

DATASHEET - DIL-SWD-32-001



Function element, contactor, SmartWire-DT, DIL/MS

Part no. DIL-SWD-32-001
Catalog No. 118560
Alternate Catalog No. DIL-SWD-32-001
EL-Nummer 4519766
(Norway)



Delivery program

Product range			SmartWire-DT slave
Accessories			SWD contactor modules
Function			For connecting the contactors to SmartWire-DT
Description			Per contactor 1 module necessary. Two self-supply digital inputs for potential-free contacts 1 electrical interlock for the surface mounting of reversing starters
Messages			Switch status Contactor, status of the digital inputs 1 and 2
Commands			Contactor actuation
Connection to SmartWire-DT			yes
For use with			DILM(C)7... - DILM(C)32... DILM38... DILA... DILMP20... DILMP32... DILMP45... MSC-D(E)-...(24VDC)
Notes			
For current consumption of the contactor coils > 3 A (UL: 2 A) use additional power feed module.			
A2 connections must not be bridged.			
Wiring sets DILM 12-XRL and PKZM0-XRM12 cannot be used.			
Connection terminals for electrical interlocking are not suitable for safety technology.			

Technical data

General

Standards			IEC/EN 61131-2 EN 50178 IEC/EN 60947
Dimensions (W x H x D)		mm	45 x 38 x 76
Weight		kg	0.04
Mounting			on DILM7...DILM38
Mounting position			as DILM7 to DILM38

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)			
CAN/DP bus cable		kV	1
SmartWire-DT cables		kV	1
Radiated RFI (IEC/EN 61131-2:2008, Level 3)		V	10

Climatic environmental conditions

Operating ambient temperature (IEC 60068-2)		°C	- 25 - +60
Condensation			Take appropriate measures to prevent condensation
Storage		°C	- 30 - 70
Relative humidity, non-condensing (IEC/EN 60068-2-30)		%	5 - 95

SmartWire-DT network

Station type			SmartWire-DT slave
Address allocation			automatic
SmartWire-DT status LED		LED	green/orange
Connections			Plug, 8-pole
Plug connectors			External device plug SWD4-8SF2-5
Current consumption		mA	40
Pick-up power			
for DILM 7-9		W	3
for DILM 12-15		W	4.5
for DILM 17-38		W	12
Pick-up current			
for DILM 7-9		mA	125
for DILM 12-15		mA	188
for DILM 17-38		mA	500
Holding power			
for DILM 7-9		W	3
for DILM 12-15		W	4.5
for DILM 17-38		W	0.5
Holding current			
for DILM 17-38		mA	21
for DILM 12-15		mA	188
for DILM 7-9		mA	125

Mode parameter

Manual/automatic mode			No
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Connection auxiliary contact

Number			2
Rated voltage	U _e	V DC	15
Input current at 1 signal, typical		mA	3
Potential isolation			No
Cable length		m	≤ 2.8
Connection type			Push in terminals

Terminal capacities

Solid		mm ²	0.2 - 1.5 (AWG 24 - 16)
Flexible with ferrule		mm ²	0.25 - 1.5
Notes			own supply Minimum length 8 mm.

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	0.8
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60

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 7.0

PLC's (EG000024) / Fieldbus, decentr. periphery - digital I/O module (EC001599)			
Electric engineering, automation, process control engineering / Control / Field bus, decentralized peripheral / Field bus, decentralized peripheral - digital I/O module (ecl@ss10.0.1-27-24-26-04 [BAA055014])			
Supply voltage AC 50 Hz	V		0 - 0
Supply voltage AC 60 Hz	V		0 - 0
Supply voltage DC	V		15 - 15
Voltage type of supply voltage			DC
Number of digital inputs			2
Number of digital outputs			1
Digital inputs configurable			No
Digital outputs configurable			No
Input current at signal 1	mA		3
Permitted voltage at input	V		15 - 15
Type of voltage (input voltage)			DC
Type of digital output			Other
Output current	A		0.5
Permitted voltage at output	V		20.4 - 28.8
Type of output voltage			DC
Short-circuit protection, outputs available			No
Number of HW-interfaces industrial Ethernet			0
Number of interfaces PROFINET			0
Number of HW-interfaces RS-232			0
Number of HW-interfaces RS-422			0
Number of HW-interfaces RS-485			0
Number of HW-interfaces serial TTY			0
Number of HW-interfaces parallel			0
Number of HW-interfaces Wireless			0

Number of HW-interfaces USB			0
Number of HW-interfaces other			1
With optical interface			No
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 PROFINET IO			No
Supporting protocol for PROFINET CBA			No
Supporting protocol for SERCOS			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
Type of electric connection			Spring clamp connection
Time delay at signal exchange		ms	10 - 84
Fieldbus connection over separate bus coupler possible			Yes
Rail mounting possible			No
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			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	45
Height		mm	38
Depth		mm	81

Approvals

Product Standards			IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.			E29184

UL Category Control No.		NKCR
CSA File No.		2324643
CSA Class No.		3211-07
North America Certification		UL listed, CSA certified
Specially designed for North America		No

Dimensions

The technical drawing shows two views of the SWD contactor modules. The top view (left) is a rectangle with a width of 45 and a height of 38. It shows the internal layout of the modules, including a large central component and several smaller components. The side view (right) shows the profile of the modules, with a total width of 72.3 and a height of 53.1. The modules are shown in a row, with the side view showing the depth of the modules.

SWD contactor modules
DIL-SWD-32-...

Additional product information (links)

MN05006001Z SmartWire-DT, modules	
MN05006001Z SmartWire-DT, Module - Deutsch	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN05006001Z_DE.pdf
MN05006001Z SmartWire-DT, modules - English	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN05006001Z_EN.pdf
MN05006001Z SmartWire-DT, modulo - italiano	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN05006001Z_IT.pdf
MN05006002Z (AWB2723-1617) SmartWire-DT, The system	
MN05006002Z (AWB2723-1617) SmartWire-DT, Das System - Deutsch	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN05006002Z_DE.pdf
MN05006002Z (AWB2723-1617) SmartWire-DT, The system - English	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN05006002Z_EN.pdf
MN05006002Z (AWB2723-1617) SmartWire-DT, il sistema - italiano	https://es-assets.eaton.com/DOCUMENTATION/AWB_MANUALS/MN05006002Z_IT.pdf