DATASHEET - PKE-SWD-32

Function element, SmartWire-DT, for PKE12/32, manual/auto

Part no.	**PKE-SWD-32**
Catalog No.	**126895**
Alternate Catalog No.	**PKE-SWD-32**
EL-Nummer (Norway)	**4520200**

Powering Business Worldwide™

Delivery program

Product range			SmartWire-DT slave
Subrange			SmartWire-DT PKE module for motor-starter combinations
Basic function			Motor protection Motor protection for heavy starting duty
Product range			Accessories
Accessories			SmartWire-DT PKE module (motor-starter combinations)
Function			For connecting PKE motor-starter combination MSC-DEA… with PKE-XTUA-... trip blocks with a rated motor output of 15 kW/400 V to SmartWire-DT
Description			Mounting on DILM contactor with 24 V DC control voltage. One module per contactor and PKE necessary Additional SWD contactor module required fir actuation of reversing starter. 1 electrical interlock for the surface mounting of reversing starters. 1-0-A switch for manual or automatic operation. Selectable overload relay function (ZMR) for switching off the contactor on overload. Wiring sets DILM 12-XRL and PKZM0-XRM12 cannot be used. For current consumption of the contactor coils > 3 A (UL/CSA > 2 A) use additional power feeder module. A2 connections must not be bridged.
Messages			Switch position contactor/PKE/1-0-A switch Motor current in % Thermal motor image in % Trip indications (Overload, Short-circuit,...) Set value of overload releases Set time lag (CLASS) Part no. of trip block
Commands			Contactor actuation Activation Overload relay function (ZMR)
Information about equipment supplied			Connecting cable between module and trip block PKE-XTUA-… included as standard.
For use with			DILM(C)7… - DILM(C)32 MSC-DEA
Connection to SmartWire-DT			yes
Connection type			Push in terminals

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…DILM32
Mounting position			as DILM7 to DILM32

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			
Radio interference suppression			EN 55011 Class A
Burst (IEC/EN 61131-2:2008, Level 3)			
SmartWire-DT cables			
Signal lines		kV	1
CAN/DP-bus cable			
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	
Ambient temperature		°C	-25 - +60
Condensation			Take appropriate measures to prevent condensation
Storage	ϑ	°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
Status SmartWire-DT		LED	green/orange
Connections			Plug, 8-pole
Connection			External device plug SWD4-8SF2-5
Current consumption		mW	
15-V-SWD supply		mA	58
24-V-DC-SWD control voltage	U_{aux}		See the contactor's pick-up current and holding current (max. 0.5 A).

Operating mode

Manual/automatic mode			yes
Setting			via Rotary switch

Connection auxiliary contact

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

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	0.9
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
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])

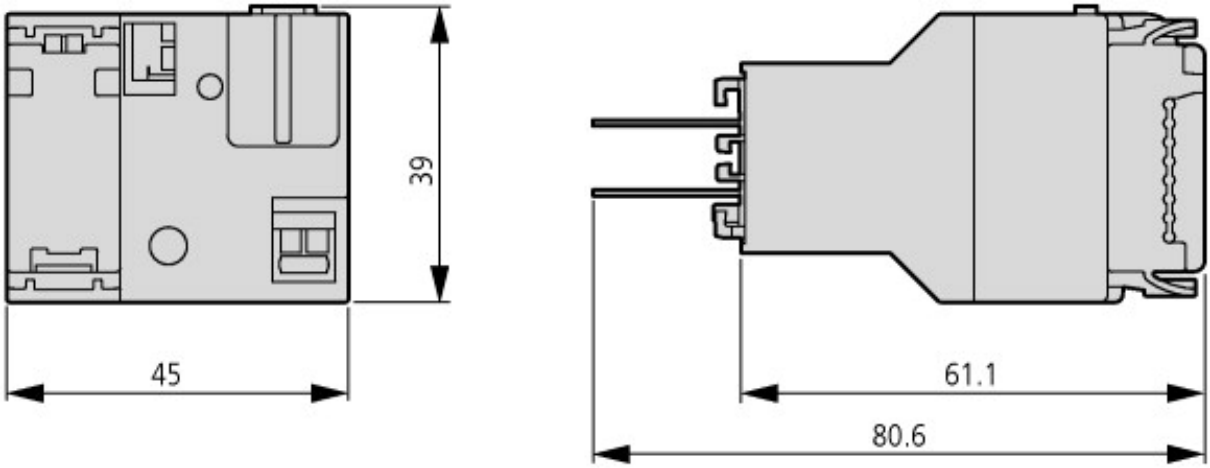
Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	15 - 15
Voltage type of supply voltage		DC
Number of digital inputs		0
Number of digital outputs		1
Digital inputs configurable		No
Digital outputs configurable		No
Input current at signal 1	mA	0
Permitted voltage at 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		2
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	77.3

