Safety Relay SR4 D/M

4 pole 8 A

F0244-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 contacts
- Very small outlines

Applications

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

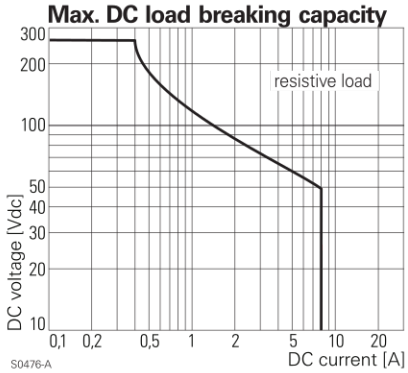
VDE c UL us

Technical data of approved types on request

in preparation

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	$AgSnO_2$
Minimum contact load	> 50 mW
Contact resistance	≤100 mΩ / 1 A / 24 Vdc ≤20 Ω / 10 mA / 5 Vdc

Max. DC load breaking capacity



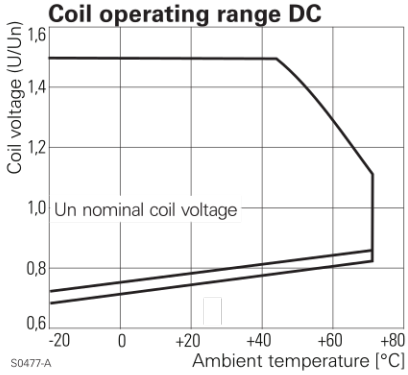
Coil data	
Nominal voltage	5...110 Vdc
Nominal coil power	800 mW
Operative range	2
Max. coil voltage	150 % U_{nom}

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	31±10%	161.3
006	6	4.5	0.6	9.0	45±10%	133.3
009	9	6.8	0.9	13.5	101±10%	89.1
012	12	9.0	1.2	18.0	180±10%	66.7
015	15	11.3	1.5	22.5	281±10%	53.4
018	18	13.5	1.8	27.0	405±10%	44.4
021	21	15.8	2.1	31.5	551±10%	38.1
024	24	18.0	2.4	36.0	720±10%	33.3
036	36	27.0	3.6	54.0	1620±10%	22.2
040	40	30.0	4.0	60.0	2000±10%	20.0
048	48	36.0	4.8	72.0	2880±10%	16.7
060	60	45.0	6.0	90.0	4500±10%	13.3
085	85	63.8	8.5	127.5	9031±10%	9.4
110	110	82.5	11.0	165.0	15125±10%	7.3

All figures are given for coil without preenergization, at ambient temperature +20°C
$U_{op\ max}$: at 70 °C after preenergization with 1.1 x U_{nom} the max. operate voltage is 85% of U_{nom}. U_{max}: at 70 °C the max. coil voltage is 1.1 x U_{nom}
Other coil voltages on request

Coil operating range DC



Edition: 02/2003

Safety Relay SR4 D/M

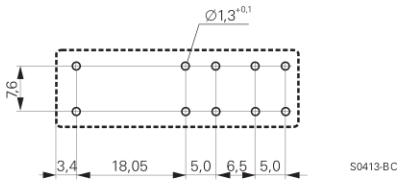
4 pole 8 A

Insulation		
Dielectric strength	coil-contacts	4000 V_{rms}
	open contact circuit	1000 V_{rms}
	adjacent contacts	2500 V_{rms}
Clearance / creepage coil-contact		10 / 10 mm
adjacent contacts		3 / 3.5 mm
Insulation to IEC 60664		
Voltage rating		250 V
Pollution degree		2
Overvoltage category		III
Insulation resistance (500 Vdc)		> $1x10^6$ Ω
Tracking resistance of relay base		CTI 250

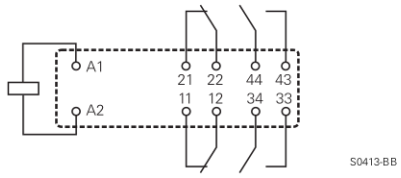
Other data	
Ambient temperature	-25...+70 °C
Mechanical life	≥ $10x10^6$ operations
Max. switching rate at rated- / minimum load	6 min^{-1} / 300 min^{-1}
Operate- / release time	typ. 12 / 20 ms
Vibration resistance N/O / N/C contact	> 8 / 2.5 g, 10...200 Hz
Category of protection (IEC 61810)	RT III - wash tight
Relay weight	16 g
Packaging unit	10 pcs.

PCB layout / terminal assignment

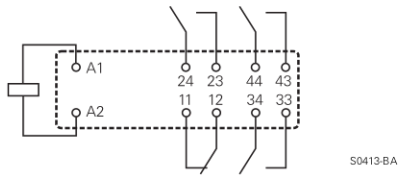
View on solder pins
Dimensions in mm



2 N/O and 2 N/C contacts

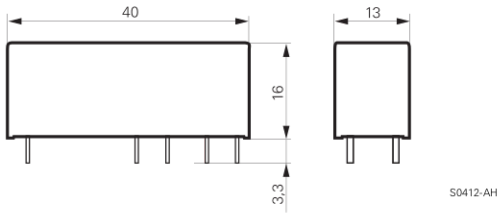


3 N/O and 1 N/C contacts



Dimensions

Dimensions in mm



Product key

S	R	4		4			

Type

Contact configuration
- **D** 2 N/O + 2 N/C contacts
- **M** 3 N/O + 1 N/C contacts

Contact material
- **4** $AgSnO_2$

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

Other types on request

Edition: 02/2003

Safety Relay SR4 D/M

4 pole 8 A

Product key	Type	Contact configuration	Contact material	Coil	Part number
SR4D4005	4 pole	2 N/O + 2 N/C	AgSnO	5 Vdc	7-1415054-1
SR4D4006	safety relay	contacts		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 N/O + 1 N/C		5 Vdc	5-1415053-1
SR4M4006		contacts		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

Edition: 02/2003

Rights to change data / design reserved