

**Safety Relay SR6 D/M**

- 4 pole safety relay with either 2 NO+2 NC or 3 NO+1 NC contacts
- Forcibly guided contacts according to EN 50205
- Rated current 8 A
- High insulation distances for safe separation of electrical circuits



F0206-ED

**Applications**

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

**Approvals**

VDE REG.-Nr. 128935, cRU us E214024, 968/EL 350.04/09  
 Technical data of approved types on request

**Contact data**

Contact configuration	3 NO contacts and 1 NC contact or 2 NO contacts and 2 NC contacts
Contact set	single contact, forcibly guided type A according to EN 50205
Type of interruption	micro disconnection
Rated voltage / max. switching voltage AC	250 / 400 VAC
Rated current	8 A
Maximum breaking capacity AC	2000 VA
Contact material	AgSnO <sub>2</sub>
Minimum contact load	10 mA / 5 V
Contact resistance	≤ 100 mOhm / 1 A / 24 VDC ≤ 20 Ohm / 10 mA / 5 VDC
Rated frequency of operation with / without load	6 min <sup>-1</sup> / 150 min <sup>-1</sup>

**Contact ratings**

Type	Contact	Load*)	Ambient temp. [°C]	Cycles
------	---------	--------	--------------------	--------

**EN60947-5-1**

SR6	1 NO	IEC 947-5-1 (AC15) utilization category 250 VAC / 5 A	23°C	6,050
SR6	1 NO	IEC 947-5-1 (DC13) utilization category 24 VDC / 6 A	23°C	6,050

\*) load on one pole

**Coil data**

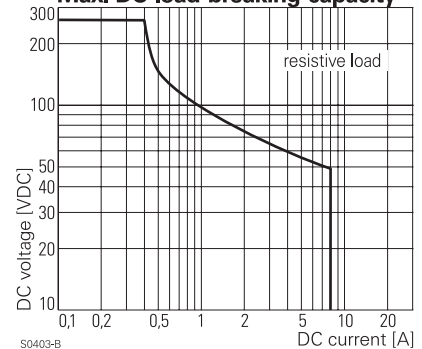
Rated coil voltage range DC coil	5...110 VDC
Operative range to IEC 61810	2

**Coil versions, DC-coil**

Coil code	Rated voltage VDC	Operate voltage VDC	Release / Reset voltage VDC	Coil resistance Ohm	Rated coil power mW
005	5	3.8	0.5	21±10%	1190
006	6	4.5	0.6	30±10%	1200
009	9	6.8	0.9	68±10%	1191
012	12	9.0	1.2	120±10%	1200
018	18	13.5	1.8	270±10%	1200
021	21	15.8	2.1	368±10%	1198
024	24	18.0	2.4	480±10%	1200
036	36	27.0	3.6	1080±10%	1200
040	40	30.0	4.0	1333±10%	1200
048	48	36.0	4.8	1920±10%	1200
060	60	45.0	6.0	3000±12%	1200
110	110	82.5	11.0	10080±12%	1200

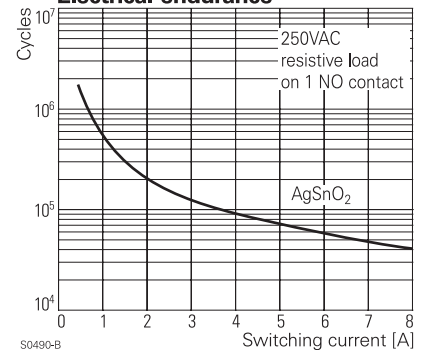
All figures are given for coil without preenergization, at ambient temperature +23°C  
 Other coil voltages on request

