

Safety Relay SR4 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
- Very small outlines
- RoHS compliant (Directive 2002/95/EC)
as per product date code 0407

Applications

Emergency shut-off, machine control, elevator and escalator control, light barrier control



F0244-A

Approvals

VDE REG.-Nr. 40005334, **CE** US E214024, 968/EL 230.00/03

Technical data of approved types on request

Contact data

Contact configuration	3 N/O contacts and 1 N/C contact or 2 N/O contacts and 2 N/C 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	$\leq$ 100 mOhm / 1 A / 24 VDC $\leq$ 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

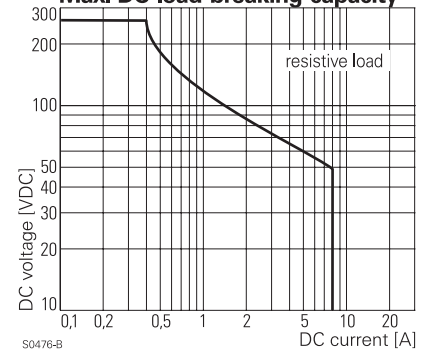
Rated coil voltage range DC coil	5...110 VDC
Coil power DC coil	appr. 800 mW
Operative range	2

Coil versions, DC-coil

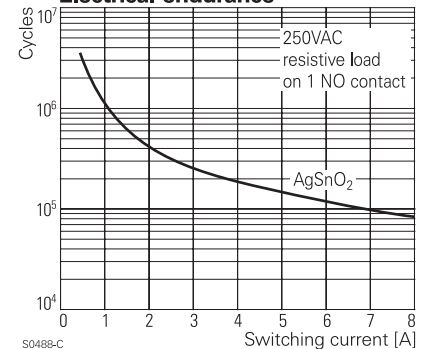
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power mW
005	5	3.8	0.5	31±10%	806
006	6	4.5	0.6	45±10%	800
009	9	6.8	0.9	101±10%	802
012	12	9.0	1.2	180±10%	800
015	15	11.3	1.5	281±10%	801
018	18	13.5	1.8	405±10%	800
021	21	15.8	2.1	551±10%	800
024	24	18.0	2.4	720±10%	800
036	36	27.0	3.6	1620±10%	800
040	40	30.0	4.0	2000±10%	800
048	48	36.0	4.8	2880±10%	800
060	60	45.0	6.0	4500±10%	800
085	85	63.8	8.5	9031±10%	800
110	110	82.5	11.0	15125±10%	800

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

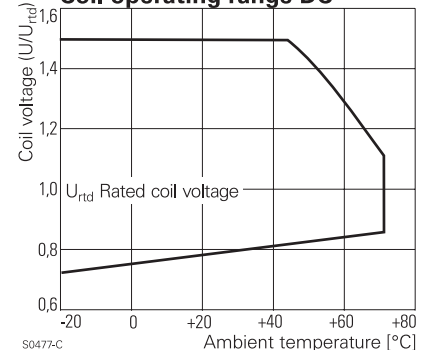
Max. DC load breaking capacity



Electrical endurance



Coil operating range DC



Safety Relay SR4 D/M (Continued)

Other coil voltages on request

Insulation

Insulation resistance coil-contact circuit	> 100x10 ⁶ Ohm
Dielectric strength coil-contact circuit	4000 V _{rms}
open contact circuit	1500 V _{rms}
adjacent contact circuits	2500 V _{rms}
Clearance / creepage coil-contact circuit	≥ 10 / 10 mm
adjacent contact circuits	≥ 3 / 3.5 mm
adjacent contact circuits (UL840)	≥ 1.3 / 3.5 mm
Material group of insulation parts	≥ IIIa
Tracking index of relay base	CTI 250
Insulation to IEC 60664-1	
Type of insulation coil-contact circuit	reinforced
open contact circuit	functional
adjacent contact circuits	basic
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	basic

