

# Safety Relay SR6 D/M

4 pole 8 A



F0245-A

## Features

- Forcibly guided contacts according to EN 50205
- 4 pole safety relay with either  
2 N/O+2 N/C or 3 N/O+1 N/C
- High insulation distances for safe separation of electrical circuits

## Applications

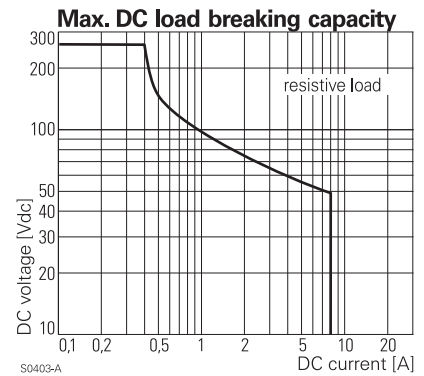
Emergency shut-off, press control, machine control, elevator and escalator control, safety modules



Technical data of approved types on request

## Contact data

Configuration	3 N/O contact and 1 N/C contact or 2 N/O contact and 2 N/C contact
Type of contact	single contact, forcibly guided
Continuous thermal load	8 A
Rated voltage / max. breaking voltage AC	250 Vac / 440 Vac
Maximum breaking capacity AC	2000 VA
Contact material	AgSnO <sub>2</sub>
Minimum contact load	> 50 mW
Contact resistance	≤100 mΩ / 1 A / 24 Vdc ≤20 Ω / 10 mA / 5 Vdc



## Coil data

Nominal voltage	5...110 Vdc
Nominal coil power	1200 mW
Operative range	2
Max. coil voltage	150 % U <sub>nom</sub>

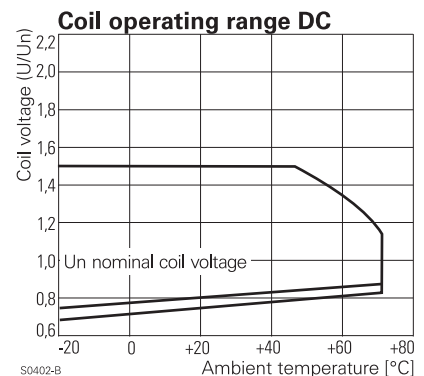
## Coil versions

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance Ω	Coil current mA
005	5	3.8	0.5	7.5	21±10%	238.1
006	6	4.5	0.6	9.0	30±10%	200.0
009	9	6.8	0.9	13.5	68±10%	132.4
012	12	9.0	1.2	18.0	120±10%	100.0
018	18	13.5	1.8	22.5	270±10%	66.7
021	21	15.8	2.1	27.0	368±10%	57.1
024	24	18.0	2.4	36.0	480±10%	50.0
036	36	27.0	3.6	54.0	1080±10%	33.3
040	40	30.0	4.0	60.0	1333±10%	30.0
048	48	36.0	4.8	72.0	1920±10%	25.0
060	60	45.0	6.0	90.0	3000±12%	20.0
085	85	64.0	8.5	127.5	6021±12%	14.1
110	110	82.5	11.0	165.0	10080±12%	10.9

All figures are given for coil without preenergization, at ambient temperature +20°C

U<sub>op max</sub>: at 70 °C after preenergization with 1.1 x U<sub>nom</sub> the max. operate voltage is 85% of U<sub>nom</sub>. U<sub>max</sub>: at 70 °C the max. coil voltage is 1.1 x U<sub>nom</sub>

Other coil voltages on request



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## Insulation

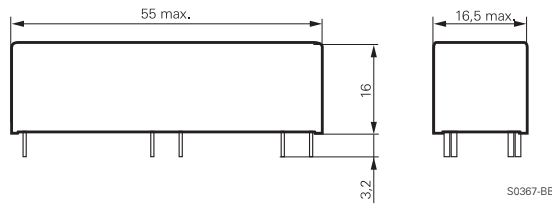
Dielectric strength	coil-contacts	3000 V <sub>rms</sub>
	open contact circuit	1000 V <sub>rms</sub>
	adjacent contacts	3000 V <sub>rms</sub> / 4000 V <sub>rms</sub> *)
Clearance / creepage	coil-contact	5.5 / 5.5 mm
	adjacent contacts	5.5 / 5.5 mm or 12 / 12 mm *)
Insulation to IEC 60664		
	Voltage rating	250 V
	Pollution degree	2
	Overvoltage category	III
Insulation resistance (500 Vdc)		> 1x10 <sup>6</sup> Ω
Tracking resistance of relay base		CTI 250
*) in longitudinal direction		

## Other data

Ambient temperature	-25...+70 °C
Mechanical life	≥ 10x10 <sup>6</sup> operations
Max. switching rate at rated- / minimum load	6 min <sup>-1</sup> / 300 min <sup>-1</sup>
Operate- / release time	typ. 11 / 3 ms
Vibration resistance N/O / N/C contact	> 8 / 5 g, 10...200 Hz
Shock resistance (function) N/O contact / N/C contact	> 8 / 6 g, 16ms half sine
Category of protection (IEC 61810)	RT III - wash tight
Relay weight	30 g
Packaging unit	10 pcs.

## Dimensions

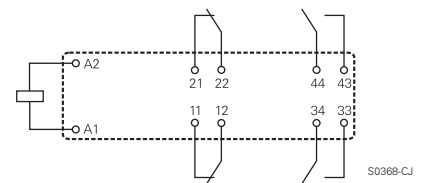
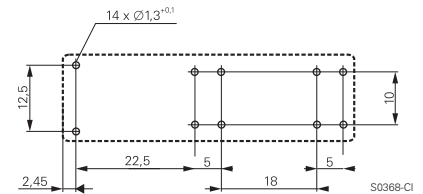
Dimensions in mm



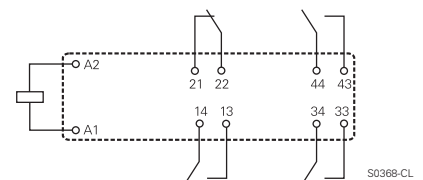
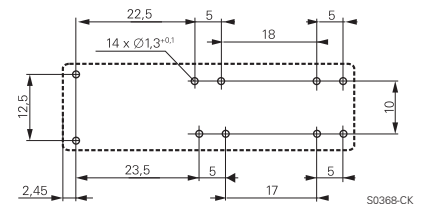
## PCB layout / terminal assignment

View on solder pins  
Dimensions in mm

2 N/O+2 N/C versions



3 N/O + 1 N/C version



## Product key

Type

Contact configuration

**D** 2 N/O + 2 N/C contacts

**M** 3 N/O + 1 N/C contacts

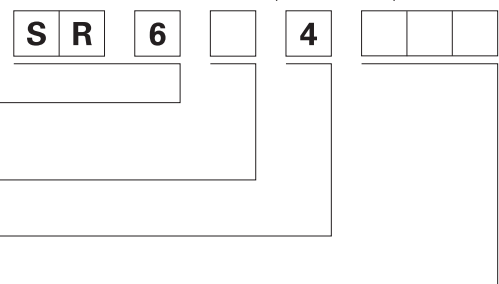
Contact material

**4** AgSnO<sub>2</sub>

Coil

Coil code = nominal voltage (e.g. 024=24Vdc)

Other types on request



Product key	Type	Contact configuration	Contact material	Coil	Part number
SR6D4024	4-pole	2 N/O + 2 N/C	AgSnO	24 Vdc	6-1415027-1
SR6D4110	safety relay	contacts		110 Vdc	0-1415062-1