

V23050A1021A533 Product Details



V23050A1021A533
(V23050-A1021-A533)
TE Internal Number: 3-1415018-1
 Active

Force Guided Contact Relays

 [Converted to EU RoHS/ELV Compliant \(Statement of Compliance\)](#)

Product Highlights:

- SR6 A/B/C/V Series
- Contact - Rated Current = 8 A
- Terminal Type = PCB-THT
- Contact - Arrangement = 3 Form A (NO) + 3 Form B (NC)
- Contact - Limiting Continuous Current = 8 A

Documentation & Additional Information

Product Drawings:

- None Available

Catalog Pages/Data Sheets:

- [Safety Relay SR6 \(PDF, English\)](#)

Product Specifications:

- None Available

Application Specifications:

- None Available

Instruction Sheets:

- None Available

CAD Files:

- None Available

Additional Information:

- [Product Line Information](#)

Related Products:

- [Tooling](#)

Product Features (Please use the Product Drawing for all design activity)

Product Type Features:

- Series = SR6 A/B/C/V
- Terminal Type = PCB-THT

Electrical Characteristics:

- Contact - Rated Current (A) = 8
- Contact - Limiting Continuous Current (A) = 8
- Contact - Limiting Making Current (A) = 8
- Contact - Limiting Breaking Current (A) = 8
- Insulation - Initial Dielectric Between Open Contacts (V rms) = 1500
- Insulation - Initial Dielectric Between Contacts and Coil (V rms) = 4000
- Contact - Switching Voltage Max. (VAC) = 400
- Contact - Limiting Short-Time Current (A) = 8
- Coil - Rated Voltage (VDC) = 21
- Coil - Resistance (Ω) = 368
- Coil - Rated Power, DC (mW) = 1200
- Coil - Rated Power Class = 1W to 1.5W Class
- Insulation - Initial Dielectric Between Adjacent Contacts (V rms) = 3000
- Insulation - Clearance Class = 5mm to 8mm Class
- Insulation - Creepage Class = 3mm to 5.5mm Class

Dimensions:

- Length (mm [in]) = 55.00 [2.167]
- Width (mm [in]) = 16.51 [0.650]
- Height (mm [in]) = 16.50 [0.650]
- Insulation - Clearance Between Contact and Coil (mm [in]) = 5.5 [0.217]
- Insulation - Creepage Between Contact and Coil (mm [in]) = 5.5 [0.217]

Body Features:

- Mount Type = PCB
- Weight (g [oz]) = 30.00 [1.058]

Contact Features:

- Contact Material = AgSnO
- Contact - Number of Poles = 6
- Contact - Special Features = Force Guided Contacts

Configuration Features:

- [Contact - Arrangement](#) = 3 Form A (NO) + 3 Form B (NC)
- [Coil - Magnetic System](#) = Monostable, DC

Industry Standards:

- [RoHS/ELV Compliance](#) = RoHS compliant, ELV compliant
- [Lead Free Solder Processes](#) = Wave solder capable to 260°C, Wave solder capable to 240°C
- RoHS/ELV Compliance History = Converted to comply with RoHS directive
- Approved/Registered Standards = CQC, TUEV, cULus, VDE

Environmental:

- Environmental - Category of Protection = RTIII
- Environmental - Ambient Temperature, Max. ($^{\circ}\text{C}$ [$^{\circ}\text{F}$]) = 70 [158]
- Environmental - Ambient Temperature Class = 50°C to 70°C Class

Packaging Features:

- Packaging Method = Tube

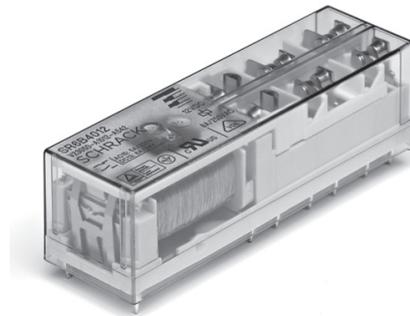
Other:

