

Automotive / Appliance control - sensor

10 mm carbon potentiometer PT10



Mechanical specifications

| | | |
|---------------------------|-----------------|------------------------------|
| Mechanical rotation angle | | $235^{\circ} \pm 10^{\circ}$ |
| Torque | rotational stop | 10~80gf.cm 400gf.cm min |
| Life | | up to 10K cycles |

Electrical specifications

| | | |
|------------------------------------|--|-----------------------------------|
| Range of values ¹ | | $1K\Omega \leq R_n \leq 2M\Omega$ |
| Standard tolerance* | | $\pm 20\%$ |
| Max. voltage | | 200 VDC |
| Rating power 70°C | | 0.15 W |
| Taper | | Reverse log , Linear , Log |
| Residual resistance | | $\leq 10 \Omega$ |
| Slider noise | | $\leq 68mV$ |
| Operating temperature ² | | -10°C to+70°C |

¹ Others: check availability. ² Up to 85°C depending on application.

Materials

| | | |
|-----------------------|--|------------------------------|
| Driving plate&Housing | | PA6 (Fammability rating: HB) |
| Terminals | | Tinned steel strip |
| Reed | | Tin bronze |

Features

- Carbon resistive element.
- Dust proof enclosure.
- Nnloy substrate
- Wiper positioned at initial, 50% or fully clockwise.
- * ROHS compliant

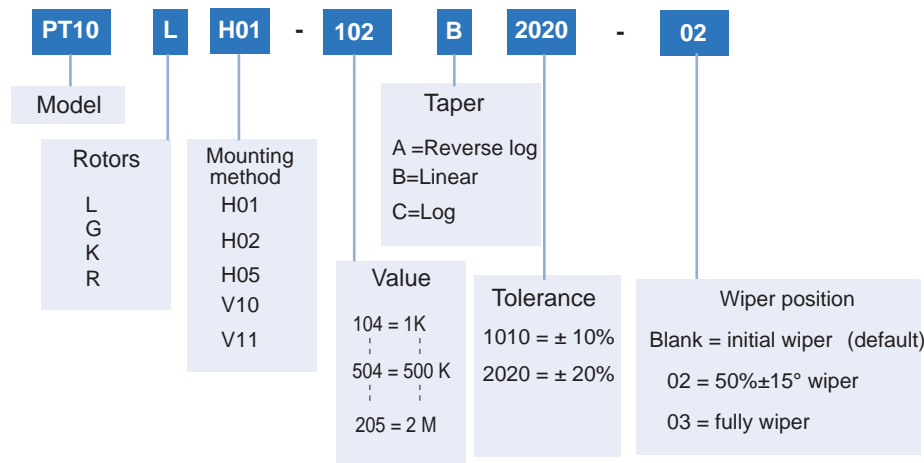
Applications

Typical applications include test and measurement equipment, consumer electronics, appliances, small engines, robotics, motion controllers, and medical equipment control panels.

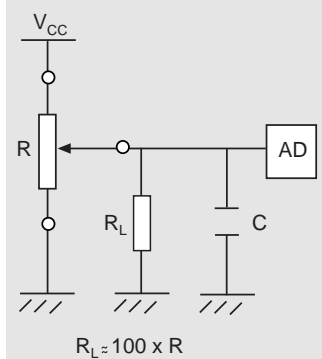
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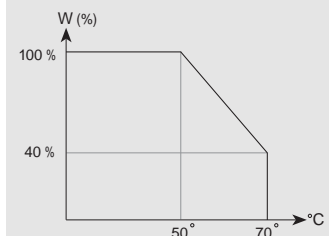
How to order



Recommended connections



Power rating curve



How to order examples

PT10LH01-103B2020

10mm potentiometer with rotor "L" (arrow shape), "H01" Mounting method (horizontal adjustment), 10K value and 20% resistive tolerance, initial wiper.

