

FEATURES

- Cermet resistive element
- Dust proof enclosure
- Plastic material according to UL94V-0
- Alumina substrate
- Also upon request:
 - Wiper positioned at 50% or fully clockwise.
 - Long life model for low cost control pot. applications
 - Supplied in magazines for automatic insertion.
 - Low torque option
 - Available as SPDT switch
 - Special tapers
 - Mechanical detents

MECHANICAL SPECIFICATIONS

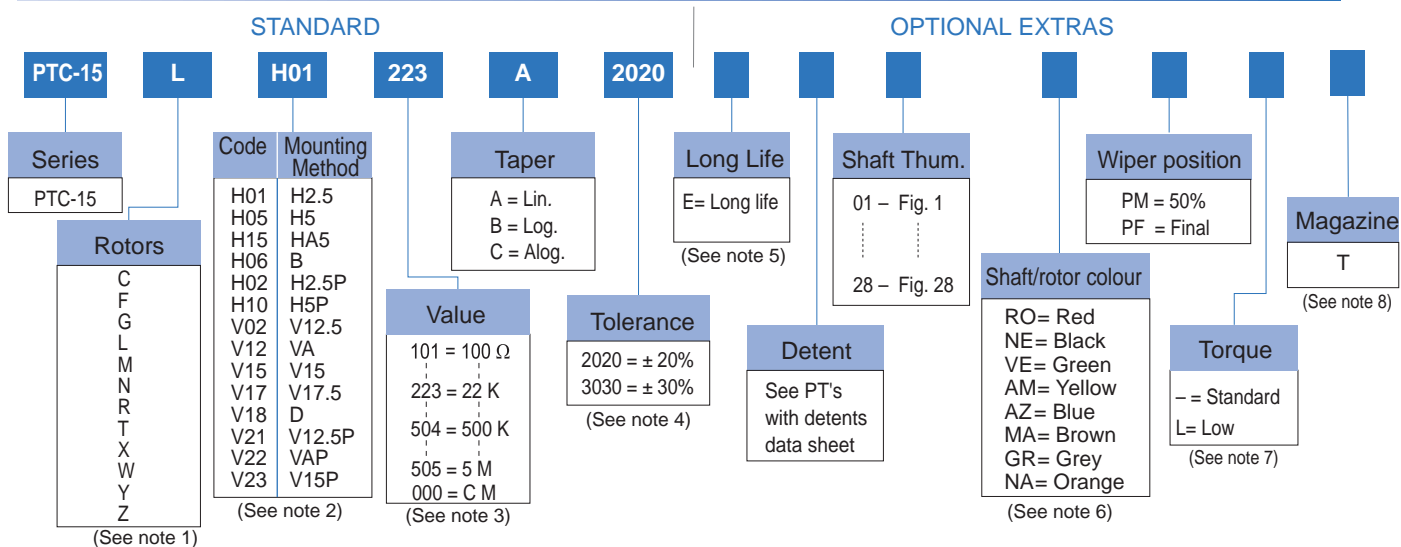
- Mechanical rotation angle: $265^\circ \pm 5^\circ$
- Electrical rotation angle: $250^\circ \pm 20^\circ$
- Torque: 0.5 to 2.5 Ncm.
(0.7 to 3.4 in-oz)
- Stop torque: > 10 Ncm. (>14 in-oz)

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: 250 VDC (lin) 125 VDC (no lin)
- Nominal Power 70°C (158°F) (see power rating curve)
0.50 W (lin) 0.25 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: $-40^\circ\text{C} + 90^\circ\text{C}$ ($-40^\circ\text{F} + 194^\circ\text{F}$)

(*) Others upon request

HOW TO ORDER



NOTES:

- (1) "Z" adjustment only available on "H" versions. Standard colour for the "T" rotor: Orange.
- (2) Terminals styles: "P" are crimped terminals
- (3) Value Example: Code: 10 1 100 Ω
 → Numb of zeros
 → First two digits of the value. 000 = CM: SPDT switch 45°
- (4) Non standard tolerance, upon request. Example: +7% Code: 07 05
 -5% → negative tolerance
 → positive tolerance
- (5) Life
 - Standard 100 cycles
 - Long life 10000 cycles
- (6) Colour shaft/rotor:
 - Potentiometer without shaft: only rotor
 - Potentiometer with shaft: only shaft
- (7) Low Torque: $\leq 1.5\text{ Ncm}$. No detent option available for low torque models
- (8) Magazines (35 pcs/mag): available for VA (12.5), V (12.5), V (12.5P), V (15), V15 (P) and H models. For more information please contact your nearest Piher supplier.

