

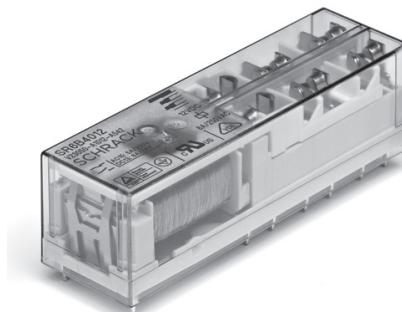
Force Guided Relay SR6 A/B/C/V

■ 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

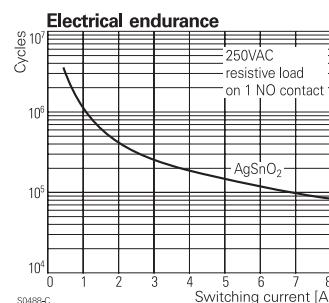
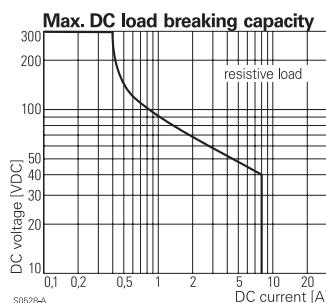

Approvals

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

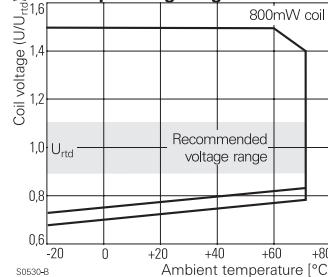
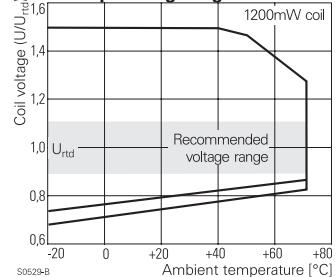

Coil Data

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 $\Omega \pm 10\%$	Rated coil 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

Coil versions, DC-coil 1200mW

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance $\Omega \pm 10\%$ 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 $\pm 12\%$.

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	$\geq 5.5/5.5\text{mm}$
between adjacent contacts	$\geq 5.5/5.5\text{mm}$
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
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

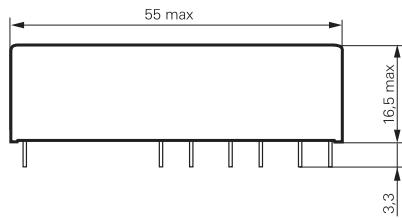
Accessories

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

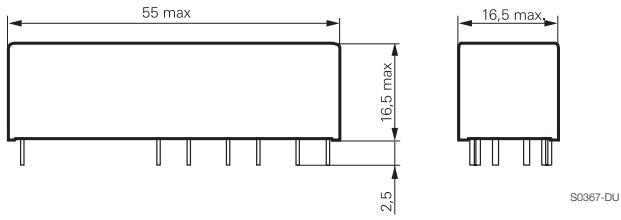
For details see datasheet 1654787

Dimensions

SR6 A/B/C

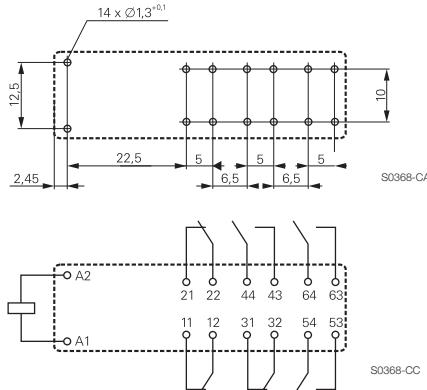


SR6 V

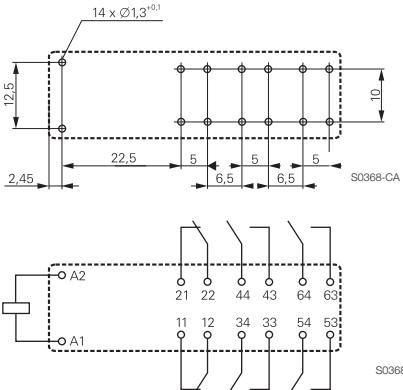

PCB layout / terminal assignment

Bottom view

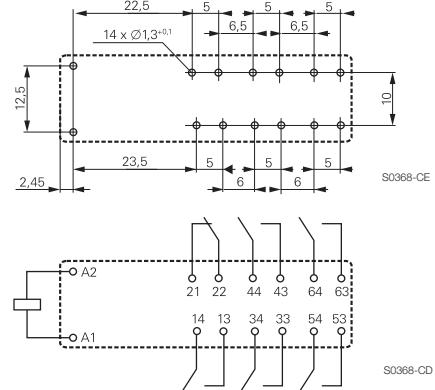
3 form A + 3 form B, 3 NO + 3 NC versions
SR6 A



