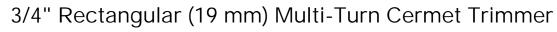
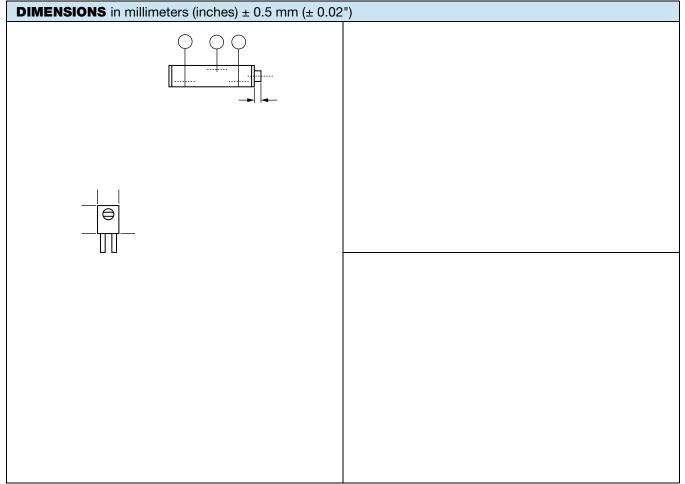
Vishay Spectrol



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### 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 <u>www.vishay.com/doc?99912</u>



Note

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

ROHS COMPLIANT



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| Resistive element                            |        | Cermet  |  |  |  |
|--|--------|---|--|--|--|
| Electrical travel                            |        | 15 turns ± 1  |  |  |  |
| Resistance range                             |        | 10 $\Omega$ to 5 M $\Omega$                                     |  |  |  |
| Standard series E3                           |        | 1 - 2 - 5   |  |  |  |
| Tolerance St                                 | andard | ± 10 %  |  |  |  |
|  | Linear | 0.75 W at + 70 °C   |  |  |  |
| Power rating                                 |        |   |  |  |  |
| Circuit diagram                              |        | $ \begin{array}{c} a \\ c \\ (1) \\ b \\ c \\ (2) \end{array} $ |  |  |  |
| Temperature coefficient                      |        | See Standard Resistance Element table                           |  |  |  |
| Limiting element voltage (linear law)        |        | 400 V   |  |  |  |
| Contact resistance variation                 |        | 1 % Rn or 1 Ω max.  |  |  |  |
| End resistance (typical)                     |        | 1 % or 2 Ω  |  |  |  |
| Dielectric strength (RMS)                    |        | 1000 V  |  |  |  |
| Insulation resistance (500 V <sub>DC</sub> ) |        | $10^3 M\Omega$ min.   |  |  |  |

| MECHANICAL SPECIFICATIONS   |                            |  |  |  |
|-----------------------------|----------------------------|--|--|--|
| Mechanical travel           | 18 turns ± 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 |  |  |  |

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For technical questions, contact: <u>sferpottrimmers@vishay.com</u>, see also Application Note: <u>www.vishay.com/doc?51001</u> and <u>www.vishay.com/doc?52029</u> THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT <u>www.vishay.com/doc?91000</u> VISHAY,

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| PERFORMANCES             |   |                             |   |   |  |
|--------------------------|---|-----------------------------|---|---|--|
| TESTS                    | CONDITIONS  | TYPICAL VALUES AND DRIFTS   |   |   |  |
|                          |   | <b>∆R</b> ⊤/ <b>R</b> ⊺ (%) | Δ <b>V</b> <sub>1-2</sub> / <b>V</b> <sub>1-3</sub> (%) | 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> Insulation resistance: > 20 M $\Omega$ |  |
| 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  |  |

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

#### MARKING

- Vishay trademark
- Vishay part number or model, ohmic value code and tolerance code
- Manufacturing date
- Marking of terminals 1 and/or 3

### PACKAGING

• In box of 200 pieces code B40 (BO200)

#### On request:

- In box of 100 pieces code B30 (BO100)
- In tube of 25 pieces code T10 (TU25)

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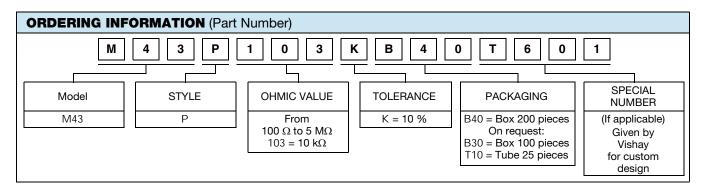
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## **Vishay Spectrol**

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



Vishay

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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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