

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



#### **FEATURES**

• 0.75 W at 70 °C



COMPLIANT

• Wide ohmic range (10  $\Omega$  to 5 M $\Omega$ )

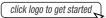
• Multi-finger wiper for better CRV

• Tests according to CECC 41000 or IEC 60393-1

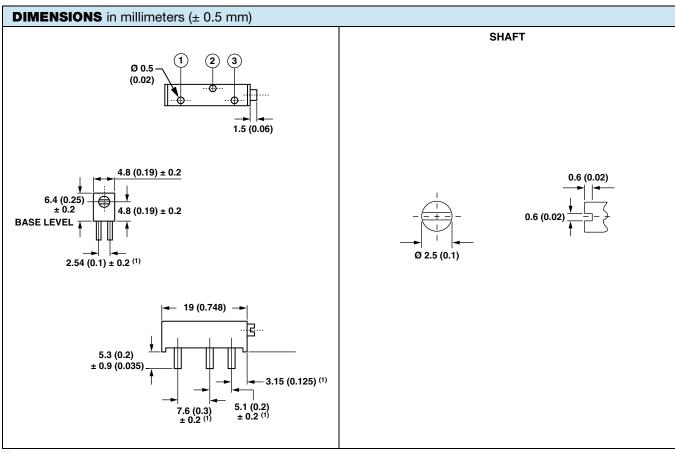
· Industrial grade

 Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912">www.vishay.com/doc?99912</a>

### **DESIGN SUPPORT TOOLS**







Note

(1) To be measured at base level



ELECTRICAL SPECIFICATIONS			
Resistive element	Cermet		
Electrical travel	15 turns ± 1		
Resistance range	10 Ω to 5 MΩ		
Standard series E3	1 - 2.2 - 4.7 and 1 - 2 - 5		
Tolerance Standard	± 10 %		
Linear	0.75 W at +70 °C		
Power rating	0.75  No.50  0.25  0.20  40  0.75  0.20  AMBIENT TEMPERATURE IN °C		
Circuit diagram	$ \begin{array}{c} \overset{\mathbf{a}}{\circ} \longrightarrow & & & \overset{\mathbf{c}}{\circ} \\ (1) & & \overset{\mathbf{b}}{\circ} \longrightarrow & & cw \\ (2) & & & & & \end{array} $		
Temperature coefficient	See Standard Resistance Element table		
Limiting element voltage (linear law)	400 V		
Contact resistance variation	1 % Rn or 1 $\Omega$ max.		
End resistance	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	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		
		∆R <sub>T</sub> /R <sub>T</sub> (%)	$\Delta V_{1-2}/V_{1-3}$ (%)	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 $V_{RMS}$ Insulation resistance: > 20 $M\Omega$
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 % Rn

#### Note

· Nothing stated herein shall be construed as a guarantee of quality or durability

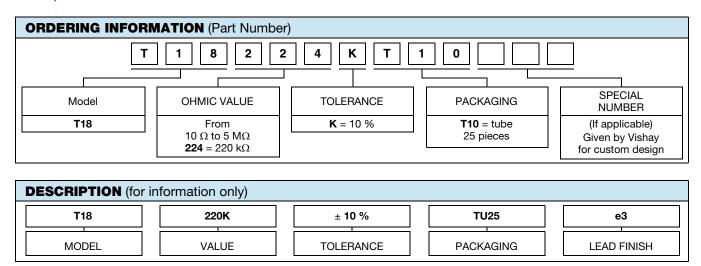
STANDARD RESISTANCE ELEMENT DATA					
STANDARD	LINEAR LAW			TYPICAL	
RESISTANCE VALUES	POWER WORKING WIPER -55°		TCR -55 °C to +125 °C		
Ω	W	٧	mA	ppm/°C	
10	0.75	2.74	274		
22	0.75	4.06	185		
47	0.75	5.94	126		
100	0.75	8.66	87		
220	0.75	12.8	58		
470	0.75	18.8	40		
1K	0.75	27.4	27		
2.2K	0.75	40.6	18		
4.7K	0.75	59.4	13	± 100	
10K	0.75	86.6	8.7	± 100	
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  $\Omega$ ,  $k\Omega$ ,  $M\Omega$ )
- Manufacturing date
- Marking of terminal 3

### **PACKAGING**

• In tube of 25 pieces code T10 (TU25)



RELATED DOCUMENTS		
APPLICATION NOTES		
Potentiometers and Trimmers	www.vishay.com/doc?51001	
Guidelines for Vishay Sfernice Resistive and Inductive Components	www.vishay.com/doc?52029	



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Vishay

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### Vishay:

<u>T18102KT10 T18501KT10 T18202KT10 T18503KT10 T18104KT10 T18103KT10 T18253KT10 T18105KT10 T18502KT10 T18223KT10 T18203KT10 T18101KT10 T18504KT10 T18204KT10 T18205KT10 T18 20K 10%</u>