

Safety Relay SR6

- 6 pole safety relay with either
4 NO+2 NC or 3 NO+3 NC or 5 NO+1 NC contacts
- Forcibly guided contacts according to EN50205
- Rated current 8 A
- coil power 800 mW or 1200 mW
- RoHS compliant (Directive 2002/95/EC)

Applications

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



F0206-DS

Approvals (in preparation)

VDE REG.-Nr. 128935, c RUus E214024, 
Technical data of approved types on request

Contact data

Contact configuration	3 NO contacts and 3 NC contacts 4 NO contacts and 2 NC contacts 5 NO contacts and 1 NC contact
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
Contact material	800 mW version: AgSnO ₂ + 0,2 µm Au 1200 mW version: 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

Contact ratings

Type	Load	Cycles
SR6 NO contact	8A, 250VAC, resistiv, 70°C, EN61810-1	50x10 ³
SR6 NC contact	8A, 250VAC, resistiv, 70°C, EN61810-1	20x10 ³
SR6 NO contact	5A, 250VAC, AC15, 70°C, EN60947-5-1	50x10 ³
SR6 NO contact	5A, 24VDC, DC13, 25°C, EN60947-5-1	45x10 ³

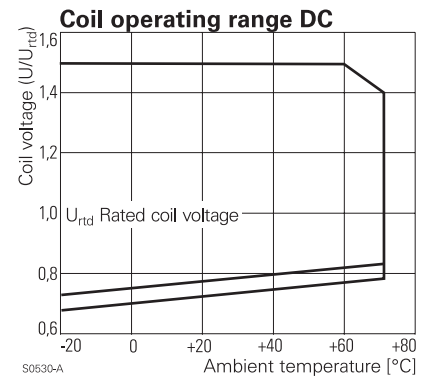
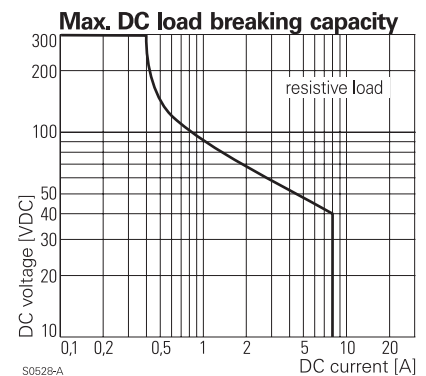
Coil data

	800 mW	1200 mW
Rated coil voltage range DC coil	5...110 VDC	
Coil power DC coil	appr. 800 mW	appr. 1200 mW
Operative range	2	

Coil versions, 800 mW, DC-coil

Coil code	Nominal voltage	Pull-in voltage	Release voltage	Coil resistance	Rated coil power
Order code	VDC	VDC	VDC	Ω	mW
block 4					
K05	5	3.8	0.5	31±10%	806
K06	6	4.5	0.6	45±10%	800
K09	9	6.8	0.9	101±10%	802
K12	12	9.0	1.2	180±10%	800
K18	18	13.5	1.8	405±10%	800
K21	21	15.8	2.1	551±10%	800
K24	24	18.0	2.4	720±10%	800
K36	36	27.0	3.6	1620±10%	800
K40	40	30.0	4.0	2000±10%	800
K48	48	36.0	4.8	2880±10%	800
K60	60	45.0	6.0	4500±10%	800
K85	85	63.8	8.5	9031±10%	800
L10	110	82.5	11.0	15130±10%	800

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



Safety Relay SR6 (Continued)

Coil versions, 1200 mW, DC-coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release/Reset voltage VDC	Coil resistance Ω	Rated coil power mW
012	12	9.0	1.2	120 $\pm$ 10%	1200
018	18	13.5	1.8	270 $\pm$ 10%	1200
021	21	15.8	2.1	368 $\pm$ 10%	1198
024	24	18.0	2.4	480 $\pm$ 10%	1200
048	48	36.0	4.8	1920 $\pm$ 10%	1200
110	110	82.5	11.0	10080 $\pm$ 12%	1200

