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

F0305-A

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 61810[1]			
RZL3-1A4.	A (NO)	16A, 250VAC, 85°C	50x10³
RZL3-1C4.	C (CO)	16A, 250VAC, 85°C	10x10³
RZL3-1A4.	A (NO)	16A, 250VAC, 70°C	100x10³
RZL1-1A4	A (NO)	12A, 250VAC, 85°C	100x10³
RZL1-1A4	A (NO)	16A, 250VAC, 70°C	100x10³
RZL3-1A4.	A (NO)	8A, cosφ=0.4, 250VAC, 25°C	100x10³
RZL3-1C4.	B (NC)	8A, 250VAC, 25°C	100x10³
UL 508[1]			
RZL3-1A4.	A (NO)	16A, 250VAC, 85°C	50x10³
RZL3-1C4.	C (CO)	16A, 250VAC, 85°C	10x10³
RZL3-1A4.	A (NO)	16A, 250VAC, 70°C	100x10³
RZL1-1A4	A (NO)	12A, 250VAC, 85°C	100x10³
RZL1-1A4	A (NO)	16A, 250VAC, 70°C	100x10³
RZL1/3-1A4.	A (NO)	1hp, 240VAC, 25°C	6x10³
RZL1/3-1A4.	A (NO)	1/2hp, 120VAC, 70°C	6x10³
Mechanical endurance			10x10⁶

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

Max. DC load breaking capacity

resistive load

DC voltage [VDC]

DC current [A]
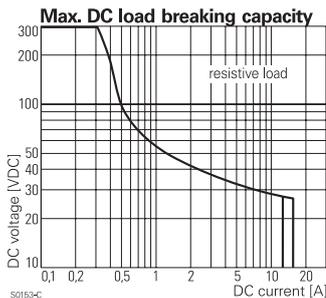
S0153-C

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

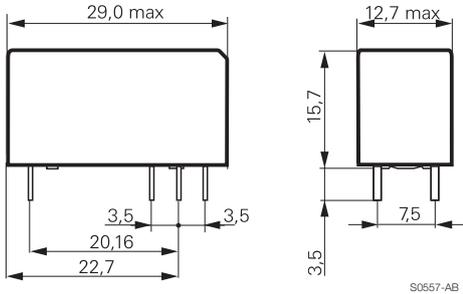|	
Initial dielectric strength	
between open contacts	1000V$_{rms}$
between contact and coil	5000V$_{rms}$
Clearance/creepage	
between contact and coil	≥10/10mm
Material group of insulation parts	IIIa
Tracking index of relay base	PTI250V

Other Data

Material compliance: EU RoHS/ELV, China RoHS compliance,

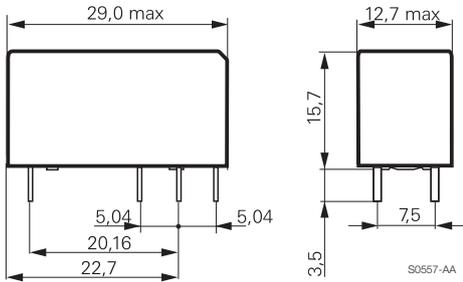|	
Ambient temperature	
standard version	-40 to 70°C
special applications	-40 to 85°C
Category of environmental protection	
IEC 61810	RTII - flux proof; RTIII wash tight
Vibration resistance (functional), 30 to 500Hz	
closing form A contact	>15g
opening form A contact	>20g
opening form B contact	>5g
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.

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

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.

Power PCB Relay RZL (Continued)

Dimensions

12A/16A, pinning 3.5mm [2]

29,0 max
12,7 max
15,7
3,5   3,5
20,16
22,7
7,5
3,5
S0557-AB

12A, 16A, pinning 5mm [2]

29,0 max
12,7 max
15,7
5,04   5,04
20,16
22,7
7,5
3,5
S0557-AA

Recommended pcb hole for manual mounting:
Ø1.3mm

For automated mounting please ask for
detailed drawing.

