DATASHEET - DIL-SWD-32-001



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

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

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

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

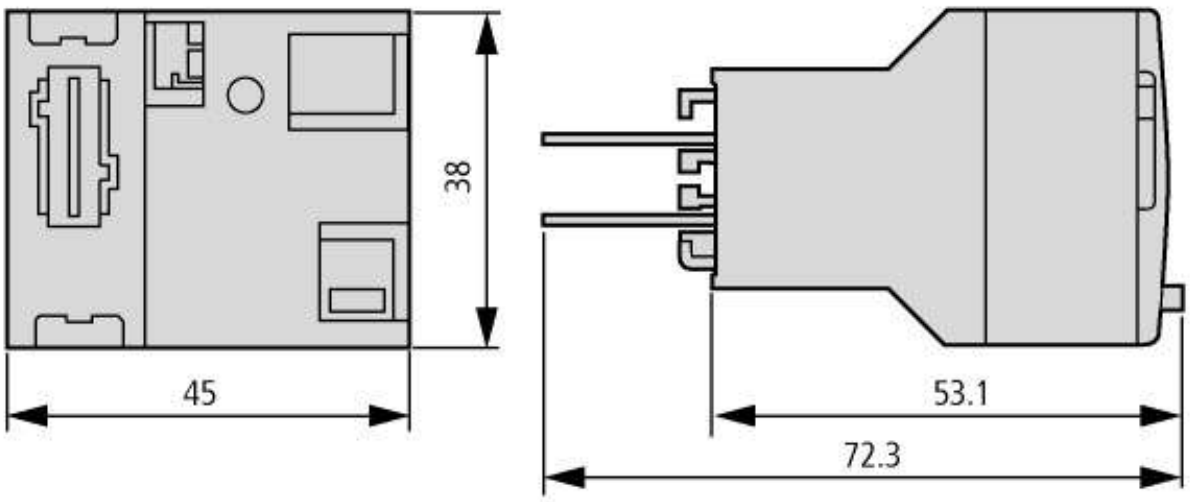
Number of HW-interfaces USB		0
Number of HW-interfaces other		1
With optical interface		No
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting 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



SWD contactor modules

DIL-SWD-32-...

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