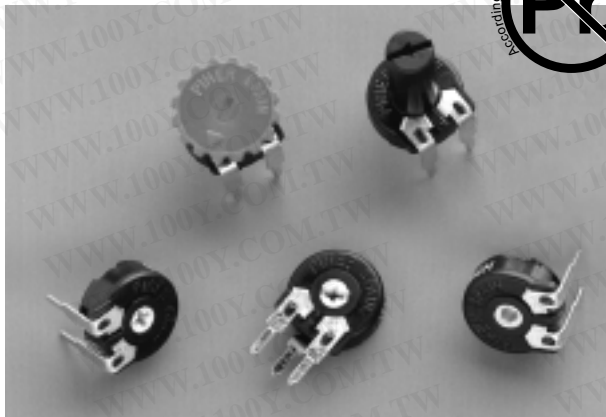




# PT-10 10 mm Carbon Potentiometer

## 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
  - Special switch option



## MECHANICAL SPECIFICATIONS

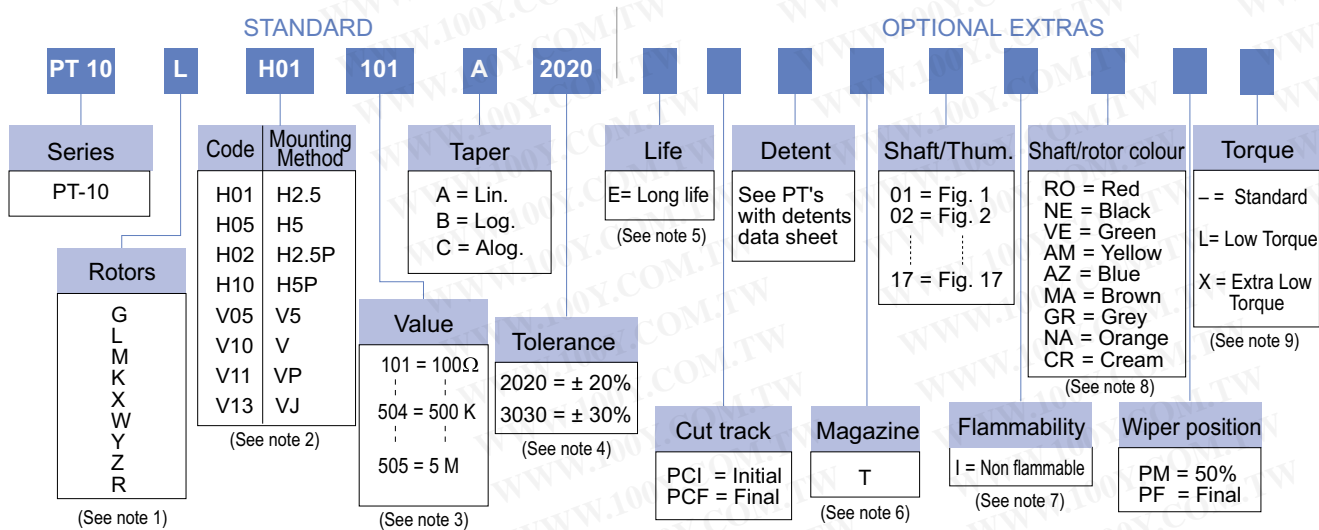
- Mechanical rotation angle:  $235^\circ \pm 5^\circ$
- Electrical rotation angle:  $220^\circ \pm 20^\circ$
- Torque: 0.4 to 2 Ncm. (0.6 to 2.7 in-oz)
- Stop torque:  $> 5$  Ncm. ( $> 7$  in-oz)

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 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

## ELECTRICAL SPECIFICATIONS

- Range of values (\*):  $100\Omega \leq R_n \leq 5$  M (Decad. 1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)
  - Tolerance (\*):  $100\Omega \leq R_n \leq 1$  M  $\Omega$  .....  $\pm 20\%$   
 $1$  M  $\Omega < R_n \leq 5$  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  $R_n \geq 1$  K) Lin ; Log; Alog.
  - Residual resistance:  $\leq 5 \cdot 10^{-3} R_n$  (2  $\Omega$  min.)
  - Equivalent Noise Resistance:  $\leq 3\% R_n$  (3  $\Omega$  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. V=Vertical adjust; H=Horizontal Adjust
- Value Example: Code: 10 1 100  $\Omega$   
 ↳ Num of zeros  
 ↳ First two digits of the value.
- Non standard tolerance, upon request. Example: +7%      Code: 07 05  
 -5%      ↳ 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.

