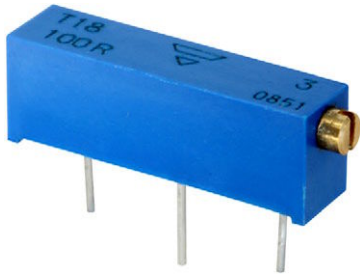


3/4" Rectangular Multi-Turn Cermet Trimmer

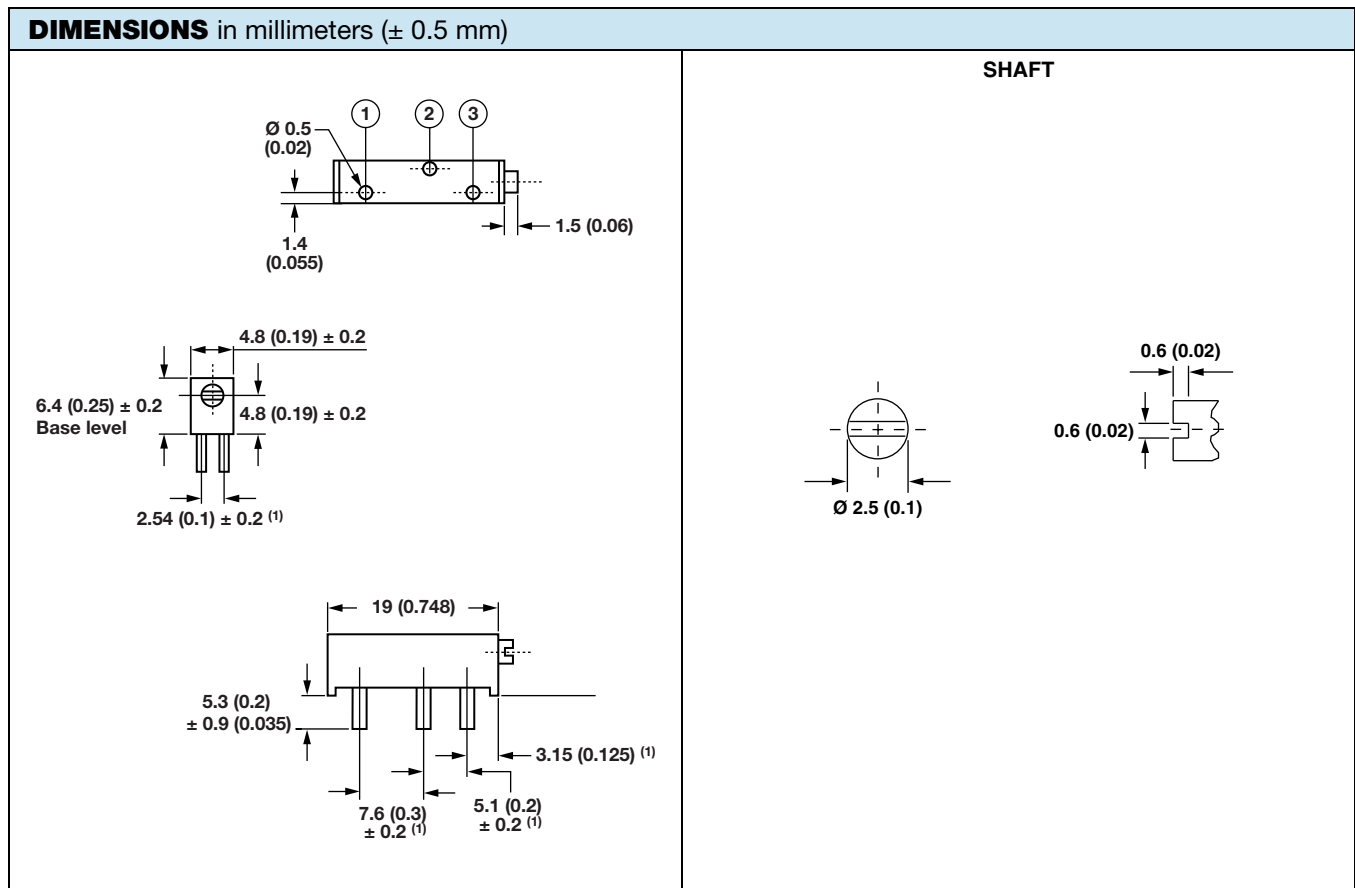


FEATURES

- 0.75 W at 70 °C
- Wide ohmic range (10 Ω to 5 MΩ)
- Multi-finger wiper for better CRV
- Tests according to CECC 41000 or IEC 60393-1
- Industrial grade
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

LINKS TO ADDITIONAL RESOURCES


[3D Models](#)

