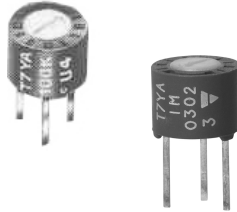


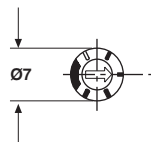
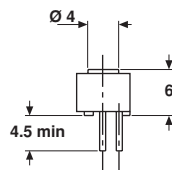
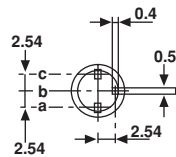
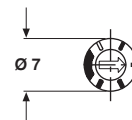
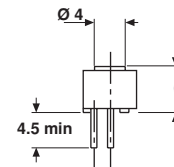
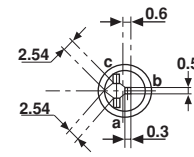
Miniature Cermet Trimmers



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

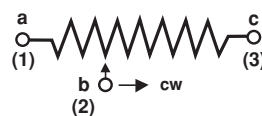
A sealed plastic case protecting a quality cermet track guarantees high performance and proven reliability. Adjustments are made easier by the clear scale readings. Competitively priced, the T7 is ideally suited to all industrial applications.

DIMENSIONS in millimeters

T7 YA

T7 YB


• Tolerances unless otherwise specified $\pm 0.5\text{mm}$

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 ⁹ MΩ |

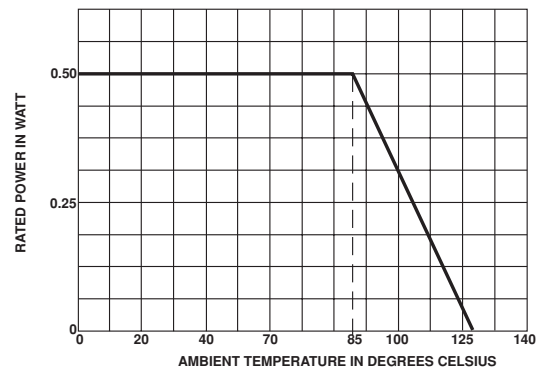
MECHANICAL SPECIFICATIONS

| | |
|-----------------------------|-----------|
| 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 ⁴ 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. CUR. THROUGH ELEMENT | |
| 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

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

ORDERING INFORMATION

| | | | | |
|--------------|-------------|----------------------|--------------------|---------------------------|
| T7 SERIES | YA STYLE | 470KΩ OHMIC VALUE | ± 20% TOLERANCE | BO200 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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