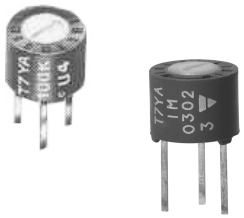
Miniature Cermet Trimmers



The T7 trimmer is only 7 mm (0.275”) in diameter and fits almost anywhere.

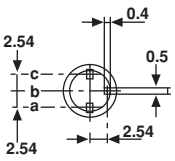
A sealed plastic case protecting a quality cermet track guarantees high performance and proven reliability. Adjustments are made easier by the clear scale readings. Competitively priced, the T7 is ideally suited to all industrial applications.

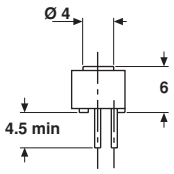
FEATURES

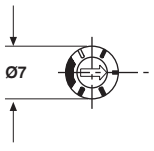
- Industrial grade
- 0.5 Watt at 85°C
- CECC 41100
- High stability
- Low temperature coefficient
- Wide resistance range
- Easy to read scale

DIMENSIONS in millimeters

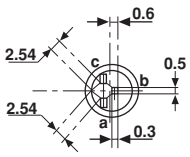
T7 YA

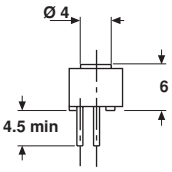


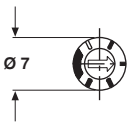




T7 YB

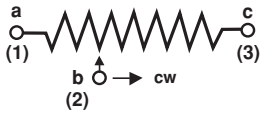






• **Tolerances unless otherwise specified ± 0.5mm**

CIRCUIT DIAGRAM



ELECTRICAL SPECIFICATIONS		
Resistive Element		Cermet
Electrical Travel		270° ± 15°
Resistance Range		10Ω to 2.2MΩ
Standard Series E3		1 - 2.2 - 4.7 and on request 1 - 2 - 5
Tolerance Standard	**Standard**	± 20%
	On Request	± 10%
Power Rating	**Linear**	0.5W at 85°C
	Logarithmic	not applicable
Temperature Coefficient		See Standard Resistance Element Data
Limiting Element Voltage (Linear Law)		250V
Contact Resistance Variation		3% or 3Ω
End Resistance (Typical)		1Ω
Dielectric Strength (RMS)		1000V
Insulation Resistance		10^6MΩ

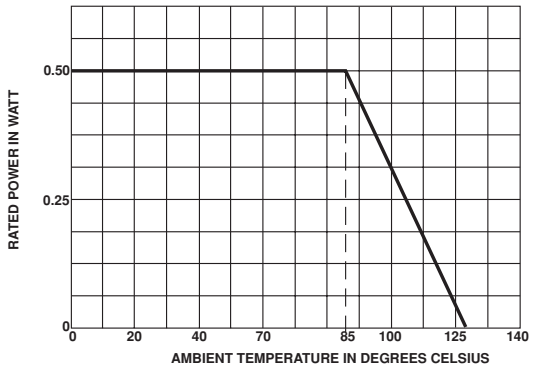
MECHANICAL SPECIFICATIONS

Mechanical Travel	300° ± 5°
Operating Torque (max. Ncm)	2
End Stop Torque (max. Ncm)	4
Unit Weight (max. g)	0.5

ENVIRONMENTAL SPECIFICATIONS

Temperature Range	– 55°C to + 125°C
Climatic Category	55 / 100 / 56
Sealing	enables cleaning except with water IP64

POWER RATING CHART



PERFORMANCE			
TESTS	**CONDITIONS**	**TYPICAL VALUES AND DRIFTS**	
		$\frac{\Delta RT}{RT}$ (%)	$\frac{\Delta R_{1-2}}{R_{1-2}}$ (%)
Load Life	1000 hours at rated power 90'/30' - ambient temperature 70°C	± 3%	± 4 % Contact resistance variation: < 3% Rn
Climatic Sequence	Phase A dry heat 100°C Phase B damp heat Phase C cold –55°C Phase D damp heat 5 cycles	± 2 %	± 3 %
Long Term Damp Heat	56 days	± 2 % Dielectric strength: 1000 V RMS Insulation resistance: > 10^4 MΩ	± 3 %
Rapid Temperature Change	5 cycles – 55°C at + 125°C	± 1 %	$\frac{\Delta V_{1-2}}{V_{1-3}}$ ≤ ± 2%
Shock	50 g 11 ms 3 successive shocks in 3 directions	± 0.5 %	± 1%
Vibration	10 - 55 Hz 0.75 mm or 10 g during 6 hours	± 0.5 %	$\frac{\Delta V_{1-2}}{V_{1-3}}$ ≤ ± 1%
Rotational Life	200 cycles	± 3 % Contact resistance variation: < 3% Rn	

STANDARD RESISTANCE ELEMENT DATA

STANDARD RESISTANCE VALUES	LINEAR LAW			T.C. –55°C +125°C
	MAX. POWER AT 85°C	MAX. WORKING VOLTAGE	MAX. CUR. THROUGH ELEMENT	
Ω	W	V	mA	ppm/°C
10	0.5	2.2	224	
22		3.3	150	0
47		4.8	103	+ 200
100		7	70	
220		10.5	47	
470		15.3	32	
1k		22.4	22	
2.2k		33.2	15	
4.7k		48.5	10	
10k		70.7	7	
22k		105	4.8	± 100
47k		153	3.2	
100k	0.5	224	2.2	
220k	0.28	250	1.1	
470k	0.13	250	1.53	
1M	0.06	250	0.25	
2.2M	0.028	250	0.11	

MARKING

Printed:
– VISHAY trademark
– series
– YA or YB style
– ohmic value (in Ω, kΩ, MΩ)
– manufacturing date
– marking of terminal: 3.

SEALING

T7 trimming potentiometers are sealed against dust and PC boards cleaning (but not with water).

PACKAGING

– In bulk (box of 200 pieces), code BO200
– On request in Tube, code TU50

ORDERING INFORMATION

T7	**YA**	**470KΩ**	**± 20%**	**BO200**
SERIES	STYLE	OHMIC VALUE	TOLERANCE	PACKAGING
	YA - YB			BO200 On request: TU50

SAP PART NUMBERING GUIDELINES

T	7	Y	A	4	7	4	M	B	4	0			
MODEL		STYLE		OHMIC VALUE			TOL	PACKAGING CODE			SPECIAL (IF APPLICABLE)		

See the end of this data book for conversion tables

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