- Brand = Schrack

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



F0206-EA



Approvals

VDE 128935, UL E214025, TUV 968/EL 350, CQC06017015576/77, 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

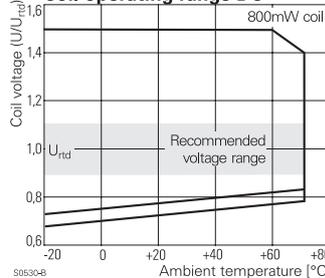
Coil voltage range	5 to 110VDC
Max. coil power	1200mW or 800mW

Coil versions, DC-coil 800mW

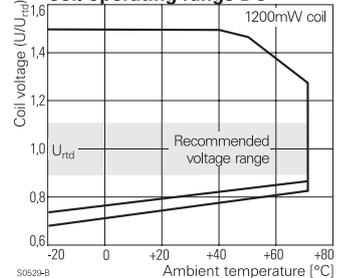
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated power mW
K12	12	9	0.9	180	800
K15	15	11.3	1.5	281	801
K18	18	13.5	1.8	405	800
K21	21	16	2.1	551	800
K24	24	18	2.4	720	800
K36	36	27	3.6	1620	800

All figures are given for coil without pre-energization, at ambient temperature +23°C.

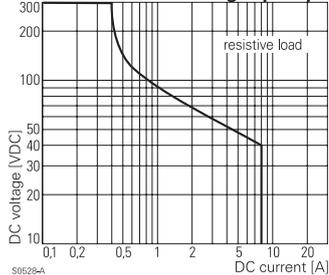
Coil operating range DC



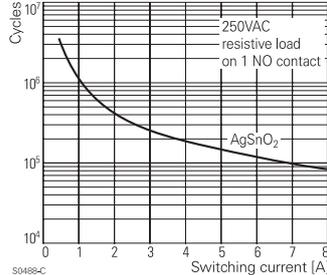
Coil operating range DC



Max. DC load breaking capacity



Electrical endurance



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	3000 ¹⁾	1200
110	110	83	11	10080 ¹⁾	1200

¹⁾ Coil resistance ±12%.

All figures are given for coil without pre-energization, at ambient temperature +23°C.

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/customer-support/rohssupportcenter	
Ambient temperature	-25 to 70°C
Category of environmental Protection	RTIII
IEC 61 810	
Weight	30g
Resistance to soldering heat THT	260°C/5s
IEC 60068-2-20	
Packaging/unit	tube/10 pcs.

For more detailed information see product specification 2158003

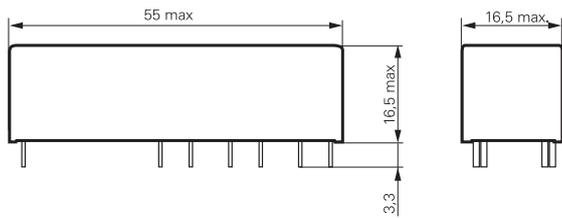
Accessories

27E1079	SR6A and SR6B socket (1423991-1)
27E1081	SR6C socket (1423992-1)
24A243	Relay hold down clip (1423994-1)

