RELAY
PRODUCTS

## Miniature Power PCB Relay MSR V23061

$\square 1$ pole 8/10A, 1 form C (CO) or 1 form A (NO) contact

- High inrush currents with $\mathrm{AgSnO}_{2}$ contacts (TV4 0 65A)
- 4kV/8mm coil-contact
- Reinforced insulation (protection class II)

■ Ambient temperature up to $85^{\circ} \mathrm{C}$ at 8 A
■ 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.

## Approvals

VDE Cert. No. 40017849 , UL E214025
Technical data of approved types on request.

## Contact Data

| Contact arrangement | 1 |
| :--- | :---: |
| farm C (CO) or 1 form A (NO) |  |
| Max. switching voltage | 250 VAC |
| Rated current | 400VAC |
| versions A,B |  |
| versions C, D | 8 A |
| Limiting making current, max 4s, df 10\% | 10 A |
| version A302, max 20ms | 15 A |
| Breaking capacity max. | 65 A |
| Contact material | 2000 VA |
| Frequency of operation, with/without load | $\mathrm{AgSnO}_{2}$, AgNi90/10 |
| Operate/release time max. | $1200 \mathrm{~min}-1$ |
| Bounce time max., form A/form B | $10 / 5 \mathrm{~ms}$ |


| Contact ratings |  |  |  |
| :---: | :---: | :---: | :---: |
| Type | Contact | Load | Cycles |
| IEC 61810 |  |  |  |
| V23061-A1***-A302 | A (NO) | 8A, 250VAC, $\cos \varphi=1,85^{\circ} \mathrm{C}$ | $100 \times 10^{3}$ |
| V23061-C2 ${ }^{* * *}$-A802 | A (NO) | 10A, 250VAC, $\cos \varphi=1,85^{\circ} \mathrm{C}$ | $100 \times 10^{3}$ |
| V23061-C2 ${ }^{* * *-A 802 ~}$ | A (NO) | $5 \mathrm{~A}, 250 \mathrm{VAC}, \cos \varphi=1,105^{\circ} \mathrm{C}$ | $100 \times 10^{3}$ |
| UL 508 |  |  |  |
| V23061-A1***-A302 | A (NO) | TV4, Tungsten, 120VAC, $40^{\circ} \mathrm{C}$ | $25 \times 10^{3}$ |
| V23061-A1***-A302 | A (NO) | Pilot duty, $\mathrm{A} 300,40^{\circ} \mathrm{C}$ | $6 \times 10^{3}$ |
| V23061-C2 ${ }^{* * *-A 802 ~}$ | A (NO) | 10A, 240VAC, general purpose, $40^{\circ} \mathrm{C}$ | $30 \times 10^{3}$ |
| EN60730-1 |  |  |  |
| V23061-A1***-A302 | A (NO) | 2(2)A, 250VAC, $85^{\circ} \mathrm{C}$ | $100 \times 10^{3}$ |
| V23061-C2 ${ }^{* * *-A 802 ~}$ | A (NO) | 4(4)A, 250VAC, $85^{\circ} \mathrm{C}$ | $100 \times 10^{3}$ |
| Mechanical enduranc | DC coil | $10 \times 10^{6}$ operations |  |

Mechanical endurance, DC coil
$10 \times 10^{6}$ operations



| 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 | $\begin{gathered} \text { Coil } \\ \text { resistance } \\ \Omega \pm 10 \%^{11} \\ \hline \end{gathered}$ | 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 | 152651) | 236 |

1) Coil resistance $\pm 15 \%$.

All figures are given for coil without pre-energization, at ambient temperature $+23^{\circ} \mathrm{C}$. Other coil voltages on request.


Insulation Data
Initial dielectric strength

| Initial dielectric strength <br> between open contacts <br> between contact and coil | $1000 \mathrm{~V}_{\text {rms }}$ |
| :--- | :--- |
| Clearance/creepage <br> between contact and coil | $4000 \mathrm{~V}_{\mathrm{ms}}$ |
| Material group of insulation parts | $\geq 8 / 8 \mathrm{~mm}$ |

[^0] with the 'Definitions' section. application notes and all specifications are subject to change.

## Miniature Power PCB Relay MSR V23061 <br> (Continued)



## PCB layout / terminal assignment

1 form C, 1 CO contact, 3.2 mm


1 form A, 1 NO contact, 5 mm


1114

## Dimensions

## 1 form C, 1 CO contact, 3.2 mm



1 form A, 1 NO contact, 5 mm


RELAY
PRODUCTS

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 <br> A 1 form A contact ( 1 NO ), UL-class A <br> B 1 form C contact ( 1 CO ), UL-class A <br> C 1 form A contact ( 1 NO ), UL-class F <br> D 1 form C contact ( 1 CO ), UL-class F |  |  |  |  |  |  |  |  |
| Version  <br> $\mathbf{1}$ Wash tight <br> $\mathbf{2}$ Flux proof |  |  |  |  |  |  |  |  |
| Coil Coil-code: please refer to coil versions table |  |  |  |  |  |  |  |  |
| Contact system <br> A Standard |  |  |  |  |  |  |  |  |
| Contact material $3 \quad \mathrm{AgSnO}_{2}$ <br> 8 AgNi 90̌/10 |  |  |  |  |  |  |  |  |
| Contact information <br> 011 form C (CO) contact 021 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 | $\mathrm{AgSnO}_{2}$ | 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 |


[^0]:    06-2018, Rev. 0618
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