

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
 - Special switch option

MECHANICAL SPECIFICATIONS

- Mechanical rotation angle: $235^\circ \pm 5^\circ$
- Electrical rotation angle: $220^\circ \pm 20^\circ$
- Torque: 0.4 to 2 Ncm.
(0.6 to 2.7 in-oz)
- Stop torque: > 5 Ncm. (>7 in-oz)

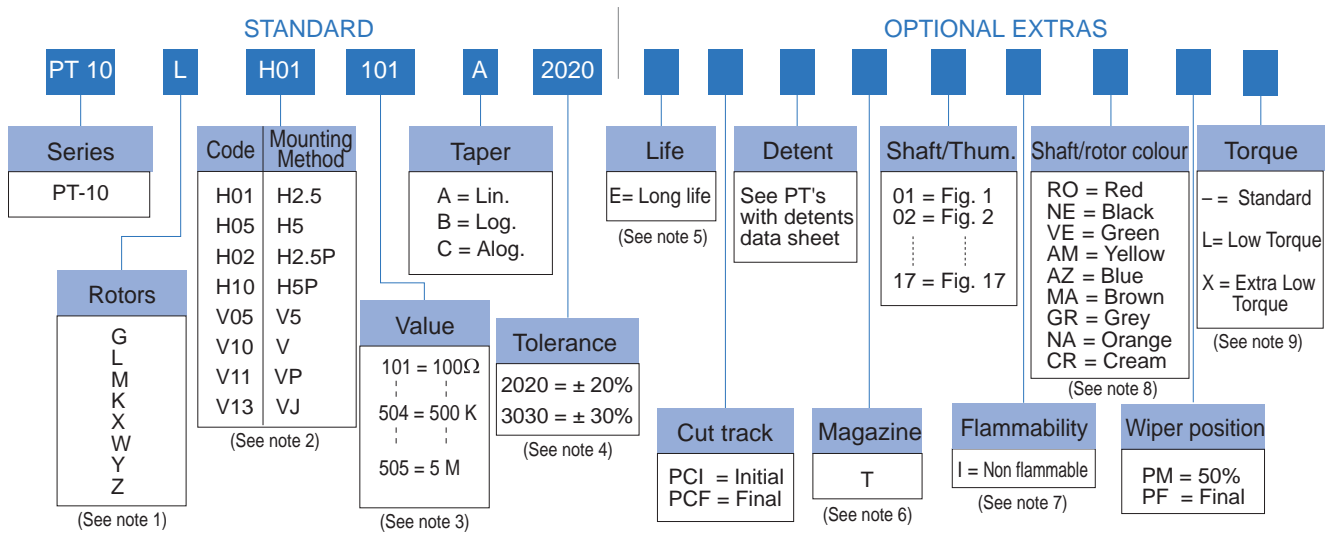
ELECTRICAL SPECIFICATIONS

- Range of values (*)
 $100\Omega \leq R_n \leq 5\text{ M}$ (Decad. 1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)
- Tolerance (*): $100\Omega \leq R_n \leq 1\text{M}\Omega$ $\pm 20\%$
 $1\text{M}\Omega < R_n \leq 5\text{M}\Omega$ $\pm 30\%$
- Max. Voltage: 200 VDC (lin) 100 VDC (no lin)
- Nominal Power 50°C (122°F) (see power rating curve)
0.15 W (lin) 0.07 W (no lin)
- Taper (*) (Log. & Alog. only $R_n \geq 1\text{K}$) Lin ; Log; Alog.
- Residual resistance: $\leq 5 \cdot 10^{-3} R_n$ (2 Ω min.)
- Equivalent Noise Resistance: $\leq 3\% R_n$ (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



NOTES:

- "Z" adjustment only available on "H" versions. Rotor "G" only available in purple (shaft/rotor colour "VI").
- Terminals styles: "P" & "J" are crimped terminals
- Value Example: Code: 10 ¹ 100 Ω
 ↳ Numb of zeros
 ↳ First two digits of the value.
- Non standard tolerance, upon request. Example: +7% Code: 07 05
 ↳ negative tolerance
 ↳ positive tolerance
- Life
 - Standard 500 cycles
 - Long life 10000 cycles
- Magazines: not available with the H10, V05 and V13 models, nor with adjustment types X, W, Y, Z.
- Non flammable: housing, rotor and shaft.
- Colour shaft/rotor:
 - Potentiometer without shaft: only rotor
 - Potentiometer with shaft: only shaft
 - Cream colour only available in standard plastic.
- Low Torque: 0.25 to 1 Ncm (per pot.)
 Extra Low Torque: 0.1 to 0.4 Ncm (per pot.). Only available on "H" models without crimping
 No detent option available for low and extra low torque models. No shaft or thumbwheel option for extra low torque models

NOTE: The information contained here should be used for reference purposes only.

