

Power PCB Relay RZL

- 1 pole 12/16 A, 1 form C (CO) or 1 form A (NO) contact
- DC coil 530 mW
- 5kV/10mm coil-contact, reinforced insulation
- Ambient temperature 70°C (special applications 85°C)



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

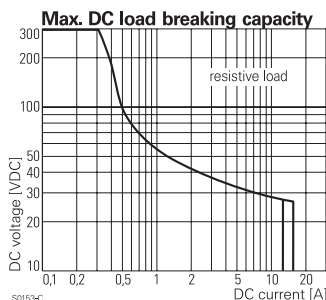


Approvals
VDE Cert. No. 40023970, UL E214025, CQC 14001114367, CQC 14002113865
Technical data of approved types on request

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	
Breaking capacity max.	3000VA	4000VA
Contact material	AgNi 90/10	
Initial contact resistance	≤100 mΩ at 1A/24Vdc	
Contact style	single contact	
Frequency of operation, with/without load	360/72000h ⁻¹	
Operate/release time max.	8/6ms	
Bounce time max., form A/form B	4/6ms	

Contact ratings			
Type	Contact	Load	Cycles
IEC 61810¹⁾			
RZL3-1A4.	A (NO)	16A, 250VAC, 85°C	50x10 ³
RZL3-1C4.	C (CO)	16A, 250VAC, 85°C	10x10 ³
RZL3-1A4.	A (NO)	16A, 250VAC, 70°C	100x10 ³
RZL1-1A4	A (NO)	12A, 250VAC, 85°C	100x10 ³
RZL1-1A4	A (NO)	16A, 250VAC, 70°C	100x10 ³
RZL3-1A4.	A (NO)	8A, cosφ=0.4, 250VAC, 25°C	100x10 ³
RZL3-1C4.	B (NC)	8A, 250VAC, 25°C	100x10 ³
UL 508¹⁾			
RZL3-1A4.	A (NO)	16A, 250VAC, 85°C	50x10 ³
RZL3-1C4.	C (CO)	16A, 250VAC, 85°C	10x10 ³
RZL3-1A4.	A (NO)	16A, 250VAC, 70°C	100x10 ³
RZL1-1A4	A (NO)	12A, 250VAC, 85°C	100x10 ³
RZL1-1A4	A (NO)	16A, 250VAC, 70°C	100x10 ³
RZL1/3-1A4.	A (NO)	1hp, 240VAC, 25°C	6x10 ³
RZL1/3-1A4.	A (NO)	1/2hp, 120VAC, 70°C	6x10 ³
Mechanical endurance			10x10 ⁶

1) Ratings only for RZL flux proof (R) version. Wash tight ratings on request



50153-c

Coil Data	
Coil voltage range	5 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
L005	5	3,5	0,5	47	530
L006	6	4,2	0,6	67	530
L009	9	6,3	0,9	153	530
L012	12	8,4	1,2	272	530
L024	24	16,8	2,4	1086	530
L048	48	33,6	4,8	4347	530

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 _{rms}
between contact and coil	5000V _{rms}
Clearance/creepage	
between contact and coil	≥10/10mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI250V

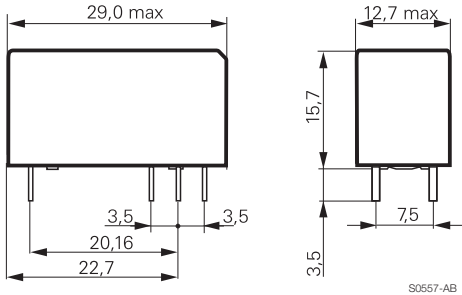
Other Data	
Material compliance: EU RoHS/ELV, China RoHS compliance, Ambient temperature	
standard version	-40 to 70°C
special applications	-40 to 85°C
Category of environmental protection	
IEC 61810	RTII - flux proof; RTIII wash tight
Vibration resistance (functional), 30 to 500Hz	
closing form A contact	>15g
opening form A contact	>20g
opening form B contact	>5g
Shock resistance (destructive)	100g
Terminal type	PCB-THT
Mounting distance	
standard version	≥0mm
Weight	10g
Resistance to soldering heat THT	
IEC 60068-2-20	260°C/10s ²⁾
Packaging/unit	tube/20 pcs., box/500 pcs.