## HOW TO ORDER CUSTOM DRAWING

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

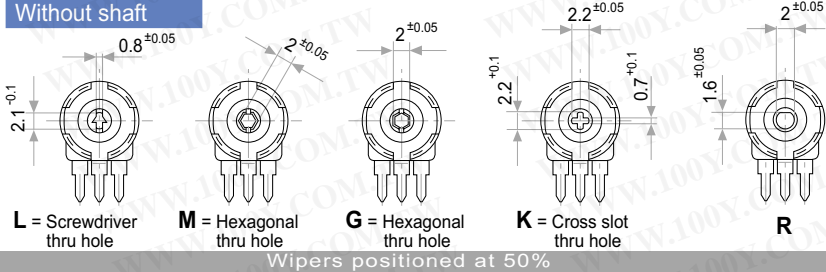
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

## STANDARD OPTIONS

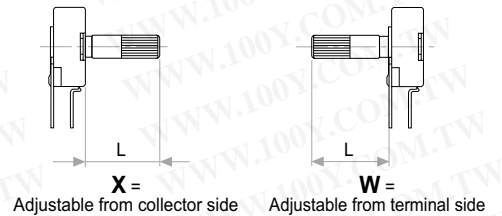
Mechanical Life	-----	500 cycles
Cut track	-----	No
Detents	-----	None
Packing	-----	Bulk
Non flammable	-----	No
Rotor colour	-----	White
Shaft colour	-----	Natural
Wiper position	-----	Initial
Torque	-----	Standard

## ROTORS

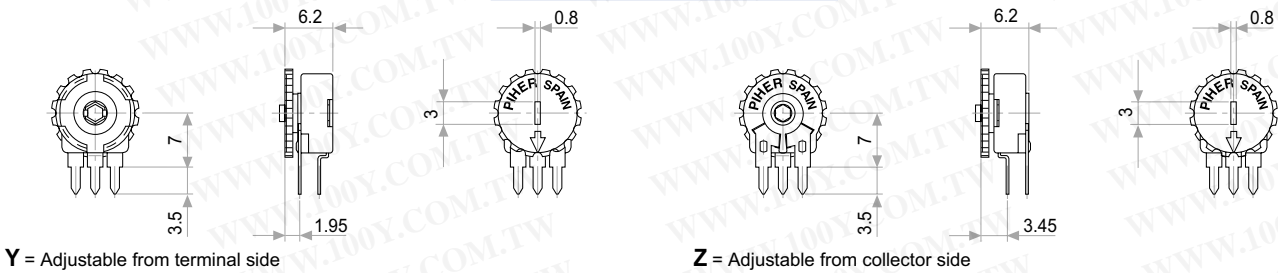
### Without shaft



### With shaft



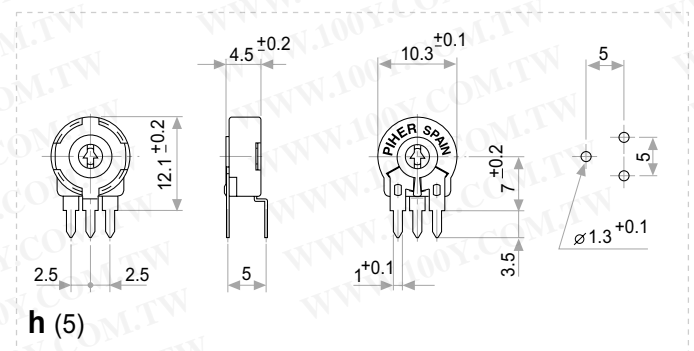
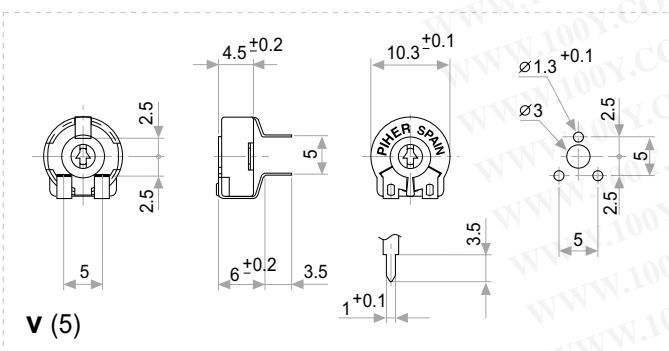
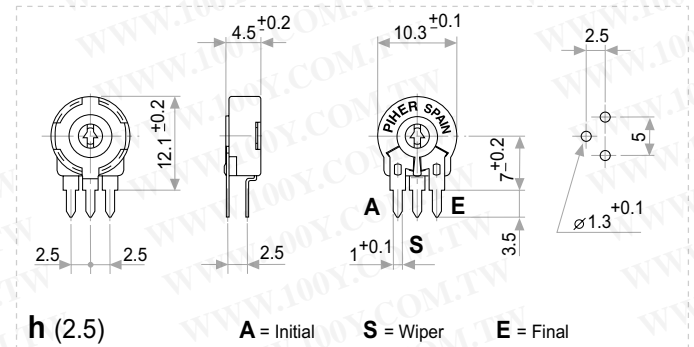
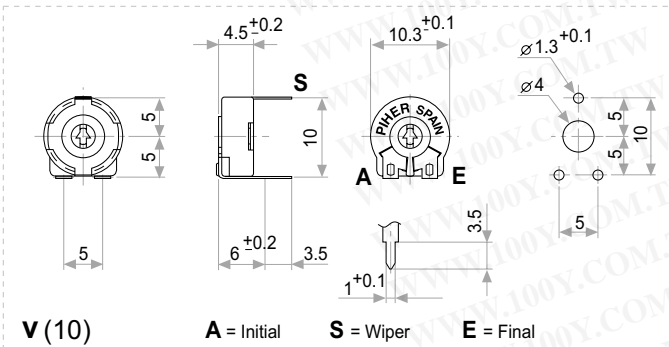
### With thumbwheel



