36 Series - Miniature PCB relays 10 A

## Features

Printed circuit mount 10 A relay

- 1 Pole changeover contacts or

1 Pole normally open contact

- Miniature - "Sugar cube" package
- DC coil - 360 mW
- Wash tight: RT III
- Cadmium Free contact material option



### 36.11



- 1 CO (SPDT), 10 A
- Sugar cube size
- PCB mount
36.11-0300

- 1 NO (SPST-NO), 10 A
- Sugar cube size - PCB mount


Contact specification
Contact configuration
Rated current/Maximum peak current
Rated voltage/Maximum switching voltage V AC

## Rated load AC1

Rated load AC15 (230 V AC)
Single phase motor rating ( 230 V AC ) kW
Breaking capacity DC $1: 30 / 110 / 220 \mathrm{~V} \quad \mathrm{~A}$

| Minimum switching load | $\mathrm{mW}(\mathrm{V} / \mathrm{mA})$ |
| :--- | :--- |
| Standard contact material |  |

Coil specification

| Nominal voltage ( $U_{N}$ ) V AC ( $50 / 60 \mathrm{~Hz}$ ) | - | - |
| :---: | :---: | :---: |
| V DC | 3-5-6-9-12-24-48 | 3-5-6-9-12-24-48 |
| Rated power AC/DC VA (50 Hz)/W | -/0.36 | -/0.36 |
| Operating range AC | - | - |
| DC | $(0.75 \ldots 1.5) U_{N}$ | $(0.75 \ldots 1.5) U_{N}$ |
| Holding voltage AC/DC | $-/ 0.4 U_{N}$ | $-/ 0.4 U_{N}$ |
| Must drop-out voltage AC/DC | $-/ 0.1 U_{N}$ | $-/ 0.1 U_{N}$ |
| Technical data |  |  |
| Mechanical life AC/DC cycles | $-/ 10 \cdot 10^{6}$ | $-/ 10 \cdot 10^{6}$ |
| Electrical life at rated load AC1 cycles | $100 \cdot 10^{3}$ | $100 \cdot 10^{3}$ |
| Operate/release time ms | 7/3 | 7/2 |
| Insulation between coil and contacts (1.2/50 $\mu \mathrm{s}$ ) kV | 4 | 4 |
| Dielectric strength between open contacts V AC | 1,000 | 1,000 |
| Ambient temperature range ${ }^{\circ} \mathrm{C}$ | $-40 \ldots+85$ | $-40 \ldots+85$ |
| Environmental protection | RT III | RT III |
| Approvals (according to type) |  | $\mathbf{N I}_{\text {US }}^{\otimes} \quad \widehat{\mathrm{VDE}}$ |

## Ordering information

Example: 36 series miniature PCB relay, 1 CO (SPDT) - 10 A contacts, 12 V DC coil.


Selecting features and options: only combinations in the same row are possible.
Preferred selections for best availability are shown in bold.

| Type | Coil version | A | B | C | D |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 36.11 | DC | $\mathbf{0 - 4}$ | $\mathbf{0 - 3}$ | $\mathbf{0}$ | $\mathbf{0}$ |

## Technical data

| Insulation according to EN 61810-1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Nominal voltage of supply system | $V$ AC | 230/400 |  |
| Rated insulation voltage | $\checkmark$ AC | 250 |  |
| Pollution degree |  | 2 |  |
| Insulation between coil and contact set |  |  |  |
| Type of insulation |  | Basic |  |
| Overvoltage category |  | II |  |
| Rated impulse voltage | kV (1.2/50 $\mu \mathrm{s}$ ) | 2.5 |  |
| Dielectric strength | $\checkmark$ AC | 2,500 |  |
| Insulation between open contacts |  |  |  |
| Type of disconnection |  | Micro-disconnection |  |
| Dielectric strength | V AC/kV $(1.2 / 50 \mu \mathrm{~s})$ | 1,000/1.5 |  |
| Other data |  |  |  |
| Bounce time: NO/NC | ms | 1/6 (changeover) | 1/- (normally open) |
| Vibration resistance (5...55)Hz: NO/NC | g | 15/15 (changeover) | 15/- (normally open) |
| Shock resistance | g | 16 |  |
| Power lost to the environment | without contact current W | 0.4 |  |
|  | with rated current W | 1.4 |  |
| Recommended distance between relays mounted on PCB mm |  | $\geq 5$ |  |

Contact specification
F 36 - Electrical life (AC) v contact current


## H 36 - Maximum DCl breaking capacity



- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of $\geq 100 \cdot 10^{3}$ can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load. Note: the release time for the load will be increased.


## Coil specifications

DC coil data

| Nominal voltage $U_{N}$ | Coil code | Operating range |  | Resistance <br> R | Rated coil <br> consumption <br> I at $U_{N}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathrm{U}_{\text {min }}$ | $\mathrm{U}_{\text {max }}$ |  |  |
| V |  | V | V | $\Omega$ | mA |
| 3 | 9.003 | 2.2 | 4.5 | 25 | 120 |
| 5 | 9.005 | 3.7 | 7.5 | 70 | 72 |
| 6 | 9.006 | 4.5 | 9 | 100 | 60 |
| 9 | 9.009 | 6.7 | 13.5 | 225 | 40 |
| 12 | 9.012 | 9 | 18 | 400 | 30 |
| 24 | 9.024 | 18 | 36 | 1,600 | 15 |
| 48 | 9.048 | 36 | 72 | 6,400 | 7.5 |

R 36-DC coil operating range vambient temperature


1 - Max. permitted coil voltage.
2 - Min. pick-up voltage with coil at ambient temperature.

