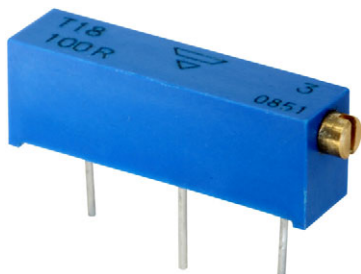


## 3/4" Rectangular Multi-Turn Cermet Trimmer



### 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)

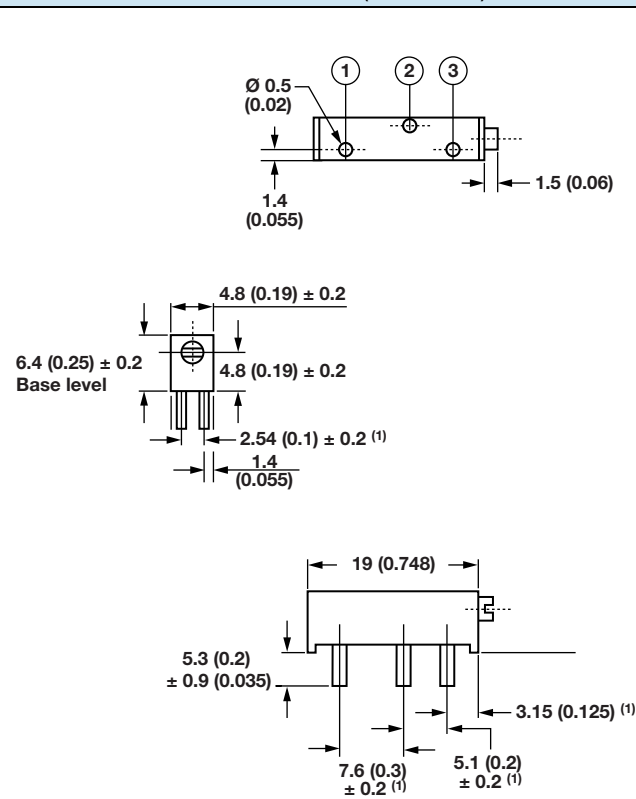

**RoHS**  
COMPLIANT

### LINKS TO ADDITIONAL RESOURCES

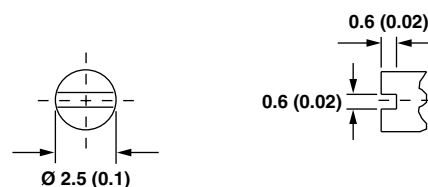


3D Models

### DIMENSIONS in millimeters (± 0.5 mm)

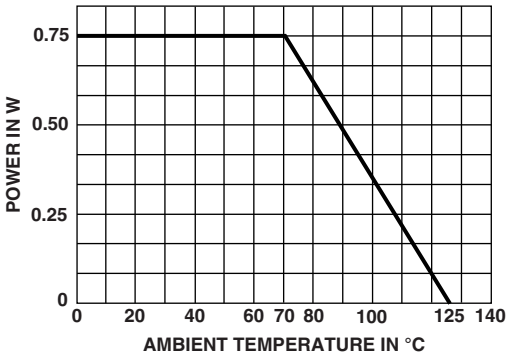
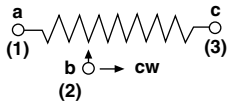


### SHAFT



### 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 - 2.2 - 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.	

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	e3: pure Sn

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 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**

- Vishay trademark
- Vishay part number or model and ohmic value (in Ω, kΩ, MΩ)
- Manufacturing date
- Marking of terminal 3

**PACKAGING**

- In tube of 25 pieces code T10 (TU25)



### ORDERING INFORMATION (Part Number)

T	1	8	2	2	4	K	T	1	0			
MODEL		OHMIC VALUE			TOLERANCE		PACKAGING			SPECIAL NUMBER		
T18		From 10 $\Omega$ to 5 M $\Omega$ 224 = 220 k $\Omega$			K = 10 %		T10 = tube 25 pieces			(If applicable) Given by Vishay for custom design		

### DESCRIPTION (for information only)

T18	220K	$\pm 10 \%$	TU25	e3
MODEL	VALUE	TOLERANCE	PACKAGING	LEAD FINISH

### RELATED DOCUMENTS

#### APPLICATION NOTES

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>
Selector guide	<a href="http://www.vishay.com/doc?49286">www.vishay.com/doc?49286</a>

### ACCESSORIES

Screwdrivers (to order separately)	<a href="http://www.vishay.com/doc?57015">www.vishay.com/doc?57015</a>
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