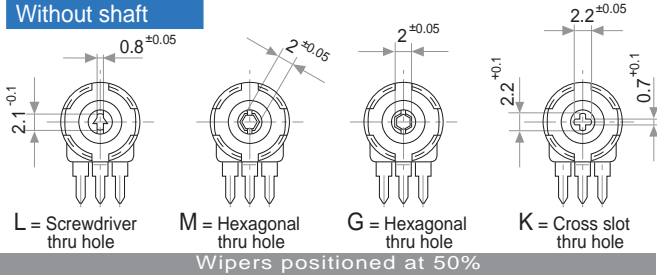
PT-10 LH 01 + DRAWING NUMBER (Max. 16 characters)

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

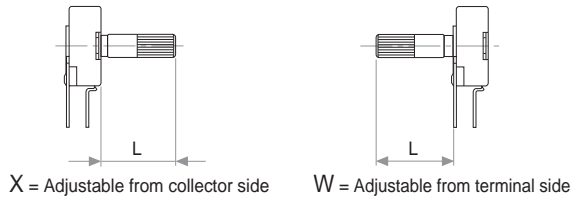
| | | |
|-----------------|-------|------------|
| Mechanical Life | | 500 cycles |
| Cut track | | No |
| Detents | | None |
| Packing | | Bulk |
| Non flammable | | No |
| Rotor colour | | White |
| Shaft colour | | Natural |
| Wiper position | | Initial |
| Torque | | Standard |

