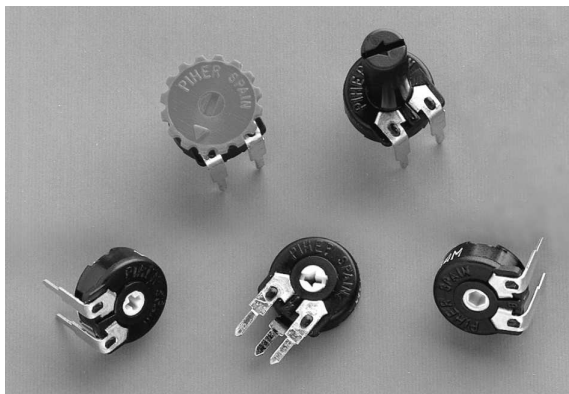




FEATURES

- 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
 - 3% Linearity and 100K cycles mechanical life

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)
- Life*: Up to 10.000 cycles

* Others upon request

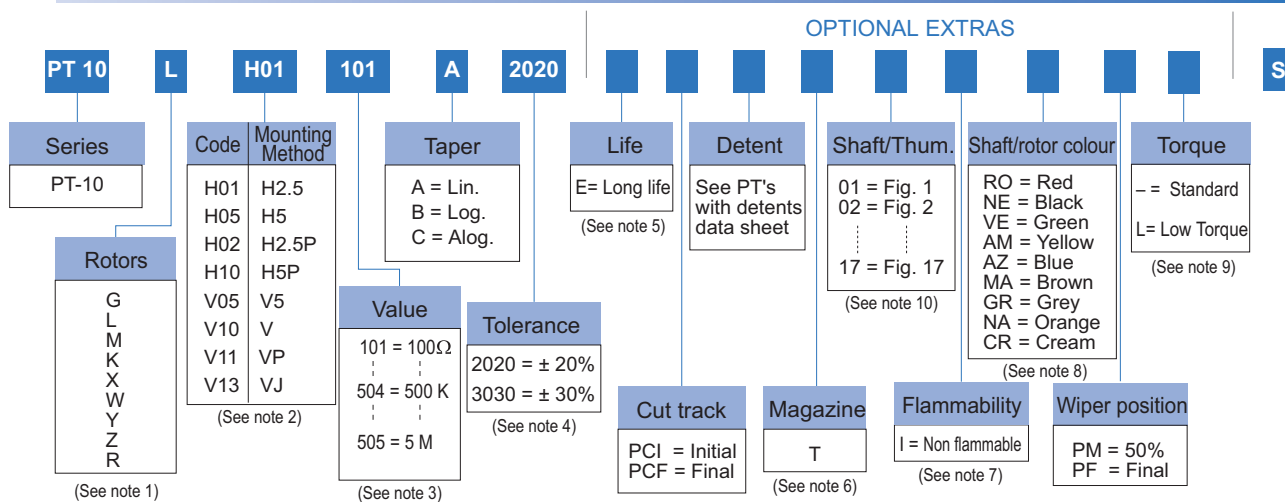
ELECTRICAL SPECIFICATIONS

- 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(*): $\leq 0.5\%$ R_n (5Ω min.)
- Equivalent Noise Resistance: $\leq 3\%$ R_n (3Ω min.)
- Operating temperature**: -25°C to $+70^\circ\text{C}$ (-13°F to $+158^\circ\text{F}$)

(*) Others upon request

** Up to 85°C depending on application

HOW TO ORDER



NOTES:

- (1) "Z" adjustment only available on "H" versions. Rotor "G" only available in purple (shaft/rotor colour "VI").
- (2) Terminals styles: "P" & "J" are crimped terminals. V=Vertical adjust; H=Horizontal Adjust
- (3) Value Example: Code: $\begin{matrix} 10 & 1 & 100 & \Omega \\ \downarrow & \downarrow & \downarrow \\ \text{Numb of zeros} & \text{First two digits of the value.} \end{matrix}$
- (4) Non standard tolerance, upon request. Example: +7% Code: 07 05
-5% negative tolerance
positive tolerance
- (5) Up to 10.000 cycles.
Others upon request.
- (6) Magazines: not available with the H10, V05 and V13 models, nor with adjustment types X, W, Y, Z.
- (7) Non flammable: housing, rotor and shaft. According to UL 94V-0
- (8) Colour shaft/rotor:
 - Potentiometer without shaft: only rotor
 - Potentiometer with shaft: only shaft
 - Cream colour only available in standard plastic.
- (9) Low Torque: 0.25 to 1 Ncm (per pot.)
No detent option available for low torque models.
- (10) If you wish to use your own custom plastic shaft/knob/actuator please contact Piher for advice about compatible materials.