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

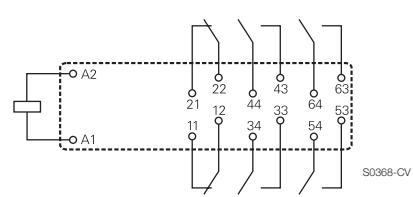
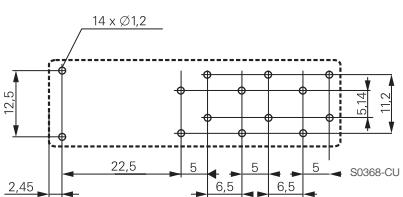


5 form A + 1 form B, 5 NO + 1 NC versions
SR6 C



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.



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

Product code structure

Type	SR6 Relay with force guided contacts SR6	Typical product code	SR6	A	4	012
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)						
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)						

Available types please see Part number table

Product code	Type	Arrangement	Cont. material	Coil	Coil power	Alt. description	Part number
SR6A4005	6 pole relay with force guided contacts	3 form A + 3 form B, 3 NO + 3 NC contacts	AgSnO ₂	5VDC	1200mW	V23050-A1005-A533	8-1415017-1
SR6A4012				12VDC		V23050-A1012-A533	1-1415015-1
SR6A4021				21VDC		V23050-A1021-A533	3-1415018-1
SR6A4024				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

Force Guided Relay SRL7

- Low profile relay with force guided contacts according to EN 50205
- 5 form A (NO) + 2 form B (NC) contacts
- Reinforced insulation between contact circuits

Typical applications

Emergency stop or two hand guard safety relays, expansion I/O modules, safety control circuits



SRL7

Approvals

planned VDE, TÜV, UL

Technical data of approved types on request

Contact Data

Contact arrangement	5 form A + 2 form B contacts, (5 NO + 2 NC)
Rated voltage	250VAC
Max. switching voltage	400VAC
Rated current	6A
Contact material	Ag alloy
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	6/30min ⁻¹
Mechanical endurance	10x10 ⁶ operations

Coil Data

Coil voltage range	5 to 110VDC
Operative range, IEC 61810	2
Max. coil power	700mW

Coil versions, DC-coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
005	5	3,8	0,5	36	694
006	6	4,5	0,6	51	706
009	9	6,8	0,9	116	698
012	12	9	1,2	206	699
015	15	11,3	1,5	319	705
018	18	13,5	1,8	463	700
021	21	16	2,1	630	700
024	24	18	2,4	820	702
036	36	27	3,6	1850	701
048	48	36	4,8	3290	700
060	60	45	6	5140	700
110	110	83	11	17280	700

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

Insulation Data

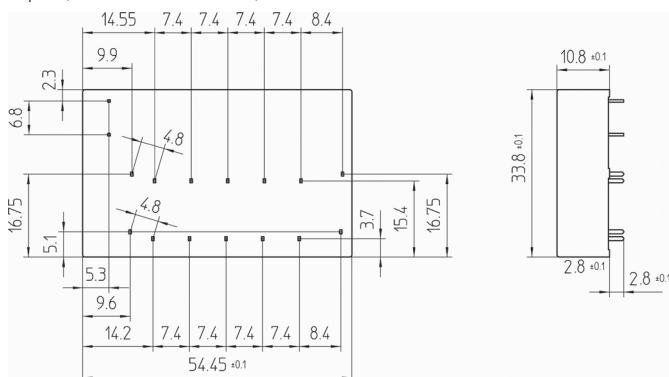
	group A	group B
Initial dielectric strength		
between open contacts	1500Vrms	1500Vrms
between contact and coil	4000Vrms	2500Vrms
between adjacent contacts	4000Vrms	2500Vrms
between group A and group B	4000Vrms	
Clearance/creepage		
between open contacts	microdisconnection	
between contact and coil	≥5.5/5.5mm	≥3/4mm
between adjacent contacts	≥5.5/5.5mm	≥3/4mm
between group A and group B	≥5.5/5.5mm	
Insulation to EN 50178, type of insulation		
between contact and coil	reinforced	basic
between adjacent contacts	reinforced	basic
between group A and group B	reinforced	

