# POWER WIRE RESISTOR PWR-TR 305 – 308

**The PWR-TR is a cemented wire tube resistor. It utilises the full carrying capacity of the resistor material, as the heat that is generated can be dissipated into the environment via the shortest route.**

**We offer connection and assembly materials as well as the PWR-TRR with additional setting caps for adjusting the resistance values.**

**Advantages**
- High pulse load capacity
- Power rating up to 500 watts
- Compact design

**Application Examples**
- Charging, discharging, and braking resistor in drive and automation technology
- Grounding resistor
- Protective resistor



| Electrical data | |
|---|---|
| Resistance Range | Freely selectable, see table |
| Tolerances | ±5 % (R > 5 Ω)<br>±10 % (R = 1 – 5 Ω)<br>Further values on request |
| Temperature coefficient | ±150 ppm / °C |
| Insulation resistance | ≥10000 MΩ (500 V, 25 °C, 75 % RH) |
| Testing voltage | 4000 VAC |
| Voltage limit | $\sqrt{(P \times R)}$ |
| Stability | 1000 h at 25 °C, ΔR ±5 % |
| Pulse overload | 10 x Pn, 5 s |

| Mechanical data | |
|---|---|
| Dimensions | See table |
| Mounting positions | See drawing |

| Environmental data | |
|---|---|
| Operating temperature | -50 °C to +200 °C, max. 250 °C |
| Storage temperature | -25 °C to +40 °C |
| Protection level acc. to IEC 60529 | IP 00 |

**Overview**

| Type PWR-TR and PWR-TRR* | Nominal load at 25 °C | Operating voltage | Resistance range | | Diameter | Length L1 | Length L2 | Length L3 | Electrical connection | Mechanical connection | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | V | Min. Ω | Max. Ω | mm | mm | mm | mm | | | g |
| 305 | 200 | 2000 | 0.7 | 82k | 47 | 130 | 50 | 155 | F | H5, V2 | 300 |
| 306 | 300 | 2500 | 1.0 | 120k | 47 | 182 | 50 | 208 | F | H5, V2 | 400 |
| 307 | 400 | 2750 | 1.5 | 160k | 47 | 250 | 50 | 277 | F | H5, V2 | 550 |
| 308 | 500 | 3000 | 2.0 | 200k | 47 | 310 | 50 | 337 | F | H5, V2 | 700 |

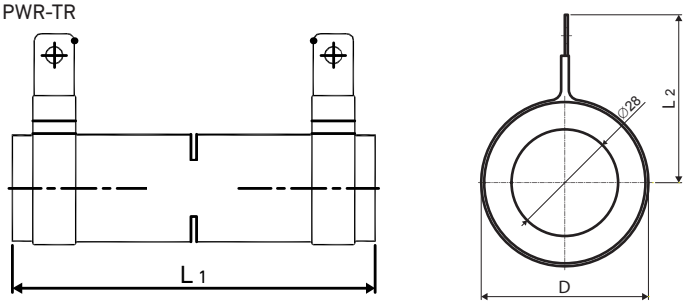
Mechanical tolerances acc. to ISO 2768-m

* TRR: Adjustable resistor with setting cap

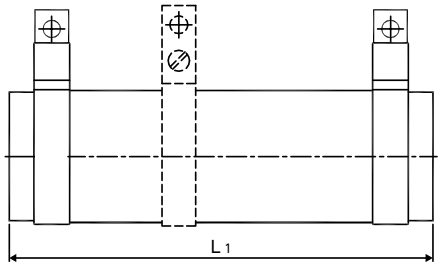
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## Dimensions

PWR-TR

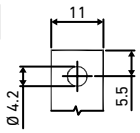



PWR-TRR with setting cap



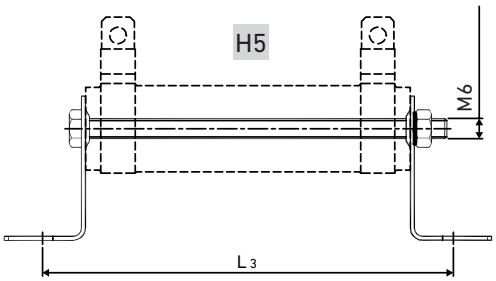

## Electrical connection

F

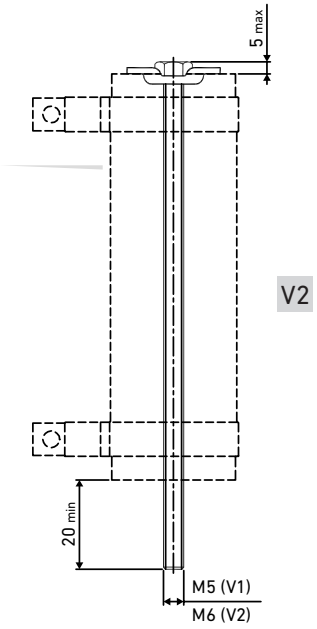



## Mechanical connection

H5




V2




## Order designation

| Series | Type | Resistance value | Tolerance | Electrical connection | Mechanical connection |
|---|---|---|---|---|---|
| PWR-TR | 305 | Please specify | ±5 % (J) | F | H5 |
| PWR-TRR | 306 | | ±10 % (K) | X | V2 |
| | 307 | | ±20 % (M) | | |
| | 308 | | | | |

X = Customer specific

Metallux cannot picture the customer's operating and application conditions and the customer's existing environmental influences.
We therefore recommend that you carry out your own investigations into the planned use of the products under the actual operating conditions.

We continuously improve our products and also update our data sheets regularly. In this respect, there may be changes in the specification.
These changes will apply to orders received by us from the time of the update, unless otherwise agreed.

Our products comply with Directive 2011/65/EU (RoHS) including Directive 2015/863/EU and Regulation (EC) No. 1907/2006 (REACH).