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

STANDARD OPTIONS

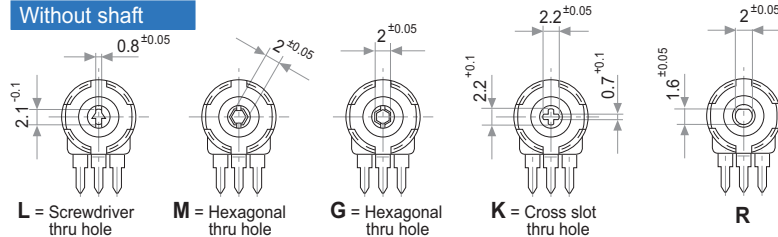
PT-10 LH 01 + DRAWING NUMBER (Max. 16 characters)

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

Cut track	No
Detents	None
Packing	Bulk
Non flammable	No
Rotor colour	White
Shaft colour	Natural
Wiper position	Initial
Torque	Standard

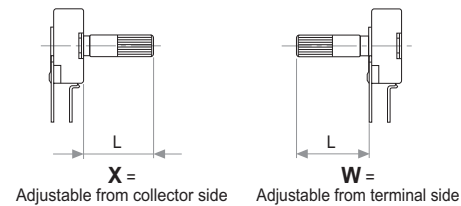
ROTORS

Without shaft



Wipers positioned at 50%

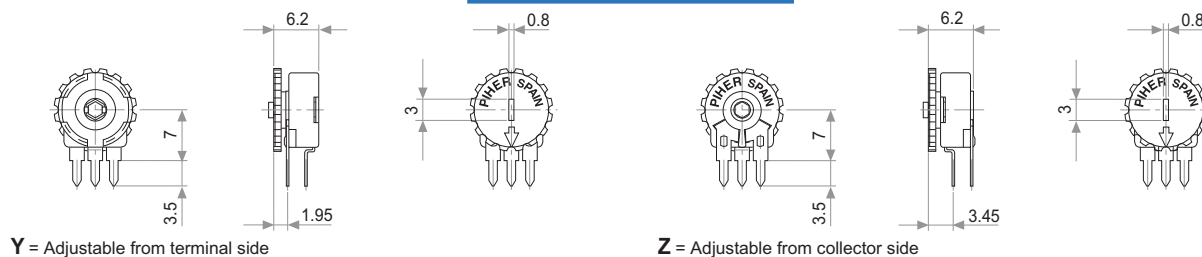
With shaft



X =
Adjustable from collector side

W =
Adjustable from terminal side

With thumbwheel

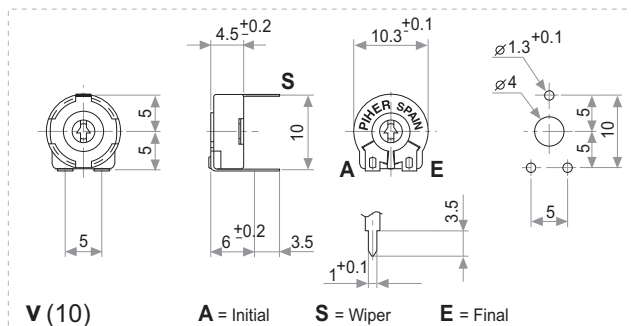


Y = Adjustable from terminal side

Z = Adjustable from collector side

MOUNTING METHODS

V = horizontal mount – vertical adjust



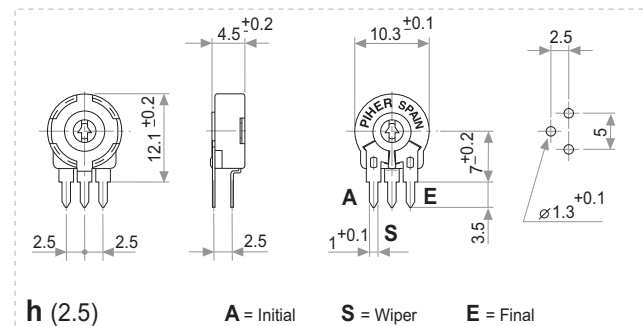
v (10)

