

Force Guided Relay SR6 Next Generation

- 6 pole relay with force guided contacts according to EN61810-3 (formerly EN50205)
- Reinforced insulation between all contacts



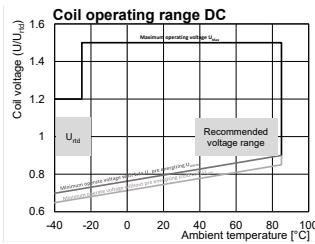
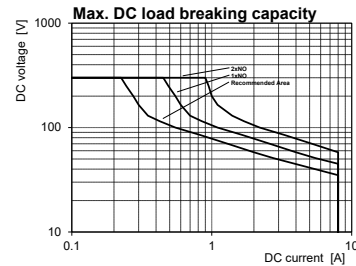
Typical applications
Emergency shut-off, press control, machine control, elevator and escalator control, safety relays



Approvals
VDE Cert. No. 40055844, UL E214025 Vol.9 Sec.6, TUV planned, CCC 2022000303000046
Technical data of approved types on request

Contact Data	
Contact arrangement	3 form A(NO) + 3 form B(NC) 4 form A(NO) + 2 form B(NC) 5 form A(NO) + 1 form B(NC) 2 form A(NO) + 2 form B(NC) 3 form A(NO) + 1 form B(NC)
Rated voltage	277V _{AC}
Max. switching voltage	400V _{AC}
Rated current	8A
Total continuous current	
$I_{TH}^2 = I_1^2 + I_2^2 + I_3^2 \dots I_N^2$	131A ²
Max. Breaking capacity AC	2216VA
Max. Breaking capacity DC	see DC Load breaking diagram
Contact material	AgSnO ₂
Contact style	single contact, force guided type A according to EN61810-3
Min. recommended contact load (reference)	5V _{DC} , 1mA
Initial contact resistance	≤100mΩ at 1A, 24V _{DC} ≤20Ω at 10mA, 5V _{DC}
Frequency of operation, with/without load	6/150min ⁻¹

Contact ratings for SR6-II Next Gen		
	Load	Cycles
IEC61810-1		
on 1 form A (NO) contact	8A, 250VAC resistive, 85°C	100x10 ³
IEC60947-5-1		
on 1 form A (NO) contact	AC15 - 250V/5A	
on 1 form A (NO) contact	DC13 - 24V/6A	
UL61810		
on 1 form A (NO) contact	8A, 277VAC, general purpose, 85°C	
	B300	
	R300	



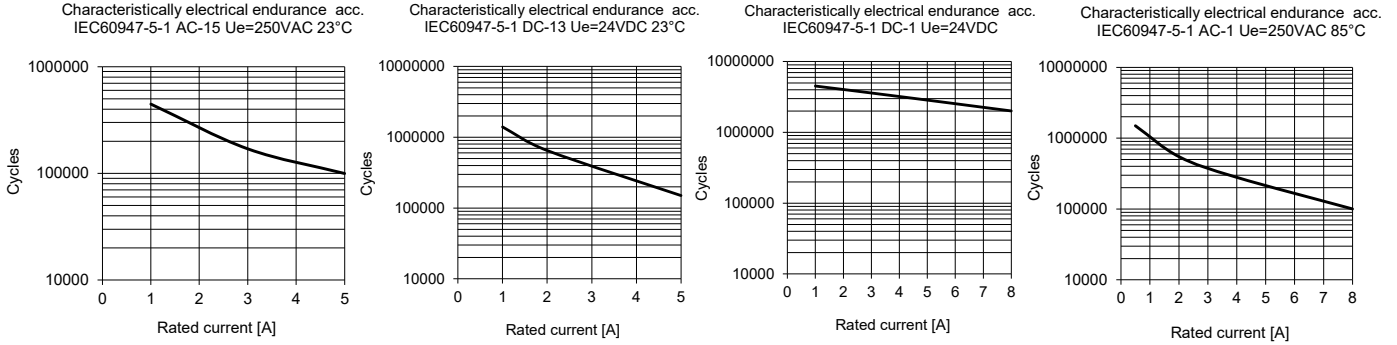
Coil Data	
Coil voltage range	5 to 110VDC
Coil power 6-pole relays	
SR6-33x-Lxxx-xx; SR6-42x-Lxxx-xx; SR6-51x-Lxxx-xx	700mW
Coil power 4-pole relays	
SR6-22x-Uxxx-xx; SR6-31x-Uxxx-xx;	550mW
Operative range, IEC 61810	2
Coil insulation system according UL	Class F

