

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

Part no. DIL-SWD-32-001 Article no. 118560 Catalog No. DIL-SWD-32-001





### **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.
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 MSC-D(E)(24VDC)

IEC/EN 61131-2

#### 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

Condensation

Canadia			EN 50178 IEC/EN 60947
Dimensions (W x H x D)		mm	45 x 38 x 76
Weight		kg	0.04
Mounting			on DILM7DILM38
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

Take appropriate measures to prevent condensation

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Section   Sect				
MartWire-DT network	Storage		°C	- 30 - 70
Sealout type  selout type selout type  selout type  selout type  selout type selout type  selout type  selout type  selout			%	5 - 95
Address allocation         LED         preor/cargae           Commetivines         Plug. 8 pole           Commeticions         External device plug SWD4-8SF2-5           Commeticions         External device plug SWD4-8SF2-5           Commeticions         MA         40           Commeticions         WA         45           Commeticions         WA				
LED   green/orange   LED   green/orange   LED   green/orange   LED   plug bepole   LED   plug bepole   LED				
Pug. 8-pole				
Fug connectors  Fur cont consumption  Fur cont cont in 17-38  Fur cont cont cont cont cont cont cont cont	SmartWire-DT status LED		LED	
Current consumption         mA         40           Crick-up power         Comment         Comment           for DLIM 7-9         W         3           for DLIM 17-38         W         12           Circle up current         W         12           For DLIM 7-9         MA         125           for DLIM 12-15         MA         188           for DLIM 12-15         MA         188           for DLIM 7-9         W         3           for DLIM 7-9         W         3           for DLIM 12-15         W         4           for DLIM 17-38         W         4           for DLIM 17-38         W         4           for DLIM 17-38         W         5           for DLIM 17-38         W         5           for DLIM 17-38         M         2           for DLIM 17-10         M         188           debil of protein         M <td>Connections</td> <td></td> <td></td> <td>Plug, 8-pole</td>	Connections			Plug, 8-pole
	Plug connectors			External device plug SWD4-8SF2-5
For DILM 7-9	Current consumption		mA	40
For DILM 12-15   W   4.5     For DILM 17-38   W   12     For DILM 17-9   MA   125     For DILM 12-15   MA   125     For DILM 12-15   MA   500     For DILM 17-38   MA   500     For DILM 17-38   W   3     For DILM 17-15   W   4.5     For DILM 17-38   W   0.5     For DILM 17-38   W   0.5     For DILM 17-38   MA   21     For DILM 17-39   MA   25     For DILM 17-39   MA   25     For DILM 17-30   MA   25     For DILM 17-3	Pick-up power			
For DILM 17-38   W   12   12   12   13   13   13   13   13	for DILM 7-9		W	3
First August 2015   Fir	for DILM 12-15		W	4.5
for DILM 7-9 for DILM 12-15 for DILM 13-38 for DILM 17-38 for DILM 7-9 for DILM 13-38 for DILM 12-15 for DILM 12-15 for DILM 12-15 for DILM 12-15 for DILM 13-38 fo	for DILM 17-38		W	12
for DILM 12-15 for DILM 17-38 for DILM 7-9 for DILM 7-9 for DILM 7-9 for DILM 17-38	Pick-up current			
ma   ma   ma   ma   ma   ma   ma   ma	for DILM 7-9		mA	125
	for DILM 12-15		mA	188
for DILM 7-9	for DILM 17-38		mA	500
for DILM 12-15 for DILM 17-38 folding current  for DILM 17-38 for DILM 17-38 for DILM 17-38 for DILM 12-15 for DILM 12-15 for DILM 7-9 Manual/automatic mode  Mo  Mo  Mo  Mo  Mo  Mo  Mo  Mo  Mo  M	Holding power			
For DILM 17-38	for DILM 7-9		W	3
for DILM 17-38  for DILM 12-15  for DILM 7-9  for DILM 7-9  for DILM 7-9  Annual/automatic mode  Annual/automatic	for DILM 12-15		W	4.5
mA   21   mA   188   mA   125	for DILM 17-38		W	0.5
for DILM 12-15 for DILM 7-9  Mode parameter  Manual/automatic mode  Monnection auxiliary contact  Mumber  Lated voltage  Mount current at 1 signal, typical  Potential isolation  Cable length  Mount connection type  Connection t	Holding current			
for DILM 7-9  Another parameter  Anoual/automatic mode  Anoual/auto	for DILM 17-38		mA	21
Mode parameter       No         Manual/automatic mode       No         Connection auxiliary contact       VDC         Stated voltage       Ue       VDC       15         Input current at 1 signal, typical       mA       3         Potential isolation       No       No         Sable length       m       ≤ 2.8         Connection type       Push in terminals         Ferminal capacities       mm²       0.2 - 1.5 (AWG 24 - 16)         Solid       mm²       0.25 - 1.5       own supply	for DILM 12-15		mA	188
Manual/automatic mode  Mumber  Mumber  Mated voltage  Motes  V DC	for DILM 7-9		mA	125
Number  Stated voltage  Ue  V DC  15  Input current at 1 signal, typical  Potential isolation  Cable length  Connection type  Ferminal capacities  Solid  Input current at 1 signal, typical  Mo  Cable length  Connection type  Input current at 2 signal, typical  Input current at 3 signal, typical  Input current at 1 si	Mode parameter			
Number  Rated voltage  Ue  V DC  15  Input current at 1 signal, typical  MA  3  Potential isolation  Cable length  Connection type  Ferminal capacities  Collid  Imm²  O.2 - 1.5 (AWG 24 - 16)  Rexible with ferrule  Imm²  O.25 - 1.5  Input current at 1 signal, typical  Imm²  O.25 - 1.5  Input current at 1 signal, typical  Imm²  O.25 - 1.5  Input current at 1 signal, typical  Imm²  O.25 - 1.5  Input current at 1 signal, typical  Imm²  O.25 - 1.5  Input current at 1 signal, typical  Imm²  O.25 - 1.5  Input current at 1 signal, typical  Imm²  O.25 - 1.5  Input current at 1 signal, typical  Imm²  O.25 - 1.5  Input current at 1 signal, typical  Imm²  O.25 - 1.5  Input current at 1 signal, typical  Imm²  O.25 - 1.5	Manual/automatic mode			No
Tated voltage  Ue  V DC  15  Input current at 1 signal, typical  MA  20  Potential isolation  Cable length  Connection type  Ferminal capacities  Foolid  Flexible with ferrule  Indeed  Inde				
nput current at 1 signal, typical  Potential isolation  Robert at 1 signal, typical  Robert at 1 signal	Number			
Potential isolation $m = \frac{1}{2.8}$ Connection type $\frac{1}{2.8}$ Connection type $\frac{1}$	Rated voltage	U <sub>e</sub>	V DC	15
Cable length	Input current at 1 signal, typical		mA	3
Connection type  Push in terminals  Ferminal capacities  Folid  Filexible with ferrule  Push in terminals  0.2 - 1.5 (AWG 24 - 16)  mm² 0.25 - 1.5  own supply	Potential isolation			
Terminal capacities  Solid mm² 0.2 - 1.5 (AWG 24 - 16)  Flexible with ferrule mm² 0.25 - 1.5  Solid one of the with ferrule own supply	Cable length		m	≦ <sub>2.8</sub>
Solid mm² 0.2 - 1.5 (AWG 24 - 16)  Flexible with ferrule mm² 0.25 - 1.5  Notes own supply	Connection type			Push in terminals
clexible with ferrule mm <sup>2</sup> 0.25 - 1.5  Notes own supply	Terminal capacities			
Notes own supply	Solid		$mm^2$	0.2 - 1.5 (AWG 24 - 16)
	Flexible with ferrule		$\text{mm}^2$	0.25 - 1.5
	Notes			

