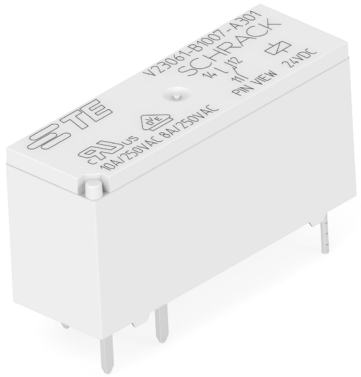
# SCHRACK MINIATURE POWER PCB RELAY MSR V23061

## GENERAL PURPOSE
## LOW POWER PCB RELAYS

### FEATURES

- 1 pole 8/10A, 1form C (CO) or 1 form A (NO) contact
- High inrush currents with AgSnO2 contacts (TV4 0 65A)
- 4kV/8mm coil-contact
- Reinforced insulation (protection class II)
- Ambient temperature up to 85°C at 8A
- Plastic materials according to IEC 60335-1 (domestic appliances)




### APPLICATIONS

- HVAC
- Interface technology
- PLC's
- Power supplies
- TV-/monitor control
- Domestic appliances
- Hi-Fi products
- Timers

### APPROVALS

- VDE Cert. No. 40017849
- UL E214025

Technical data of approved types on request.

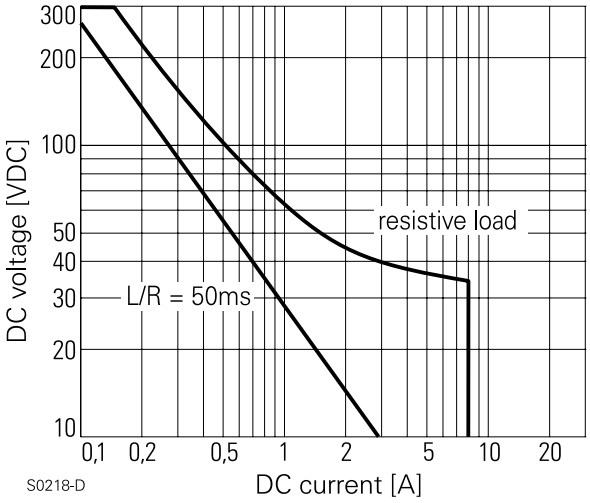
## CONTACT DATA

| | |
|---|---|
| Contact arrangement | 1 form C (CO) or 1 form A (NO) |
| Rated voltage | 250 VAC |
| Max. switching voltage | 400 VAC |
| Rated current | |
| versions A, B | 8A |
| versions C, D | 10A |
| Limiting making current, max 4s, df 10% | 15A |
| version A302, max 20ms | 65A |
| Breaking capacity max. | 2000VA |
| Contact material | AgSnO2, AgNi90/10 |
| Frequency of operation, with/without load | 6/1200min-1 |
| Operate/release time max. | 10/5ms |
| Bounce time max., form A/form B | 3/10ms |

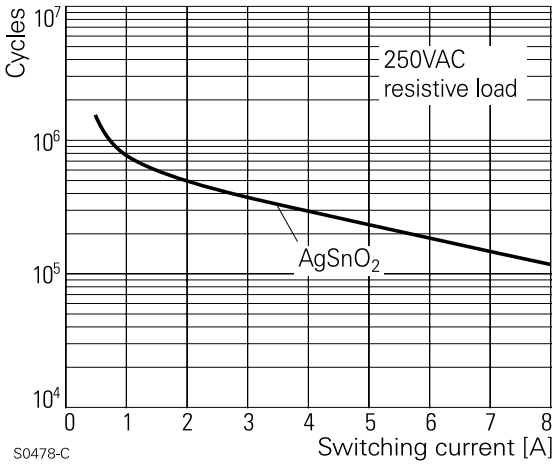
## CONTACT RATINGS

| Type | Contact | Load | Cycles |
|---|---|---|---|
| **EC 61810** | | | |
| V23061-A1***-A302 | A (NO) | 8A, 250VAC, cosφ=1, 85°C | 100x10³ |
| V23061-C2***-A802 | A (NO) | 10A, 250VAC, cosφ=1, 85°C | 100x10³ |
| V23061-C2***-A802 | A (NO) | 5A, 250VAC, cosφ=1, 105°C | 100x10³ |
| **UL61810-1 (UL 508)** | | | |
| V23061-A1***-A302 | A (NO) | TV4, Tungsten, 120VAC, 40°C | 25x10³ |
| V23061-A1***-A302 | A (NO) | Pilot duty, A300, 40°C 10A, 240VAC, | 6x10³ |
| V23061-C2***-A802 | A (NO) | General purpose ,40°C | 30x10³ |
| **EN60730-1** | | | |
| V23061-A1***-A302 | A (NO) | 2(2)A, 250VAC, 85°C | 100x10³ |
| V23061-C2***-A802 | A (NO) | 4(4)A, 250VAC, 85°C | 100x10³ |

