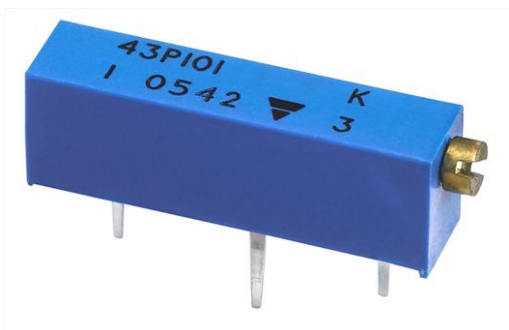


# 3/4" Rectangular (19 mm) Multi-Turn Cermet Trimmer



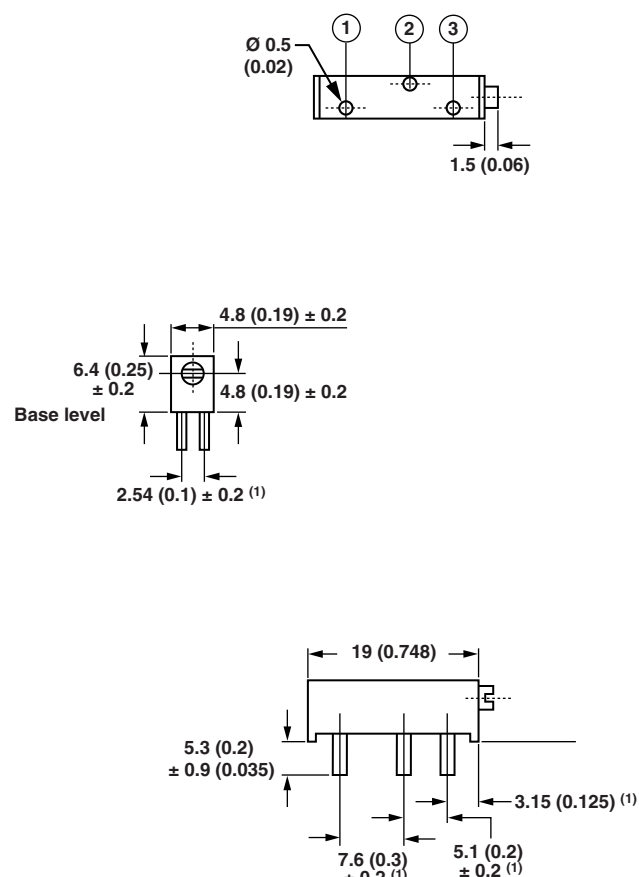
## FEATURES

- 0.75 W at 70 °C
- Wide ohmic value range (10  $\Omega$  to 5 M $\Omega$ )
- Panel mount available
- Multi-finger wiper for better C.R.V.
- Tests according to CECC 41000 or IEC 60393-1
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

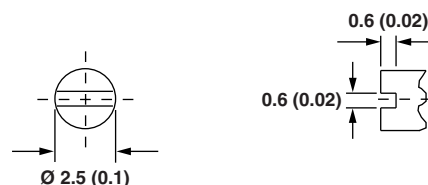


**RoHS**  
COMPLIANT

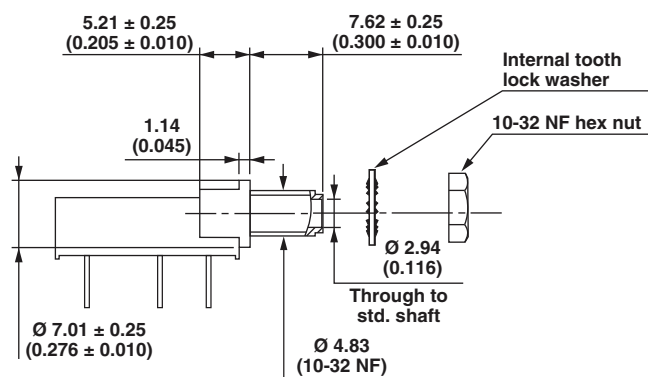
## DIMENSIONS in millimeters (inches) $\pm 0.5$ mm ( $\pm 0.02$ ")



## Shaft

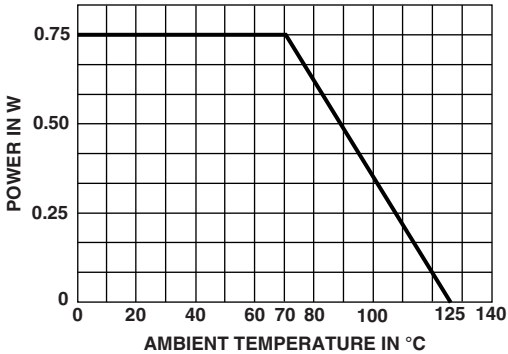
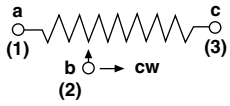


## T 601



## Note

<sup>(1)</sup> To be measured at base level

| ELECTRICAL SPECIFICATIONS                    |                                                                                     |                   |
|----------------------------------------------|-------------------------------------------------------------------------------------|-------------------|
| Resistive element                            | Cermet                                                                              |                   |
| Electrical travel                            | 15 turns $\pm$ 1                                                                    |                   |
| Resistance range                             | 10 $\Omega$ to 5 M $\Omega$                                                         |                   |
| Standard series E3                           | 1 - 2 - 5                                                                           |                   |
| Tolerance                                    | Standard                                                                            | $\pm$ 10 %        |
| Power rating                                 | Linear                                                                              | 0.75 W at + 70 °C |
|                                              |   |                   |
| 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.                                                     |                   |

| 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                   | Pure Sn (code e3)          |

| 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<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 % R <sub>n</sub>                                 |

| STANDARD RESISTANCE ELEMENT DATA |                           |                            |                       |                                       |
|----------------------------------|---------------------------|----------------------------|-----------------------|---------------------------------------|
| STANDARD<br>RESISTANCE<br>VALUES | LINEAR LAW                |                            |                       | TYPICAL<br>TCR<br>- 55 °C<br>+ 125 °C |
|                                  | MAX.<br>POWER<br>AT 70 °C | MAX.<br>WORKING<br>VOLTAGE | MAX.<br>WIPER<br>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                  |                                       |

| MARKING                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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> |

| PACKAGING                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>In box of 200 pieces code B40 (BO200)</li> </ul> <p>On request:</p> <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> |



### 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                                                |   |   |   |
| M43   | P     |   | From<br>100 $\Omega$ to 5 M $\Omega$<br>103 = 10 k $\Omega$ |   |   |   | K = 10 %  | B40 = Box 200 pieces<br>On request:<br>B30 = Box 100 pieces<br>T10 = Tube 25 pieces |   |   | (If applicable)<br>Given by<br>Vishay<br>for custom<br>design |   |   |   |

### DESCRIPTION (for information only)

|       |       |       |           |         |           |             |
|-------|-------|-------|-----------|---------|-----------|-------------|
| 43    | P     | 10K   | 10 %      | T601    | B0100     | e3          |
| MODEL | STYLE | VALUE | TOLERANCE | SPECIAL | PACKAGING | LEAD FINISH |



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**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

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