



PROTECT-IE-02

- 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

Data

Ordering data

Product type description	PROTECT-IE-02
Article number (order number)	101182806
EAN (European Article Number)	4250116202126
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	31.12.2024

Approvals - Standards

Certificates	cULus
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General data

Standards	EN IEC 62061 EN ISO 13849-1 EN IEC 60947-5-1 EN IEC 60947-5-3 EN IEC 60947-5-5 EN IEC 61508 EN IEC 60204-1 EN IEC 60947-1
Climatic stress	EN 60068-2-78
Housing material	Glass-fibre reinforced thermoplastic, ventilated
Gross weight	195 g

General data - Features

Electronic Fuse	Yes
Wire breakage detection	Yes
Cross-circuit detection	Yes
Automatic reset function	Yes
Earth connection detection	Yes
Integral system diagnostics, general	Yes
Number of auxiliary contacts	1
Number of LEDs	5
Number of normally closed (NC)	2
Number of safety contacts	2

Safety classification

Standards	EN IEC 60947-5-1 EN IEC 61508
Stop-Category	0

Safety classification - Relay outputs

Performance Level, up to	d
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Category	3
Diagnostic Coverage (DC) Level	60 %
PFH value	2.00×10^{-7} /h
Notice	for max. 36,500 switching cycles/year and max. 60% contact load
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

Terminal designations	IEC/EN 60947-1
Termination	Cage clamps
Cable section, minimum	0.2 mm ²
Cable section, maximum	2.5 mm ²

Mechanical data - Dimensions

Width	48 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	-25 ... +55 °C
Storage and transport temperature	-40 ... +85 °C
Resistance to vibrations	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}	0.8 kV
Overvoltage category	III
Degree of pollution	2

Electrical data

Operating voltage	24 VDC -15 % / +20 %
Ripple voltage	10 %
Rated operating voltage	24 VDC
Rated AC voltage for controls at DC minimum	20.4 VDC
Rated control voltage at DC, maximum	28.8 VDC
Electrical power consumption	1.7 W
Input resistance at U_e	2,900 Ω
Contact resistance, maximum	0.1 Ω
Note (Contact resistance)	in new state
Drop-out delay in case of "emergency stop", maximum	20 ms
Pull-in delay at automatic start, maximum	20 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 Ω

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 Position relay K3 Position relay K3
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Other data

Note (applications)

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

Ordering code

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

(1)	
02	2 NC contact
11	1 NO contacts/1 NC contact
(2)	
without	Cage clamps
SK	Screw connection, plug-in

Pictures

Product picture (catalogue individual photo)



ID: kprief01
| 582.4 kB | .jpg | 272.344 x 408.517 mm - 772 x 1158 px - 72 dpi
| 62.1 kB | .png | 73.731 x 110.772 mm - 209 x 314 px - 72 dpi
| 58.4 kB | .jpg | 82.197 x 123.472 mm - 233 x 350 px - 72 dpi