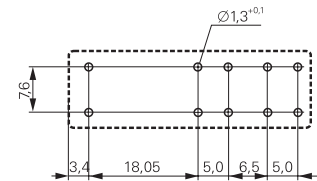
Other data

RoHS - Directive 2002/95/EC	compliant as per product date code 0407
Ambient temperature range	-25...+70°C
Vibration resistance (function) NO / NC contact	> 10 / 2 g, 10...200 Hz
Shock resistance (function) NO / NC contact	> 10 / 2 g, 11 ms half sine
Category of protection	RT III ¹⁾
Resistance to soldering heat	260°C / 5 s
Relay weight	16 g
Packaging unit	10 pcs

¹⁾ please contact technical support for washing parameters

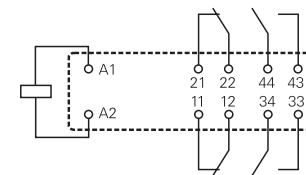
PCB layout / terminal assignment

Bottom view on solder pins



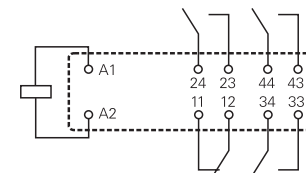
S0413-BC

2 NO and 2 NC contacts



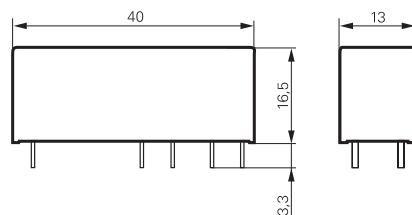
S0413-BB

3 NO and 1 NC contacts



S0413-BA

Dimensions



S0412-BH

Product key

Type

Contact configuration

D 2 NO + 2 NC contacts

M 3 NO + 1 NC contacts

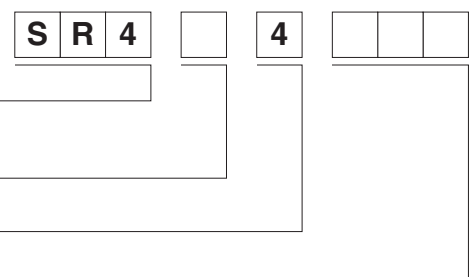
Contact material

4 AgSnO₂

Coil

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

Other types on request



Safety Relay SR4 D/M (Continued)

Product key	Type	Contact configuration	Contact material	Coil	Part number
SR4D4005	4 pole safety relay	2 NO + 2 NC contacts	AgSnO ₂	5 VDC	7-1415054-1
SR4D4006				6 VDC	8-1415054-1
SR4D4009				9 VDC	9-1415054-1
SR4D4012				12 VDC	0-1415055-1
SR4D4018				18 VDC	1-1415055-1
SR4D4021				21 VDC	2-1415055-1
SR4D4024				24 VDC	3-1415055-1
SR4D4036				36 VDC	4-1415055-1
SR4D4040				40 VDC	5-1415055-1
SR4D4048				48 VDC	6-1415055-1
SR4D4060				60 VDC	7-1415055-1
SR4D4085				85 VDC	8-1415055-1
SR4D4110				110 VDC	9-1415055-1
SR4M4005	3 NO + 1 NC contacts		5 VDC	5-1415053-1	
SR4M4006			6 VDC	6-1415053-1	
SR4M4009			9 VDC	7-1415053-1	
SR4M4012			12 VDC	8-1415053-1	
SR4M4018			18 VDC	9-1415053-1	
SR4M4021			21 VDC	0-1415054-1	
SR4M4024			24 VDC	4-1415053-1	
SR4M4036			36 VDC	1-1415054-1	
SR4M4040			40 VDC	2-1415054-1	
SR4M4048			48 VDC	3-1415054-1	
SR4M4060			60 VDC	4-1415054-1	
SR4M4085			85 VDC	5-1415054-1	
SR4M4110			110 VDC	6-1415054-1	