A = Initial

S = Wiper

E = Final

h = vertical mount – horizontal adjust

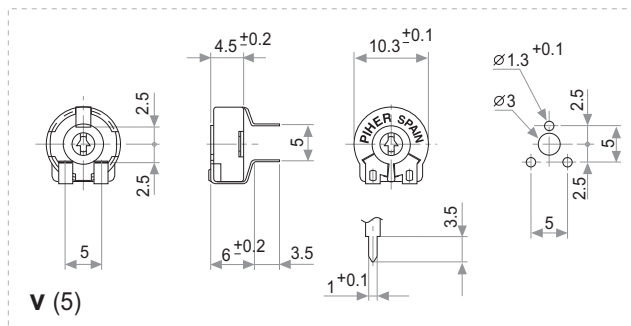


h (2.5)

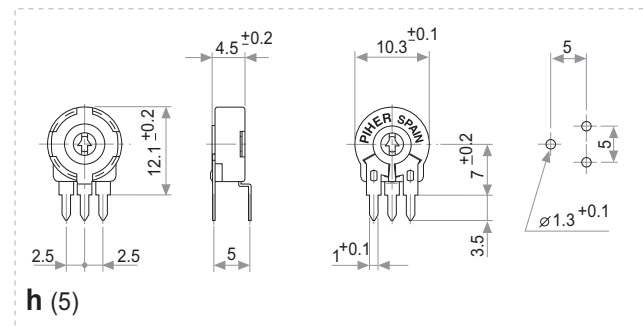
A = Initial

S = Wiper

E = Final



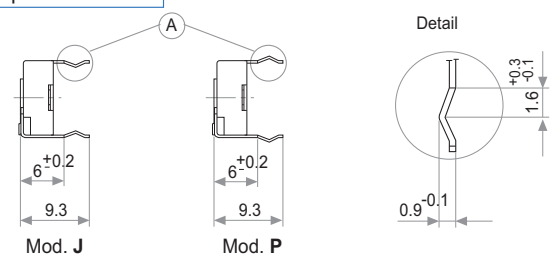
v (5)



h (5)

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

Crimped terminals



Mod. J

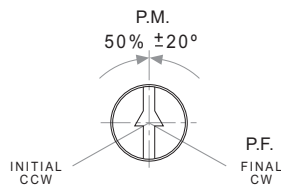
Mod. P

Detail

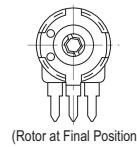
PIHER

OPTIONS

Positioning (Std. Position = CCW)

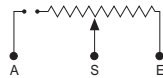
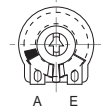


Special SWITCH (Upon request)



(Rotor at Final Position)
Mechanical Rotation Angle: 45°
Housing Colour: Green

CUT TRACK
CCW on-off (A)

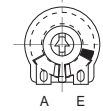


A = Initial

E = Final

S = Wiper

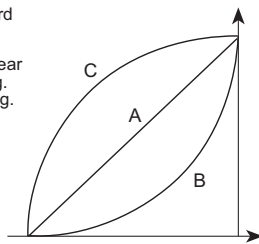
CW on-off (E)



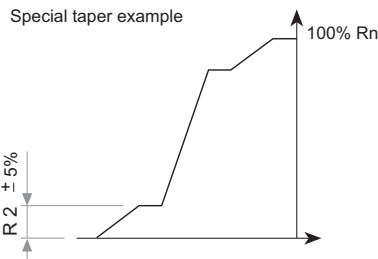
TAPERS

Standard

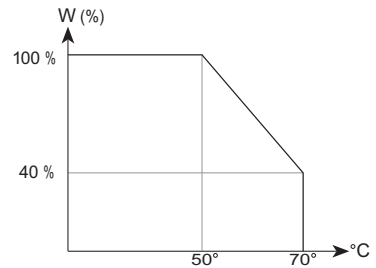
A = Linear
B = Log.
C = Alog.



Special taper example



POWER RATING CURVE



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

TESTS

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 %

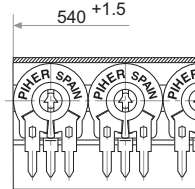
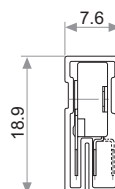
NOTE: Out of range values may not comply these results.