**Max. DC load breaking capacity**



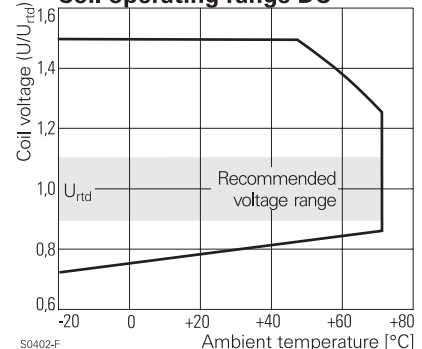
S0403-B

**Electrical endurance**



S0490-B

**Coil operating range DC**



S0402-F

**Safety Relay SR6 D/M (Continued)**

**Insulation**

Dielectric strength coil-contact circuit	3000 V <sub>rms</sub>
open contact circuit	1500 V <sub>rms</sub>
adjacent contact circuits	3000 / 4000 V <sub>rms</sub> (in longitudinal direction)
Clearance / creepage coil-contact circuit	≥ 5.5 / 5.5 mm
adjacent contact circuits	≥ 5.5 / 5.5 mm ≥ 15 / 15 mm (in longitudinal direction)
Material group of insulation parts	IIIa
Tracking index of relay base	PTI 250
Insulation to IEC 61810-1	
Type of insulation coil-contact circuit	basic
open contact circuit	micro disconnection
adjacent contact circuits	reinforced (in longitudinal dir)
Rated insulation voltage	250 V
Pollution degree	2
Rated voltage system	230 / 400 V
Overvoltage category	III
Insulation to EN 50178	
Type of insulation coil-contact circuit	reinforced
adjacent contact circuits	reinforced

**Other data**

Mechanical endurance	10x10 <sup>6</sup> cycles
Material	
RoHS - Directive 2002/95/EC	compliant as per product date code 0407
Environment	
Ambient temperature range	-25...+70°C
Vibration resistance (function) NO / NC contact	> 8 / 2.5 g, 10...200 Hz
Shock resistance (function) NO / NC contact	> 10 / 2.5 g, 16 ms half sine
Category of protection	RT III <sup>1)</sup>
Processing	
Resistance to soldering heat	260°C / 5 s
Relay weight	30 g
Packaging unit	10 pcs

<sup>1)</sup> please contact technical support for washing parameters

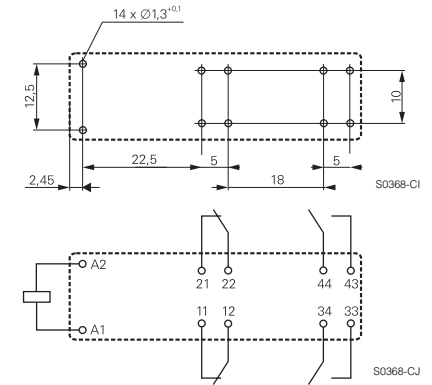
**Accessories**

PCB socket and hold down clip	contact technical support
-------------------------------	---------------------------

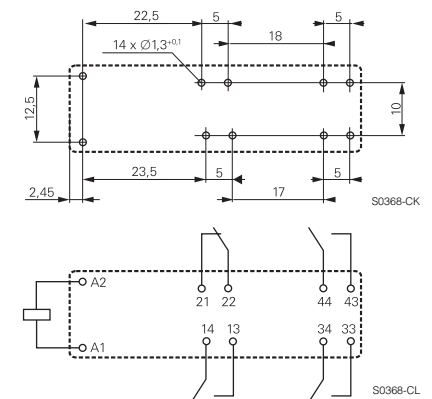
**PCB layout / terminal assignment**

Bottom view on solder pins

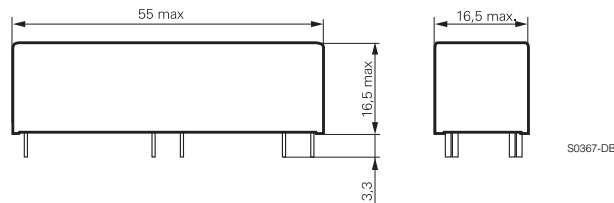
2 NO+2 NC versions



3 NO + 1 NC version



**Dimensions**



**Safety Relay SR6 D/M** (Continued)

**Product key**

Typical product key

<b>SR6</b>	<b>D</b>	<b>4</b>	<b>012</b>
------------	----------	----------	------------

**Type**

**SR6** Safety Relay SR6 D/M

**Contact configuration**

- D** 2 NO + 2 NC contacts (2 form A + 2 form B)
- M** 3 NO + 1 NC contacts (3 form A + 1 form B)

**Contact material**

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

**Coil**

Coil code = rated coil voltage (e.g. 024=24 VDC)

Other types on request

Product key	Type	Contact configuration	Contact material	Coil	Part number	
SR6D4012	4-pole safety relay	2 NO + 2 NC contacts	AgSnO <sub>2</sub>	12 VDC	1415078-1	
SR6D4018				18 VDC	7-1415354-1	
SR6D4021				21 VDC	8-1415353-1	
SR6D4024				24 VDC	6-1415027-1	
SR6D4040				40 VDC	9-1415366-1	
SR6D4110				110 VDC	1415062-1	
SR6M4006		3 NO + 1 NC contacts			6 VDC	6-1415053-1
SR6M4012					12 VDC	7-1415353-1
SR6M4018					18 VDC	1415354-1
SR6M4021					21 VDC	6-1415353-1
SR6M4024	24 VDC		3-1415353-1			
SR6M4110			110 VDC	1-1415354-1		