

## 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
 2020970303000150

 Technical data of approved types on request
 Technical data of approved types on request
 Technical data of approved types on request

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

## Contact Data

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 1NC	) / 1NC (11-14 and 22-21 or 12-11 and				
21-24) shall be used as force gu	ided 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/witho	ut 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				
Max. DC load breaking capacity	Electrical endurance				
200	250VAC resistive load				
resistive load	on 1 N/O contact				
100	106				
	AgNi				

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S0433-

DC current [A]

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

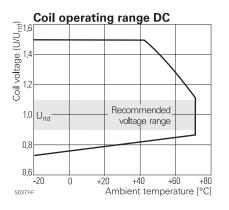
Switching current [A]

Coil Data Coil voltage range

Coil vers	sions, DC-co	oil			
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 <a href="http://relays.te.com/definitions">http://relays.te.com/definitions</a>

Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change. 1



## 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
between adjacent contacts	reinforced

Other Data	SR2M	SR2M P	lug-in				
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 70°C					
Category of environmental Protection							
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

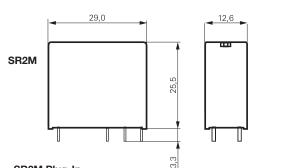
 For details see datasheet
 Accessories Force Guided Relay SR2M plugin

 NOTE: indicated contact ratings and electrical endurance data for direct

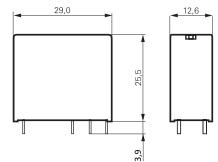
 wiring of relays (according IEC 61810-1); for relays mounted on sockets

 deratings may apply.

#### Dimensions



SR2M Plug-In





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S0273-BB

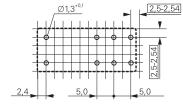
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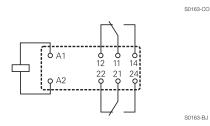
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### PCB layout / terminal assignment

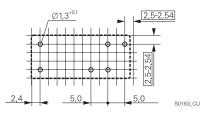
Bottom view on solder pins

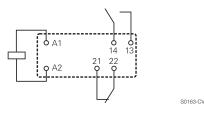
2 form C, 2 CO contacts





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





3.9mm



# Force Guided Relay SR2M (Continued)

Product code structure	Ту	pical 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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TE Connectivity: V23047A1012A511