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

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	3000 V _{rms}
Clearance / creepage coil-contact circuit	$\geq$ 5.5 / 5.5 mm
adjacent contact circuits	$\geq$ 5.5 / 5.5 mm
Material group of insulation parts	$\geq$ IIIa
Tracking index of relay base	PTI 250
Insulation to IEC 60664-1	
Type of insulation coil-contact circuit	basic
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	reinforced

Other data

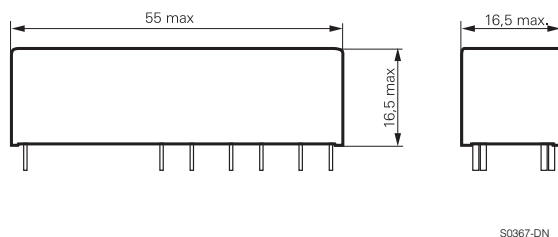
RoHS - Directive 2002/95/EC	compliant
Ambient temperature range	-25...+70°C
Vibration resistance (function) NO / NC contact	> 10 / 2.5 g, 10...200 Hz
Shock resistance (function) NO / NC contact	> 10 / 2.5 g, 16 ms half sine
Category of protection	RT III ¹⁾
Resistance to soldering heat	260°C / 5 s
Relay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

¹⁾ please contact technical support for washing parameters

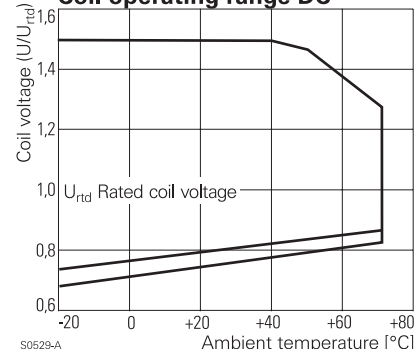
Accessories

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

Dimensions



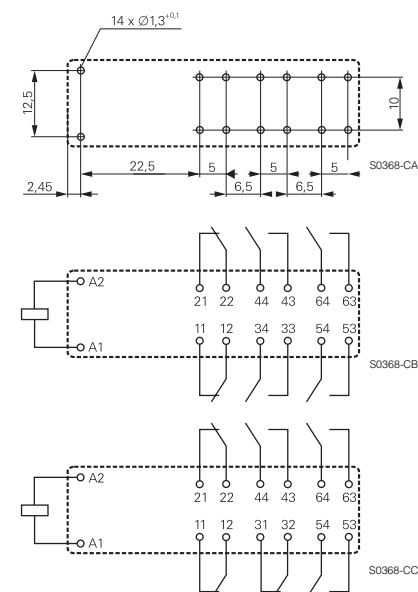
Coil operating range DC



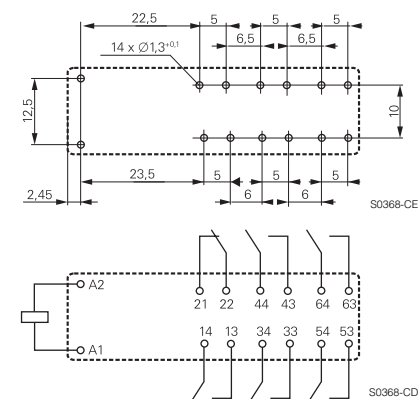
PCB layout / terminal assignment

Bottom view

4 NO+2 NC and 3 NO+3 NC versions



5 NO + 1 NC version



Safety Relay SR6 (Continued)

