

## Force Guided Relay SR2M

- **2** pole relay with force guided contacts according to EN61810-3 (formerly EN50205)
- Reinforced insulation between poles
- Version P1 for use in sockets



5 to 110VDC

### Approvals

Typical applications

control, safety relays

VDE 116064, UL E214025, TUV 968/EZ 111, CCC 2019010303217074 Technical data of approved types on request

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

### tact Dat

Contact Data					
Contact arrangement	1 form A + 1 form B contacts				
	(1 NO + 1 NC) or				
	2 form C contacts (2 CO)				
According EN61810-3 only 1NO	/ 1NC (11-14 and 22-21 or 12-11 and				
21-24) shall be used as force guid	ded contacts.				
Rated voltage	250VAC				
Max. switching voltage	400VAC				
Rated current	6A				
Contact material	AgNi				
Contact style	single contact, force guided				
1 form A + B, 1 NO + 1NC	type A according to EN61810-3				
2 form C, 2CO	type B according to EN61810-3				
Min. recommended contact load	5V/10mA				
Initial contact resistance	≤100mΩ at 1A, 24VDC				
	≤20Ω at 10mA, 5VDC				
Frequency of operation, with/without	t load 6/300min <sup>-1</sup>				
Contact ratings IEC61810-1					
on 1 form A (NO) contact	6A, 250VAC, $\cos \varphi = 1,70C$ 100x10 <sup>3</sup>				
IEC60947-5-1					
on 1 form A (NO) contact	AC15 - 250V/3A				
	DC13 - 24V/3A				
	on the basis of DC13 - 24V/6A				
	under conditions specified in				
	product spec. 2158001				
UL508					
on 1 form A (NO) contact	6A, 250VAC, $\cos \varphi = 1,70^{\circ}C \ 100 \times 10^{3}$				
	R300 and B300				
form A (NO) + form B (NC)	1A/24VDC gen. purpose, 70°C				
	100x10 <sup>3</sup>				
Mechanical endurance	10x10 <sup>6</sup> operations				
	Electrical and uranea				
300 Wax. DC load breaking capacity					
	250VAC				
resistive load	lesistive load				
100					
	AgNi				
2 30	107				
Initial contact resistance Frequency of operation, with/without Contact ratings IEC61810-1 on 1 form A (NO) contact IEC60947-5-1 on 1 form A (NO) contact UL508 on 1 form A (NO) contact form A (NO) + form B (NC) Mechanical endurance Max. DC load breaking capacity 200	≤100mΩ at 1A, 24VDC ≤20Ω at 10mA, 5VDC t load 6/300min <sup>-1</sup> 6A, 250VAC, $\cos \varphi = 1,70C$ 100x10 AC15 - 250V/3A DC13 - 24V/3A on the basis of DC13 - 24V/6A under conditions specified in product spec. 2158001 6A, 250VAC, $\cos \varphi = 1,70^{\circ}C$ 100x10 R300 and B300 1A/24VDC gen. purpose, 70°C 100x10 10x10 <sup>6</sup> operations Electrical endurance				

Coil	Data	

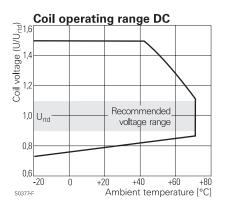
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Coil voltage range

Coil vers	sions, DC-co	il			
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	mW
005	5	3.8	0.5	35.7	700
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	321	701
018	18	13.5	1.8	483	671
021	21	16	2.1	630	700
024	24	18	2.4	823	700
036	36	27	3.6	1851	700
040	40	30	4.0	2286	700
048	48	36	4.8	3291 <sup>1)</sup>	700
060	60	45	6	5142 <sup>1)</sup>	700
080	80	60	8	9143 <sup>1)</sup>	700
110	110	83	11	17285 <sup>1)</sup>	700

<sup>1)</sup> Coil resistance ±12%

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



Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change.

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100 100 100 100 100 100 100 100	form A (NO) + form B (NC)	R300 1A/2
300 200 100 50 50 40 50 50 40 50 40 50 40 40 40 40 40 40 40 40 40 40 40 40 40	Mechanical endurance	
100 100 100 100 100 100 100 100		Cocles
0040 10 10 10 10 10 10 10 10 10 1		106
		10 <sup>5</sup>
0,1 0,2 0,5 1 2 5 10 20	0,1 0,2 0,5 1 2 5 10 20	10 <sup>4</sup>

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Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

Switching current [A]



## Force Guided Relay SR2M (Continued)

Insulation	
Initial dielectric strength	
between open contacts	1500V <sub>rms</sub>
between contact and coil	4000V <sub>rms</sub>
between adjacent contacts	3000V <sub>rms</sub>
Clearance/creepage	
between open contacts	microdisconnection
between contact and coil	≥8/8mm
between adjacent contacts	≥5.5/5.5mm
Insulation to EN 50178, type of insulation	
between contact and coil	reinforced
	reinforced
between adjacent contacts	reinforced

Other Data	SR2M	SR2M P	lug-in
Material compliance: EU RoHS/El	_V, China RoH	S, REACH, Halogen	content
refer to the Product Compliance S	Support Cente	r at	
www.te.com/customersupport	/rohssupportc	<u>enter</u>	
Ambient temperature		-40 to 70°C	
Category of environmental Protec	tion		
IEC 61 810	RTIII		RTII
Weight		20g	
Resistance to soldering heat THT			
IEC 60068-2-20	260°C/5s		-
Packaging/unit		tube/20 pcs.	

