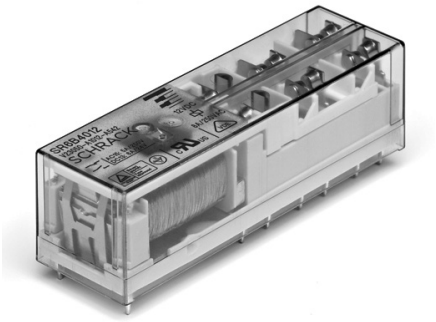
Force Guided Relay SR6 A/B/C/V

- **6 pole relay with force guided contacts according to EN 50205**
- **Reinforced insulation between all contacts**

Typical applications
Emergency shut-off, press control, machine control, elevator and escalator control, safety relays



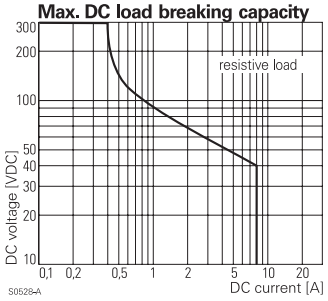
Approvals

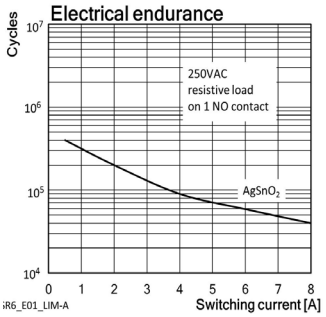
VDE Cert. No. 128935, UL E214025, TUV 968/EL 350, CCC 2012010304537809

Technical data of approved types on request

Contact Data

Contact arrangement	3 form A + 3 form B contacts 3 NO + 3 NC, 4 form A + 2 form B contacts 4 NO + 2 NC, 5 form A + 1 form B contacts 5 NO + 1 NC
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	8A
Contact material	$AgSnO_2$, $AgSnO_2$ + 0.2µm Au
Contact style	single contact, force guided type A according to EN 50205
Min. recommended contact load	5V, 10mA
Initial contact resistance	≤100mΩ at 1A, 24VDC ≤20Ω at 10mA, 5VDC
Frequency of operation, with/without load	6/150min^{-1}
Contact ratings, IEC60947-5-1, on 2 form A (NO) contact	AC15-5A DC13-6A
Mechanical endurance	10x10^6 operations





Coil Data

Coil voltage range	5 to 110VDC
Max. coil power	1200mW or 800mW

Coil versions, DC-coil 800mW

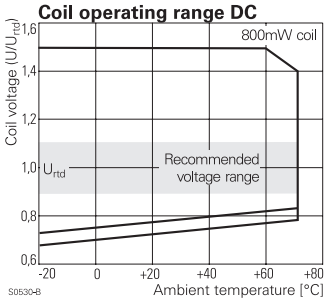
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
K12	12	9	1.2	180	800
K15	15	11.3	1.5	281	801
K18	18	13.5	1.8	405	800
K21	21	16	2.1	551	800
K24	24	18	2.4	720	800
K36	36	27	3.6	1620	800
K48	48	36	4.8	2880[1)]	800
L10	110	82.5	11.0	15130[1)]	800

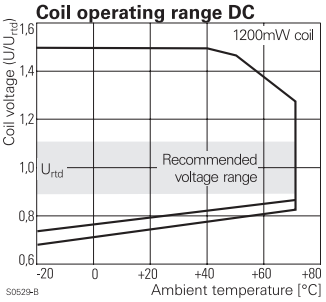
1) Coil resistance ±12%.
All figures are given for coil without pre-energization, at ambient temperature +23°C.

Coil versions, DC-coil 1200mW

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%[1)]	Rated coil power mW
005	5	3.8	0.5	21	1190
006	6	4.5	0.6	30	1200
009	9	6.8	0.9	68	1191
012	12	9	1.2	120	1200
018	18	13.5	1.8	270	1200
021	21	16	2.1	368	1198
024	24	18	2.4	480	1200
036	36	27	3.6	1080	1200
040	40	30	4.0	1333	1200
048	48	36	4.8	1920	1200
060	60	45	6.0	3000[1)]	1200
110	110	83	11.0	10080[1)]	1200

1) Coil resistance ±12%.
All figures are given for coil without pre-energization, at ambient temperature +23°C.