Other Data

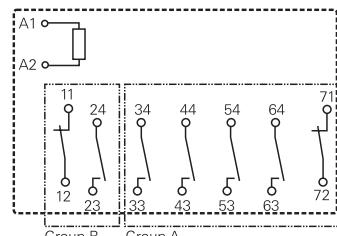
Ambient temperature	-40 to 85°C
Category of environmental Protection	
IEC 61 810	RTII
Packaging/unit	tube/10 pcs.

Force Guided Relay SRL7 (Continued)
Dimensions

7 pole, 5 form A + 2 form B, 5NO + 2NC


PCB layout / terminal assignment

Bottom view



S0567-DC

Product code structure

Typical product code **SRL** **7** **52** **8** **D** **024**

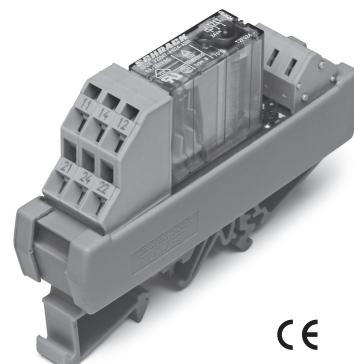
Type	SRL Relay with force guided contacts SRL
Version	7 7 pole
Contact arrangement	52 5 form A + 2 form B contacts (5 NO + 2 NC)
Contact material	8 Ag alloy
Coil system	D DC coil
Coil	Coil code: please refer to coil versions table (e.g. 012=12VDC)

Force Guided Relay on DIN-rail SR2 Z

■ 2 pole relay with force guided contacts according to EN50205

■ DIN rail mounting

Typical applications
 contact monitoring in railway, elevator and machine controls



CE

F-SR2Z-A

Approvals

Relay SR2M: VDE, UL, TUV, CQC

Module SR2Z: CE

Technical data of approved types on request

Contact Data

Contact arrangement	2 form C (CO) contacts According EN50205 only 1NO / 1NC (11-14 and 22-21 or 12-11 and 21-24) shall be used as force guided contacts.
Rated voltage	250VAC
Max. switching voltage	250VAC
Rated current	6A
Contact material	AgNi
Contact style	single contact, force guided
1 form A + B, 1 NO + 1NC	type A according to EN 50205
2 form C, 2CO	type B according to EN 50205
Min. recommended contact load	5V/10mA
Initial contact resistance	$\leq 100\text{m}\Omega$ at 1A, 24VDC $\leq 20\Omega$ at 10mA, 5VDC
Frequency of operation, with/without load	6/300min ⁻¹
Contact ratings, IEC60947-5-1, on 1 form A (NO) contact	AC15-3A DC13-6A
Mechanical endurance	10×10^6 operations

Coil Data

Coil voltage range	24VDC
Operative range, % of rated coil voltage	90 to 110% of U_{rd}
Release voltage (+23°C)	10% of U_{rd}
Limiting voltage, % of rated coil voltage	110%
Max. coil power	700mW
Input circuit	LED

Insulation Data

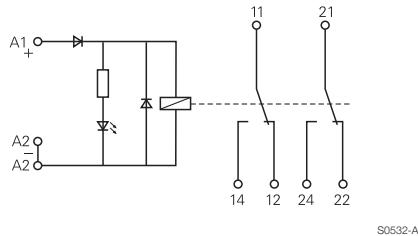
Initial dielectric strength	1500V _{rms}
between open contacts	4000V _{rms}
between contact and coil	2000V _{rms}
between adjacent contacts	
Clearance/creepage	microdisconnection
between open contacts	$\geq 8/8\text{mm}$
between contact and coil	$\geq 3/3\text{mm}$
between adjacent contacts	
Insulation to EN 50178, type of insulation	reinforced
between contact and coil	basic
between adjacent contacts	

