

## PROTECT-PE-11-SK

- Input for up to 4 sensors per interface e.g.: magnetic safety switches type BNS, emergency stop devices, interlocking devices and others
- 2 safety contacts
- Signalling output for each sensor (monitoring of both circuits of the sensors) and all sensors (Y5, group signal)
- Possibility to connect up to 4 sensors with non-isolated signals, e.g. the CSS products from Schmersal as well as AOPD's (only PROTECT-PE-02)

## Data

### Ordering data

Product type description	PROTECT-PE-11-SK
Article number (order number)	101210945
EAN (European Article Number)	4030661562124
eCl@ss number, version 12.0	27-37-18-19
eCl@ss number, version 11.0	27-37-18-19
eCl@ss number, version 9.0	27-37-18-19
ETIM number, version 7.0	EC001449
ETIM number, version 6.0	EC001449
Available until	31.12.2022

### Approvals - Standards

Certificates	cULus EAC
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## General data

Standards	EN ISO 13849-1 EN IEC 61508 EN IEC 60204-1 EN IEC 62061 EN IEC 60947-5-1 EN IEC 60947-5-3 EN IEC 60947-5-5 EN IEC 60947-1
Climatic stress	EN 60068-2-78
Enclosure material	Glass-fibre reinforced thermoplastic, ventilated
Gross weight	160 g

## General data - Features

Stop-Category	0
Electronic Fuse	Yes
Wire breakage detection	Yes
Cross-circuit detection	Yes
Removable Terminals	Yes
Automatic reset function	Yes
Earth connection detection	Yes
Integral system diagnostics, general	Yes
Number of auxiliary contacts	2 9
Number of LEDs	6
Number of normally closed (NC)	1
Number of normally open (NO)	1
Number of signalling outputs	7

## Safety classification

Standards

EN IEC 60947-5-1  
EN IEC 61508

### Safety classification - Relay outputs

Performance Level, up to	d
Category to EN ISO 13849	3
Diagnostic Coverage (DC) Level	60 %
PFH value	$2.00 \times 10^{-7}$ /h
Safety Integrity Level (SIL), suitable for applications in	2
Mission time	20 Year(s)
Common Cause Failure (CCF), minimum	65

### Mechanical data

Mechanical life, minimum	10,000,000 Operations
Mounting	Snaps onto standard DIN rail to EN 60715

### Mechanical data - Connection technique

Termination	Screw connection, plug-in
Terminal designations	IEC/EN 60947-1
Cable section, minimum	0.14 mm <sup>2</sup>
Cable section, maximum	1.5 mm <sup>2</sup>
Tightening torque of Clips	0.6 Nm

### Mechanical data - Dimensions

Width	65.5 mm
Height	126 mm
Depth	61 mm

## Ambient conditions

Degree of protection of the enclosure	IP20
Degree of protection of the mounting space	IP20
Degree of protection of clips or terminals	IP20
Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+55 °C
Storage and transport temperature, minimum	-40 °C
Storage and transport temperature, maximum	+85 °C
Resistance to vibration to EN 60068-2-6	10...55 Hz, Amplitude 0.35 mm, ± 15 %
Resistance to shock	30 g / 11 ms

## Ambient conditions - Insulation values

Rated impulse withstand voltage $U_{imp}$	4 kV
Overvoltage category	III
Degree of pollution to VDE 0110	2

## Electrical data

Rated operating voltage	24 VDC -15% / +20%, residual ripple max. 10 %
Rated AC voltage for controls, 50 Hz, minimum	21.1 VAC
Rated control voltage at AC 50 Hz, maximum	26.4 VAC
Rated AC voltage for controls, 60 Hz, minimum	21.1 VAC
Rated control voltage at AC 60 Hz, maximum	26.4 VAC
Rated AC voltage for controls at DC minimum	21.1 VDC
Rated control voltage at DC, maximum	28.8 VDC
Electrical power consumption	1.7 W
Input resistance at $U_e$	2,900 $\Omega$
Contact resistance, maximum	0.1 $\Omega$
Note (Contact resistance)	in new state

Drop-out delay in case of power failure, maximum	60 ms
Drop-out delay in case of "emergency stop", maximum	10 ms
Pull-in delay at automatic start, maximum, typically	10 ms

### Electrical data - Safe relay outputs

Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	2 A
Switching capacity, minimum	10 VDC
Switching capacity, minimum	10 mA
Switching capacity, maximum	24 VAC
Switching capacity, maximum	2 A

### Electrical data - Digital inputs

Input signal, HIGH Signal "1"	19 - 28,8 VDC
Input signal, LOW Signal "0"	0 - 1 VDC
Conduction resistance, maximum	40 $\Omega$

### Electrical data - Digital Output

Voltage, Utilisation category DC-12	24 VDC
Current, Utilisation category DC-12	0.1 A

### Electrical data - Relay outputs (auxiliary contacts)

Switching capacity, maximum	24 VDC
Switching capacity, maximum	0.1 A

### Electrical data - Electromagnetic compatibility (EMC)

EMC rating	EMC-Directive
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## Status indication

Indicated operating states

Position relay K2  
Position relay K1  
Internal operating voltage  $U_i$   
Position relay K3  
Position relay K3

## Other data

Note (applications)

Safety sensor  
Guard system  
Emergency-Stop button  
Pull-wire emergency stop switches  
Safety light curtain

## Ordering code

Product type description:  
PROTECT-PE-(1)-(2)

(1)

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<b>02</b>	2 NC contact
<b>11</b>	1 NO contacts/1 NC contact
<b>-AN</b>	with antivalent output contacts

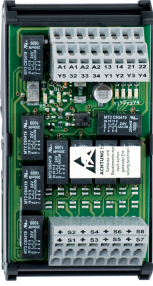
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<b>without</b>	Cage clamps
<b>SK</b>	Screw connection, plug-in

## Pictures

**Product picture (catalogue individual photo)**



ID: kprpef02

| 1.0 MB | .jpg | 352.778 x 529.167 mm - 1000 x 1500 px - 72 dpi

| 86.4 kB | .png | 74.083 x 111.125 mm - 210 x 315 px - 72 dpi

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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