

## Miniature Power PCB Relay MSR V23061

- 1 pole 8/10A, 1form C (CO) or 1 form A (NO) contact
- High inrush currents with AgSnO, 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)



Typical applications

HVAC, interface technology. PLC's, power supplies, TV-/monitor control, domestic appliances, Hi-Fi products, timers.

# c AL US

3 to 60VDC

152651)

236

## Approvals VDE Cert. No. 40017849, UL E214025

Technical data of approved types on request.

### Contact Data

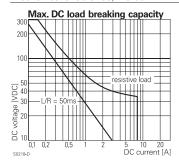
| Contact arrangement 1                     | form C (CO) or 1 form A (NO)   |
|-------------------------------------------|--------------------------------|
| Rated voltage                             | 250VAC                         |
| Max. switching voltage                    | 400VAC                         |
| 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                          | AgSnO <sub>2</sub> , AgNi90/10 |
| Frequency of operation, with/without load | d 6/1200min-1                  |
| Operate/release time max.                 | 10/5ms                         |
| Bounce time max., form A/form B           | 3/10ms                         |

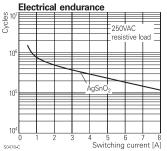
#### **Contact ratings**

| Туре              | Contact | Load                        | Cycles              |
|-------------------|---------|-----------------------------|---------------------|
| IEC 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             |
| UL 508            |         |                             |                     |
| V23061-A1***-A302 | A (NO)  | TV4, Tungsten, 120VAC, 40°C | 25x10 <sup>3</sup>  |
| V23061-A1***-A302 | A (NO)  | Pilot duty, A300, 40°C      | 6x10 <sup>3</sup>   |
| V23061-C2***-A802 | A (NO)  | 10A, 240VAC,                |                     |
|                   |         | general purpose ,40°C       | 30x103              |
| EN60730-1         |         |                             |                     |
| V23061-A1***-A302 | A (NO)  | 2(2)A, 250VAC, 85°C         | 100x10 <sup>3</sup> |
| V23061-C2***-A802 | A (NO)  | 4(4)A, 250VAC, 85°C         | 100x10 <sup>3</sup> |
|                   |         |                             |                     |

## Mechanical endurance, DC coil

## 10x10<sup>6</sup> operations





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

| oon voltage lange                   |         |         | 0 10 00120 |                        |            |  |  |  |  |
|-------------------------------------|---------|---------|------------|------------------------|------------|--|--|--|--|
| Operative range, IEC 61810          |         |         |            | 2                      |            |  |  |  |  |
| Coil insulation system according UL |         |         | cla        | ssA or classF          |            |  |  |  |  |
| Coil versions, DC coil              |         |         |            |                        |            |  |  |  |  |
| Coil                                | Rated   | Operate | Release    | Coil                   | Rated coil |  |  |  |  |
| code                                | voltage | voltage | voltage    | resistance             | power      |  |  |  |  |
|                                     | VDČ     | VDC     | VDČ        | $\Omega \pm 10\%^{1)}$ | 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    | 48         | 8790                   | 262        |  |  |  |  |

6.0

1) Coil resistance ±15%

60

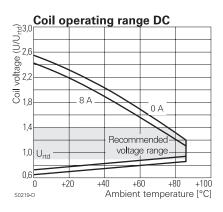
010

**Coil Data** 

Coil voltage range

All figures are given for coil without pre-energization, at ambient temperature +23°C. Other coil voltages on request.

40.8



#### **Insulation Data**

| moulation Data                     |           |
|------------------------------------|-----------|
| Initial dielectric strength        |           |
| between open contacts              | 1000V_mms |
| between contact and coil           | 4000V_ms  |
| Clearance/creepage                 | mo        |
| between contact and coil           | ≥8/8mm    |
| Material group of insulation parts | Illa      |
|                                    |           |

Catalog 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

Catalog product data, 'Definitions' section. application notes and all specifications are subject to change.

