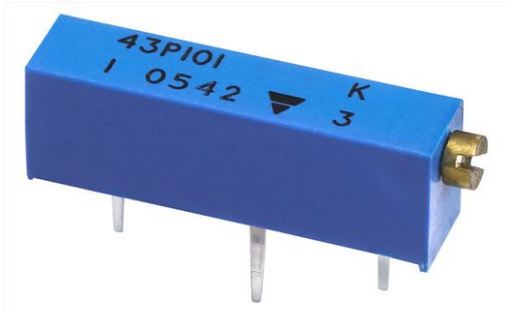


# 3/4" Rectangular (19 mm) Multi-Turn Cermet Trimmer



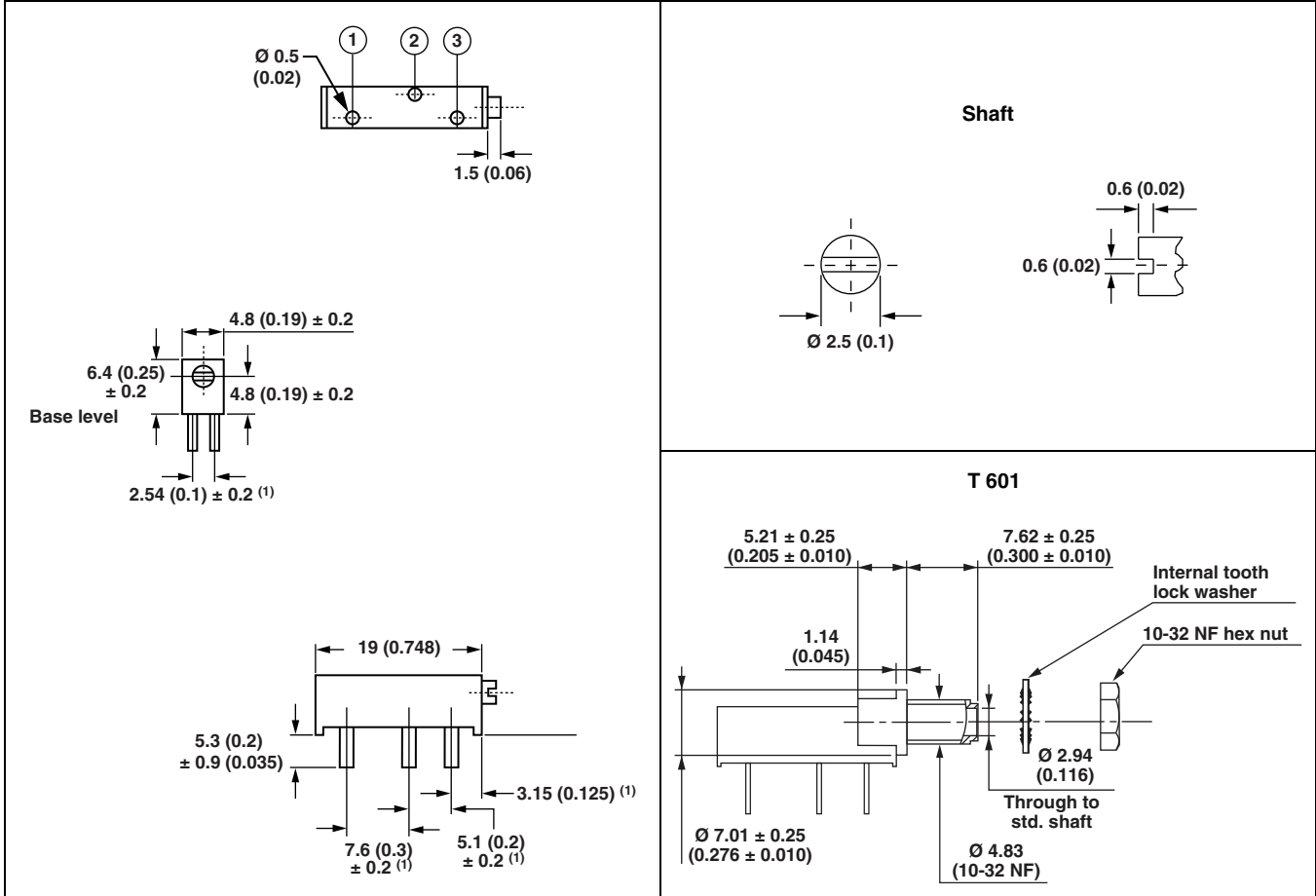
## FEATURES

- 0.75 W at 70 °C
- Wide ohmic value range (10 Ω to 5 MΩ)
- Panel mount available
- Multi-finger wiper for better C.R.V.
- Tests according to CECC 41000 or IEC 60393-1
- Compliant to RoHS Directive 2011/65/EU



**RoHS**  
COMPLIANT

## DIMENSIONS in millimeters (inches) ± 0.5 mm (± 0.02")



**Note**

(1) To be measured at base level

| <b>ELECTRICAL SPECIFICATIONS</b>             |   |
|--|---|
| Resistive element                            | Cermet                                      |
| Electrical travel                            | 15 turns $\pm$ 1                            |
| Resistance range                             | 10 $\Omega$ to 5 M $\Omega$                 |
| Standard series E3                           | 1 - 2 - 5                                   |
| Tolerance                                    | $\pm$ 10 %                                  |
| Power rating                                 | Standard<br>Linear<br>0.75 W at + 70 °C<br> |
| Circuit diagram                              |   |
| Temperature coefficient                      | See Standard Resistance Element table       |
| Limiting element voltage (linear law)        | 400 V                                       |
| Contact resistance variation                 | 1 % R <sub>n</sub> or 1 $\Omega$ max.       |
| End resistance (typical)                     | 1 % or 2 $\Omega$                           |
| Dielectric strength (RMS)                    | 1000 V                                      |
| Insulation resistance (500 V <sub>DC</sub> ) | 10 <sup>3</sup> M $\Omega$ min.             |

| <b>MECHANICAL SPECIFICATIONS</b> |                            |
|----------------------------------|----------------------------|
| 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                        | Pure Sn (code e3)          |