For details see datasheet 1654787

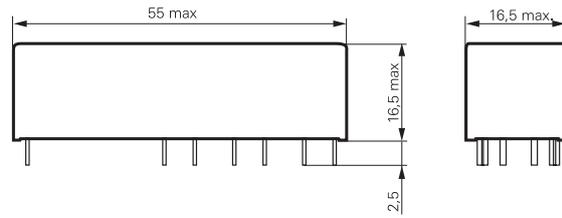
Dimensions

SR6 A/B/C



S0367-DN

SR6 V

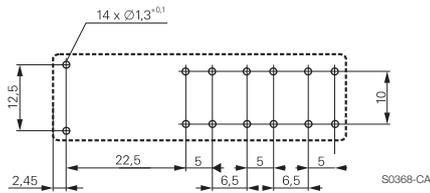


S0367-DU

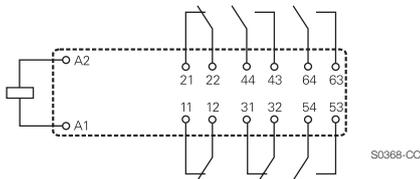
PCB layout / terminal assignment

Bottom view

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

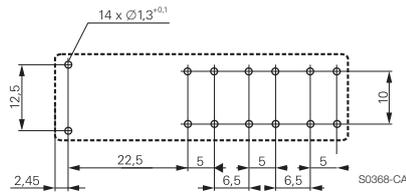


S0368-CA

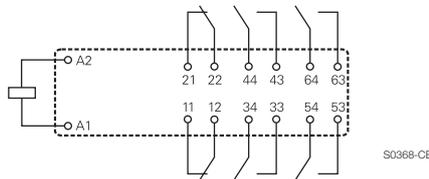


S0368-CC

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

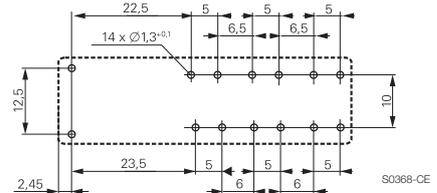


S0368-CA

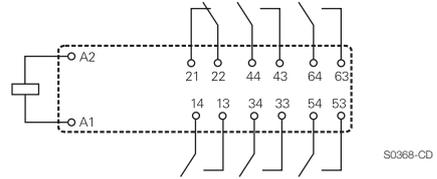


S0368-CB

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



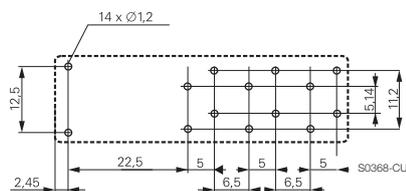
S0368-CE



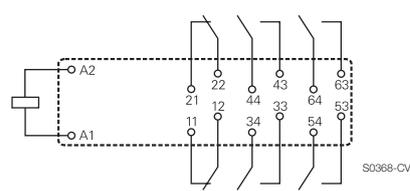
S0368-CD

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.



S0368-CU



S0368-CV

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	<p>A 3 form A + 3 form B contacts (3 NO + 3 NC)</p> <p>B 4 form A + 2 form B contacts (4 NO + 2 NC)</p> <p>V 4 form A + 2 form B contacts (4 NO + 2 NC)</p> <p>C 5 form A + 1 form B contacts (5 NO + 1 NC)</p>
Contact material	<p>4 AgSnO₂ for 1200mW version</p> <p>6 AgSnO₂ + 0.2µm Au for 800mW version</p>
Coil	Coil code: please refer to coil versions table (e.g. 024=24VDC)

Available types please see Part number table

Product code	Type	Arrangement	Cont. material	Coil	Coil power	Alt. description	Part number		
SR6A4005	6 pole	3 form A + 3 form B, 3 NO + 3 NC contacts	AgSnO ₂	5VDC	1200mW	V23050-A1005-A533	8-1415017-1		
SR6A4012	relay with			12VDC		V23050-A1012-A533	1-1415015-1		
SR6A4021	force guided			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, 4 NO + 2 NC contacts	AgSnO ₂	5VDC	1200mW	V23050-A1005-A542	1393260-1		
SR6B4006				6VDC		V23050-A1006-A542	1393260-2		
SR6B4012				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, 5 No + 1 NC contacts	AgSnO ₂	12VDC	1200mW	V23050-A1012-A551	1-1415017-1		
SR6C4024				24VDC		V23050-A1024-A551	1415017-1		
SR6C4048				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, 4 NO + 2 NC contacts		12VDC			3-1415542-5		
SR6V6K15				15VDC			2-1415543-2		
SR6V6K18				18VDC			3-1415543-3		
SR6V6K21				21VDC			4-1415542-4		
SR6V6K24				24VDC			5-1415539-2		