

**Power PCB Relay RZ**

- 1 pole 12/16 A, 1 form C (CO) or 1 form A (NO) contact
- DC coil 400 mW
- 5kV/10mm coil-contact, reinforced insulation
- Ambient temperature 85°C (clear cover: 70°C)
- Product in accordance to IEC 60335-1



F0305-A



Typical applications  
Household appliances, boiler control, timers, garage door control, POS automation

**Approvals**

VDE REG.-Nr. C693, cULus E214025  
Technical data of approved types on request

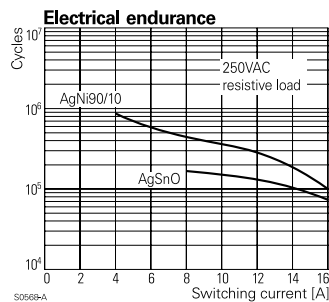
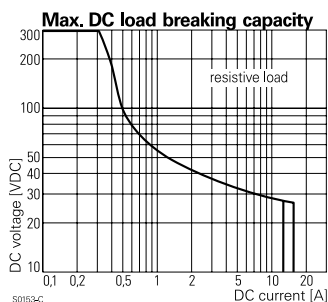
Contact Data	12A	16A
Contact arrangement	1 form C (CO) or 1 form A (NO)	
Rated voltage	250VAC	
Max. switching voltage	400VAC	
Rated current	12A	16A
Limiting making current (form A contact)		
max. 4s, duty factor 10%	30A	
max. 20 ms (incandescent lamp); AgSnO <sub>2</sub>	80A	
Breaking capacity max.	3000VA	4000VA
Contact material	AgNi 90/10 or AgSnO <sub>2</sub>	
Frequency of operation, with/without load	360/72000h <sup>-1</sup>	
Operate/release time max.	8/6ms	
Bounce time max., form A/form B	4/6ms	

**Contact ratings**

Type	Contact	Load	Cycles
<b>IEC 61810</b>			
RZ03-1A.	A (NO)	16A, 250VAC, 85°C	50x10 <sup>3</sup>
RZ03-1C4	C (CO)	16A, 250VAC, 85°C	10x10 <sup>3</sup>
RZ01-1A3	A (NO)	12A, 250VAC, 85°C	100x10 <sup>3</sup> 1)
RZ01-1A4	A (NO)	12A, 250VAC, 85°C	50x10 <sup>3</sup>
RZ01-1C4	C (CO)	12A, 250VAC, 85°C	30x10 <sup>3</sup>
RZ01-1.4	A (NO)	12A, 250VAC, 70°C	100x10 <sup>3</sup>
RZ0.-1A4	A (NO)	10A, 250VAC, 85°C	250x10 <sup>3</sup>
<b>UL 508</b>			
RZ03-1A.	A (NO)	16A, 250VAC, 85°C	50x10 <sup>3</sup>
RZ03-1A4	A (NO)	12A, 250VAC, 85°C	150x10 <sup>3</sup>
RZ01-1A3	A (NO)	12A, 250VAC, 85°C	50x10 <sup>3</sup>
RZ03-1.4	A (NO)	B300, R300, 85°C	6x10 <sup>3</sup>
RZ03-1.4	A (NO)	12A, 250VAC, 85°C	100x10 <sup>3</sup>
RZ03-1.4	A (NO)	1/2hp, 125VAC, 85°C	6x10 <sup>3</sup>
RZ03-1A.	A (NO)	1hp, 277VAC, 85°C	30x10 <sup>3</sup>

Mechanical endurance >10x10<sup>6</sup> operations

1) planned rating



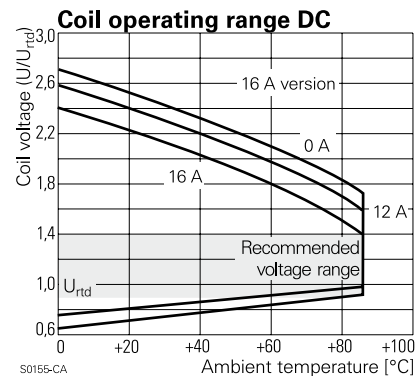
**Coil Data**

Coil voltage range	3 to 48VDC
Operative range, IEC 61810	2
Coil insulation system according UL1446	class F