Other Data

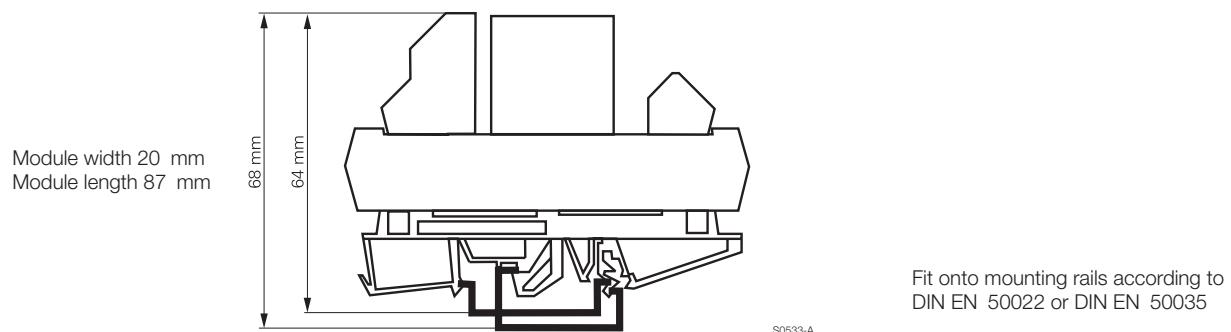
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter	
Ambient temperature	-25 to 50°C
Terminal type	screwless clamp connectors AWG 28 to 14 0.2 to 2.5mm ²
Mounting position	any
Weight	50g
Packaging unit	2

Force Guided Relay on DIN-rail SR2 Z (Continued)

Terminal assignment



Dimensions



Product code structure

 Typical product code **SR2Z** **Y** **024**

Type **SR2Z** Relay with force guided contacts on DIN-rail SR2 Z

Contact configuration **Y** 2 form C (CO) contacts

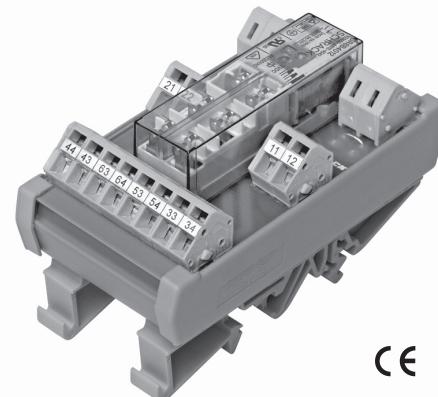
Coil DC Coil code = rated coil voltage (e.g. 024=24 VDC)
 Other types on request

Product code	Type	Contact configuration	Coil	Part number
SR2ZY024	2-pole module	2 form C (CO) contacts	24VDC	9-1415536-1

Force Guided Relay on DIN-rail SR6 Z

- 6 pole relay with force guided contacts according to EN50205
- DIN rail mounting
- AC / DC input

Typical applications
 contact monitoring in railway, elevator and machine controls



F0238-C

Approvals

 relay SR6: VDE, UL, TUV, CQC
 module SR6Z: CE

Technical data of approved types on request

Contact Data

Contact arrangement	3 form A (NO) and 3 form B (NC), 4 form A (NO) and 2 form B (NC), 5 form A (NO) and 1 form B (NC)
Rated voltage	250VAC
Max. switching voltage	250VAC
Rated current	8A
Contact material	AgSnO ₂
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 1 form A (NO) contact	AC15-5A DC13-6A
Mechanical endurance	10x10 ⁶ operations

Coil Data

Coil voltage range	6 to 115 VAC/VDC, 230VAC
DC energizing voltage U _{rd}	6, 12, 18, 21, 24, 36, 40, 48, 60, 115VDC
AC/DC energizing voltage U _{rd}	12, 21, 24, 40, 48, 60, 115VAC/VDC
AC energizing voltage U _{rd}	230VAC
Operative range	90 to 110% of U _{rd}
Release voltage (+23°C)	10% of U _{rd}
Max. coil power	1200mW

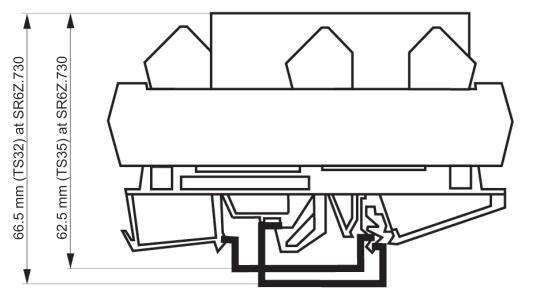
Insulation Data

Initial dielectric strength between open contacts	1000V _{rms}
between contact and coil	3000V _{rms}
between adjacent contacts	2000V _{rms}
Clearance/creepage between open contacts	microdisconnection ≥5.5/5.5mm
between contact and coil	≥3/3mm
between adjacent contacts	
Insulation to EN 50178, type of insulation between contact and coil	reinforced
between adjacent contacts	basic