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Force Guided Relay SR6 A/B/C/V (Continued)

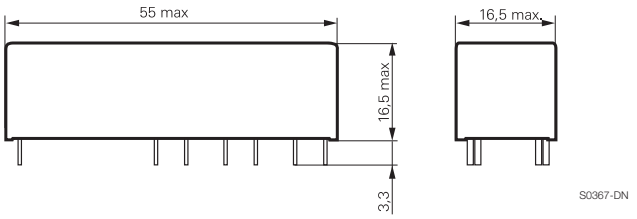
Insulation Data	
Initial dielectric strength	
between open contacts	1500V_{rms}
between contact and coil	4000V_{rms}
between adjacent contacts	3000V_{rms}
Clearance/creepage	
between open contacts	microdisconnection
between contact and coil	≥5.5/5.5mm
between adjacent contacts	≥5.5/5.5mm
Insulation to EN 50178, type of insulation	
between contact and coil	reinforced
between adjacent contacts	reinforced

Other Data	
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter	
Ambient temperature	-25 to 70°C
Category of environmental Protection IEC 61 810	RTIII[1)]
1) See product specification 2158003 4.6 and 4.8.	
Weight	30g
Resistance to soldering heat THT IEC 60068-2-20	260°C/5s
Packaging/unit	tube/10 pcs.

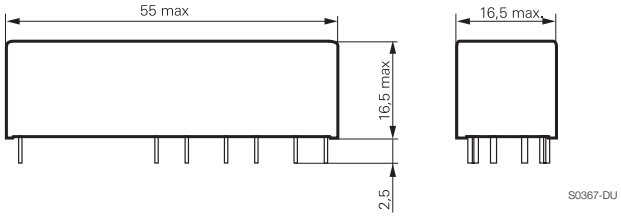
For more detailed information see product specification 2158003

Dimensions

SR6 A/B/C



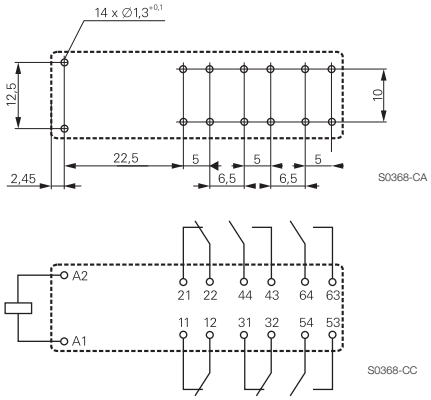
SR6 V



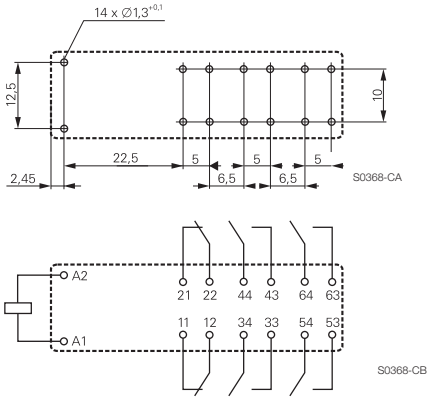
PCB layout / terminal assignment

Bottom view

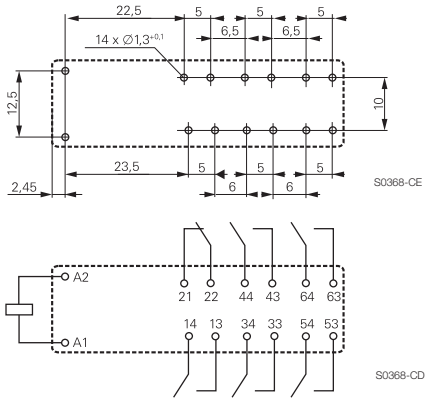
3 form A + 3 form B, 3 NO + 3 NC versions
SR6 A



4 form A + 2 form B, 4 NO + 2 NC versions
SR6 B

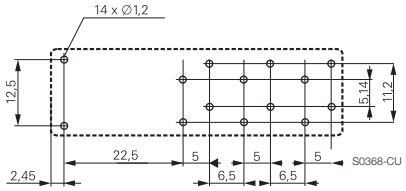


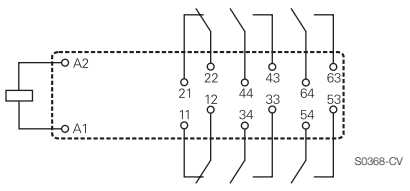
5 form A + 1 form B, 5 NO + 1 NC versions
SR6 C



4 form A + 2 form B, 4 NO + 2 NC versions
SR6 V

The design of the SR6 V allows clearance/creepage of 5.5 mm on the PCB.