ROTORS

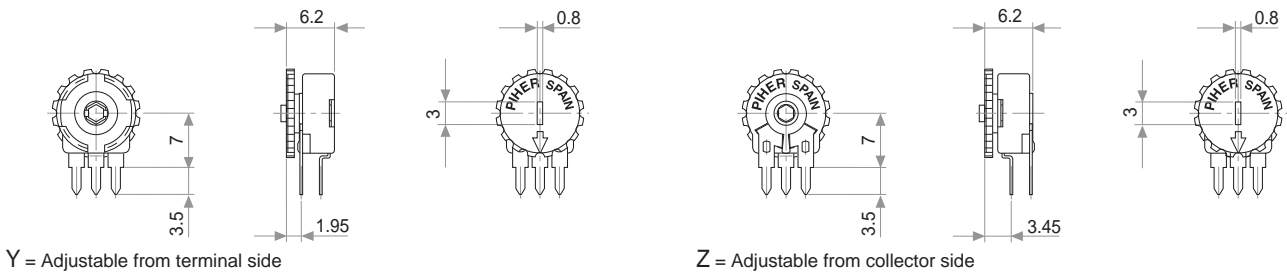
Without shaft



With shaft



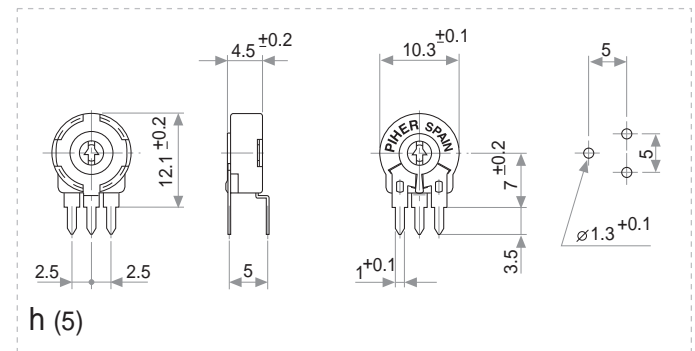
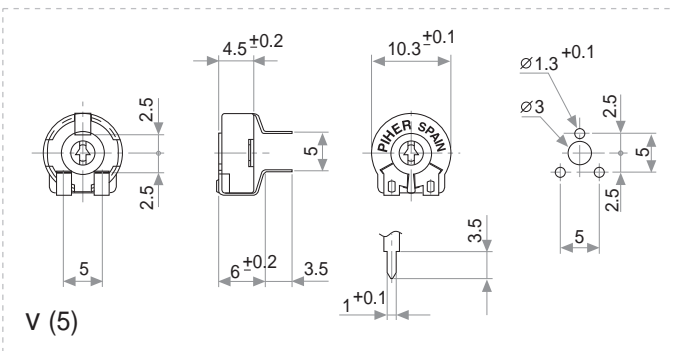
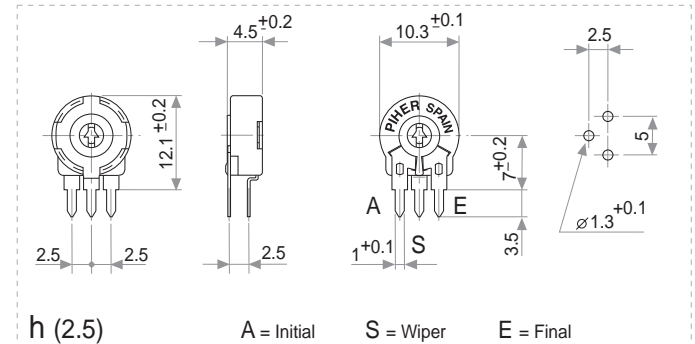
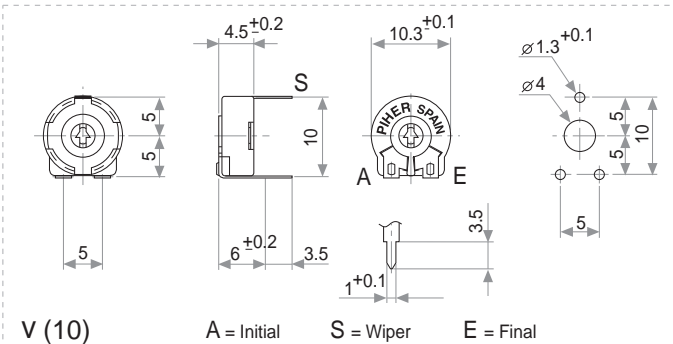
With thumbwheel



MOUNTING METHODS

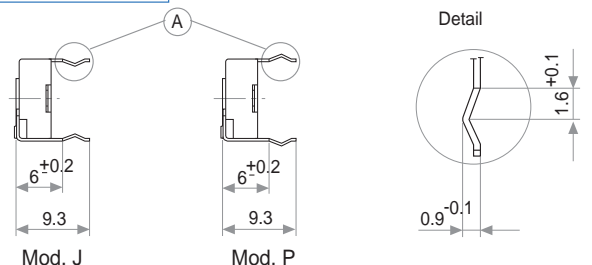
v = horizontal mount – vertical adjust

h = vertical mount – horizontal adjust



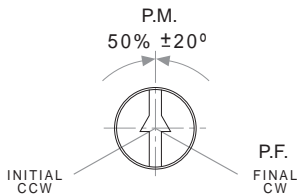
NOTE = Please note relative terminal positions when ordering non linear tapers.

Crimped terminals

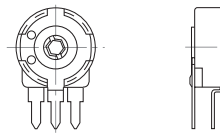


OPTIONS

Positioning (Std. Position = CCW)



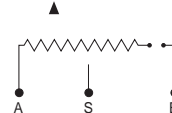
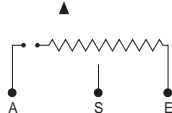
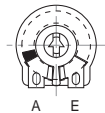
Special SWITCH (Upon request)



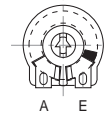
(Rotor at Final Position)

Mechanical Rotation Angle: 45°
Housing Colour: Green

CUT TRACK
CCW on-off (A)



CW on-off (E)



