an Industrial Ethernet network and for powering the SmartWire-DT modules and switchgear. A connection to Powerlink can be established using the integrated 100 Mbit/s Ethernet hub as slave. The gateway features a separate USB diagnostic interface (mini USB).
Accessories	Connection of up to 99 SWD slaves

Technical data

General

Standards			IEC/EN 61131-2
Dimensions (W x H x D)		mm	35 x 90 x 124
Weight		kg	0.16
Mounting			Top-hat rail IEC/EN 60715, 35 mm or screw fixing using fixing brackets ZB4-101-GF1 (accessories)
Mounting position			As required
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 - 9
Constant acceleration 1 g		Hz	9 - 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	1
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			EN 55011 Class A
Burst (IEC/EN 61131-2:2008, Level 3)			
Supply cable		kV	2
Fieldbus cable		kV	1
SmartWire-DT cable		kV	1
Surge (IEC/EN 61131-2:2008, Level 1)			
Supply cable			0.5 kV
Radiated RFI (IEC/EN 61131-2:2008, Level 3)		٧	10
Operating conditions			
Climatic environmental conditions			

Climatic proofing Ambient temperature In accordance with IEC 60068-2

Storage	Operation	9	°C	-25 - +55
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Manual Properties of 1908		U	U	-40 - +70
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Simply vindage Union Section of the production of the product				
Same decident in your and in equal victory and in process against posiently reversal (date, cumuno Investor against p			hPa	795 - 1080
Treatebook against priority reversal Max. current Max.			v	041/00/45/00%
### ### ### ### ### ### ### ### ### ##		U _{Aux}		
Max. Current of Max. Page 1972 Max. Page 2073 Max. P	Residual ripple on the input voltage		%	≦ ₅
Short circuit rating	Protection against polarity reversal			Yes
Power lass P W Normally 1 Power lass insistant No No Reprint of parting vallage of 24 × DC claves V Ny Dull, α-Q 2 Supply vallage V V V DC (15/170%) Biomers MP, (optional) V V Q Steamers MP, (optional) V A O Steamers MP, (optional) V A A Steamers MP, (optional) V A	Max. current	I_{max}	Α	3
Resential solation Reland quarenting voltage of 24 V.O. slaves Supply voltage Upon Supply	Short-circuit rating			no, external fuse FAZ Z3
### Stand operating voltage of 24-V-DC staves ### Supply voltage Unaw ### Supply voltage ### Supp	Power loss	Р	W	Normally 1
Supply voltage Variety Variet	Potential isolation			No
Variable	Rated operating voltage of 24-V-DC slaves		V	typ. U _{Aux} - 0.2
Variable	Supply voltage U _{Pow}			
	Supply voltage	U_{Pow}	V	24 V DC (-15/+20%)
Siemen MPI, (optional)	Input voltage ripple		%	≦,
Rated current Overload proof Overload proof Invisio current and duration Heat dissipation at 24 VDC Potential stolation between U _{Pow} and 15 V SmartWire-DT supply voltage Bridging voltage dips Bridging voltage dips Bridging voltage dips Status indication Uq V 14,5 = 3 % Rated apperating voltage Status indication Uq V 14,5 = 3 % Rated apperating voltage Was A 0.7 Short-circuit rating Connection supply voltage Connection supply voltage Connection type Said Said	Siemens MPI, (optional)			
Diverload grand Vest	Rated current	I	Α	
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Repetition rate LED yes Status indication LED yes Mand discision LED yes Shart Singer Disapply voltage Up V 14,5 ± 3 % Short-circuit rating Yes Connection supply voltages Connection type Push in terminals Solid Push in terminals Connection type Push in terminals ULCSA solid or stranded AWG 24 - 16 Station type AWG 24 - 16 Station type Station type Station type Station type SmartWire-DT master Station type Station t				
Status indication LED yes SmartWire-DT supply voltage Value 14.5 ± 3 % Parace current Imax A 0.7 Short-circuit rating Imax A 0.7 Connection supply voltages Ves Ves Connection type Push in terminals Solid mm² 0.2 ± 1.5 Flexible with forrule mm² 0.2 ± 1.5 UL/CSA solid or stranded AWG 24 ± 16 Station type SmartWire-DT network SmartWire-DT master Station type SmartWire-DT slaves SmartWire-DT master Station Standard LED SmartWire-DT master LED: red/green Connections LED SmartWire-DT master LED: red/green <tr< td=""><td></td><td></td><td></td><td></td></tr<>				
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Rated operating voltage U _u V 14,5 ± 3 % max. current Imax A 0,7 Short-circuit rating Imax A 0,7 Schneetion supply voltages Ves Ves Connection type Solid Imax 0 2-1.5 Solid mm² 0 2-5.5 1.5 UL/CSA solid or stranded MW 2 4-16 2 4-16 SmartWire-DT network SmartWire-DT master 98 98 Station sype SmartWire-DT slaves 98 98 98 98 98 98 98 98 98 98 98 98 98 98 98 98 98 98 98 99 <t< td=""><td></td><td></td><td>LED</td><td>yes</td></t<>			LED	yes
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Short-circuit rating Connection supply voltages Connection type Solid So				
Connection supply voltages Connection type Connection Co		Imax	А	
Connection type Solid mm² 2-1.5 Mm² 2-1.5 Mm² 2-1.5 Mm² 2-1.5 Mm² 2-1.5 Mm² 2-1.5 Mm² 2-1.6 Mm² 2-1.5 Mm² 2-1.6 Mm² 2-1.5 Mm² 2-1.5 Mm² Mm² 2-1.5 Mm² Mm² 2-1.5 Mm² Mm² 2-1.5 Mm² 2-1.5 Mm² Mm² 2-1.5 Mm² 2-1.5 Mm² Mm² 2-1.5 Mm² 2-1.6 Mm				Yes
Solid mm² 0.2 - 1.5 mm² 0.25 - 1.5 Hexible with ferrule mm² mm² 0.25 - 1.5 Hexible with ferrule mm² mm² 0.25 - 1.5 Hexible with ferrule mm²				Puch in terminals