Product key

S	R	6				
---	---	---	--	--	--	--

Type

Contact configuration

A 3 NO + 3 NC contacts

B 4 NO + 2 NC contacts

C 5 NO + 1 NC contacts

Contact material

4 AgSnO₂, for 1200 mW version only

6 AgSnO₂ + 0.2 µm Au, for 800 mW version only

Coil

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

Available types please see Part Number table

800 mW version

Product key	Type	Contact material	Contact configuration	Coil	Part number
SR6A6K05	6-pole safety relay	AgSnO ₂ + 0.2 µm Au	3 NO + 3 NC	5 VDC	5-1415537-8
SR6B6K05			4 NO + 2 NC		7-1415537-2
SR6C6K05			5 NO + 1 NC	6 VDC	8-1415537-7
SR6A6K06			3 NO + 3 NC		5-1415537-9
SR6B6K06			4 NO + 2 NC		7-1415537-4
SR6C6K06			5 NO + 1 NC	9 VDC	8-1415537-8
SR6A6K09			3 NO + 3 NC		6-1415537-0
SR6B6K09			4 NO + 2 NC		7-1415537-5
SR6C6K09			5 NO + 1 NC	12 VDC	8-1415537-9
SR6A6K12			3 NO + 3 NC		6-1415537-1
SR6B6K12			4 NO + 2 NC		7-1415537-6
SR6C6K12			5 NO + 1 NC	15 VDC	9-1415537-0
SR6A6K15			3 NO + 3 NC		6-1415537-2
SR6B6K15			4 NO + 2 NC		7-1415537-7
SR6C6K15			5 NO + 1 NC	18 VDC	9-1415537-1
SR6A6K18			3 NO + 3 NC		6-1415537-3
SR6B6K18			4 NO + 2 NC		7-1415537-8
SR6C6K18			5 NO + 1 NC	21 VDC	9-1415537-2
SR6A6K21			3 NO + 3 NC		6-1415537-4
SR6B6K21			4 NO + 2 NC		7-1415537-9
SR6C6K21			5 NO + 1 NC	24 VDC	9-1415537-3
SR6A6K24			3 NO + 3 NC		6-1415537-5
SR6B6K24			4 NO + 2 NC		8-1415537-0
SR6C6K24			5 NO + 1 NC	36 VDC	9-1415537-4
SR6A6K36			3 NO + 3 NC		6-1415537-6
SR6B6K36			4 NO + 2 NC		8-1415537-1
SR6C6K36			5 NO + 1 NC	40 VDC	9-1415537-5
SR6A6K40			3 NO + 3 NC		6-1415537-7
SR6B6K40			4 NO + 2 NC		8-1415537-2
SR6C6K40			5 NO + 1 NC	48 VDC	9-1415537-6
SR6A6K48			3 NO + 3 NC		6-1415537-8
SR6B6K48			4 NO + 2 NC		8-1415537-3
SR6C6K48			5 NO + 1 NC	60 VDC	9-1415537-7
SR6A6K60			3 NO + 3 NC		6-1415537-9
SR6B6K60			4 NO + 2 NC		8-1415537-4
SR6C6K60			5 NO + 1 NC	85 VDC	9-1415537-8
SR6A6K85			3 NO + 3 NC		7-1415537-0
SR6B6K85			4 NO + 2 NC		8-1415537-5
SR6C6K85			5 NO + 1 NC	110 VDC	9-1415537-9
SR6A6L10			3 NO + 3 NC		7-1415537-1
SR6B6L10			4 NO + 2 NC		8-1415537-6
SR6C6L10			5 NO + 1 NC		6-1415538-0

Safety Relay SR6 (Continued)

1200 mW version

Product key	Prior product key	Contact configuration	Contact material	Coil	Part number
SR6B4012	V23050-A1012-A542	AgSnO ₂	4 NO + 2 NC	12 VDC	0-1393260-4
SR6B4018	V23050-A1018-A542			18 VDC	0-1393260-5
SR6A4021	V23050-A1021-A533		3 NO + 3 NC	21 VDC	3-1415018-1
SR6B4021	V23050-A1021-A542		4 NO + 2 NC		0-1393260-6
SR6A4024	V23050-A1024-A533		3 NO + 3 NC	24 VDC	0-1415015-1
SR6B4024	V23050-A1024-A542		4 NO + 2 NC		0-1393260-7
SR6C4024	V23050-A1024-A551		5 NO + 1 NC		0-1415017-1
SR6B4048	V23050-A1048-A542		4 NO + 2 NC	48 VDC	1-1393260-0
SR6A4110	V23050-A1110-A533		3 NO + 3 NC	110 VDC	9-1415018-1
SR6B4110	V23050-A1110-A542		4 NO + 2 NC		1-1393260-3
SR6C4110	V23050-A1110-A551		5 NO + 1 NC		5-1415019-1