

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



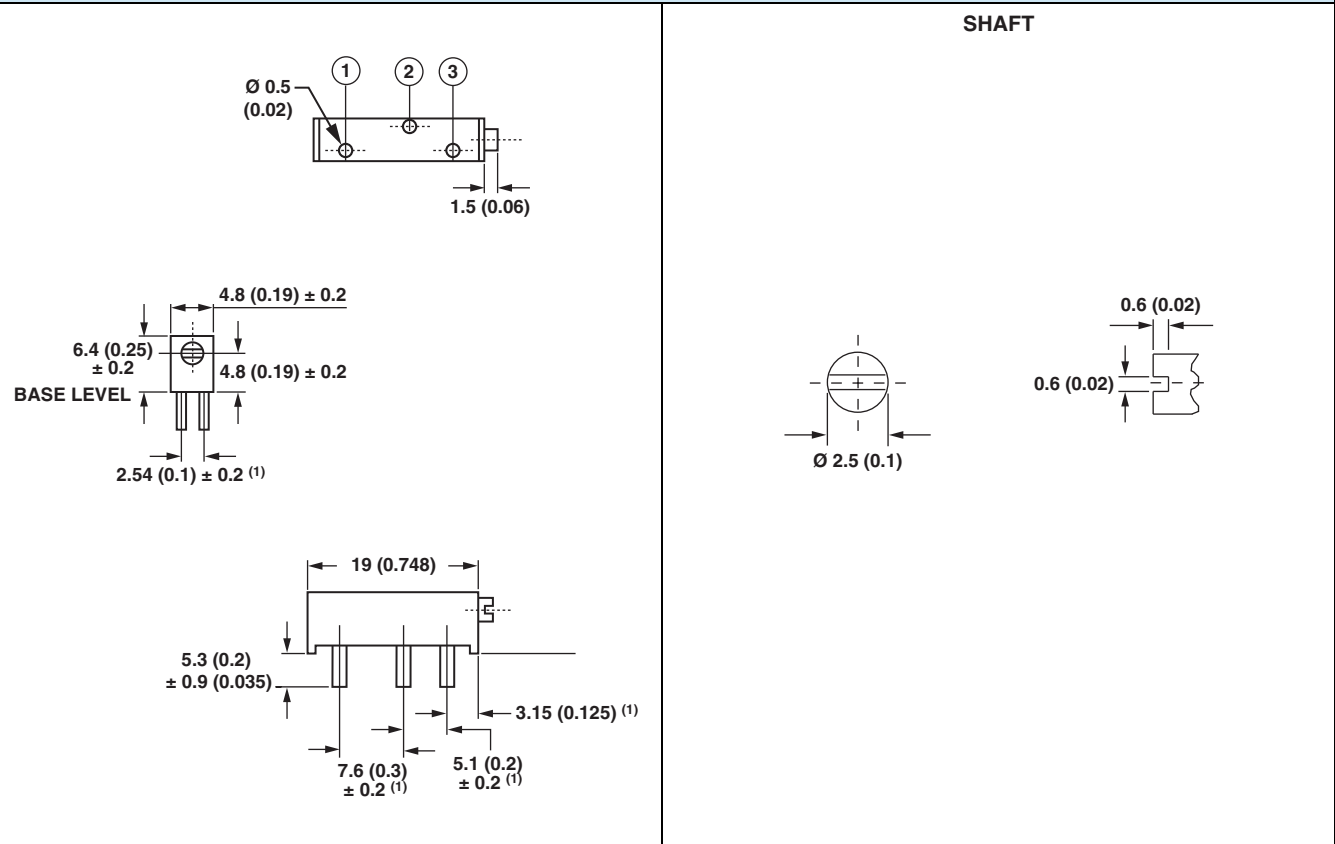
### FEATURES

- 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
- Compliant to RoHS Directive 2002/95/EC



RoHS  
COMPLIANT

### DIMENSIONS in millimeters (± 0.5 mm)



**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	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	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	55/125/56
Sealing	Fully sealed - IP67



PERFORMANCES			
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS	
		$\Delta R_T/R_T$ (%)	$\Delta R_{1-2}/R_{1-2}$ (%)
Load life	1000 h at rated power 90'/30' - ambient temp. 70 °C	± 4 % Contact res. variation: < 3 % Rn	-
Climatic sequence	Phase A dry heat 125 °C Phase B damp heat Phase C cold - 55 °C Phase D damp heat 5 cycles	± 0.5 %	± 1 %
Long term damp heat	56 days	± 3 % Dielectric strength: 1000 V <sub>RMS</sub> Insulation resistance: > 20 MΩ	± 1 %
Rapid temp. change	5 cycles - 55 °C to + 125 °C	± 0.5 %	$\Delta V_{1-2}/\Delta V_{1-3} \leq \pm 2 \%$
Shock	50 g at 11 ms 3 successive shocks in 3 directions	± (2 % + 3 Ω)	± 2 %
Vibration	10 Hz to 55 Hz 0.75 mm or 10 g during 6 h	± 2 %	$\Delta V_{1-2}/\Delta V_{1-3} \leq \pm 2 \%$
Rotational life	200 cycles	± (3 % + 3 Ω) Contact res. variation: < 2 % Rn	-

STANDARD RESISTANCE ELEMENT DATA				
STANDARD RESISTANCE VALUES	LINEAR LAW			TYPICAL TCR - 55 °C + 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
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	4.0	
100K	0.75	274	2.7	
220K	0.75	400	1.8	
470K	0.34	400	0.85	
1M	0.16	400	0.40	
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



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