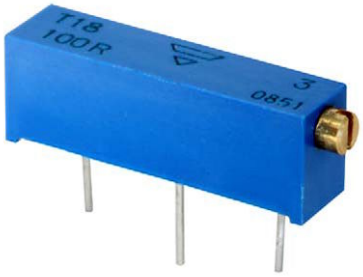
3/4" Rectangular Multi-Turn Cermet Trimmer

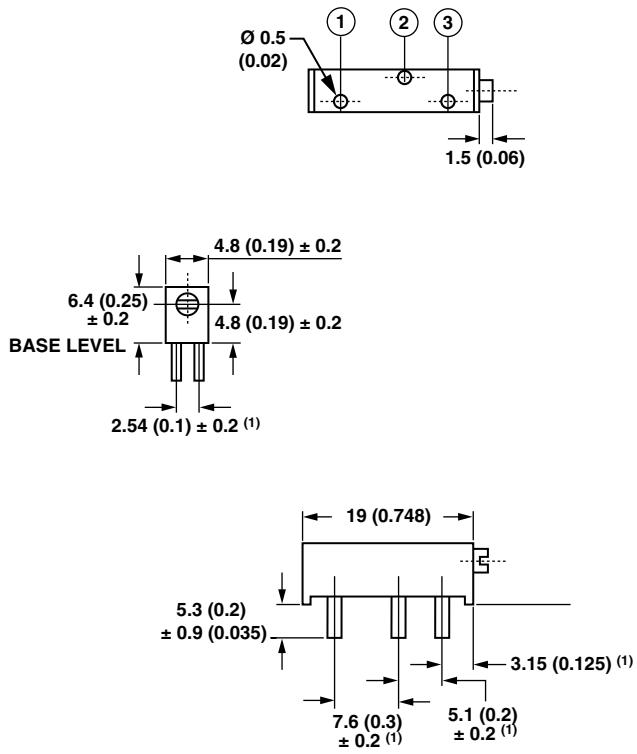


FEATURES

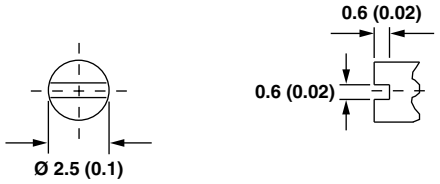
- 0.75 W at 70 °C
- Wide ohmic range (10 Ω to 5 MΩ)
- Multi-finger wiper for better CRV
- Tests according to CECC 41000 or IEC 60393-1
- Industrial grade
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

DIMENSIONS in millimeters (± 0.5 mm)



SHAFT



Note

(1) To be measured at base level

For technical questions, contact: sferpottrimmers@vishay.com

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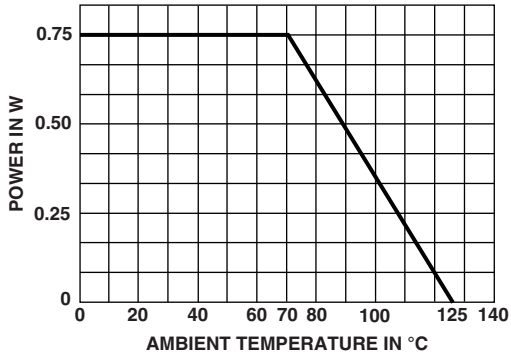
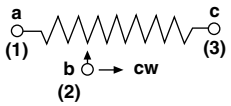
ELECTRICAL SPECIFICATIONS	
Resistive element	Cermet
Electrical travel	15 turns ± 1
Resistance range	10 Ω to 5 MΩ
Standard series E3	1 - 2.2 - 4.7 and 1 - 2 - 5
Tolerance **Standard**	± 10 %
Power rating **Linear**	0.75 W at +70 °C 
Circuit diagram	
Temperature coefficient	See Standard Resistance Element table
Limiting element voltage (linear law)	400 V
Contact resistance variation	1 % Rn or 1 Ω max.
End resistance	1 % or 2 Ω
Dielectric strength (RMS)	1000 V
Insulation resistance (500 V_{DC})	10^3 MΩ 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

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PERFORMANCES

TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS		
		$\Delta R_T/R_T$ (%)	$\Delta V_{1\text{-}2}/V_{1\text{-}3}$ (%)	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 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 % Rn

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)

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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

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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