PCB layout / terminal assignment
Bottom view on solder pins

12A/16A, pinning 3.5mm [2]

Ø1,3$^{+0,1}$ 2,52*
7,5$^{±0,2}$
2,52*
3,5$^{±0,15}$ 3,5$^{±0,15}$
20,3$^{±0,2}$
22,65$^{±0,2}$
S0418-CB

16A, pinning 5mm

Ø1,3$^{+0,1}$ 2,52*
7,5$^{±0,2}$
2,52*
5,04$^{±0,15}$ 5,04$^{±0,15}$
20,3$^{±0,2}$
22,65$^{±0,2}$
S0418-CN
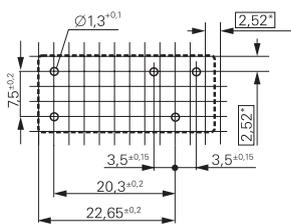
16A, pinning 5mm
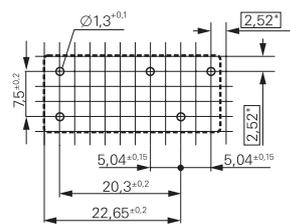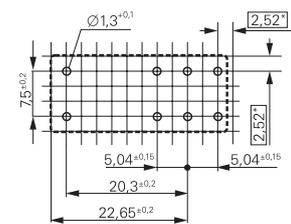
Ø1,3$^{+0,1}$ 2,52*
7,5$^{±0,2}$
2,52*
5,04$^{±0,15}$ 5,04$^{±0,15}$
20,3$^{±0,2}$
22,65$^{±0,2}$
S0418-CA

1 form C (CO) contact
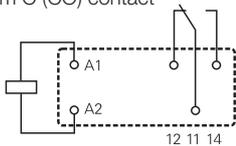
A1
A2
12 11 14
S0163-BG

1 form C (CO) contact
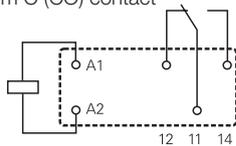
A1
A2
12 11 14
S0163-BC

1 form C (CO) contact
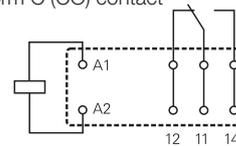
A1
A2
12 11 14
S0163-BE

1 form A (NO) contact
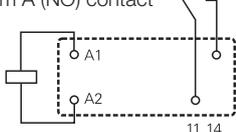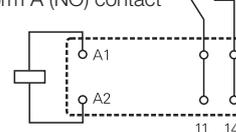

A1
A2
11 14
S0163-BH

1 form A (NO) contact
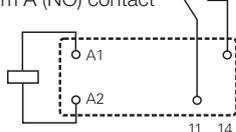
A1
A2
11 14
S0163-BD

1 form A (NO) contact

A1
A2
11 14
S0163-BF

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

2

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

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Click to view products by TE Connectivity *manufacturer:*

Other Similar products are found below :

APF30318 JVN1AF-4.5V-F PCN-105D3MHZ 5JO-10000S-SIL 5JO-1000CD-SIL 5JO-400CD-SIL LY2S-AC220/240 LYQ20DC12
6031007G 6131406HQ 6-1393099-8 6-1393122-4 6-1393123-2 6-1393767-1 6-1393843-7 6-1415012-1 6-1419102-2 6-1423698-4 6-1608051-6 6-1608067-0 6-1616170-6 6-1616248-2 6-1616282-3 6-1616348-2 6-1616349-9 6-1616350-1 6-1616350-8 6-1616358-7 6-1616359-9 6-1616360-9 6-1616931-6 6-1617039-1 6-1617052-1 6-1617090-2 6-1617090-5 6-1617347-5 6-1617353-3 6-1617801-8 6-1618107-9 6-1618248-4 CX-4014 MAHC-5494 MAVCD-5419-6 703XCX-120A 7-1393100-5 7-1393111-7 7-1393767-8 7-1414968-8 7-1419130-3 7-1608047-2