**Coil versions, DC coil**

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
D003	3	2.1	0.3	22	410
D005	5	3.5	0.5	60	420
D006	6	4.2	0.6	90	400
D009	9	6.3	0.9	200	400
D012	12	8.4	1.2	360	400
D024	24	16.8	2.4	1440	400
D048	48	33.6	4.8	5730	400

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



**Insulation Data**

Initial dielectric strength	
between open contacts	1000V <sub>rms</sub>
between contact and coil	5000V <sub>rms</sub>
Clearance/creepage	
between contact and coil	≥10/10mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI250V

**Power PCB Relay RZ (Continued)**

**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.tycoelectronics.com/customersupport/rohssupportcenter](http://www.tycoelectronics.com/customersupport/rohssupportcenter)

Resistance to heat and fire standard cover version	according EN 60335-1, par.30
Ambient temperature standard version	-40 to 85°C
clear cover	-40 to 70°C
Category of environmental protection IEC 61810	RTII - flux proof
Vibration resistance (functional), 30 to 500Hz	
closing form A contact	>15g
opening form A contact	>20g
opening form B contact	>5g
Shock resistance (destructive)	100g
Terminal type	PCB-THT
Mounting distance standard version	≥0mm
clear cover	≥14mm
Weight	10g
Resistance to soldering heat THT IEC 60068-2-20	270°C/10s <sup>2</sup> )
Packaging/unit	tube/20 pcs., box/500 pcs.

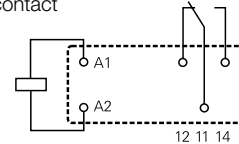
2) The use of foaming flux is not permitted.

**PCB layout / terminal assignment**

Bottom view on solder pins

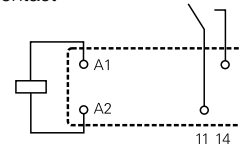
12A, pinning 3.5mm

1 form C (CO) contact



S0163-BG

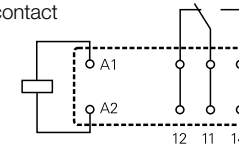
1 form A (NO) contact



S0163-BH

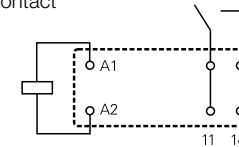
16A, pinning 5mm

1 form C (CO) contact



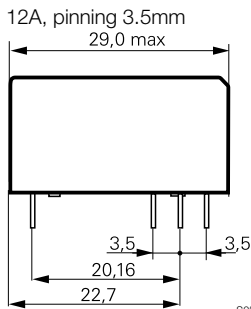
S0163-BE

1 form A (NO) contact

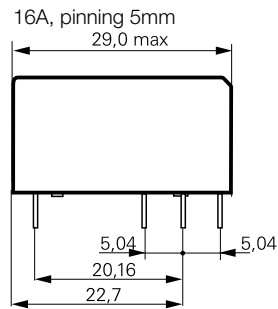


S0163-BF

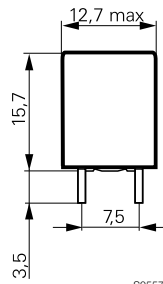
**Dimensions**



S0557-AB



S0557-AA



Recommended pcb hole for manual mounting: Ø1.3mm

For automated mounting please ask for detailed drawing.

