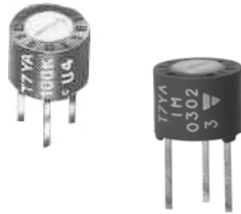


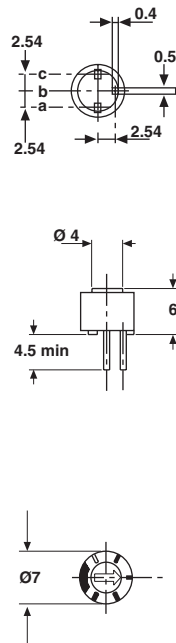
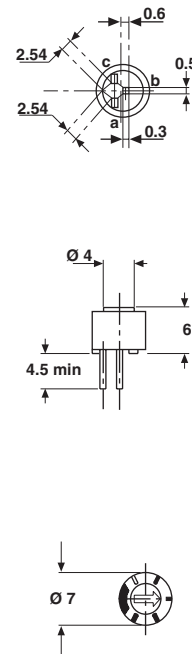
## Miniature Cermet Trimmers



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.

### DIMENSIONS in millimeters

**T7 YA**

**T7 YB**


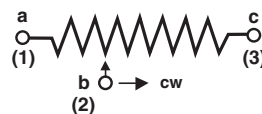
### FEATURES

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



• Tolerances unless otherwise specified  $\pm 0.5$  mm

### CIRCUIT DIAGRAM



ELECTRICAL SPECIFICATIONS		
Resistive Element		Cermet
Electrical Travel		270° ± 15°
Resistance Range		10 Ω to 2.2 MΩ
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)		250 V
Contact Resistance Variation		3 % or 3 Ω
End Resistance (Typical)		1 Ω
Dielectric Strength (RMS)		1000 V
Insulation Resistance		10 <sup>6</sup> MΩ

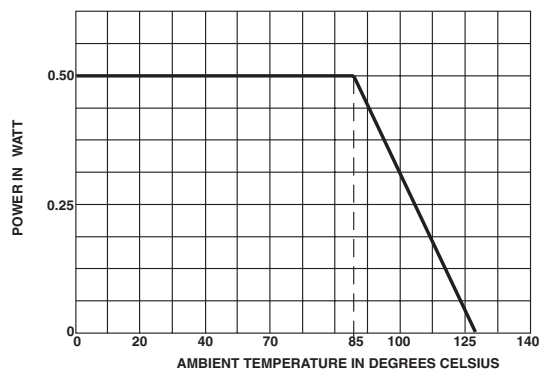
### MECHANICAL SPECIFICATIONS

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 %	± 3 % Dielectric strength: 1000 V RMS Insulation resistance: > 10 <sup>4</sup> MΩ
Rapid Temperature Change	5 cycles - 55 °C at + 125 °C	± 1 %	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 2 \%$
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 %	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 1 \%$
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. WIPER CUR.	
Ω	W	V	mA	ppm/°C
10	0.5	2.2	224	0 + 200
22	↓	3.3	150	
47		4.8	103	
100		7	70	± 100
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	
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
<ul style="list-style-type: none"> <li>- In bulk (box of 200 pieces), code BO200</li> <li>- On request in Tube, code TU50</li> </ul>

ORDERING INFORMATION					
T7 SERIES	YA STYLE	470 KΩ OHMIC VALUE	± 20 % TOLERANCE	BO200 PACKAGING	e2 LEAD FINISH
	YA - YB			BO200 On request: TU50	e2: SnAg alloy

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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