

**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

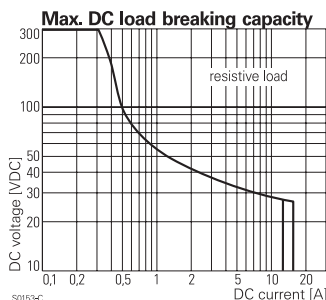


**Approvals**  
VDE Cert. No. 40023970, UL E214025, CQC 14001114367, CQC 14002113865  
Technical data of approved types on request

| 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)<br>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 <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<sup>1)</sup></b> |         |                            |                     |
| RZL3-1A4.                     | A (NO)  | 16A, 250VAC, 85°C          | 50x10 <sup>3</sup>  |
| RZL3-1C4.                     | C (CO)  | 16A, 250VAC, 85°C          | 10x10 <sup>3</sup>  |
| RZL3-1A4.                     | A (NO)  | 16A, 250VAC, 70°C          | 100x10 <sup>3</sup> |
| RZL1-1A4                      | A (NO)  | 12A, 250VAC, 85°C          | 100x10 <sup>3</sup> |
| RZL1-1A4                      | A (NO)  | 16A, 250VAC, 70°C          | 100x10 <sup>3</sup> |
| RZL3-1A4.                     | A (NO)  | 8A, cosφ=0.4, 250VAC, 25°C | 100x10 <sup>3</sup> |
| RZL3-1C4.                     | B (NC)  | 8A, 250VAC, 25°C           | 100x10 <sup>3</sup> |
| <b>UL 508<sup>1)</sup></b>    |         |                            |                     |
| RZL3-1A4.                     | A (NO)  | 16A, 250VAC, 85°C          | 50x10 <sup>3</sup>  |
| RZL3-1C4.                     | C (CO)  | 16A, 250VAC, 85°C          | 10x10 <sup>3</sup>  |
| RZL3-1A4.                     | A (NO)  | 16A, 250VAC, 70°C          | 100x10 <sup>3</sup> |
| RZL1-1A4                      | A (NO)  | 12A, 250VAC, 85°C          | 100x10 <sup>3</sup> |
| RZL1-1A4                      | A (NO)  | 16A, 250VAC, 70°C          | 100x10 <sup>3</sup> |
| RZL1/3-1A4.                   | A (NO)  | 1hp, 240VAC, 25°C          | 6x10 <sup>3</sup>   |
| RZL1/3-1A4.                   | A (NO)  | 1/2hp, 120VAC, 70°C        | 6x10 <sup>3</sup>   |
| Mechanical endurance          |         |                            | 10x10 <sup>6</sup>  |

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 <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              |

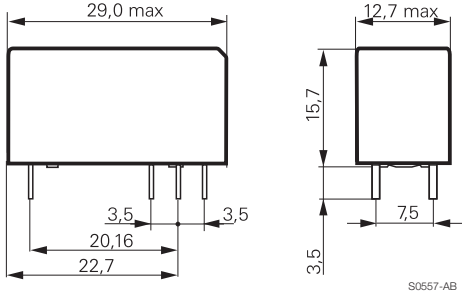
| Other Data   |                                     |
|--|-------------------------------------|
| Material compliance: EU RoHS/ELV, China RoHS compliance, Ambient temperature |                                     |
| standard version   | -40 to 70°C                         |
| special applications   | -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 <sup>2)</sup>             |
| Packaging/unit   | tube/20 pcs., box/500 pcs.          |

2) The use of foaming flux is not permitted.

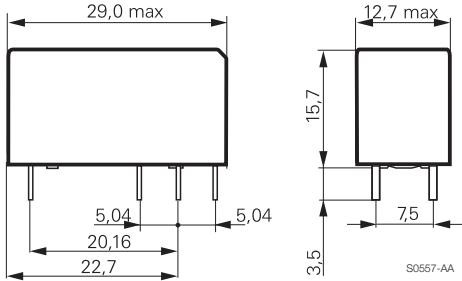
**Power PCB Relay RZL (Continued)**

**Dimensions**

12A/16A, pinning 3.5mm <sup>2)</sup>



12A, 16A, pinning 5mm <sup>2)</sup>



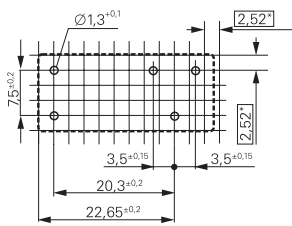
**PCB layout / terminal assignment**

Bottom view on solder pins

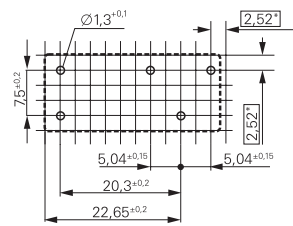
Recommended pcb hole for manual mounting:  
Ø1.3mm

For automated mounting please ask for  
detailed drawing.