Flexible with ferrule mm² 0.25 - 1.5 MUL/CSA solid or stranded AWG 24 - 16 SmartWire-DT network Station type Number of SmartWire-DT slaves Baud Rates Status indication Connections Plug connectors Plug connectors Fletidbus interface Module type Module type Module type Module type Module type Baud Rates Baud Rates Bayte Baud Rates Bayte Baud Rates Bayte Bayte Bayte Bayte Baud Rates Station address He Address allocation Status display interface Multi colour LED APL, BS, BE, L/A Two RJ45 (two-channel hub)			2	
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Status indication Connections Plug connectors Fieldbus interface Module type Protocol Input data, max. Baud Rates Baud Ra	Flexible with ferrule		mm ²	0.25 - 1.5
Status indication Number of SmartWire-DT slaves Baud Rates Baud Rates Status indication Connections Plug connectors Fieldbus interface Module type Protocol Input data, max. Baud Rates Baud Rates Baud Rates Baud Rates Baud Rates Multi colour Status indication Multi colour LED SmartWire-DT master SmartWire-DT master Powerlink slave Plug SmartWire-DT master LED: red/green Configurations LED: red/green C	UL/CSA solid or stranded		AWG	24 - 16
Number of SmartWire-DT slaves Baud Rates KBd 125 250 Status indication LED SmartWire-DT master LED: red/green Configurations				
Baud Rates Status indication Connections Connections Plug, 8-pole Blade terminal SWD4-8MF2 Fieldbus interface Module type Protocol Input data, max. Baud Rate Baud Rate Baud Rate Baud Rate Baud Rate Baud Rates Status display interface Multi colour Multi colour Multi colour Multi colour LED Multi colour LED SmartWire-DT master LED: red/green Configurations LED: red/green C	,,			
Status indication LED SmartWire-DT master LED: red/green Configurations LED: red/green Connections Plug, 8-pole Plug connectors Blade terminal SWD4-8MF2 Fieldbus interface Module type Protocol Input data, max. Powerlink v2 Input data, max. Byte 800 Output data, max. Byte 800 Output data, max. Byte 642 Baud Rate Baud Rate Baud Rates Station address Address allocation Multi colour LED APL, BS, BE, L/A Connection design for field bus LED SmartWire-DT master LED: red/green Configurations LED: red/green Plug, 8-pole Blade terminal SWD4-8MF2 Blade terminal SWD4-8MF2 Blade terminal SWD4-8MF2 Blade te	Number of SmartWire-DT slaves			99
Connections Connections Plug connectors Plug connectors Fieldbus interface Module type Module type Protocol Input data, max. Baud Rate Baud Rates Status display interface Multi colour Status display interface Connection design for field bus Multi colour Connection design for field bus Module type Powerlink SWD4-8MF2 Powerlink V2 Via Powerlink Va Powerlink V2 Va P	Baud Rates		kBd	
Connections Connections Connections Connections Plug connectors Blade terminal SWD4-8MF2 Blade terminal SWD4-8MF2 Powerlink slave Powerlink v2 Powerlink v2 Input data, max. Byte Baud Rate Baud Rate Baud Rates Baud Rates Blade terminal SWD4-8MF2 Powerlink v2 Powerlink v2 Byte Bou Byte Bou Byte Bou Byte Bud Byte Bud Bou Baud Rates Bou	Status indication		LED	
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Fieldbus interface Module type Module type Protocol Input data, max. Output data, max. Byte Baud Rate Baud Rates Station address Address allocation Status display interface Multi colour Multi colour LED APL, BS, BE, L/A Two RJ45 (two-channel hub)	Plug connectors			
Module type Protocol Protocol Powerlink V2 Input data, max. Byte Baud Rate Baud Rates Baud Rates Station address Station address Address allocation Status display interface Connection design for field bus Powerlink slave Powerlink V2 Bou Bou Byte Bou	Fieldbus interface			
Input data, max. Byte 800 Output data, max. Byte 642 Baud Rate Baud Rates Station address Address allocation Status display interface Connection design for field bus Byte 642 100 MBit/s 100 MBit/s IP via Powerlink Two RJ45 (two-channel hub)	Module type			Powerlink slave
Output data, max. Byte 642 Baud Rate Baud Rates Station address Address allocation Status display interface Connection design for field bus Byte 642 100 MBit/s 100 MBit/s IP via Powerlink Two RJ45 (two-channel hub)	Protocol			Powerlink V2
Output data, max. Byte 642 Baud Rate Baud Rates Station address Address allocation Status display interface Connection design for field bus Byte 642 100 MBit/s 100 MBit/s IP via Powerlink Two RJ45 (two-channel hub)	Input data, max.		Byte	800
Baud Rates Baud Rates 100 MBit/s 110 MB	Output data, max.			642
Baud Rates Station address Address allocation Status display interface Connection design for field bus 100 MBit/s IP via Powerlink APL, BS, BE, L/A Two RJ45 (two-channel hub)	Baud Rate			
Station address Address allocation Status display interface Multi colour LED APL, BS, BE, L/A Two RJ45 (two-channel hub)				100 MBit/s
Address allocation via Powerlink Status display interface Multi colour LED APL, BS, BE, L/A Connection design for field bus Two RJ45 (two-channel hub)	Station address			
Status display interface Multi colour LED APL, BS, BE, L/A Connection design for field bus Two RJ45 (two-channel hub)				
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Technical data in sheet catalogue