**Power PCB Relay RZ (Continued)**

<b>Product code structure</b>	Typical product code	<b>RZ</b>	<b>0</b>	<b>3</b>	<b>-1C</b>	<b>4</b>	<b>-D012</b>
<b>Type</b>	RZ Power PCB Relay RZ						
<b>Version</b>	0 standard version						
<b>Version</b>	1 3.5 mm pinning, 12 A 3 5 mm double pinning, 16 A						
<b>Contact configuration</b>	1A 1 form A (1 NO) contact 1C 1 form C (1 CO) contact						
<b>Contact material</b>	4 AgNi 90/10 3 AgSnO <sub>2</sub>						
<b>Coil version</b>	Coil code: please refer to coil versions table						
<b>Cover version</b>	Blank standard (orange) 000C clear (transparent)						

Product code	Version	Contacts	Contact material	Coil	Part number
RZ01-1A3-D005	12A	1 form A (NO)	AgSnO <sub>2</sub>	5VDC	3-1415899-7
RZ01-1A3-D006	pinning 3.5mm			6VDC	3-1415899-8
RZ01-1A3-D012				12VDC	3-1415899-9
RZ01-1A3-D024				24VDC	4-1415899-0
RZ01-1A3-D048				48VDC	4-1415899-1
RZ01-1A4-D005			AgNi 90/10	5VDC	1415899-1
RZ01-1A4-D006				6VDC	1415899-2
RZ01-1A4-D009				9VDC	1415899-3
RZ01-1A4-D012				12VDC	1415899-4
RZ01-1A4-D024				24VDC	1415899-5
RZ01-1A4-D048				48VDC	1415899-6
RZ01-1C3-D005		1 form C (CO)	AgSnO <sub>2</sub>	5VDC	4-1415899-2
RZ01-1C3-D006				6VDC	4-1415899-3
RZ01-1C3-D012				12VDC	4-1415899-4
RZ01-1C3-D024				24VDC	4-1415899-5
RZ01-1C3-D048				48VDC	4-1415899-6
RZ01-1C4-D005			AgNi 90/10	5VDC	1415899-7
RZ01-1C4-D006				6VDC	1415899-8
RZ01-1C4-D009				9VDC	1415899-9
RZ01-1C4-D012				12VDC	1-1415899-0
RZ01-1C4-D024				24VDC	1-1415899-1
RZ01-1C4-D048				48VDC	1-1415899-2
RZ03-1A3-D005	16A	1 form A (NO)	AgSnO <sub>2</sub>	5VDC	4-1415899-7
RZ03-1A3-D006	pinning 5mm			6VDC	4-1415899-8
RZ03-1A3-D012				12VDC	4-1415899-9
RZ03-1A3-D024				24VDC	5-1415899-0
RZ03-1A3-D048				48VDC	5-1415899-1
RZ03-1A4-D005			AgNi 90/10	5VDC	1-1415899-3
RZ03-1A4-D006				6VDC	1-1415899-4
RZ03-1A4-D009				9VDC	1-1415899-5
RZ03-1A4-D012				12VDC	1-1415899-6
RZ03-1A4-D024				24VDC	1-1415899-7
RZ03-1A4-D048				48VDC	1-1415899-8
RZ03-1C3-D005		1 form C (CO)	AgSnO <sub>2</sub>	5VDC	5-1415899-2
RZ03-1C3-D006				6VDC	5-1415899-3
RZ03-1C3-D012				12VDC	5-1415899-4
RZ03-1C3-D024				24VDC	5-1415899-5
RZ03-1C3-D048				48VDC	5-1415899-6
RZ03-1C4-D005			AgNi 90/10	5VDC	1-1415899-9
RZ03-1C4-D006				6VDC	2-1415899-0
RZ03-1C4-D009				9VDC	2-1415899-1
RZ03-1C4-D012				12VDC	2-1415899-2
RZ03-1C4-D024				24VDC	2-1415899-3
RZ03-1C4-D048				48VDC	2-1415899-4
RZ01-1C4-D012-000C	Clear cover		AgNi 90/10	12VDC	6-1415899-8
RZ01-1C4-D024-000C	12A, pinning 3.5mm			24VDC	6-1415899-9
RZ03-1A4-D012-000C	Clear cover	1 form A (NO)		12VDC	7-1415899-2
RZ03-1A4-D024-000C	16A, pinning 5mm			24VDC	7-1415899-3
RZ03-1C4-D012-000C		1 form C (CO)		12VDC	7-1415899-0
RZ03-1C4-D024-000C				24VDC	7-1415899-1

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