## MOUNTING METHODS

v = horizontal mount – vertical adjust

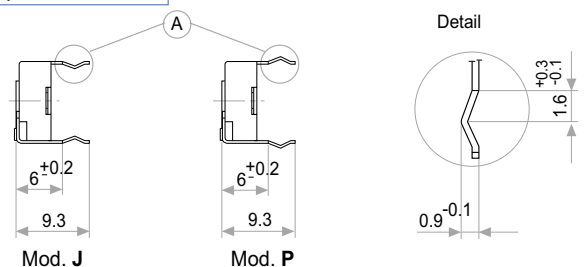
h = vertical mount – horizontal adjust



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

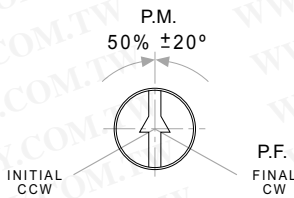
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 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

### Crimped terminals

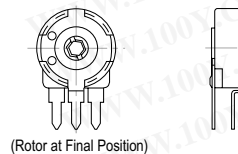


## OPTIONS

Positioning (Std. Position = CCW)

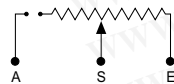
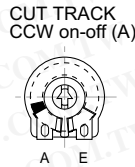


Special SWITCH (Upon request)

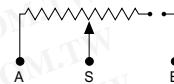


(Rotor at Final Position)  
Mechanical Rotation Angle: 45°  
Housing Colour: Green

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勝特力电子(上海) 86-21-54151736  
勝特力电子(深圳) 86-755-83298787  
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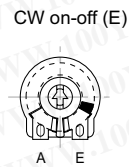


A = Initial



E = Final

S = Wiper

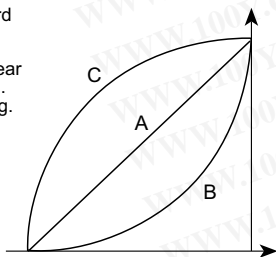


CW on-off (E)

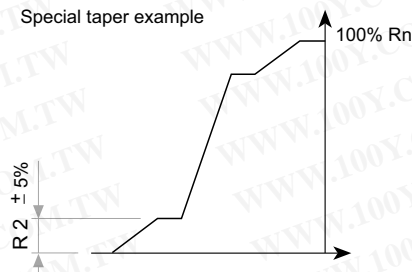
## TAPERS

Standard

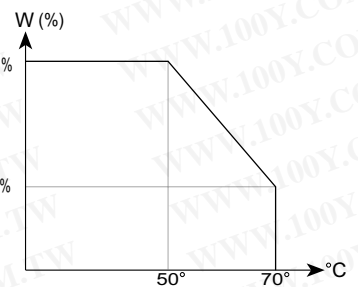
A = Linear  
B = Log.  
C = Alog.



Special taper example



## POWER RATING CURVE



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

## TESTS

## TYPICAL VARIATIONS

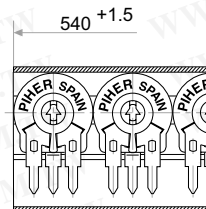
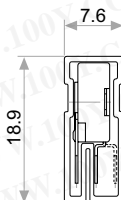
ELECTRICAL LIFE	1.000 h. @ 50°C; 0.15 W	±5 %
MECHANICAL LIFE (CYCLES)	500 @ 10 CPM ...15 CPM	±3 % (Rn < 1 MΩ)
TEMPERATURE COEFFICIENT	-25°C; +70°C	±300 ppm (Rn <100 K)
THERMAL CYCLING	16 h. @ 85°C; 2h. @ -25°C	±2.5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	±5 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz.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

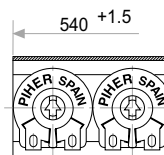
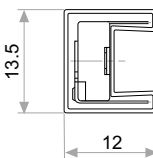


Magazines for PT-10 h 2.5; h 5

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