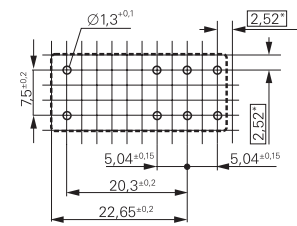
12A/16A, pinning 3.5mm <sup>2)</sup>



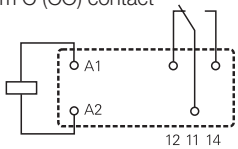
16A, pinning 5mm



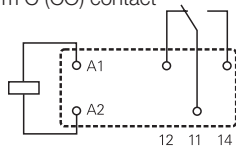
16A, pinning 5mm



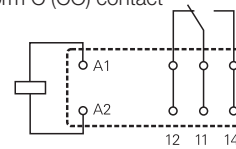
1 form C (CO) contact



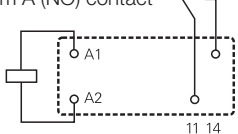
1 form C (CO) contact



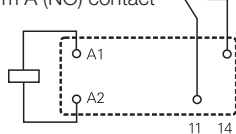
1 form C (CO) contact



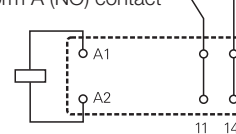
1 form A (NO) contact



1 form A (NO) contact



1 form A (NO) contact



<sup>2)</sup> For 1 Form C type, subject to develop as market requirement

**Power PCB Relay RZL** (Continued)

|                               |  |                      |  |  |          |          |            |          |              |
|-------------------------------|--|----------------------|--|--|----------|----------|------------|----------|--------------|
| <b>Product code structure</b> |  | Typical product code |  | <b>RZ</b>                                | <b>L</b> | <b>3</b> | <b>-1C</b> | <b>4</b> | <b>-L012</b> |
| <b>Type</b>                   | RZ Power PCB Relay RZ                          |                      |  |  |          |          |            |          |              |
| <b>Version</b>                | L Black Cover                                  |                      |  |  |          |          |            |          |              |
| <b>Version</b>                | 1 3.5mm pinning, 12A/16A                       |                      |  | 3 5mm double pinning, 16A                |          |          |            |          |              |
| <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                                   |                      |  |  |          |          |            |          |              |
| <b>Coil version</b>           | Coil code: please refer to coil versions table |                      |  |  |          |          |            |          |              |
| <b>Sealing Level</b>          | 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

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [TE Connectivity](#) manufacturer:*

Other Similar products are found below :

[D38999/24FJ4AN](#) [570416-000](#) [CLTEQ-M81CE-SSRELAY-4-20V](#) [4-1195131-0](#) [650069-000](#) [SMD100-2](#) [358838-000](#) [CB-1022B-78](#)  
[RM707012](#) [RP410012](#) [MMS42](#) [1-640426-8](#) [2EDL4CM](#) [DTS20W19-11PD-3028-LC](#) [RM202615](#) [NC6-P104-06](#) [MSPS103B](#) [DTS26F21-](#)  
[41HE-LC](#) [DTS26F21-41AE](#) [DTS26F21-41PE-LC](#) [DTS26F21-11SE-3028-LC](#) [30DCB6](#) [1932144-1](#) [293545-4](#) [LVR125S](#) [MS27466T25F4PB](#)  
[CKB-38-78010](#) [TR04AI-TINELLOCKRING](#) [1206SFF150F/63-2](#) [D38999/20JB35HA](#) [TE1500A2R2J](#) [D38999/20WC8BB](#) [DTS24F19-11SC-](#)  
[3028-LC](#) [D38999/24WG11HA](#) [D38999/24WG11HN](#) [MS27467T21F11H](#) [DJT16E21-11HA](#) [MS27467T21F35J](#) [MS27467T21F11J](#)  
[MS27467T21F16H-LC](#) [MS27467T21F35H](#) [MS27467T21F41H-LC](#) [1206SFH150F/24-2](#) [RP330024](#) [DJT16E21-11PA-LC](#) [DJT16E21-11HA-](#)  
[LC](#) [DJT16E21-11AA](#) [MS27467T21B11JA](#) [DJT16E21-11JA](#) [MS27467T21B11JA-LC](#)