

Power PCB Relay RZ

- 1 pole 12 / 16 A, 1 CO or 1 NO contact
- DC-coil 400 mW
- 5 kV / 10 mm coil-contact, reinforced insulation
- Ambient temperature 85°C, HOT version for 105°C
- Product in accordance to IEC60335-1
- RoHS compliant (Directive 2002/95/EC)



F0144-B

Applications

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

Approvals

VDE REG.-Nr. C693, **RU** US E214025
 Technical data of approved types on request

Contact data

Contact configuration	1 CO or 1 NO contact
Contact set	single contact
Type of interruption	micro disconnection
Rated current	12 A 16 A
Rated voltage / max.switching voltage AC	250/400 VAC
Maximum breaking capacity AC	3000 VA 4000 VA
Contact material	AgNi 90/10
Mechanical endurance	> 10 x 10 ⁶ cycles
Rated frequency of operation with / without load	6 / 1200 min ⁻¹

Contact ratings

Type	Load	Cycles
RZ03-1.4-D...	16 A, 250 VAC, NO contact, 85°C, EN61810-1	30x10 ³
RZ03-1C4-D...	16 A, 250 VAC, CO contact, 85°C, EN61810-1	10x10 ³
RZ03-1.4-D...	16 A, 250 VAC, NO contact, 70°C, EN61810-1	50x10 ³
RZ01-1.4-D...	12 A, 250 VAC, NO contact, 85°C, EN61810-1	50x10 ³
RZ01-1C4-D...	12 A, 250 VAC, CO contact, 85°C, EN61810-1	30x10 ³
RZ01-1.4-D...	12 A, 250 VAC, NO contact, 70°C, EN61810-1	100x10 ³
RZH3-1.4-D...	10 A, 250 VAC, NO contact, 105°C, EN61810-1	100x10 ³
RZH3-1C4-D...	16 A, 250 VAC, CO contact, 105°C, EN61810-1	10x10 ³
RZ03-1.4-D...	B300, NO contact, 85°C, UL508	6050
RZ03-1.4-D...	R300, NO contact, 85°C, UL508	6050
RZ03-1.4-D...	1/2 hp, 125 VAC, NO contact, 85°C	6050
RZ03-1.4-D...	1 hp, 277 VAC, NO contact, 85°C	6050

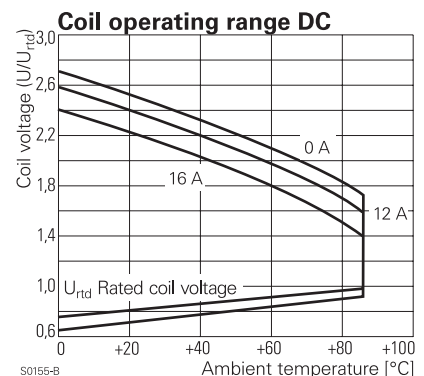
Coil data

Rated coil voltage range	5...48 VDC
Coil power	typ 400 mW
Operative range standard / HOT-version	2 / 90...110% U _{RTD}
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	Rated coil power mW
D005	5	3.5	0.5	60±10%	420
D006	6	4.2	0.6	90±10%	400
D009	9	6.3	0.9	200±10%	400
D012	12	8.4	1.2	360±10%	400
D024	24	16.8	2.4	1440±10%	400
D048	48	33.6	4.8	5730±10%	400

All figures are given for coil without preenergization, at ambient temperature +23°C
 Continuous thermal load > 10 A at 105°C requires reduction of coil power to 64% of rated power after 100 ms.



Power PCB Relay RZ (Continued)

Other coil voltages on request

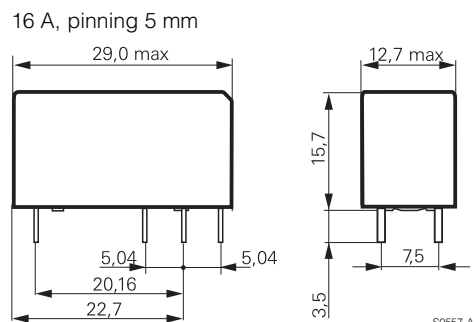
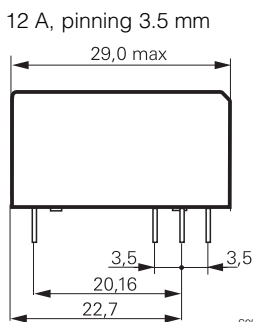
Insulation