Note

(1) To be measured at base level

| ELECTRICAL SPECIFICATIONS | |
|--|---|
| Resistive element | Cermet |
| Electrical travel | 15 turns \pm 1 |
| Resistance range | 10 Ω to 5 M Ω |
| Standard series E3 | 1 - 2.2 - 4.7 and 1 - 2 - 5 |
| Tolerance | \pm 10 % |
| Standard | 0.75 W at +70 °C |
| Linear | |
| Power rating | <p>The graph shows Power in W on the y-axis (0 to 0.75) and Ambient Temperature in °C on the x-axis (0 to 140). The power rating is constant at 0.75 W from 0 to 70 °C, then decreases linearly to 0 W at 125 °C.</p> |
| Circuit diagram | <p>The circuit diagram shows a potentiometer with three terminals: a (1), b (2), and c (3). Terminal b is the wiper, and the arrow indicates clockwise (cw) rotation.</p> |
| Temperature coefficient | See Standard Resistance Element table |
| Limiting element voltage (linear law) | 400 V |
| Contact resistance variation | 1 % R _n or 1 Ω max. |
| End resistance | 1 % or 2 Ω |
| Dielectric strength (RMS) | 1000 V |
| Insulation resistance (500 V _{DC}) | 10 ³ M Ω min. |

| MECHANICAL SPECIFICATIONS | |
|----------------------------------|----------------------------|
| Mechanical travel | 18 turns \pm 5 |
| Operating torque (max. Ncm) | 3.5 |
| End stop torque | Clutch action |
| Net weight (max. g) | 1.2 |
| Wiper (actual travel) | Positioned at approx. 50 % |
| Terminals | e3: pure Sn |

| ENVIRONMENTAL SPECIFICATIONS | |
|-------------------------------------|---------------------|
| Temperature range | -55 °C to +125 °C |
| Climatic category | 55/125/4 |
| Sealing | Fully sealed - IP67 |



| PERFORMANCES | | | | |
|------------------------|---|---------------------------|------------------------------|--|
| TESTS | CONDITIONS | TYPICAL VALUES AND DRIFTS | | |
| | | $\Delta R_T/R_T$ (%) | $\Delta V_{1-2}/V_{1-3}$ (%) | OTHER |
| Load life | 1000 h at rated power 90°/30° - ambient temp. 70 °C | ± 4 % | - | - |
| Damp heat steady state | 4 days | ± 3 % | - | Dielectric strength: 1000 V _{RMS} Insulation resistance: > 20 MΩ |
| Rapid temp. change | 5 cycles -55 °C to +125 °C | ± 0.5 % | ± 2 % | - |
| Shock | 50 g at 11 ms 3 successive shocks in 3 directions | ± 2 % | ± 2 % | - |
| Vibration | 10 Hz to 55 Hz 0.75 mm or 10 g during 6 h | ± 2 % | ± 2 % | - |
| Rotational life | 200 cycles | ± (3 % + 1 Ω) | - | Contact res. variation: < 1 % R _n |

Note

- Nothing stated herein shall be construed as a guarantee of quality or durability

| STANDARD RESISTANCE ELEMENT DATA | | | | |
|----------------------------------|---------------------|----------------------|--------------------|----------------------------------|
| STANDARD RESISTANCE VALUES | LINEAR LAW | | | TYPICAL TCR -55 °C to +125 °C |
| | MAX. POWER AT 70 °C | MAX. WORKING VOLTAGE | MAX. WIPER CURRENT | |
| Ω | W | V | mA | ppm/°C |
| 10 | 0.75 | 2.74 | 274 | ± 100 |
| 22 | 0.75 | 4.06 | 185 | |
| 47 | 0.75 | 5.94 | 126 | |
| 100 | 0.75 | 8.66 | 87 | |
| 220 | 0.75 | 12.8 | 58 | |
| 470 | 0.75 | 18.8 | 40 | |
| 1K | 0.75 | 27.4 | 27 | |
| 2.2K | 0.75 | 40.6 | 18 | |
| 4.7K | 0.75 | 59.4 | 13 | |
| 10K | 0.75 | 86.6 | 8.7 | |
| 22K | 0.75 | 128 | 5.8 | |
| 47K | 0.75 | 188 | 4 | |
| 100K | 0.75 | 274 | 2.7 | |
| 220K | 0.75 | 400 | 1.8 | |
| 470K | 0.34 | 400 | 0.85 | |
| 1M | 0.16 | 400 | 0.4 | |
| 2.2M | 0.07 | 400 | 0.18 | |
| 4.7M | 0.03 | 400 | 0.09 | |

| MARKING |
|---|
| <ul style="list-style-type: none"> • Vishay trademark • Vishay part number or model and ohmic value (in Ω, kΩ, MΩ) • Manufacturing date • Marking of terminal 3 |

| PACKAGING |
|--|
| <ul style="list-style-type: none"> • In tube of 25 pieces code T10 (TU25) |



| ORDERING INFORMATION (Part Number) | | | | | | | | | | | | |
|------------------------------------|-----------------------------------|---|-----------|---|---|-------------------------|---|---|---|--|--|--|
| T | 1 | 8 | 2 | 2 | 4 | K | T | 1 | 0 | | | |
| MODEL | OHMIC VALUE | | TOLERANCE | | | PACKAGING | | | SPECIAL NUMBER | | | |
| T18 | From 10 Ω to 5 MΩ 224 = 220 kΩ | | K = 10 % | | | T10 = tube 25 pieces | | | (If applicable) Given by Vishay for custom design | | | |

| DESCRIPTION (for information only) | | | | |
|------------------------------------|-------|-----------|-----------|-------------|
| T18 | 220K | ± 10 % | TU25 | e3 |
| MODEL | VALUE | TOLERANCE | PACKAGING | LEAD FINISH |

| RELATED DOCUMENTS | |
|---|--|
| APPLICATION NOTES | |
| Potentiometers and Trimmers | www.vishay.com/doc?51001 |
| Guidelines for Vishay Sfernice Resistive and Inductive Components | www.vishay.com/doc?52029 |



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