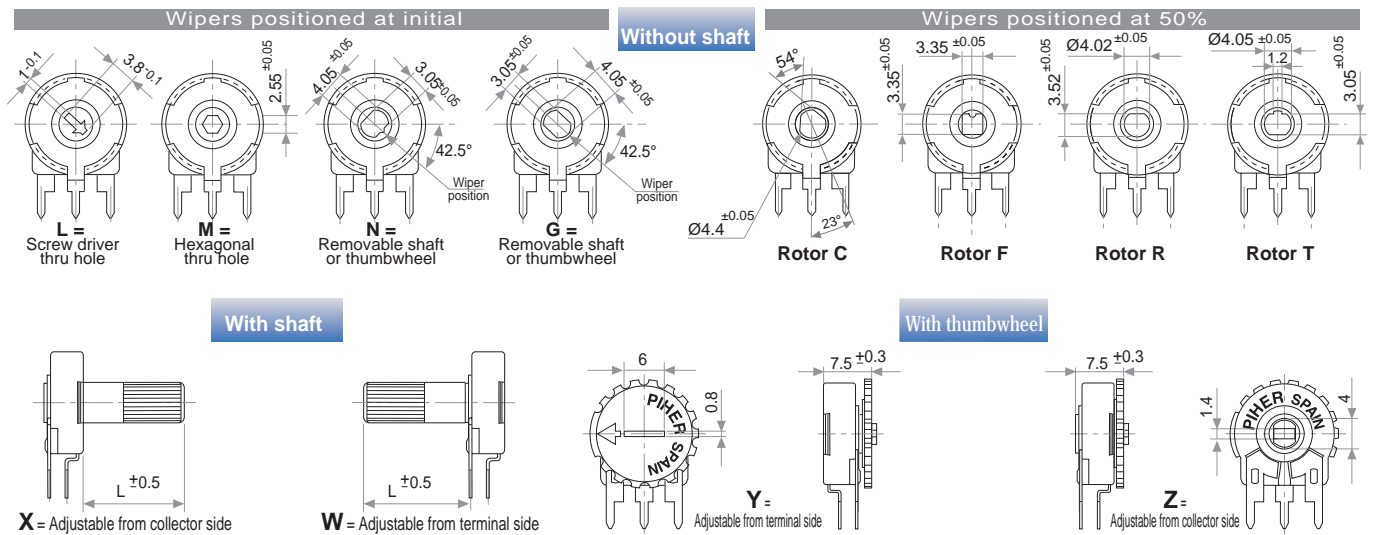
NOTE: The information contained here should be used for reference purposes only.

PTC-15 LH 01 + DRAWING NUMBER (Max. 16 digits)

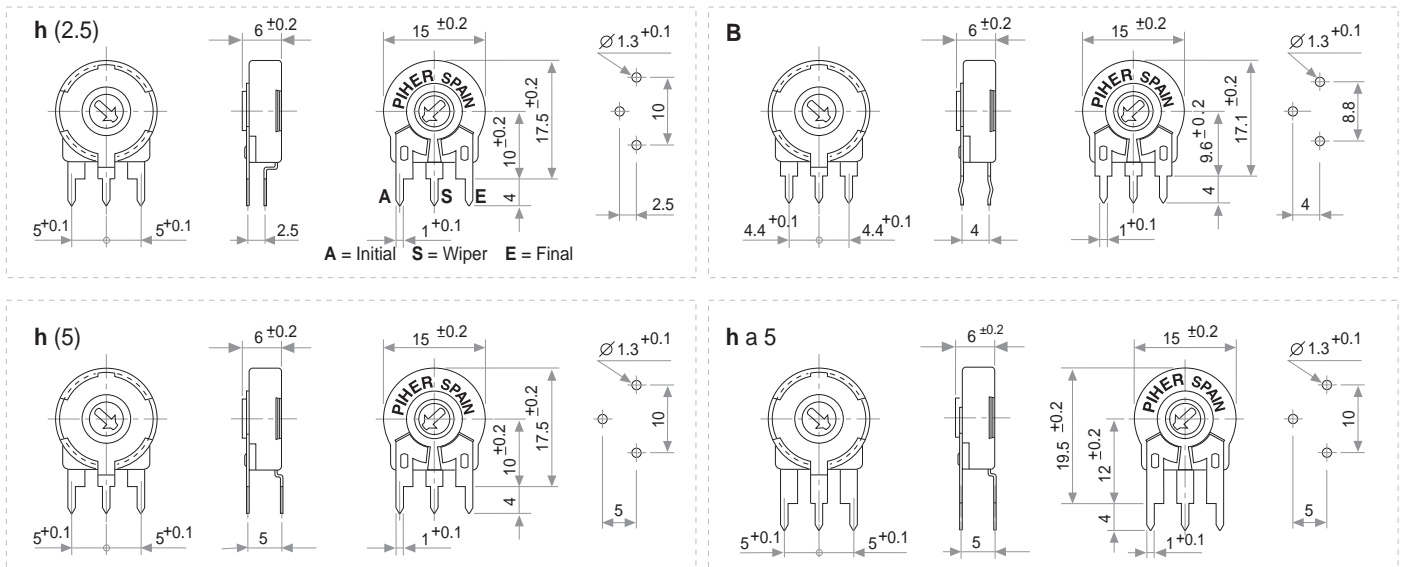
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