Dielectric strength coil-contact circuit	5000 V _{rms}	
open contact circuit	1000 V _{rms}	
Clearance / creepage coil-contact circuit	≥ 10 / 10 mm	
Material group of insulation parts	IIIa	
Tracking index of relay base	PTI 250 V	
Insulation to EN61810-1		
Type of insulation coil-contact circuit	reinforced	
open contact circuit	micro disconnection	
Rated insulation voltage	250 V	
Pollution degree 12 A version	3	3
16 A version	3	2
Rated voltage system	250 V	400 V
Overvoltage category	III	

Other data

RoHS - Directive 2002/95/EC	compliant	
Resistance to heat and fire	according EN60335-1, par.30	
Ambient temperature range Standard version	-40...+85°C	
HOT version	-40...+105°C	
Shock resistance (destruction)	100 g	
Category of protection	RTII - flux proof, RTIII - wash tight	
Mounting	pcb	
Mounting distance Standard version	0 mm	
HOT version	2 mm	
Resistance to soldering heat flux proof version	270°C / 10 s	
Relay weight	10 g	
Packaging unit	20 / 500 pcs	

Dimensions

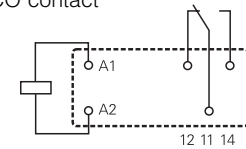


PCB layout / terminal assignment

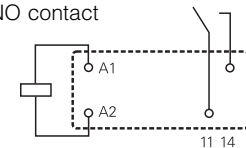
Bottom view on solder pins

12 A, pinning 3.5 mm

1 CO contact

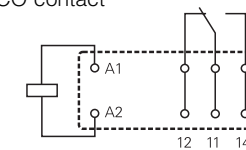


1 NO contact

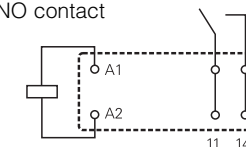


16 A, pinning 5 mm

1 CO contact



1 NO contact



Recommended pcb hole for manual mounting: Ø1,3

For automated mounting please ask for detailed drawing.

Power PCB Relay RZ (Continued)

Product key

R	Z			-			4	-					-	
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Type

Version

- 0** standard version
- H** HOT-version

Version

- 1** 3.5 mm pinning, 12 A
- 3** 5 mm double pinning, 16 A

Contact configuration

- 1A** 1 form A (NO contact)
- 1C** 1 form C (CO contact)

Contact material

- 4** AgNi 90/10

Coil version

Coil code: please refer to coil versions table

Sealing level

- blank** standard (RT II - flux proof)
- W** wash tight (RT III - wash tight)

Product key	Version	Contacts	Contact material	Coil	Part number
RZ01-1A4-D005	12A	1 NO (form A)	AgNi 90/10	5 VDC	1415899-1
RZ01-1A4-D006	pinning 3.5 mm			6 VDC	1415899-2
RZ01-1A4-D009	flux proof			9 VDC	1415899-3
RZ01-1A4-D012				12 VDC	1415899-4
RZ01-1A4-D024				24 VDC	1415899-5
RZ01-1A4-D048				48 VDC	1415899-6
RZ01-1C4-D005		1CO (form C)		5 VDC	1415899-7
RZ01-1C4-D006				6 VDC	1415899-8
RZ01-1C4-D009				9 VDC	1415899-9
RZ01-1C4-D012				12 VDC	1-1415899-0
RZ01-1C4-D024				24 VDC	1-1415899-1
RZ01-1C4-D048				48 VDC	1-1415899-2
RZ03-1A4-D005	16A	1 NO (form A)		5 VDC	1-1415899-3
RZ03-1A4-D006	pinning 5 mm			6 VDC	1-1415899-4
RZ03-1A4-D009	flux proof			9 VDC	1-1415899-5
RZ03-1A4-D012				12 VDC	1-1415899-6
RZ03-1A4-D024				24 VDC	1-1415899-7
RZ03-1A4-D048				48 VDC	1-1415899-8
RZ03-1C4-D005		1CO (form C)		5 VDC	1-1415899-9
RZ03-1C4-D006				6 VDC	2-1415899-0
RZ03-1C4-D009				9 VDC	2-1415899-1
RZ03-1C4-D012				12 VDC	2-1415899-2
RZ03-1C4-D024				24 VDC	2-1415899-3
RZ03-1C4-D048				48 VDC	2-1415899-4
RZH3-1C4-D012	16A, 105°C			12 VDC	2-1415899-5
RZH3-1C4-D024	pinning 5 mm			24 VDC	2-1415899-6
RZH3-1A4-D009	flux proof	1 NO (form A)		9 VDC	2-1415899-7
RZH3-1A4-D012				12 VDC	2-1415899-8
RZH3-1A4-D024				24 VDC	2-1415899-9