# Design verification as per IEC/EN 61439

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Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	0
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0.8
Heat dissipation capacity	P <sub>diss</sub>	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 6.0**

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@ss8.1-27-24-26-04 [BAA055011])

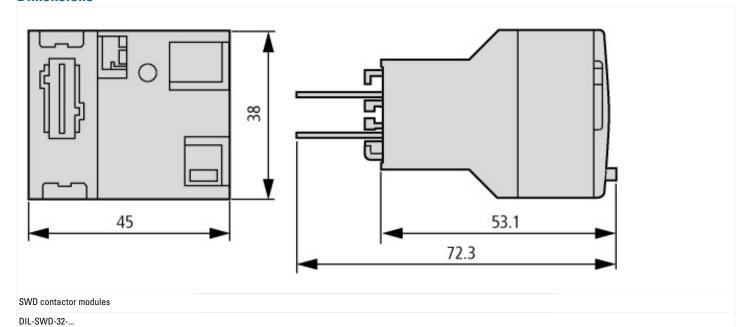
[DAAU00UTI])		
Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	15 - 15
Voltage type of supply voltage		DC
Number of digital inputs		2
Number of digital outputs		1
Digital inputs configurable		No
Digital outputs configurable		No
Input current at signal 1	mA	3
Permitted voltage at input	V	15 - 15
Type of voltage (input voltage)		DC
Type of digital output		
Output current	Α	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 HW-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 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
10 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. 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	45
Height	mm	38
Depth	mm	81

# Approvals

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**



Additional product information (links)

IL03402036Z SmartWire-DT, Funktionselement für DILM/MSC		
IL03402036Z SmartWire-DT, Funktionselement für DILM/MSC	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402036Z2010_08.pdf	
MN05006001Z SmartWire-DT, modules		
MN05006001Z SmartWire-DT, Teilnehmer - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006001Z_DE.pdf	
MN05006001Z SmartWire-DT, modules - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006001Z_EN.pdf	
MN05006001Z SmartWire-DT, modulo - italiano	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN05006001Z_IT.pdf	
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/D0CUMENTATION/AWB_MANUALS/MN05006002Z_IT.pdf	