For more detailed information see product specification 2158001

#### Accessories

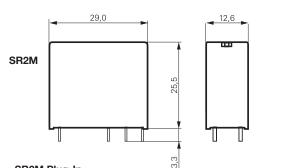
 For details see datasheet
 Accessories Force Guided Relay SR2M plugin

 NOTE: indicated contact ratings and electrical endurance data for direct

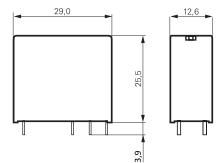
 wiring of relays (according IEC 61810-1); for relays mounted on sockets

 deratings may apply.

#### Dimensions



SR2M Plug-In



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Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.

S0273-BB

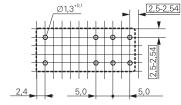
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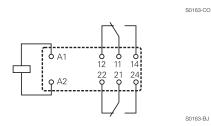
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### PCB layout / terminal assignment

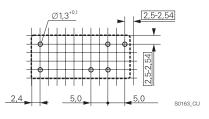
Bottom view on solder pins

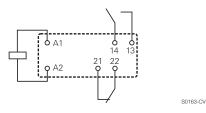
2 form C, 2 CO contacts





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





3.9mm



# Force Guided Relay SR2M (Continued)

Product code structure	Т	Typical product code	V23047	-A1	012	- <b>A</b>	5	11
Туре								
V23047 Relay with force guided contacts S	R2M							
Version								
A1 standard P1 P	ug-In							
Coil					, 			
Coil code: please refer to coil versions table	e.g. 024=24VDC)							
Contact set								
A single contact								
Contact material								
5 AgNi								
Contact configuration								
01 2 form C contacts (2 CO)								
11 1 form A + 1 form B contacts (1 NO + 1	NC)							

Other types on request

Product code	Version	Cont. material	Contact arrangement	Coil	Part number
V23047-A1005-A501	Standard	AgNi	2 form C (CO)	5VDC	1393258-2
V23047-A1005-A511	wash tight		1 A + 1 B, (1 NO + 1 NC)		7-1415006-1
V23047-A1006-A501			2 form C (CO)	6VDC	3-1415011-1
V23047-A1006-A511			1 A + 1 B, (1 NO + 1 NC)		6-1415011-1
V23047-A1009-A501			2 form C (CO)	9VDC	1393258-3
V23047-A1009-A511			1 A + 1 B, (1 NO + 1 NC)		7-1415011-1
V23047-A1012-A501			2 form C (CO)	12VDC	1393258-4
V23047-A1012-A511			1 A + 1 B, (1 NO + 1 NC)		1393258-5
V23047-A1018-A501			2 form C (CO)	18VDC	1393258-8
V23047-A1018-A511			1 A + 1 B, (1 NO + 1 NC)		1393258-9
V23047-A1021-A501			2 form C (CO)	21VDC	1-1393258-1
V23047-A1021-A511			1 A + 1 B, (1 NO + 1 NC)		1-1393258-2
V23047-A1024-A501			2 form C (CO)	24VDC	1-1393258-5
V23047-A1024-A511			1 A + 1 B, (1 NO + 1 NC)		1-1393258-7
V23047-A1036-A501			2 form C (CO)	36VDC	2-1393258-0
V23047-A1036-A511			1 A + 1 B, (1 NO + 1 NC)		8-1415011-1
V23047-A1040-A501			2 form C (CO)	40VDC	2-1393258-1
V23047-A1040-A511			1 A + 1 B, (1 NO + 1 NC)		2-1393258-2
V23047-A1048-A501			2 form C (CO)	48VDC	3-1415006-1
V23047-A1048-A511			1 A + 1 B, (1 NO + 1 NC)		9-1415011-1
V23047-A1060-A511				60VDC	2-1393258-3
V23047-A1110-A501			2 form C (CO)	110VDC	1-1415012-1
V23047-A1110-A511			1 A + 1 B, (1 NO + 1 NC)		2-1415012-1
V23047-P1005-A501	Plug-in		2 form C (CO)	5VDC	7-1415543-4
V23047-P1009-A501	for socket use			9VDC	7-1415543-5
V23047-P1012-A501				12VDC	7-1415543-6
V23047-P1021-A501				21VDC	7-1415543-7
V23047-P1024-A501				24VDC	7-1415543-8
V23047-P1036-A501				36VDC	7-1415543-9
V23047-P1110-A501				110VDC	8-1415543-0

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