1/4" Diameter Miniature Single-Turn Cermet Trimmer

FEATURES

- Industrial grade
- 0.5 W at 70 °C
- Low temperature coefficient (100 ppm/K typical)
- Wide resistance range (10 Ω to 1 MΩ)
- Compact single turn
- 1/4" (6.35 mm) diameter
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

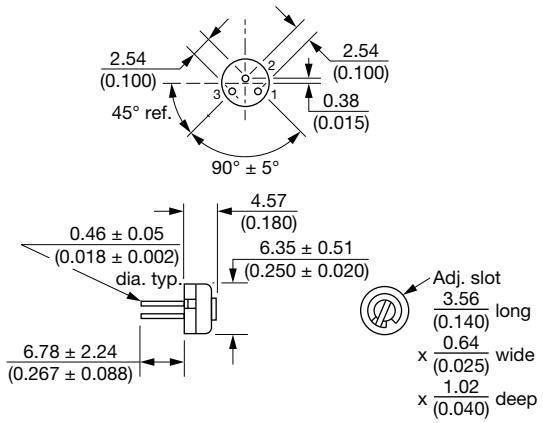
LINKS TO ADDITIONAL RESOURCES

3D Models

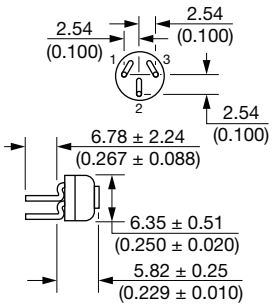
T7R is ideally suited to all industrial applications.

DIMENSIONS in millimeters (± 0.5 mm)

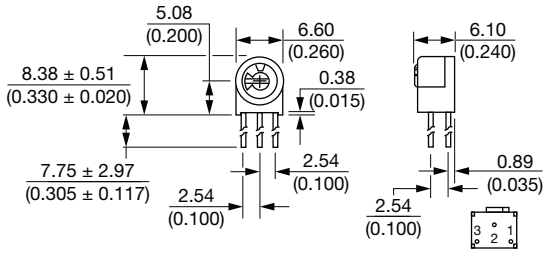
T7RYB

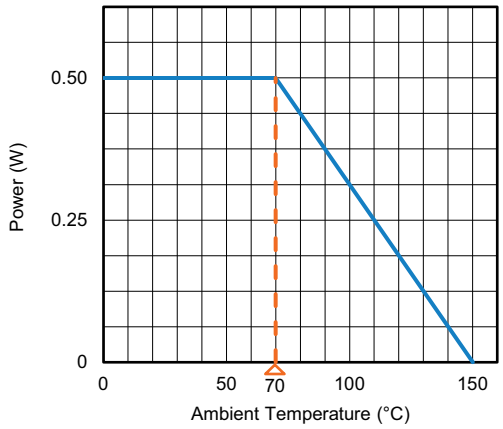
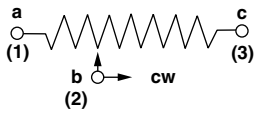


T7RYA



T7RXX



ELECTRICAL SPECIFICATIONS	
Resistive element	Cermet
Electrical travel	240° nom.
Resistance range	10 Ω to 1 MΩ
Tolerance standard	10 %
Power rating linear	0.5 W at 70 °C 
Circuit diagram	
Temperature coefficient	± 100 ppm/°C
Limiting element voltage (linear law)	300 V
Contact resistance variation	3 % or 3 Ω (whichever is greater)
End resistance (typical)	1 % or 2 Ω (whichever is greater)
Dielectric strength (RMS)	600 V
Insulation resistance	10^3 MΩ

MECHANICAL SPECIFICATIONS	
Mechanical travel	260° nom.
Operating torque	5 oz-in max.
End stop torque	5 oz-in min.
Unit weight (max. g)	0.56

ENVIRONMENTAL SPECIFICATIONS	
Temperature range	-55 °C to +150 °C
Sealing	IP64 For board cleaning, Vishay recommends testing before usage. Water immersion is forbidden. Ultrasonic may cause component damage or failure.

PERFORMANCES

TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS	
		$\Delta R_T/R_T$ (%)	CRV
Load life	1000 h at rated power Ambient temperature 70 °C	± 3 %	Contact resistance variation: < 3 % Rn
Long term damp heat	MIL-STD 202 method 103 96 hours	± 3 % Insulation resistance: > 10 MΩ	± 3 %
Shock	100 *g*	1 %	$\Delta V_{1\text{-}2}/\Delta V_{1\text{-}3}$ < ± 1 %
Vibration	30 *g* (except “P” version)	1 %	$\Delta V_{1\text{-}2}/\Delta V_{1\text{-}3}$ ≤ ± 1 %
Rotational life	200 cycles	± 4 %	Contact resistance variation: < 4 % Rn

Note

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

STANDARD RESISTANCE ELEMENT DATA

RESISTANCE CODE	STANDARD RESISTANCE VALUES
	Ω
100	10
200	20
500	50
101	100
201	200
501	500
102	1K
202	2K
502	5K
103	10K
203	20K
503	50K
104	100K
204	200K
504	500K
105	1M

MARKING

- Vishay trademark
- Model
- Manufacturing date
- Marking of terminal: 3

PACKAGING

- In tube of 50 pieces, code T20 (TU50)

ORDERING INFORMATION (part number)

T	7	R	Y	A	4	7	4	K	T	2	0				

MODEL	STYLE	OHMIC VALUE	TOLERANCE	PACKAGING CODE	SPECIAL NUMBER
T7R	**YA** **YB** **XX**	From 10 Ω to 2.2 MΩ **103** = 10K	**K** = 10 %	**T20** = tube 50 pieces	(If applicable) Given by Vishay for custom design

DESCRIPTION (for information only)

T7R	YA	470K	10 %		TUBE	e2
MODEL	STYLE	VALUE	TOLERANCE	SPECIAL	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
Selector guide	www.vishay.com/doc?49286

ACCESSORIES

Screwdrivers (to order separately)	www.vishay.com/doc?57015

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