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Force Guided Relay SR6 A/B/C/V (Continued)

Product code structure — Typical product code: **SR6 A 4 012**

Type
- **SR6** Relay with force guided contacts SR6

Contact arrangement
- **A** 3 form A + 3 form B contacts (3 NO + 3 NC)
- **B** 4 form A + 2 form B contacts (4 NO + 2 NC)
- **V** 4 form A + 2 form B contacts (4 NO + 2 NC) (crossed pin layout)
- **C** 5 form A + 1 form B contacts (5 NO + 1 NC)

Contact material
- **4** $AgSnO_2$ for 1200mW version
- **6** $AgSnO_2$ + 0.2µm Au for 800mW version

Coil
Coil code: please refer to coil versions table (e.g. 024=24VDC)

Other types on request

Product code	Type	Cont. arrangement	Cont. material	Coil	Coil Power	Alt. Description	Part Number
SR6A4005	6 pole	3 form A + 3 form B,	$AgSnO_2$	5VDC	1200mW	V23050-A1005-A533	8-1415017-1
SR6A4012	relay with	3 NO + 3 NC		12VDC		V23050-A1012-A533	1-1415015-1
SR6A4021	force guided	contacts		21VDC		V23050-A1021-A533	3-1415018-1
SR6A4024	contacts			24VDC		V23050-A1024-A533	1415015-1
SR6A4048				48VDC		V23050-A1048-A533	6-1415018-1
SR6A4060				60VDC		V23050-A1060-A533	7-1415018-1
SR6A4110				110VDC		V23050-A1110-A533	9-1415018-1
SR6A6K12			$AgSnO_2$ + Au	12VDC	800mW		6-1415537-1
SR6A6K18				18VDC			6-1415537-3
SR6A6K24				24VDC			6-1415537-5
SR6B4005		4 form A + 2 form B,	$AgSnO_2$	5VDC	1200mW	V23050-A1005-A542	1393260-1
SR6B4006		4 NO + 2 NC		6VDC		V23050-A1006-A542	1393260-2
SR6B4012		contacts		12VDC		V23050-A1012-A542	1393260-4
SR6B4018				18VDC		V23050-A1018-A542	1393260-5
SR6B4021				21VDC		V23050-A1021-A542	1393260-6
SR6B4024				24VDC		V23050-A1024-A542	1393260-7
SR6B4040				40VDC		V23050-A1040-A542	1393260-9
SR6B4048				48VDC		V23050-A1048-A542	1-1393260-0
SR6B4060				60VDC		V23050-A1060-A542	1-1393260-1
SR6B4085				85VDC		V23050-A1085-A542	1-1393260-2
SR6B4110				110VDC		V23050-A1110-A542	1-1393260-3
SR6B6K12			$AgSnO_2$ + Au	12VDC	800mW		7-1415537-6
SR6B6K15				15VDC			7-1415537-7
SR6B6K18				18VDC			7-1415537-8
SR6B6K21				21VDC			7-1415537-9
SR6B6K24				24VDC			8-1415537-0
SR6C4012		5 form A + 1 form B,	$AgSnO_2$	12VDC	1200mW	V23050-A1012-A551	1-1415017-1
SR6C4024		5 NO + 1 NC		24VDC		V23050-A1024-A551	1415017-1
SR6C4048		contacts		48VDC		V23050-A1048-A551	2-1415019-1
SR6C4060				60VDC		V23050-A1060-A551	3-1415019-1
SR6C4110				110VDC		V23050-A1110-A551	5-1415019-1
SR6C6K24			$AgSnO_2$ + Au	24VDC	800mW		9-1415537-4
SR6V6K12		4 form A + 2 form B,		12VDC			3-1415542-5
SR6V6K15		4 NO + 2 NC		15VDC			2-1415543-2
SR6V6K18		contacts		18VDC			3-1415543-3
SR6V6K21		(crossed pin layout)		21VDC			4-1415542-4
SR6V6K24				24VDC			5-1415539-2

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