Standard values - tolerances

| Resistance Ω | 1K | 2K | 5K | 10K | 20K | 25K | 50K | 100K | 200K | 250K | 500K | 1M | 2M |
|---------------------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|-----|-----|
| How to order code | 102 | 202 | 502 | 103 | 203 | 253 | 503 | 104 | 204 | 254 | 504 | 105 | 205 |
| Standard tolerance | 20% | | | | | | | | | | | | |

Tests

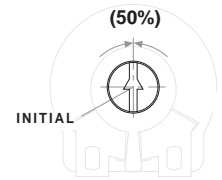
| | |
|--------------------------|------------------------------------|
| Mechanical life (cycles) | 1000 @ 10 CPM ... 15 CPM |
| Temperature coefficient | -10 $^{\circ}C$ to +70 $^{\circ}C$ |
| Heat resistance | 16 h. @ 85 $^{\circ}C$ |
| Moisture resistance | 96 h. @ 40 $^{\circ}C$ @ 95% HR |

Soldering condition

| | |
|------------------|---------------------------------------|
| Wave soldering | 260±5 $^{\circ}C$, 5±1 second |
| Manual soldering | Max 350 $^{\circ}C$, within 3 second |

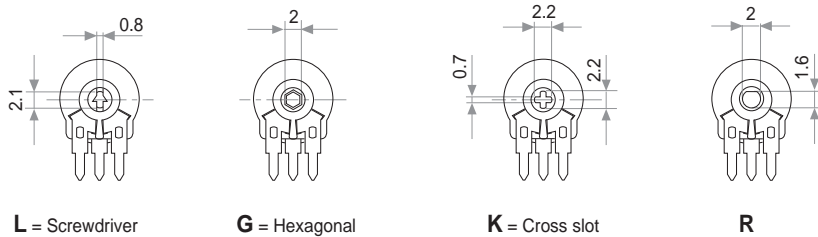
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Rotors (Default delivery is at initial position. Wipers are shown positioned at 50% for the picture)

Without shaft or knob.



General tolerance

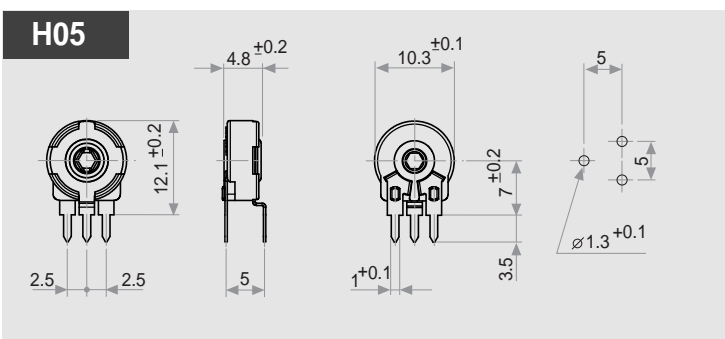
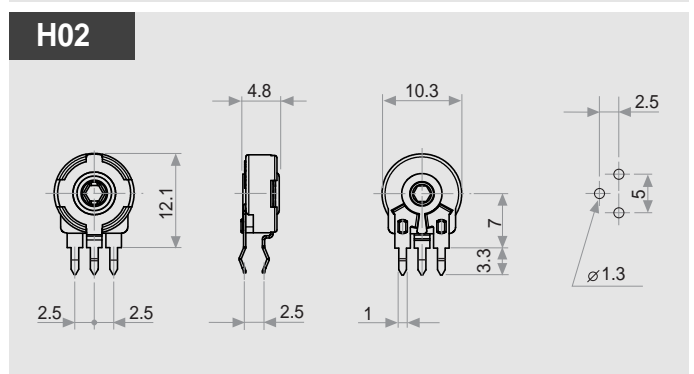
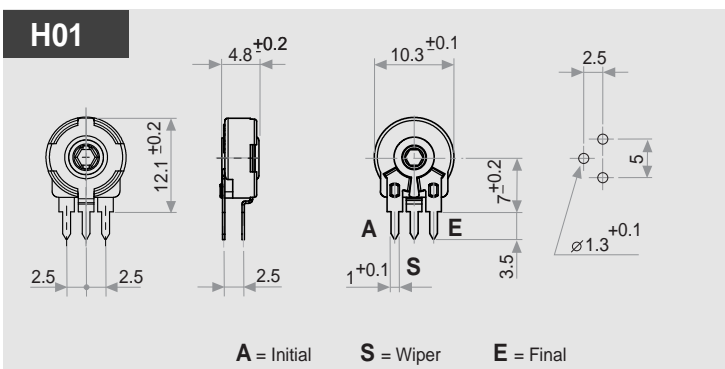
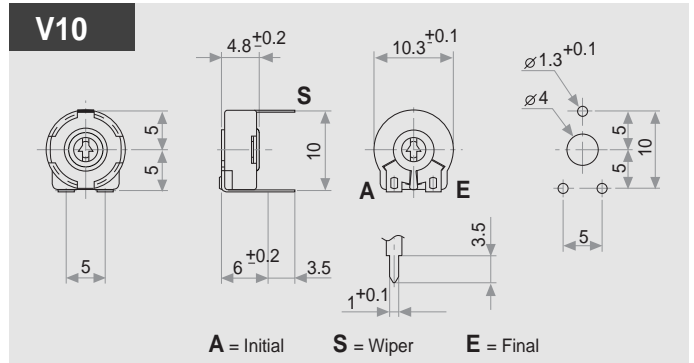
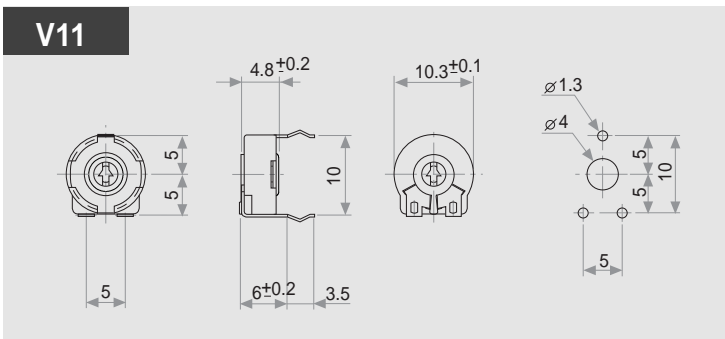
Dimension: Less than 10 ± 0.3 mm
Above 10-30 ± 0.5 mm
Above 30-100 ± 1 mm
Angle: Above $\pm 5^\circ$