Mechanical Life	100 cycles
Detents	None
Rotor colour	Natural
Shaft colour	Natural
Wiper position	Initial
Torque	Standard

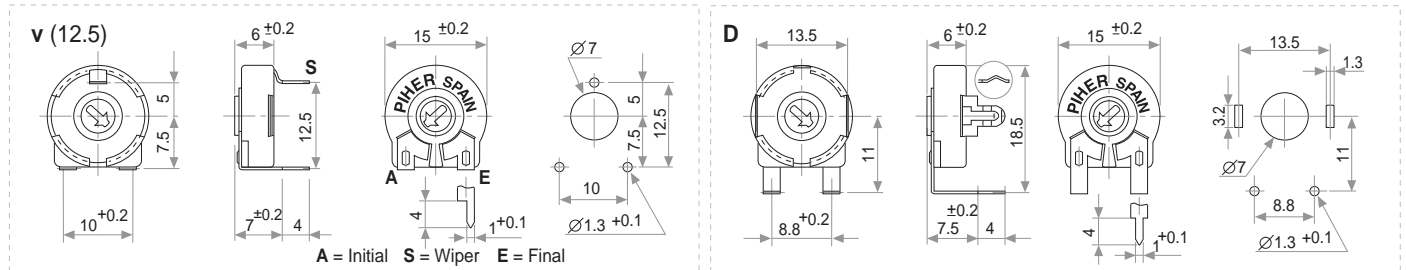
ROTORS



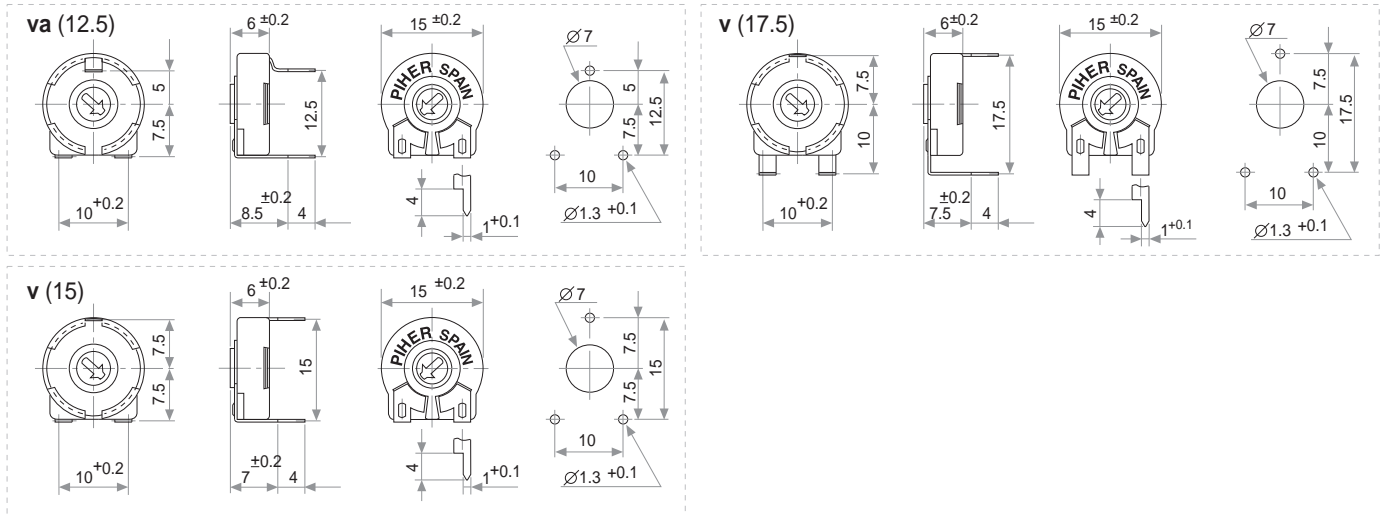
VERTICAL MOUNTING – HORIZONTAL ADJUSTMENT