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

| <b>PERFORMANCES</b>      |   |                           |                              |  |
|--------------------------|---|---------------------------|------------------------------|--|
| 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<br>90'/30' - ambient temp. 70 °C  | ± 4 %                     | -                            | -  |
| Humidity                 | 4 days  | ± 3 %                     | -                            | Dielectric strength: 1000 V <sub>RMS</sub><br>Insulation resistance: > 20 MΩ |
| Rapid temperature change | 5 cycles<br>- 55 °C to + 125 °C                         | ± 0.5 %                   | ± 2 %                        | -  |
| Shock                    | 50 g at 11 ms<br>3 successive shocks<br>in 3 directions | ± 2 %                     | ± 2 %                        | -  |
| Vibration                | 10 Hz to 55 Hz<br>0.75 mm or 10 g<br>during 6 h         | ± 2 %                     | ± 2 %                        | -  |
| Rotational life          | 200 cycles  | ± (3 % + 1 Ω)             | -                            | Contact res. variation: < 1 % Rn   |

| <b>STANDARD RESISTANCE ELEMENT DATA</b> |                     |                      |                 |                                    |
|---|---------------------|----------------------|-----------------|------------------------------------|
| STANDARD RESISTANCE VALUES              | LINEAR LAW          |                      |                 | TYPICAL TCR<br>- 55 °C<br>+ 125 °C |
|   | MAX. POWER AT 70 °C | MAX. WORKING VOLTAGE | MAX. WIPER CUR. |                                    |
| Ω                                       | W                   | V                    | mA              | ppm/°C                             |
| 10                                      | 0.75                | 2.74                 | 274             | ± 100                              |
| 20                                      | 0.75                | 3.87                 | 194             |                                    |
| 50                                      | 0.75                | 6.12                 | 122             |                                    |
| 100                                     | 0.75                | 8.66                 | 87              |                                    |
| 200                                     | 0.75                | 12.2                 | 61              |                                    |
| 500                                     | 0.75                | 19.4                 | 39              |                                    |
| 1K                                      | 0.75                | 27.4                 | 27              |                                    |
| 2K                                      | 0.75                | 38.7                 | 19              |                                    |
| 5K                                      | 0.75                | 61.2                 | 12              |                                    |
| 10K                                     | 0.75                | 86.6                 | 8.7             |                                    |
| 20K                                     | 0.75                | 122                  | 6.1             |                                    |
| 50K                                     | 0.75                | 194                  | 3.9             |                                    |
| 100K                                    | 0.75                | 274                  | 2.7             |                                    |
| 200K                                    | 0.75                | 387                  | 1.9             |                                    |
| 500K                                    | 0.32                | 400                  | 0.80            |                                    |
| 1M                                      | 0.16                | 400                  | 0.40            |                                    |
| 2M                                      | 0.08                | 400                  | 0.20            |                                    |
| 4M                                      | 0.03                | 400                  | 0.08            |                                    |

| <b>PACKAGING</b>  |
|---|
| <ul style="list-style-type: none"> <li>In box of 200 pieces code B40 (BO200)</li> </ul> On request: <ul style="list-style-type: none"> <li>In box of 100 pieces code B30 (BO100)</li> <li>In tube of 25 pieces code T10 (TU25)</li> </ul> |

| <b>MARKING</b>  |
|---|
| <ul style="list-style-type: none"> <li>Vishay trademark</li> <li>Vishay part number or model, ohmic value code and tolerance code</li> <li>Manufacturing date</li> <li>Marking of terminals 1 and/or 3</li> </ul> |



| ORDERING INFORMATION (Part Number) |          |   |   |   |   |                 |   |  |   |   |   |   |   |   |
|------------------------------------|----------|---|---|---|---|-----------------|---|--|---|---|---|---|---|---|
| M                                  | 4        | 3 | P   | 1 | 0 | 3               | K | B  | 4 | 0 | T   | 6 | 0 | 1 |
| Model                              | STYLE    |   | OHMIC VALUE                                 |   |   | TOLERANCE       |   | PACKAGING  |   |   | SPECIAL NUMBER  |   |   |   |
| <b>M43</b>                         | <b>P</b> |   | From<br>100 Ω to 5 MΩ<br><b>103</b> = 10 kΩ |   |   | <b>K</b> = 10 % |   | <b>B40</b> = Box 200 pieces<br>On request:<br><b>B30</b> = Box 100 pieces<br><b>T10</b> = Tube 25 pieces |   |   | (If applicable)<br>Given by<br>Vishay<br>for custom<br>design |   |   |   |

| DESCRIPTION (for information only) |       |       |           |         |           |             |
|------------------------------------|-------|-------|-----------|---------|-----------|-------------|
| 43                                 | P     | 10K   | 10 %      | T601    | BO100     | e3          |
| MODEL                              | STYLE | VALUE | TOLERANCE | SPECIAL | PACKAGING | LEAD FINISH |



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