All rotors are thru-hole.

Mounting methods. Dimensions

V = horizontal mounting – vertical adjustment

H = vertical mounting – horizontal adjustment



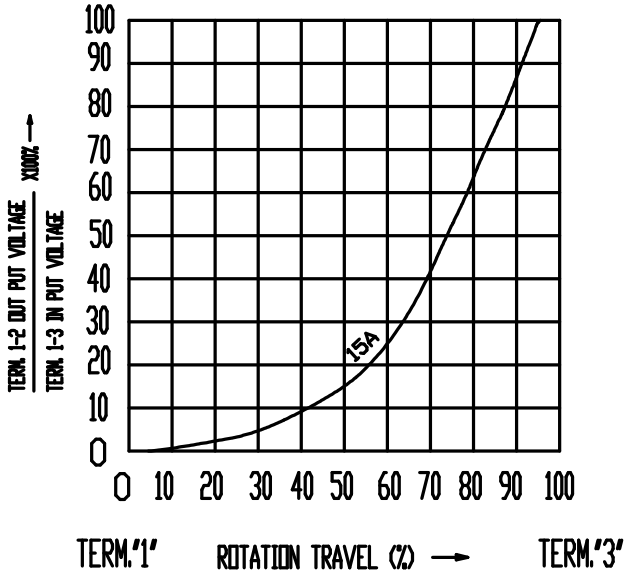
Crimped terminals - detail

V11, H02 models feature "crimped" terminals that provide greater stability during the soldering process.

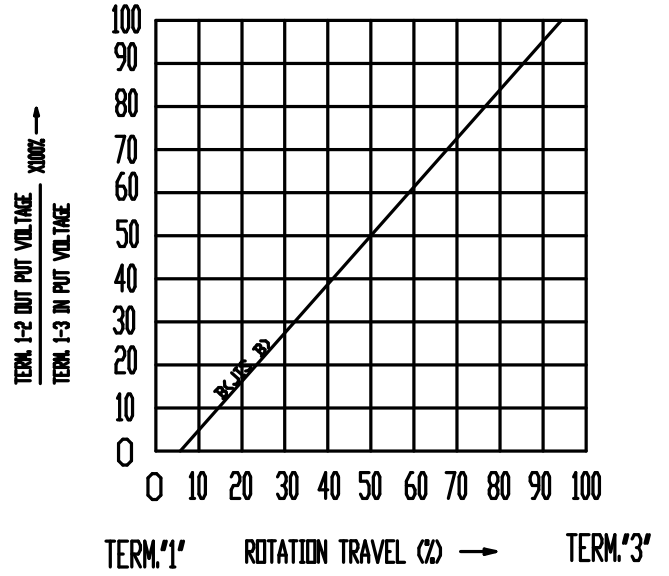


Tapers

TAPERS (A) SERIES



TAPERS (B) SERIES



TAPERS (C) SERIES