Approvals

Product Standards	UL508; CSA-C22.2 No. 14; IEC60847-4-1; CE marking
UL File No.	E29184
UL Category Control No.	NKCR
CSA File No.	165628
CSA Class No.	3211-07
North America Certification	UL listed, CSA certified
Specially designed for North America	No

Dimensions



SmartWire-DT PKE module (motor-starter combinations)

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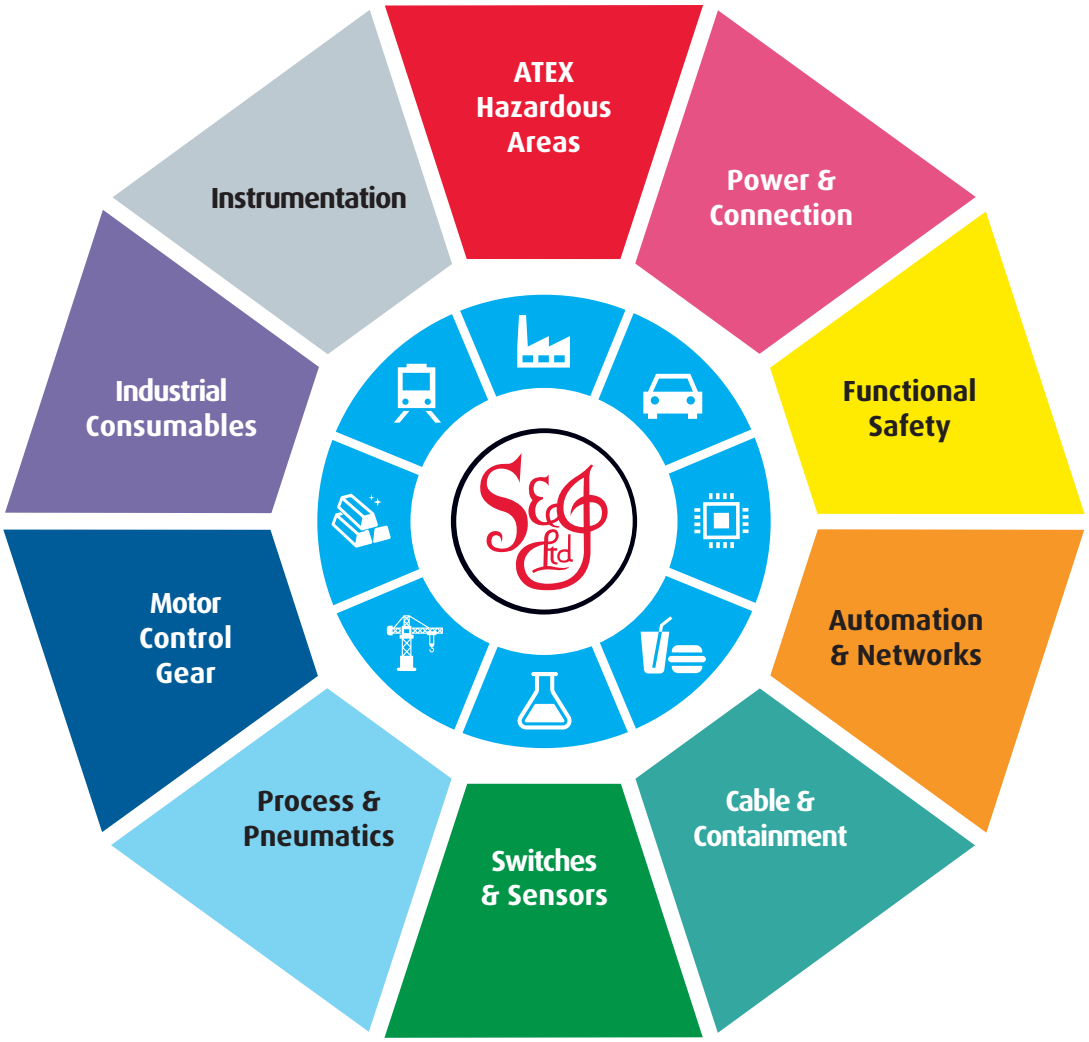

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