2) The use of foaming flux is not permitted.

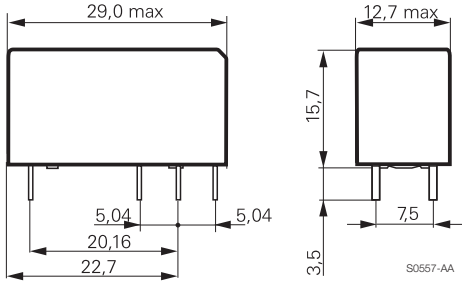
Power PCB Relay RZL (Continued)

Dimensions

12A/16A, pinning 3.5mm ²⁾



12A, 16A, pinning 5mm ²⁾



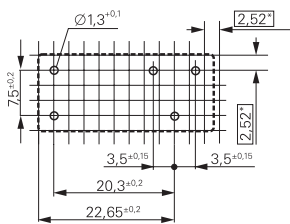
PCB layout / terminal assignment

Bottom view on solder pins

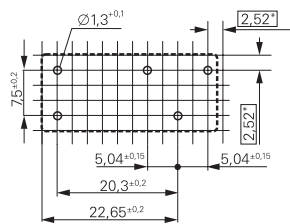
Recommended pcb hole for manual mounting:
Ø1.3mm

For automated mounting please ask for
detailed drawing.

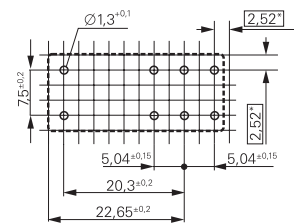
12A/16A, pinning 3.5mm ²⁾



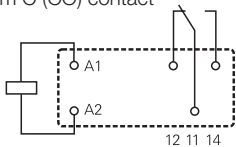
16A, pinning 5mm



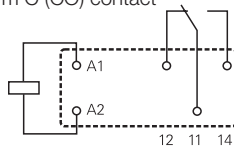
16A, pinning 5mm



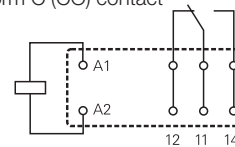
1 form C (CO) contact



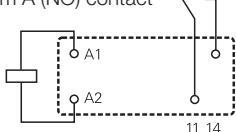
1 form C (CO) contact



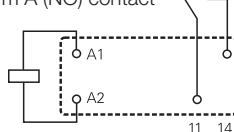
1 form C (CO) contact



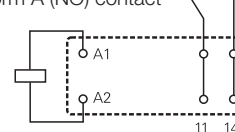
1 form A (NO) contact



1 form A (NO) contact



1 form A (NO) contact



²⁾ For 1 Form C type, subject to develop as market requirement

Power PCB Relay RZL (Continued)

Product code structure		Typical product code		RZ	L	3	-1C	4	-L012
Type	RZ Power PCB Relay RZ								
Version	L Black Cover								
Version	1 3.5mm pinning, 12A/16A			3 5mm double pinning, 16A					
Contact configuration	1A 1 form A (1 NO) contact			1C 1 form C (1 CO) contact					
Contact material	4 AgNi 90/10								
Coil version	Coil code: please refer to coil versions table								
Sealing Level	R flux proof			W wash tight (only for 1 form C version)					

Product code	Version	Contacts	Contact material	Coil	Part number
RZL1-1A4-L012-R	12A/16A, pinning 3.5mm, flux proof	1 form A (NO)	AgNi 90/10	12VDC	2158100-4
RZL3-1A4-L012-R	16A, pinning 5mm, flux proof	1 form A (NO)		12VDC	1-2158100-6
RZL3-1A4-L024-R		1 form A (NO)		24VDC	1-2158100-7
RZL3-1C4-L012-R		1 form C (CO)		12VDC	2-2158100-2
RZL3-1C4-L024-R		1 form C (CO)		24VDC	2-2158100-3
RZL3-1C4-L024-W	16A, pinning 5mm, wash tight	1 form C (CO)		24VDC	4-2158100-7

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