Low sensitive L coil version (700mW), DC coil						6-pole relays
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW	
L005	5	3.5	0.5	26	700	
L006	6	4.2	0.6	51	700	
L009	9	6.3	0.9	115	700	
L012	12	8.4	1.2	205	700	
L015	15	10.5	1.5	321	700	
L018	18	12.6	1.8	462	700	
L021	21	14.7	2.1	630	700	
L024	24	16.8	2.4	822	700	
L030	30	21	3	1285	700	
L036	36	25.2	3.6	1851	700	
L040	40	28	4	2285	700	
L048	48	33.6	4.8	3291	700	
L060	60	42	6	5142	700	
L085	85	59.5	8.5	10321	700	
L110	110	77	11	17286	700	

Ultra low sensitive U coil version (550mW), DC coil						4-pole relays
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW	
U005	5	3.5	0.5	45	550	
U006	6	4.2	0.6	65	550	
U009	9	6.3	0.9	147	550	
U012	12	8.4	1.2	262	550	
U015	15	10.5	1.5	409	550	
U018	18	12.6	1.8	589	550	
U021	21	14.7	2.1	802	550	
U024	24	16.8	2.4	1047	550	
U030	30	21	3	1636	550	
U036	36	25.2	3.6	2356	550	
U040	40	28	4	2909	550	
U048	48	33.6	4.8	4189	550	
U060	60	42	6	6546	550	
U085	85	59.5	8.5	13136	550	
U110	110	77	11	22000	550	

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

Force Guided Relay SR6 Next Generation (Continued)



Insulation Data

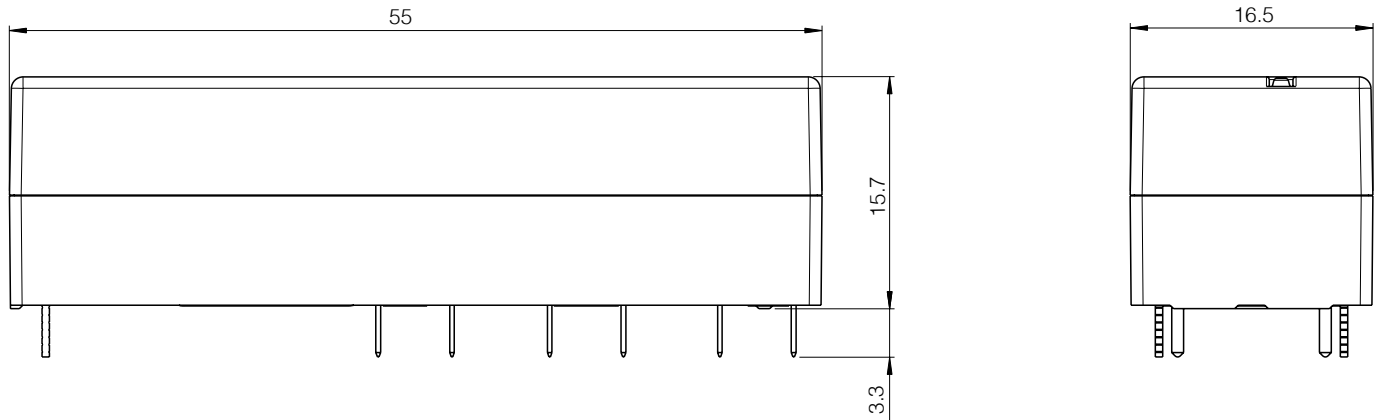
Initial dielectric strength	
between open contacts	1500V _{rms}
between contact and coil	4000V _{rms}
between adjacent contacts	3000V _{rms}
Initial surge withstand voltage	
between contact and coil	6000V _{rms}
Clearance/creepage	
between open contacts	microdisconnection
between contact and coil	≥5.56mm
between adjacent contacts	≥5.56mm
Insulation to IEC EN 62477 (former 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

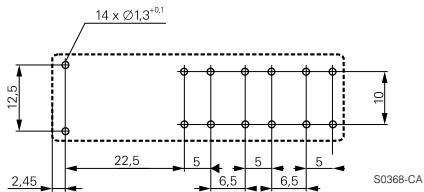
Ambient temperature	-40 to 85°C
Category of environmental protection	IEC 61810
Weight	RTIII - wash tight approx. 29.5g
Vibration resistance (functional)	30 - 500Hz
IEC 60068-2-6 (half sine) NO closing	min. 10g, 10µs
IEC 60068-2-6 (half sine) NO opening	min. 20g, 10µs
IEC 60068-2-6 (half sine) NC opening	min. 2g, 10µs
IEC 60068-2-6 (half sine) NC closing	min. 3g, 10µs
Shock resistance (functional)	
IEC 60068-2-27 (half sine) NO	min. 20g, 11ms
IEC 60068-2-27 (half sine) NC	min. 2g, 11ms
Shock resistance (destructive)	min. 100g, 11ms
Terminal type	PCB-THT
Resistance to soldering heat THT	
IEC 60068-2-20	260°C/5s
Packaging/unit	tube/10 pcs.