Other technical data (sheet catalogue)	Technical data
Notes	If contactors with a total current consumption > 3 A are connected, a power feeder module EU5C-SWD-PF1/2 has to be used. If SWD modules with a total current consumption > 0.7 A are connected, a power feeder module EU5C-SWD-PF2 has to be used.

Design verification as per IEC/EN 61439

Technical data for design verification			
<u> </u>		۸	0
Rated operational current for specified heat dissipation	I _n	Α	
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	-25
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 6.0

Supporting protocol for CAN
Supporting protocol for INTERBUS

Supporting protocol for ASI

PLC's (EG000024) / Fieldbus, decentr. periphery - communication module (EC001604)

Electric engineering, automation, process control engineering / Control / Field bus, (ecl@ss8.1-27-24-26-08 [BAA073010])	neering, automation, process control engineering / Control / Held bus, decentralized peripheral / Held bus, decentralized peripheral - communications module 7-24-26-08 [BAA073010])	
Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	20.4 - 28.8
Voltage type of supply voltage		DC
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No

No

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
10 link master		No
System accessory		Yes
Degree of protection (IP)		IP20
With potential separation		No
Fieldbus connection over separate bus coupler possible		No
Rail mounting possible		Yes
Wall mounting/direct mounting		Yes
Front build in possible		No
Rack-assembly possible		No
Suitable for safety functions		Yes
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	35
Height	mm	90
Depth	mm	127

Approvals

UL File No.	E221530
UL Category Control No.	NRQA
CSA File No.	UL report applies to both US and Canada
North America Certification	UL listed, CSA certified
Specially designed for North America	No
Current Limiting Circuit-Breaker	No

Dimensions

Additional product information (links)

SmartWire-DT Gateways

Madicional product informat	reactional product morniation (mino)		
MN05006002Z (AWB2723-1617) SmartWire-DT, The system			
MN05006002Z (AWB2723-1617) SmartWire-DT, Das System - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_DE.pdf		
MN05006002Z (AWB2723-1617) SmartWire-DT, The system - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_EN.pdf		
MN05006002Z (AWB2723-1617) SmartWire-DT, il sistema - italiano	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006002Z_IT.pdf		
SmartWire-DT product range catalog	http://ecat.moeller.net/flip-cat/?edition=SWKAT&startpage=13		
Technical data	http://ecat.moeller.net/flip-cat/?edition=SWKAT&startpage=40		
SWD-ASSIST	http://downloadcenter.moeller.net/en/software.a487d8b7-da91-486f-b3ba-a7ca2035db99		

120 mm (4.72")