TYPICAL VARIATIONS

PACKAGING

BOXES

Model	Units
Without shaft	1000 (80 x 85 x 185 mm.)
With thumbwheel	800 (80 x 85 x 185 mm.)
With shaft	400 (80 x 85 x 185 mm.)

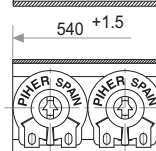
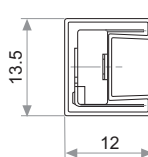


Magazines for PT-10 h 2.5; h 5

Also crimped term. h 2.5 P

AUTOMATIC INSERTION

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

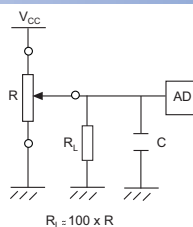


Magazines for PT-10 V

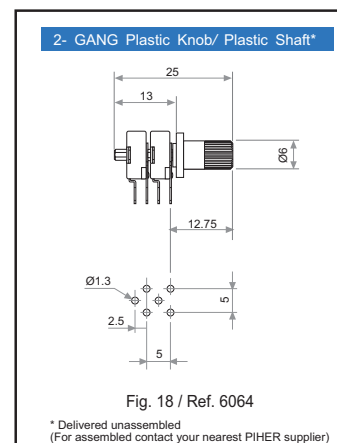
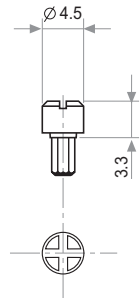
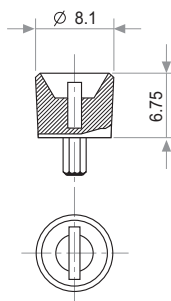
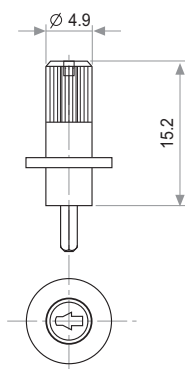
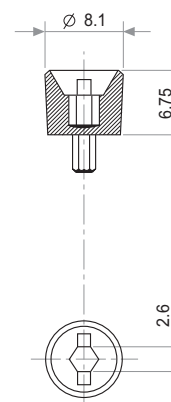
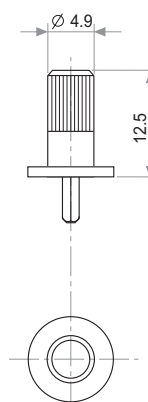
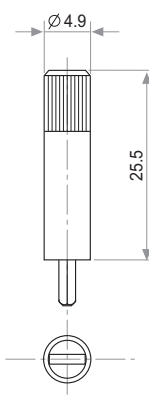
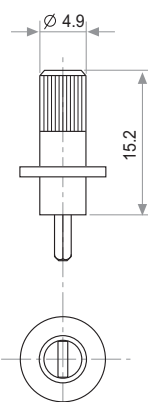
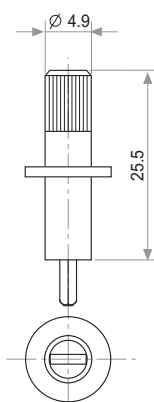
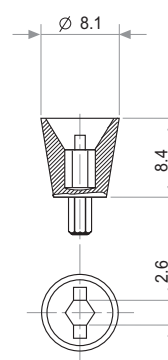
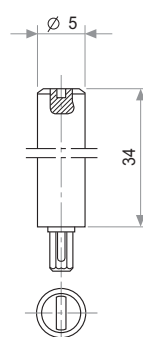
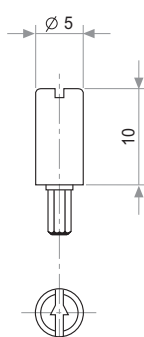
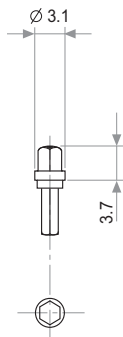
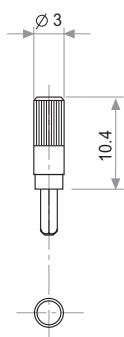
Also crimped term. VP

RECOMMENDED CONNECTION

Recommended connection scheme for Piher's position sensors (voltage divider)



$R_L = 100 \times R$



THUMBWHEELS