Standard Dimension

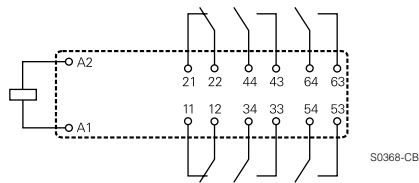
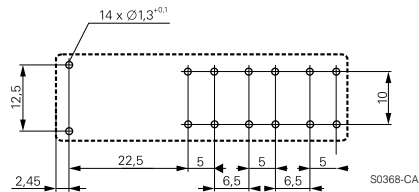


Force Guided Relay SR6 Next Generation (Continued)

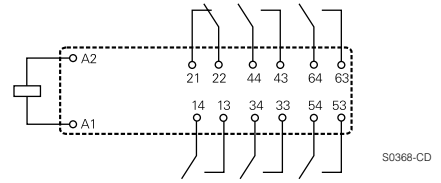
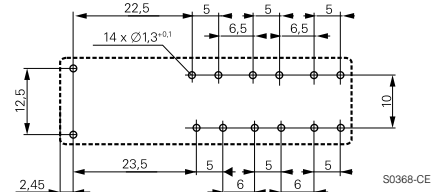
3 form A + 3 form B, 3 NO + 3 NC versions SR6



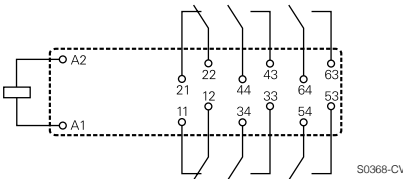
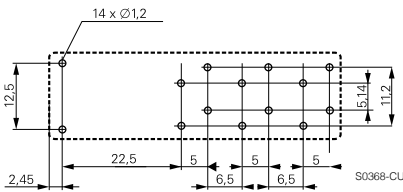
4 form A + 2 form B, 4 NO + 2 NC versions SR6



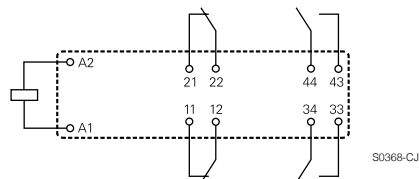
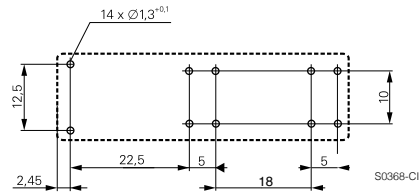
5 form A + 1 form B, 5 NO + 1 NC versions SR6



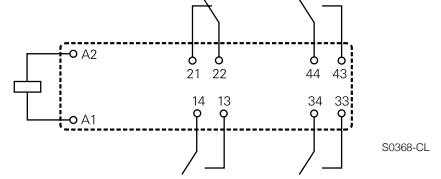
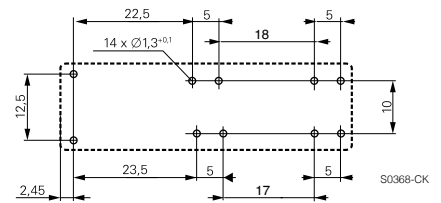
4 form A + 2 form B, 4 NO + 2 NC versions SR6



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



3 form A + 1 form B, 3 NO + 1 NC contacts



The design of the SR6 Next Gen with crossed pin layout allows clearance/creepage of 5.56 mm on the PCB.

Force Guided Relay SR6 Next Generation (Continued)

Product code structure

	SR	6	-4	2	3	-L	005	-0	0	0	####
I Type SR6 = Relay with force guided contacts											
II Version 6 = 6 pole											
III Number of NO contact configurations 5 = 5 form A, NO sets 4 = 4 form A, NO sets 3 = 3 form A, NO sets 2 = 2 form A, NO sets (4-pole types only)											
IV Number of NC contact configurations 1 = 1 form B, NC sets 2 = 2 form B, NC sets 3 = 3 form B, NC sets											
V Contact Material 3 = AgSnO2 6 = AgSnO2 + Au flush											
VI Coil version L = DC 700mW coil power (6-pole types only) U = DC 550mW coil power (4-pole types only)											
VII Coil Coil voltage code: please refer to coil versions table (e.g. 005=5VDC)											
VIII Category of protection 0 = RTIII Waschdicht											
IX Electrical Features (Terminal alignment) 0 = Standard pin layout V = Crossed pin layout											
X Mechanical features (Pin length) 0 = Standard (3,3mm) 1 = Short pin (2,5mm)											
XI Additional manufacturer indications #### May be followed by up to 4 numbers and/or letters only for manufacturer internal identification											

