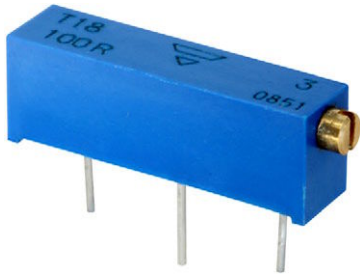


## 3/4" Rectangular Multi-Turn Cermet Trimmer

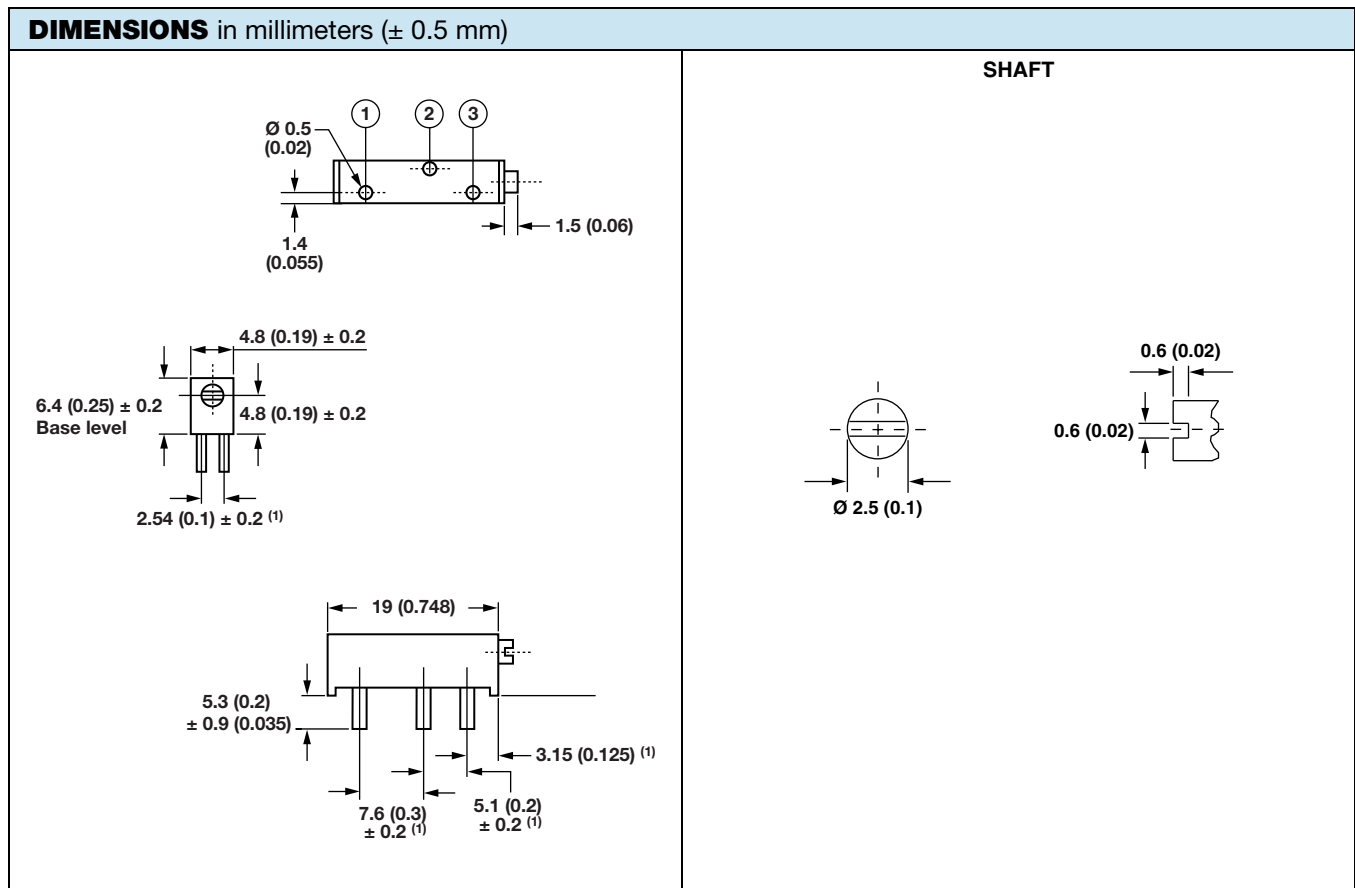


### FEATURES

- 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](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### LINKS TO ADDITIONAL RESOURCES


[3D Models](#)

**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 - 2.2 - 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 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 <sub>n</sub> or 1 $\Omega$ max.
End resistance	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	e3: pure Sn

<b>ENVIRONMENTAL SPECIFICATIONS</b>	
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 <sub>RMS</sub> 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 <sub>n</sub>

**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"> <li>• Vishay trademark</li> <li>• Vishay part number or model and ohmic value (in Ω, kΩ, MΩ)</li> <li>• Manufacturing date</li> <li>• Marking of terminal 3</li> </ul>

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



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	
<b>APPLICATION NOTES</b>	
Potentiometers and Trimmers	<a href="http://www.vishay.com/doc?51001">www.vishay.com/doc?51001</a>
Guidelines for Vishay Sfernice Resistive and Inductive Components	<a href="http://www.vishay.com/doc?52029">www.vishay.com/doc?52029</a>



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