

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
- RoHS compliant (Directive 2002/95/EC)
as per product date code 0407

Applications

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



F0245-A

Approvals

VDE REG.-Nr. 128935, c RU us E214024, 968/EL 141.01/03
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 current	8 A
Rated voltage / max.switching voltage AC	240/400 VAC
Maximum breaking capacity AC	2000 VA
Utilization class (AC-15) acc. IEC 60947-5-1	
NO contact	I_e 3 A / U_e 250 VAC (inrush 30 A)
NC contact	I_e 1.5 A / U_e 250 VAC (inrush 15 A)
Contact material	AgSnO ₂
Minimum contact load	10 mA / 5 V
Contact resistance	≤ 100 mOhm / 1 A / 24 VDC ≤ 20 Ohm / 10 mA / 5 VDC
Mechanical endurance	10x10 ⁶ cycles
Rated frequency of operation with / without load	6 min ⁻¹ / 150 min ⁻¹

Coil data

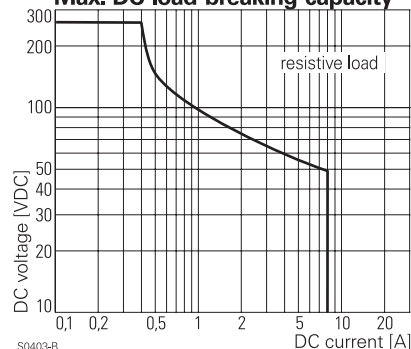
Rated coil voltage range DC coil	5...110 VDC
Coil power DC coil	appr. 1200 mW
Operative range	2

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
085	85	64.0	8.5	6021 ± 12%	1200
110	110	82.5	11.0	10080 ± 12%	1200

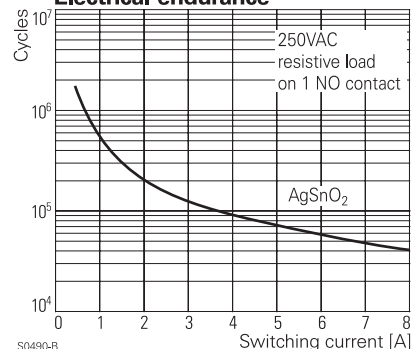
All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request

Max. DC load breaking capacity



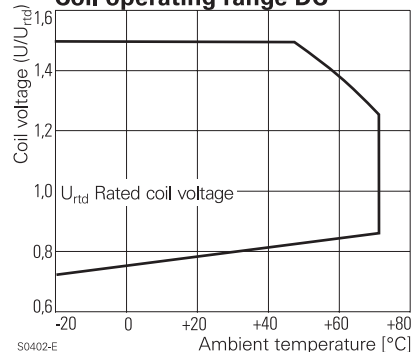
S0403-B

Electrical endurance



S0490-B

Coil operating range DC



S0402-E

Safety Relay SR6 D/M (Continued)

Insulation

Insulation resistance coil-contact circuit	> 100x10 ⁶ Ohm
Dielectric strength coil-contact circuit	3000 V _{rms}
open contact circuit	1500 V _{rms}
adjacent contact circuits	3000 / 4000 V _{rms} (in longitudinal direction)
Clearance / creepage coil-contact circuit	≥ 5.5 / 5.5 mm
adjacent contact circuits	≥ 5.5 / 5.5 mm
	≥ 12 / 12 mm (in longitudinal direction)
Material group of insulation parts	≥ IIIa
Tracking index of relay base	CTI 250
Insulation to IEC 60664-1	
Type of insulation coil-contact circuit	basic
open contact circuit	functional
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

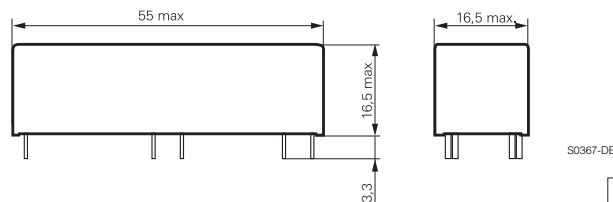
RoHS - Directive 2002/95/EC	compliant as per product date code 0407
Ambient temperature range	-25...+70°C
Vibration resistance (function) NO / NC contact	> 8 / 2.5 g, 10...200 Hz
Shock resistance (function) NO / NC contact	> 10 / 2.5 g, 16 ms half sine
Category of protection	RT III ¹⁾
Resistance to soldering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

¹⁾ please contact technical support for washing parameters

Accessories

PCB socket and hold down clip	contact technical support
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Dimensions



Product key

Type

Contact configuration

D 2 NO + 2 NC contacts

M 3 NO + 1 NC contacts

Contact material

4 AgSnO₂

Coil

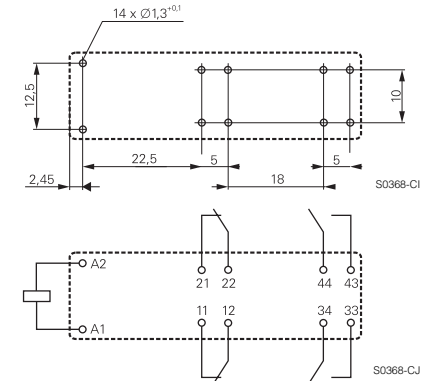
Coil code = rated coil voltage (e.g. 024=24 VDC)

Other types on request

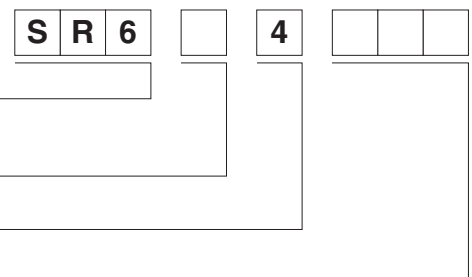
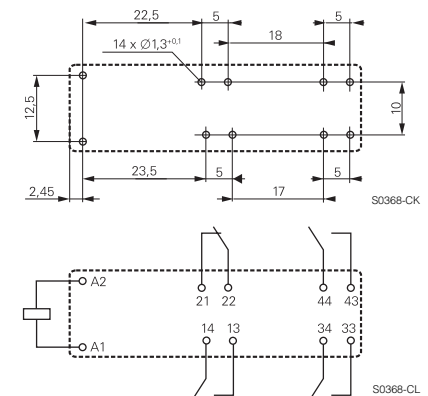
PCB layout / terminal assignment

Bottom view on solder pins

2 NO+2 NC versions



3 NO + 1 NC version



Product key	Type	Contact configuration	Contact material	Coil	Part number
SR6D4012	4-pole	2 NO + 2 NC	AgSnO ₂	12 VDC	0-1415078-1
SR6D4018	safety relay	contacts		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	0-1415062-1
SR6M4006		3 NO + 1 NC		6 VDC	6-1415053-1
SR6M4012		contacts		12 VDC	7-1415353-1
SR6M4018				18 VDC	0-1415354-1
SR6M4021				21 VDC	6-1415353-1
SR6M4024				24 VDC	3-1415353-1
SR6M4110				110 VDC	1-1415354-1