

## 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

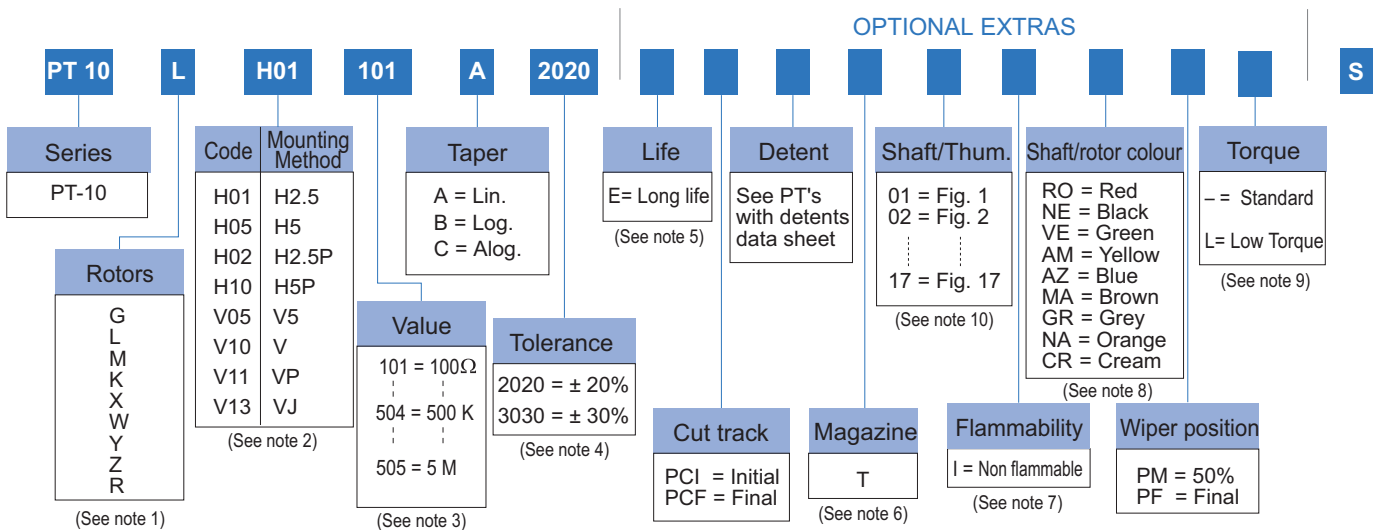
## ELECTRICAL SPECIFICATIONS

- 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 + 70°C (-13°F + 158°F)

(\*) Others upon request

\*\* Up to 85°C depending on application

## HOW TO ORDER



### NOTES:

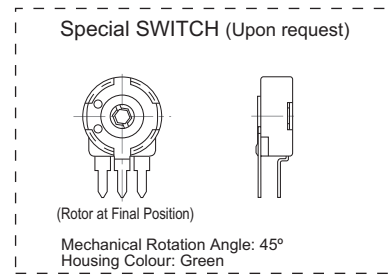
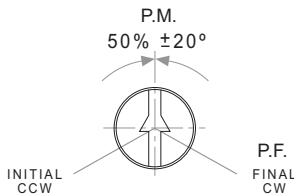
- "Z" adjustment only available on "H" versions. Rotor "G" only available in purple (shaft/rotor colour "VI").
- Terminals styles: "P" & "J" are crimped terminals. V=Vertical adjust; H=Horizontal Adjust
- Value Example: Code:  $\overset{1}{10} \overset{1}{1} 100\Omega$   
 ↳ Num of zeros  
 ↳ First two digits of the value.
- Non standard tolerance, upon request. Example: Code:  $07 \overset{05}{-5\%}$   
 ↳ negative tolerance  
 ↳ positive tolerance
- Up to 10.000 cycles. Others upon request.
- Magazines: not available with the H10, V05 and V13 models, nor with adjustment types X, W, Y, Z.
- Non flammable: housing, rotor and shaft. According to UL 94V-0
- 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.)  
 No detent option available for low torque models.
- 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.

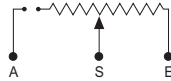


## OPTIONS

Positioning (Std. Position = CCW)

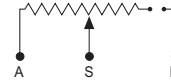


CUT TRACK  
CCW on-off (A)



A = Initial

E = Final



S = Wiper

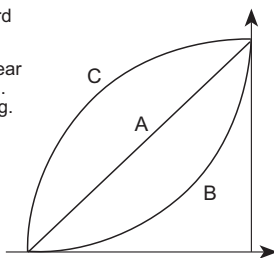
CW on-off (E)



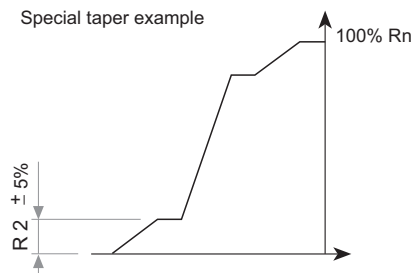
## TAPERS

Standard

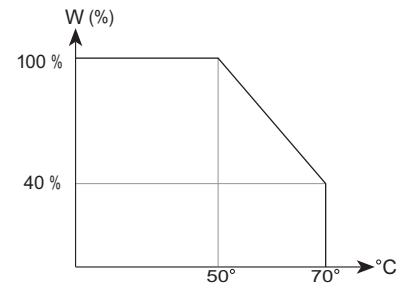
A = Linear  
B = Log.  
C = Alog.



Special taper example



## POWER RATING CURVE



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

## TESTS

## TYPICAL VARIATIONS

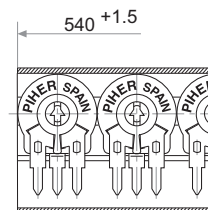
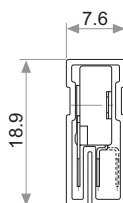
ELECTRICAL LIFE	1.000 h. @ 50°C; 0.15 W	±5 %
MECHANICAL LIFE (CYCLES)	500 @ 10 CPM ...15 CPM	±3 % (Rn < 1 MΩ)
TEMPERATURE COEFFICIENT	-25°C; +70°C	±300 ppm (Rn < 100 K)
THERMAL CYCLING	16 h. @ 85°C; 2h. @ -25°C	±2.5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	±5 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz.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

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

## PACKAGING

### BOXES

Model	Units
Without shaft	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.)

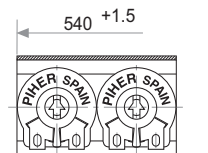
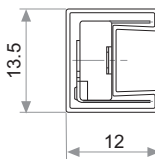


Magazines for PT-10 h 2.5; h 5

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)