## MAX. DC LOAD BREAKING CAPACITY




## ELECTRICAL ENDURANCE



## COIL DATA

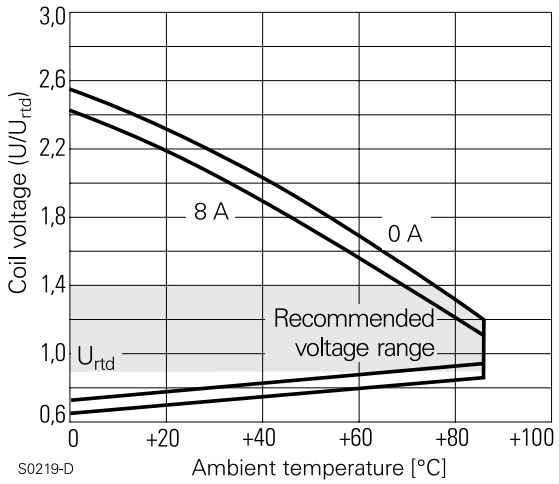
| | |
|---|---|
| Coil voltage range | 3 to 60VDC |
| Operative range, IEC 61810 | 2 |
| Coil insulation system according UL | classA or classF |

### COIL VERSIONS, DC-COIL

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω ±10%[1)] | Rated coil power mW |
|---|---|---|---|---|---|
| 001 | 3 | 2.1 | 0.3 | 40 | 225 |
| 002 | 5 | 3.4 | 0.5 | 118 | 212 |
| 003 | 6 | 4.1 | 0.6 | 165 | 218 |
| 004 | 9 | 6.1 | 0.9 | 364 | 223 |
| 005 | 12 | 8.2 | 1.2 | 652 | 221 |
| 007 | 24 | 16.3 | 2.4 | 2270 | 254 |
| 009 | 48 | 32.6 | 4.8 | 8790 | 262 |
| 010 | 60 | 40.8 | 6.0 | 15265[1)] | 236 |

1) Coil resistance ±15%.
All figures are given for coil without pre-energization, at ambient temperature +23°C.
Other coil voltages on request.

### COIL OPERATING RANGE DC



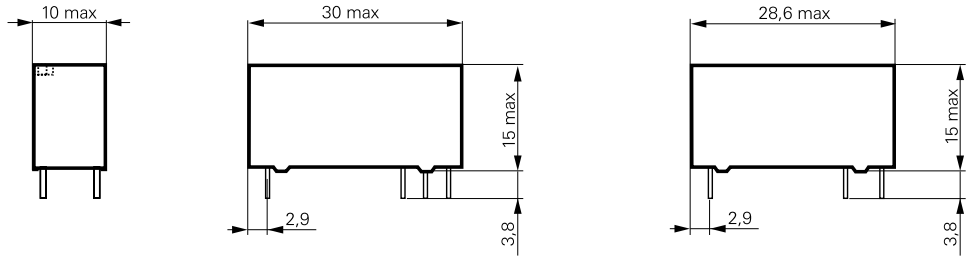

## INSULATION DATA

| | |
|---|---|
| Initial dielectric strength | |
| Between open contacts | 1000 Vrms |
| Between contact and coil | 4000 Vrms |
| Clearance/creepage | |
| Between contact and coil | ≥8/8mm |
| Material group of insulation parts | IIIa |

## OTHER DATA

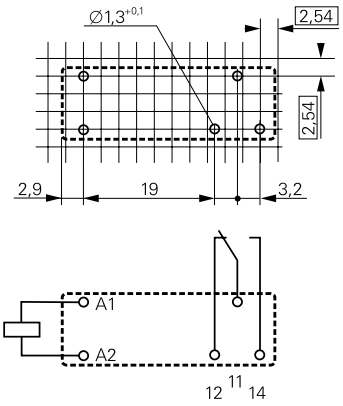
| | |
|---|---|
| Material compliance | EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at **www.te.com/customersupport/rohssupportcenter** |
| Ambient temperature | - 40 to +85°C |
| Category of environmental protection | |
| IEC 61810 | RTII - flux proof,<br>RTIII - wash tight |
| Vibration resistance (functional), | |
| form A (NO) / form B (NC) | 10/4g |
| Vibration resistance (destructive), | |
| form A (NO) / form B (NC) | 20/5g |
| Shock resistance (destructive) | 100 g |
| Terminal type | PCB-THT |
| Weight | 11 g |
| Resistance to soldering heat THT | |
| IEC 60068-2-20 | RTII: 270°C/10s<br>RTIII: 260°C/5s |
| Packaging/unit | tube/20 pcs., box/500 pcs. |

