# PT-10 10 mm Carbon Potentiometer

## FEATURES
- Carbon resistive element
- Dust proof enclosure
- Polyester substrate
- Also upon request:
  - Wiper positioned at 50% or fully clockwise.
  - Supplied in magazines for automatic insertion.
  - Long life model for low cost control potentiometer applications
  - Self extinguishable plastic UL 94V-0
  - Cut track option
  - Special tapers
  - Mechanical detents
  - Low & extra low torque versions

## MECHANICAL SPECIFICATIONS
- Mechanical rotation angle: 235° ± 5°
- Electrical rotation angle: 220° ± 20°
- Torque: 0.4 to 2 Ncm (0.6 to 2.7 in-oz)
- Stop torque: > 5 Ncm (>7 in-oz)

## ELECTRICAL SPECIFICATIONS
- Range of values (*)
  100Ω ≤ Rn ≤ 5 M (Decad. 1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)
- Tolerance (*): 100Ω ≤ Rn ≤ 1M Ω …… ± 20%
  1MΩ ≤ Rn ≤ 5M Ω …… ± 30%
- Max. Voltage: 200 VDC (lin) 100 VDC (no lin)
- Nominal Power 40°C (104°F) (see power rating curve)
  0.15 W (lin) 0.07 W (no lin)
- Taper (*) (Log. & Alog. only Rn > 1K) Lin; Log; Alog.
- Residual resistance: ≤ 5,10-3 Ω (2 Ω min.)
- Equivalent Noise Resistance: ≤ 3% Rn (3 Ω min.)
- Operating temperature**: -25°C + 70°C (-13°F + 158°F)
(*) Others upon request
** Up to 85°C depending on application

## HOW TO ORDER

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<tbody>
<tr>
<td>PT 10</td>
<td>H01</td>
<td>H2.5</td>
<td>A</td>
<td>E</td>
<td>See PT's with detents data sheet</td>
<td>01 = Fig. 1; 02 = Fig. 2; 17 = Fig. 17</td>
<td>RO = Red; NE = Black</td>
<td>= Standard</td>
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<td></td>
<td>H05</td>
<td>H5</td>
<td>B</td>
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<td></td>
<td></td>
<td></td>
<td>L = Low Torque</td>
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<tr>
<td></td>
<td>H02</td>
<td>H2.5P</td>
<td>C</td>
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<td>X = Extra Low Torque</td>
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<tr>
<td></td>
<td>H10</td>
<td>HSP</td>
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<td>V05</td>
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## NOTES:
1. "Z" adjustment only available on "H" versions
2. Terminal styles: "P" & "U" are crimped terminals
3. Value Example: Code: 101 = 100 Ω
4. Non standard tolerance, upon request.
   
   Example: +7% Code: 07 05
5. Life: Standard 500 cycles
   Long life 10000 cycles
7. Non flammable: housing, rotor and shaft.
8. Colour shaft/rotor: Cream colour only available in standard plastic.
9. Low Torque: 0.25 to 1 Ncm (per trimmer)
   Extra Low Torque: 0.1 to 0.4 Ncm (per trimmer)

NOTE: The information contained here in may be changed without prior notice.
HOW TO ORDER CUSTOM DRAWING

PT-10 LH 01 104 + DRAWING NUMBER (Max. 16 characters)

This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

STANDARD OPTIONS

| Mechanical Life | 500 cycles |
| Cut track | No |
| Detents | None |
| Packing | Bulk |
| Non flammable | No |
| Rotor colour | White |
| Shaft colour | Natural |
| Wiper position | Initial |
| Torque | Standard |

ROTORS

**Without shaft**

- L = Screwdriver thru hole
- M = Hexagonal thru hole
- G = Hexagonal thru hole
- K = Cross slot thru hole

**With shaft**

- X = Adjustable from collector side
- W = Adjustable from terminal side

**With thumbwheel**

- Y = Adjustable from terminal side
- Z = Adjustable from collector side

**MOUNTING METHODS**

- v = horizontal mount – vertical adjust
- h = vertical mount – horizontal adjust

**v**

- A = Initial
- S = Wiper
- E = Final

**h (2.5)**

- A = Initial
- S = Wiper
- E = Final

**v (5)**

- h (5)

**NOTE** = Please note relative terminal positions when ordering non linear tapers.
OPTIONS

Positioning

Std. Position = CCW

CUT TRACK
CCW on-off (A)

CW on-off (E)

A = Initial
E = Final
S = Wiper

TAPERS

Standard

Special taper example

NOTE = Please note relative terminal positions when ordering non linear tapers.

TESTS

TYPICAL VARIATIONS

<table>
<thead>
<tr>
<th>TESTS</th>
<th>TYPICAL VARIATIONS</th>
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<tbody>
<tr>
<td>ELECTRICAL LIFE</td>
<td>1.000 h. @ 40°C; 0.15 W</td>
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<tr>
<td>MECHANICAL LIFE (CYCLES)</td>
<td>500 @ 10 CPM ... 15 CPM</td>
</tr>
<tr>
<td>TEMPERATURE COEFFICIENT</td>
<td>−25°C; +70°C</td>
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<tr>
<td>THERMAL CYCLING</td>
<td>16 h. @ 85°C; 2h. @ −25°C</td>
</tr>
<tr>
<td>DAMP HEAT</td>
<td>500 h. @ 40°C @ 95% HR</td>
</tr>
<tr>
<td>VIBRATION</td>
<td>2 h. @ 20 g. @ 10 Hz ... 50 Hz.</td>
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</tbody>
</table>

NOTE: Out of range values may not comply these results.

PACKAGING

BOXES

<table>
<thead>
<tr>
<th>Model</th>
<th>Units</th>
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<tbody>
<tr>
<td>Without shaft</td>
<td>500 (40 x 85 x 185 mm.)</td>
</tr>
<tr>
<td>With thumbwheel</td>
<td>400 (40 x 85 x 185 mm.)</td>
</tr>
<tr>
<td>With shaft</td>
<td>200 (40 x 85 x 185 mm.)</td>
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</tbody>
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<tr>
<th>AUTOMATIC INSERTION</th>
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<tbody>
<tr>
<td>Magazines</td>
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<tr>
<td>PT-10H &amp; PT-10V</td>
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Magazines for PT-10 h 2.5; h 5
Also crimped term. h 2.5 P

Magazines for PT-10 V
Also crimped term. VP
SHAFTS

Fig. 1 / Ref. 5016
Fig. 2 / Ref. 5053
Fig. 3 / Ref. 5012
Fig. 4 / Ref. 6053
Fig. 5 / Ref. 5034
Fig. 6 / Ref. 5035
Fig. 7 / Ref. 5115
Fig. 8 / Ref. 5116
Fig. 9 / Ref. 5119
Fig. 10 / Ref. 5120
Fig. 11 / Ref. 5055
Fig. 12 / Ref. 6052
Fig. 13 / Ref. 5121
Fig. 14 / Ref. 5016

THUMBWHEELS

Fig. 5 / Ref. 5034
Fig. 15 / Ref. 6008
Fig. 16 / Ref. 5039
Fig. 17 / Ref. 5062