A = Initial

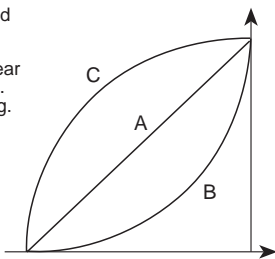
E = Final

S = Wiper

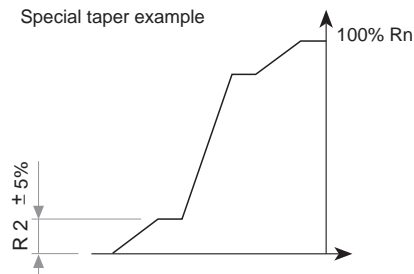
TAPERS

Standard

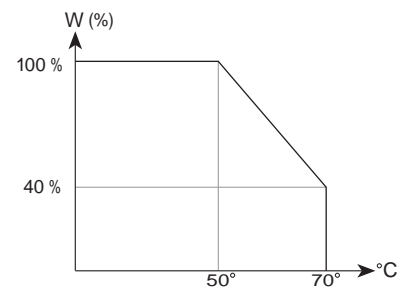
A = Linear
B = Log.
C = Alog.



Special taper example



POWER RATING CURVE



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

TESTS

TYPICAL VARIATIONS

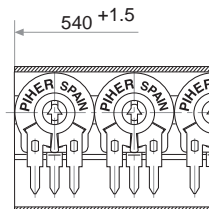
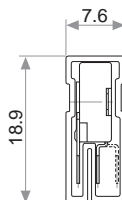
| | | |
|----------------------------------|---------------------------|-----------------------|
| ELECTRICAL LIFE | 1.000 h. @ 50°C; 0.15 W | ±5 % |
| MECHANICAL LIFE (CYCLES) | 500 @ 10 CPM ... 15 CPM | ±3 % (Rn < 1 MΩ) |
| TEMPERATURE COEFFICIENT | -25°C; +70°C | ±300 ppm (Rn < 100 K) |
| THERMAL CYCLING | 16 h. @ 85°C; 2h. @ -25°C | ±2.5 % |
| DAMP HEAT | 500 h. @ 40°C @ 95% HR | ±5 % |
| VIBRATION (for each plane X,Y,Z) | 2 h. @ 10 Hz. ... 55 Hz. | ±2 % |

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

PACKAGING

BOXES

| Model | Units |
|-----------------|-------------------------|
| Without shaft | 500 (40 x 85 x 185 mm.) |
| With thumbwheel | 400 (40 x 85 x 185 mm.) |
| With shaft | 200 (40 x 85 x 185 mm.) |

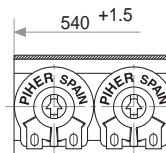
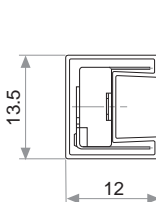


Magazines for PT-10 h 2.5; h 5

Also crimped term. h 2.5 P

AUTOMATIC INSERTION

| Magazines | Units per magazine |
|-----------------|--------------------|
| PT-10H & PT-10V | 50 Pieces |



