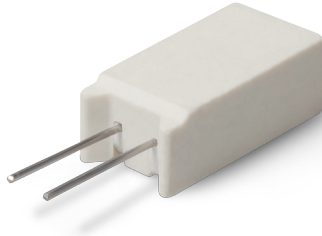


# Resistors

## Flameproof Precision Resistor

## MCV - series

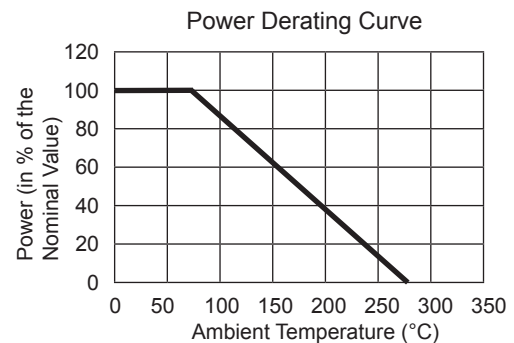


- Wire Wound Resistor, Inorganic Construction
- Power Rating up to 10Watt
- Any Resistance from 0,01Ω - 90kΩ
- Tolerances ±1% (to 0,01%)
- Standard TCR ±20ppm/K ab 10Ω
- Low Inductive Version (Option)

| Specification               | MCV-1   | MCV-2        | MCV-3        | MCV-4        | MCV-5        |
|-----------------------------|---|--------------|--------------|--------------|--------------|
| Resistance Range            | 0,01Ω - 22kΩ  | 0,01Ω - 22kΩ | 0,01Ω - 45kΩ | 0,01Ω - 65kΩ | 0,01Ω - 90kΩ |
| Power                       | 2Watt   | 3Watt        | 5Watt        | 7Watt        | 10Watt       |
| Standard Tolerance          | 0,02%; 0,05%; 0,1%; 0,25%; 0,5%, 1%; 5%                                       |              |              |              |              |
| Temperature Coefficient     | ±20ppm/K (R ≥ 10Ω)<br>±50ppm/K (1Ω ≥ R < 10Ω)<br>±90ppm/K / 120ppm (R < 0,1Ω) |              |              |              |              |
| Operating Temperature Range | -55 °C - 275 °C   |              |              |              |              |
| Operating Voltage (max.)    | 200V  | 250V         | 470V         | 675V         | 950V         |
| Withstanding Voltage        | 1000 VAC  |              |              |              |              |
| Insulation Resistance       | ≥ 1GOhm   |              |              |              |              |

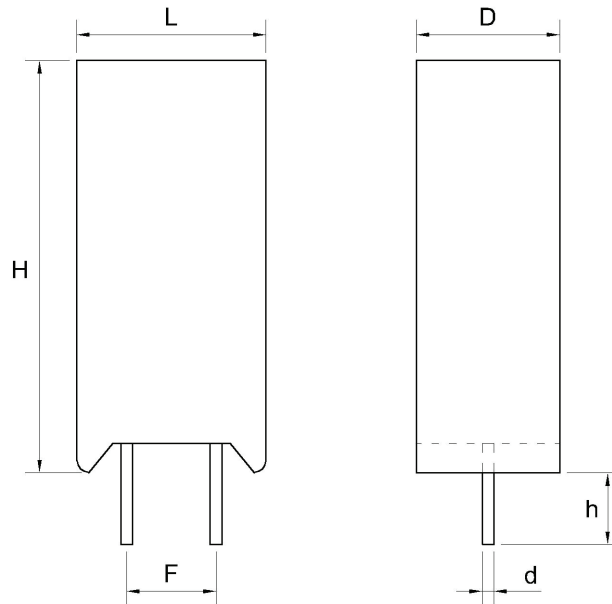
### Mechanical Data

|                    |                      |
|--------------------|----------------------|
| Housing            | Ceramics, Compound   |
| Resistance Element | Wire, Special Alloy  |
| Carrier            | Multi - Chamber Coil |
| Leads              | Copper, Tin Plated   |



| Parameter                 | Test                                 | Δ R           |
|---------------------------|--------------------------------------|---------------|
| Load Life                 | 90 min ON, 30 min OFF, 1000h at 25°C | ±1% + 0,05Ω   |
| Shelf Life                | 15°C - 35°C, r.H. 15 - 75%, 10000h   | ±0,2% + 0,05Ω |
| Humidity                  | 90 - 95% RH, 0,1W, 1000h at 40°C     | ±0,2% + 0,05Ω |
| Temperature Cycle         | -55°C 30 min, +155°C 30min. 1000h    | ±0,2% + 0,05Ω |
| 5X Overload (5s)          |                                      | ±0,2% + 0,05Ω |
| Shock                     | IEC 60068-2-27 10G, 6ms, Saw Tooth   | ±0,1% + 0,05Ω |
| Soldering Heat Resistance | 350°C ±5°C 3 Seconds                 | ±0,1% + 0,05Ω |

### Technical Drawing



### Dimensions

|       | H         | L         | D         | F        | Ø d       | h                |
|-------|-----------|-----------|-----------|----------|-----------|------------------|
| MCV-1 | 20,3 ±1,5 | 11,0 ±1,0 | 7,0 ±1,0  | 5,1 ±0,4 | 0,8 ±0,05 | 2,5min. /6,1max. |
| MCV-2 | 25,4 ±1,5 | 12,1 ±1,0 | 8,1 ±1,0  | 5,1 ±0,4 | 0,8 ±0,05 | 2,5min. /6,1max. |
| MCV-3 | 25,4 ±1,5 | 13,2 ±1,0 | 8,9 ±1,0  | 5,1 ±0,4 | 0,8 ±0,05 | 2,5min. /6,1max. |
| MCV-4 | 38,7 ±1,5 | 13,2 ±1,0 | 9,7 ±1,0  | 5,1 ±0,4 | 1,0 ±0,05 | 2,5min. /6,1max. |
| MCV-5 | 35,1 ±1,5 | 16,1 ±1,0 | 12,2 ±1,0 | 7,6 ±0,4 | 1,0 ±0,05 | 2,5min. /6,1max. |

All Dimensions in mm

### Options

### Remark

Low Inductive Version  
(upon Request)

Non inductive Windings, only half resistance value possible, TCR: 120ppm

### Ordering Information

| MCV-2<br>Type | W1%<br>Resistance Tolerance            | TK50<br>Temperature Coefficient                         | 10k000<br>Resistance Range |
|---------------|--|---|----------------------------|
|               | ±0,01%; ±0,05%; ±0,25% ;<br>±0,5%; ±1% | >10Ω: ±20ppm/K<br>1Ω bis 10Ω: ±50ppm/K<br><1Ω: ±90ppm/K | (0,01Ω - 91kΩ)             |