Force Guided Relay SR6 Next Generation (Continued)

Product code	Type	Contact arrangement	Contact material	Coil	Coil Power	Part number			
SR6-333-L005-00	6-pole relay with force guided contacts	3 form A + 3 form B, 3NO + 3NC contacts	AgSnO ₂	5VDC	700mW	1558736-1			
SR6-333-L012-00				12VDC		1558736-4			
SR6-333-L021-00				21VDC		1558736-7			
SR6-333-L024-00				24VDC		1558736-8			
SR6-333-L048-00				48VDC		1-1558736-2			
SR6-333-L060-00				60VDC		1-1558736-3			
SR6-333-L110-00				110VDC		1-1558736-5			
SR6-336-L005-00				AgSnO ₂ + Au			5VDC	2-1558736-1	
SR6-336-L012-00							12VDC	2-1558736-4	
SR6-336-L018-00							18VDC	2-1558736-6	
SR6-336-L021-00	21VDC	2-1558736-7							
SR6-336-L024-00	24VDC	2-1558736-8							
SR6-336-L110-00	110VDC	3-1558736-5							
SR6-423-L005-00	4 form A + 2 form B, 4NO + 2NC contacts	AgSnO ₂	5VDC		1558737-1				
SR6-423-L006-00			6VDC		1558737-2				
SR6-423-L012-00			12VDC		1558737-4				
SR6-423-L018-00			18VDC		1558737-6				
SR6-423-L021-00			21VDC	1558737-7					
SR6-423-L024-00			24VDC	1558737-8					
SR6-423-L040-00			40VDC	1-1558737-1					
SR6-423-L048-00			48VDC	1-1558737-2					
SR6-423-L060-00			60VDC	1-1558737-3					
SR6-423-L085-00			85VDC	1-1558737-4					
SR6-423-L110-00	110VDC	1-1558737-5							
SR6-426-L012-00	AgSnO ₂ + Au		12VDC	2-1558737-4					
SR6-426-L015-00			15VDC	2-1558737-5					
SR6-426-L018-00			18VDC	2-1558737-6					
SR6-426-L021-00			21VDC	2-1558737-7					
SR6-426-L024-00			24VDC	2-1558737-8					
SR6-513-L012-00			5 form A + 1 form B, 5NO + 1NC contacts	AgSnO ₂	12VDC	1558738-4			
SR6-513-L018-00					18VDC	1558738-6			
SR6-513-L024-00					24VDC	1558738-8			
SR6-513-L048-00					48VDC	1-1558738-2			
SR6-513-L060-00					60VDC	1-1558738-3			
SR6-513-L110-00	110VDC	1-1558738-5							
SR6-516-L012-00	AgSnO ₂ + Au				12VDC	2-1558738-4			
SR6-516-L024-00					24VDC	2-1558738-8			
SR6-426-L012-0V					4 form A + 2 form B, 4NO + 2NC contacts (crossed pin layout)	AgSnO ₂	12VDC	2-1558739-4	
SR6-426-L015-0V							15VDC	2-1558739-5	
SR6-426-L018-0V			18VDC	2-1558739-6					
SR6-426-L021-0V			21VDC	2-1558739-7					
SR6-426-L024-0V			24VDC	2-1558739-8					
SR6-426-L040-0V			40VDC	3-1558739-1					
SR6-426-L110-0V			110VDC	3-1558739-5					
SR6-223-U012-00			4-pole relay with force guided contacts	2 form A + 2 form B, 2NO + 2NC contacts			AgSnO ₂	12VDC	550mW
SR6-223-U018-00	18VDC	1558740-6							
SR6-223-U021-00	21VDC	1558740-7							
SR6-223-U024-00	24VDC	1558740-8							
SR6-223-U040-00	40VDC	1-1558740-1							
SR6-223-U110-00	110VDC	1-1558740-5							
SR6-313-U006-00	3 form A + 1 form B, 3NO + 1NC contacts				AgSnO ₂	6VDC		1558741-2	
SR6-313-U012-00						12VDC		1558741-4	
SR6-313-U018-00						18VDC		1558741-6	
SR6-313-U021-00						21VDC		1558741-7	
SR6-313-U024-00			24VDC	1558741-8					
SR6-313-U048-00			48VDC	1-1558741-2					
SR6-313-U110-00			110VDC	1-1558741-5					

Note. This list represents the most common types and does not show all variants covered by this datasheet. Other types on request.