## DIMENSIONS (Unit: mm)

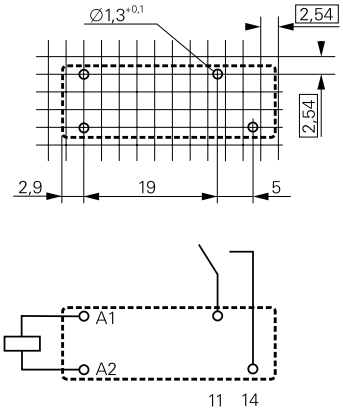



## PCB LAYOUT / TERMINAL ASSIGNMENT

1 form C, 1 CO contact, 3.2 mm




1 form A, 1 NO contact, 5 mm




## ORDERING INFORMATION

**Part Number**
**V23061 -A 1 007 -A 3 02**

**Type**

| | |
|---|---|
| **V23061** | Miniature Power PCB Relay MSR |

**Version**

| | |
|---|---|
| **A** | 1 form A contact (1 NO), UL-class A |
| **B** | 1 form C contact (1 CO), UL-class A |
| **C** | 1 form A contact (1 NO), UL-class F |
| **D** | 1 form C contact (1 CO), UL-class F |

**Version**

| | |
|---|---|
| **1** | Wash tight |
| **2** | Flux proof |

**Coil**

| | |
|---|---|
| **Coil-code** | please refer to coil versions table |

**Contact information**

| | |
|---|---|
| **01** | 1 form C (CO) contact |
| **02** | 1 form A (NO) contact |

Other types on request

**Contact material**

| | |
|---|---|
| **3** | $AgSnO_2$ |
| **8** | AgNi 90/10 |

**Contact system**

| | |
|---|---|
| **A** | Standard |

## PRODUCT INFORMATION

| Product code | Version | Contact | Contact material | Coil | Part Number |
|---|---|---|---|---|---|
| V23061-A1002-A302 | Wash tight | 1 form A 1 NO contact | $AgSnO_2$ | 5VDC | 1393222-4 |
| V23061-A1003-A302 | | | | 6VDC | 1393222-9 |
| V23061-A1005-A302 | | | | 12VDC | 2-1393222-0 |
| V23061-A1007-A302 | | | | 24VDC | 3-1393222-9 |
| V23061-A1009-A302 | | | | 48VDC | 1-1416200-0 |
| V23061-B1002-A301 | | 1 form C 1 CO contact | | 5VDC | 7-1393222-2 |
| V23061-B1005-A301 | | | | 12VDC | 9-1393222-1 |
| V23061-B1007-A301 | | | | 24VDC | 1-1393223-7 |
| V23061-B1009-A301 | | | | 48VDC | 3-1393223-7 |
| V23061-C2001-A802 | Flux proof | 1 form A 1 NO contact | AgNi 90/10 | 3VDC | 5-1416200-3 |
| V23061-C2002-A802 | | | | 5VDC | 5-1416200-4 |
| V23061-C2003-A802 | | | | 6VDC | 5-1416200-5 |
| V23061-C2004-A802 | | | | 9VDC | 5-1416200-6 |
| V23061-C2005-A802 | | | | 12VDC | 5-1416200-0 |
| V23061-C2007-A802 | | | | 24VDC | 5-1416200-8 |
| V23061-C2009-A802 | | | | 48VDC | 6-1416200-0 |
| V23061-C2010-A802 | | | | 60VDC | 6-1416200-1 |
| V23061-D2001-A801 | | 1 form C 1 CO contact | | 3VDC | 6-1416200-2 |
| V23061-D2002-A801 | | | | 5VDC | 6-1416200-3 |
| V23061-D2003-A801 | | | | 6VDC | 6-1416200-4 |
| V23061-D2004-A801 | | | | 9VDC | 6-1416200-5 |
| V23061-D2005-A801 | | | | 12VDC | 6-1416200-6 |
| V23061-D2007-A801 | | | | 24VDC | 6-1416200-7 |
| V23061-D2009-A801 | | | | 48VDC | 6-1416200-9 |
| V23061-D2010-A801 | | | | 60VDC | 7-1416200-0 |

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