Magazines for PT-10 V

Also crimped term. VP

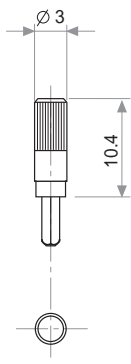


Fig. 1 / Ref. 5016

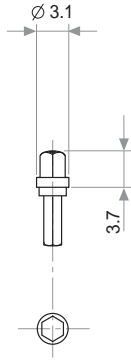


Fig. 2 / Ref. 5053

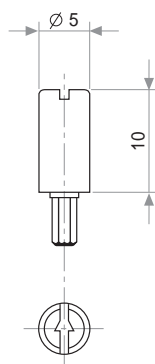


Fig. 3 / Ref. 5012

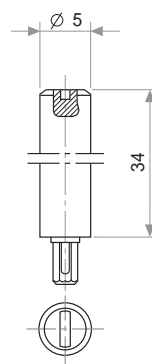


Fig. 4 / Ref. 6053

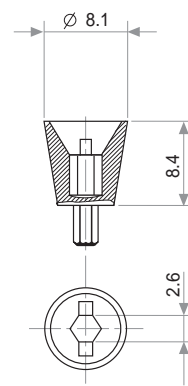


Fig. 6 / Ref. 5035

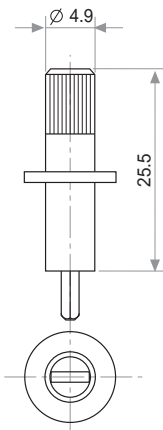


Fig. 7 / Ref. 5115

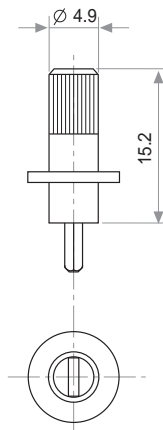


Fig. 8 / Ref. 5116

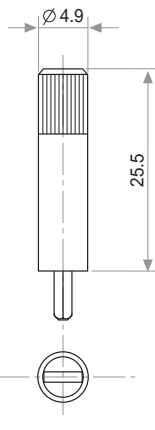


Fig. 9 / Ref. 5119

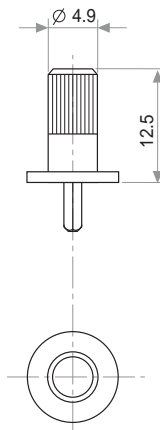


Fig. 10 / Ref. 5120

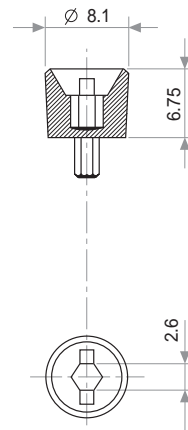


Fig. 11 / Ref. 5027

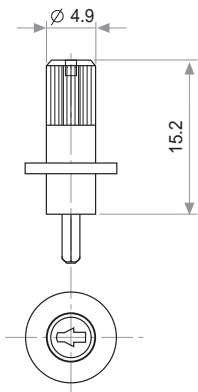


Fig. 12 / Ref. 6052

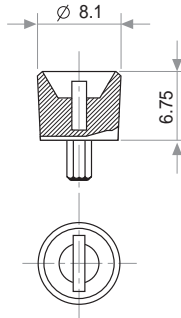


Fig. 13 / Ref. 5121

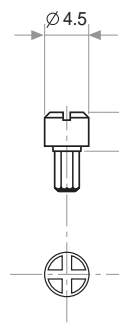


Fig. 14 / Ref. 5055

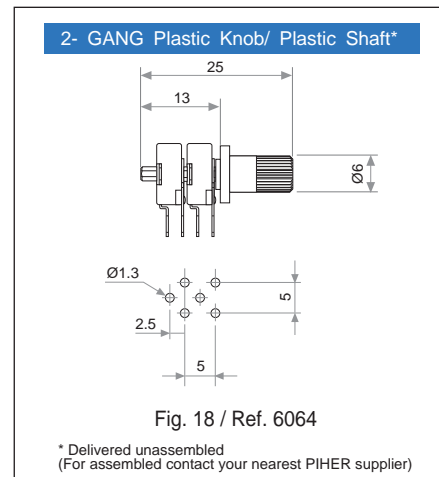


Fig. 18 / Ref. 6064

* Delivered unassembled
(For assembled contact your nearest PIHER supplier)

THUMBWHEELS

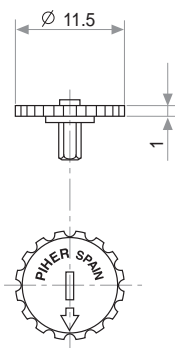


Fig. 5 / Ref. 5034

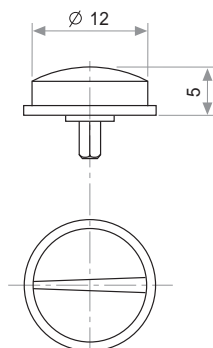


Fig. 15 / Ref. 6008

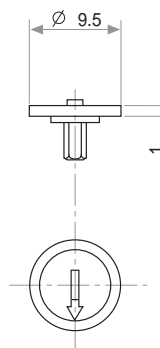


Fig. 16 / Ref. 5039

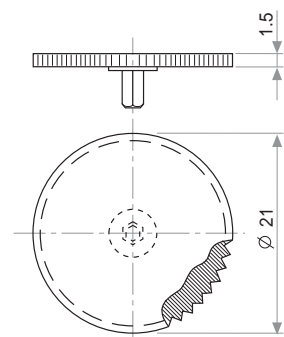


Fig. 17 / Ref. 5062