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Safety relay for SIL 3 high and low-demand applications, also approved according to EN 50156, Germanischer Lloyd, and EN ISO 13849, emergency stop and safety door monitoring, 1-channel, 2 enabling current paths, 1 signal contact, plug-in spring-cage terminal block, width: 22.5 mm

#### **Product Features**

- Up to Cat. 4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061, SIL 3 according to IEC 61508
- Single-channel control
- Safe isolation
- With inrush current reduction, therefore suitable for coupling to failsafe controllers (PSR-ESP4)



#### **Key Commercial Data**

Packing unit	1 pc
Weight per Piece (excluding packing)	240.0 g
Custom tariff number	85364900
Country of origin	Germany

#### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### **Dimensions**

Width	22.5 mm
Height	112 mm
Depth	114.5 mm

#### Ambient conditions

Ambient temperature (operation)	-20 °C 55 °C

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### Technical data

#### Ambient conditions

Ambient temperature (storage/transport)	-40 °C 70 °C
Max. permissible relative humidity (operation)	75 %
Max. permissible humidity (storage/transport)	75 %
Shock	15g
Vibration (operation)	10 Hz150 Hz, 2g
Maximum altitude	≤ 2000 m (Above sea level)

#### Input data

Nominal input voltage U <sub>N</sub>	24 V DC
Input voltage range in reference to U <sub>N</sub>	0.85 1.1
Typical input current at U <sub>N</sub>	50 mA DC
Typical inrush current	<1A
Voltage at input/start and feedback circuit	24 V DC
Typical response time	60 ms (Automatic/manual start)
Typical release time	20 ms
Recovery time	approx. 1 s
Status display	Green LED

#### Output data

Contact type	2 enabling current paths
	1 signaling current path (type B according to EN 50205)
Contact material	AgSnO <sub>2</sub> , gold-flashed
Minimum switching voltage	10 V
Maximum switching voltage	250 V AC/DC
Limiting continuous current	6 A (N/O contact/N/C contact, high demand)
	4 A (N/O contact/N/C contact, low demand)
Inrush current, minimum	10 mA
Maximum inrush current	6 A
Sq. Total current	$72 \text{ A}^2 \left( I_{TH}^2 = I_1^2 + I_2^2 \right)$
Interrupting rating (ohmic load) max.	144 W (24 V DC, τ = 0 ms)
	200 W (48 V DC, τ = 0 ms)
	77 W (110 V DC, τ = 0 ms)
	70 W (220 V DC, τ = 0 ms)
	1500 VA (250 V AC, τ = 0 ms)
Maximum interrupting rating (inductive load)	42 W (24 V DC, τ = 40 ms)
	40 W (48 V DC, τ = 40 ms)
	35 W (110 V DC, τ = 40 ms)
	33 W (220 V DC, τ = 40 ms)



### Technical data

### Output data

Switching capacity min.	0.2 W
Output fuse	6 A gL/gG NEOZED (High demand)
	4 A gL/gG NEOZED (Low demand)

#### General

Relay type	Electromechanical relay with forcibly guided contacts in accordance with EN 50205
Mechanical service life	Approx. 10 <sup>7</sup> cycles
Net weight	199.6 g
Mounting type	DIN rail mounting
Degree of protection	IP54
	IP20
Min. degree of protection of inst. location	IP54
Mounting position	On horizontal and vertical DIN rail
Control	single-channel
Housing material	Polyamide PA non-reinforced

#### Connection data

Connection method	Spring-cage connection
pluggable	Yes
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	1.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	1.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm

#### Safety-related characteristic data

Stop category	0
Designation	IEC 61508 - High demand
Safety Integrity Level (SIL)	1 (up to SIL 3 depending on the application)
Designation	IEC 61508 - Low demand
Safety Integrity Level (SIL)	1 (up to SIL 3 depending on the application)
Designation	EN ISO 13849
Performance level (PL)	c (up to PL e depending on the application)
Category	1 (up to Cat. 4 depending on the application)
Designation	EN 62061
Safety Integrity Level Claim Limit (SIL CL)	1 (up to SILCL 3 depending on the application)



### Technical data

#### Standards and Regulations

Shock	15g
Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
Rated insulation voltage	250 V
Rated surge voltage/insulation	6 kV / Safe isolation, increased insulation
Degree of pollution	2
Overvoltage category	III
Vibration (operation)	10 Hz150 Hz, 2g

#### Classifications

### eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371901
eCl@ss 5.1	27371901
eCl@ss 6.0	27371819
eCl@ss 7.0	27371819
eCl@ss 8.0	27371819

#### **ETIM**

ETIM 2.0	EC001449
ETIM 3.0	EC001449
ETIM 4.0	EC001449
ETIM 5.0	EC001449

#### **UNSPSC**

UNSPSC 6.01	30211901
UNSPSC 7.0901	39121501
UNSPSC 11	39121501
UNSPSC 12.01	39121501
UNSPSC 13.2	39121501

## Approvals

#### Approvals

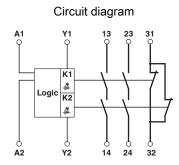


## Approvals

Approvals
UL Listed / cUL Listed / GL / Functional Safety / EAC / Functional Safety / Functional Safety / cULus Listed
Ex Approvals
Approvals submitted
Approval details
UL Listed (I)
cUL Listed • • • • • • • • • • • • • • • • • • •
GL
Functional Safety
EAC
Functional Safety
Functional Safety
cULus Listed <sup>®</sup> Out

Drawings





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