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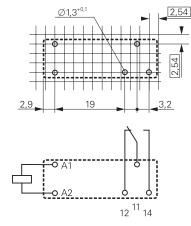
## Miniature Power PCB Relay MSR V23061 (Continued)

### Other Data

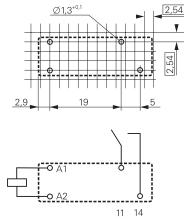
| Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content |                             |  |  |  |  |
|----------------------------------------------------------------------|-----------------------------|--|--|--|--|
| refer to the Product Compliance Support Center at                    |                             |  |  |  |  |
| www.te.com/customersupport/rohssupportcente                          |                             |  |  |  |  |
| Ambient temperature - 40 to +85°C                                    |                             |  |  |  |  |
| Category of environmental protection                                 |                             |  |  |  |  |
| IEC 61810                                                            | RTII - flux proof,          |  |  |  |  |
|                                                                      | 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)                                       | 100g                        |  |  |  |  |
| Terminal type                                                        | PCB-THT                     |  |  |  |  |
| Weight                                                               | 11g                         |  |  |  |  |
| Resistance to soldering heat THT                                     |                             |  |  |  |  |
| IEC 60068-2-20                                                       | RTII: 270°C/10s             |  |  |  |  |
|                                                                      | RTIII: 260°C/5s             |  |  |  |  |
| Packaging/unit                                                       | tube/20 pcs., box/1000 pcs. |  |  |  |  |

#### PCB layout / terminal assignment

1 form C, 1 CO contact, 3.2mm

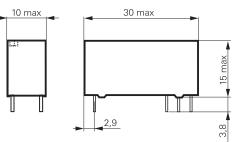


#### 1 form A, 1 NO contact, 5mm

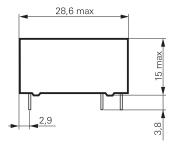


#### Dimensions

1 form C, 1 CO contact, 3.2mm



1 form A, 1 NO contact, 5mm



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Catalog and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section. Catalog and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at <a href="http://relays.te.com/definitions">http://relays.te.com/definitions</a>

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## General Purpose Low Power PCB Relays

## SCHRACK

## Miniature Power PCB Relay MSR V23061 (Continued)

| Product code structure                                                                                                                                                  | Typical product code | 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<br>1 Wash tight<br>2 Flux proof                                                                                                                                 |                      |        |    | - |     |    |   |    |
| Coil<br>Coil-code: please refer to coil versions table                                                                                                                  |                      |        |    |   |     |    |   |    |
| Contact system<br>A Standard                                                                                                                                            |                      |        |    |   |     |    |   |    |
| Contact material<br>3 AgSnO <sub>2</sub><br>8 AgNi 90/10                                                                                                                |                      |        |    |   |     |    |   |    |
| Contact information011 form C (CO) contact021 form A (NO) contact                                                                                                       |                      |        |    |   |     |    |   |    |
| Other types on request                                                                                                                                                  |                      |        |    |   |     |    |   |    |

| Product code      | Version    | Contacts     | Contact material   | Coil  | Part Number |
|-------------------|------------|--------------|--------------------|-------|-------------|
| V23061-A1002-A302 | Wash tight | 1 form A     | AgSnO <sub>2</sub> | 5VDC  | 1393222-4   |
| V23061-A1003-A302 |            | 1 NO contact |                    | 6VDC  | 1393222-9   |
| V23061-A1005-A302 |            |              |                    | 12VDC | 2-1393222-0 |
| V23061-A1007-A302 |            |              |                    | 24VDC | 3-1393222-9 |
| V23061-B1002-A301 |            | 1 form C     |                    | 5VDC  | 7-1393222-2 |
| V23061-B1005-A301 |            | 1 CO contact |                    | 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     | AgNi 90/10         | 3VDC  | 5-1416200-3 |
| V23061-C2002-A802 |            | 1 NO contact |                    | 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     |                    | 3VDC  | 6-1416200-2 |
| V23061-D2002-A801 |            | 1 CO contact |                    | 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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Authorized Distributor

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