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

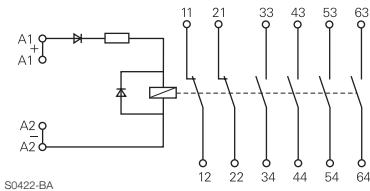
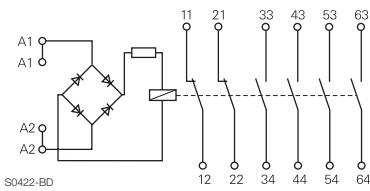
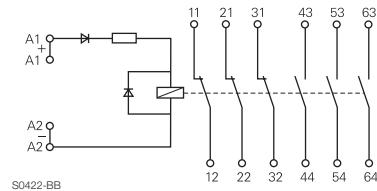
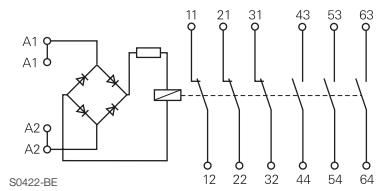
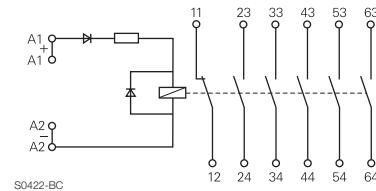
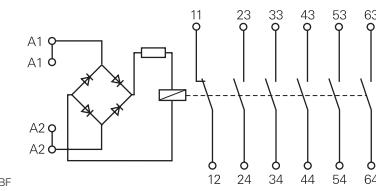
Ambient temperature	-25 to 50°C
Terminal type	screwless clamp connectors AWG 28 to 14 0.2 to 2.5mm ²
Mounting position	any
Weight	90g
Packaging unit	2

Dimensions


S0423-A

 Module width 46 mm
 Module length 87 mm

 Fit onto mounting rails according to
 DIN EN 50022 or DIN EN 50035

Force Guided Relay on DIN-rail SR6 Z (Continued)
Terminal assignment
DC module, 4 NO+2 NC version

AC/DC module, 4 NO+2 NC version

DC module, 3 NO+3 NC version

AC/DC module, 3 NO+3 NC version

DC module, 5 NO+1 NC version

AC/DC module, 5 NO+1 NC version

Product code structure

Typical product code **SR6Z B 024**
Type
SR6Z Relay with force guided contacts on DIN-rail SR6 Z

Contact configuration

- A** 3 form A (NO) + 3 form B (NC) contacts
- B** 4 form A (NO) + 2 form B (NC) contacts
- C** 5 form A (NO) + 1 form B (NC) contacts

Coil

DC Coil code = rated coil voltage (e.g. 024=24 VDC)
AC/DC coil code: 524=24 VAC/VDC, 615=115 VAC/VDC
AC coil code: 730=230 VAC

Other types on request

Product code	Type	Contact configuration	Contact material	Coil	Part number
SR6ZA024	6-pole force guided relay module	3 form a + 3 form B 3 NO + 3 NC contacts	AgSnO ₂	24VDC	7-1415033-1
SR6ZA524				24VAC/VDC	9-1415059-1
SR6ZA615				115VAC/VDC	1415060-1
SR6ZA730	4 form A + 2 form B 4 NO + 2 NC contacts			230VAC	1-1415060-1
SR6ZB024				24VDC	5-1415033-1
SR6ZB524				24VAC/VDC	2-1415060-1
SR6ZB615	5 form A + 1 form B 5 NO + 1 NC contacts			115VAC/VDC	6-1415046-1
SR6ZB730				230VAC	3-1415060-1
SR6ZC024				24VDC	3-1415042-1
SR6ZC524	5 form A + 1 form B 5 NO + 1 NC contacts			24VAC/VDC	4-1415060-1
SR6ZC615				115VAC/VDC	5-1415060-1
SR6ZC730				230VAC	6-1415060-1