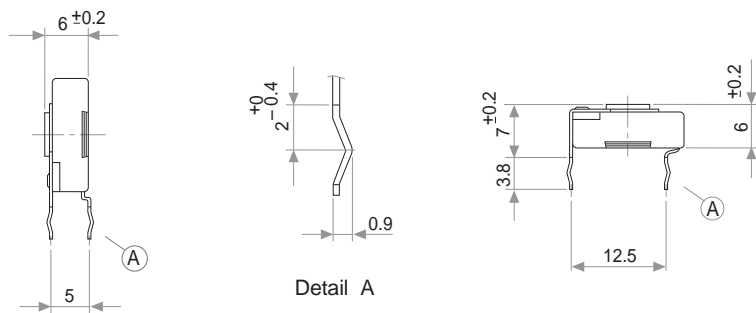
HORIZONTAL MOUNTING – VERTICAL ADJUSTMENT



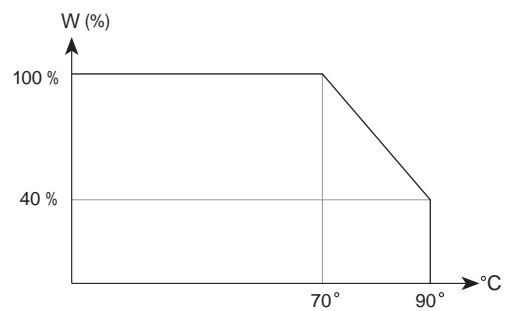
HORIZONTAL MOUNTING – VERTICAL ADJUSTMENT



CRIMPED TERMINALS (DETAIL)



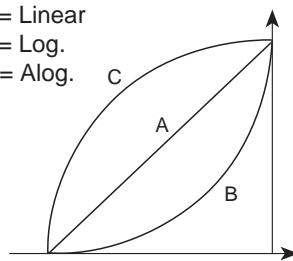
POWER RATING CURVE



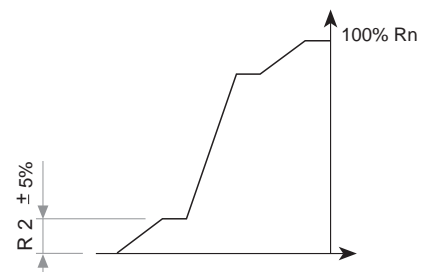
TAPER

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

A = Linear
B = Log.
C = Alog.

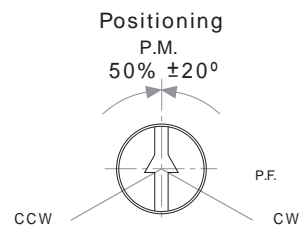
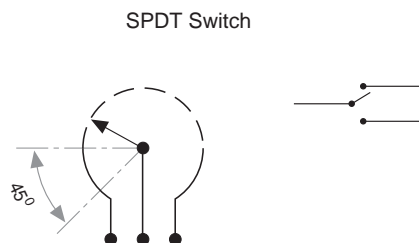


Standard



Special curve example

OPTIONS



Std. Position = CCW

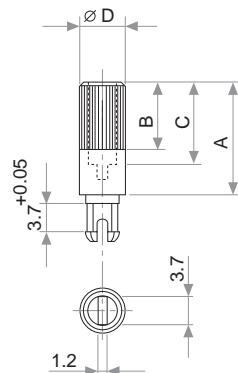
TESTS		TYPICAL VARIATIONS
ELECTRICAL LIFE	1.000 h. @ 70°C; 0.5 W	± 5 %
MECHANICAL LIFE (CYCLES)	100 @ 10 CPM ...15 CPM	± 3 % (Rn < 1 MΩ)
TEMPERATURE COEFFICIENT	-40° C; +90° C	± 100 ppm (Rn <100 K)
THERMAL CYCLING	16 h. @ 90° C; 2h. @ -40° C	± 2.5 %
DAMP HEAT	500 h. @ 40° C @ 95% HR	± 5 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz. ... 55 Hz.	± 2 %

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

PACKAGING	
MODEL	PIECES / BOX
No thumbwheel / shaft	200 (40 x 85 x 185 mm.)
With thumbwheel / shaft up to 19 mm.	100 (40 x 85 x 185 mm.)
With shaft exceeding 19 mm.	50 (40 x 85 x 185 mm.)

SHAFTS

Hollow model shafts



A = Length (FRS)
B = Knurling length
C = Hollow depth
D = Shaft diameter
FRS = From rotor surface

FIG.	A	B	C	D	Ref.
1	12	9	8	6	5272
2	19	9	15	6	5214
5	9.5	6.5	5.5	6	5208
9	35	9	15	6	5216
10	37.8	9	33.8	6	5218
11	35	25	15	6	5209
13	7.8	4.8	3.8	6	5265

Solid model shafts

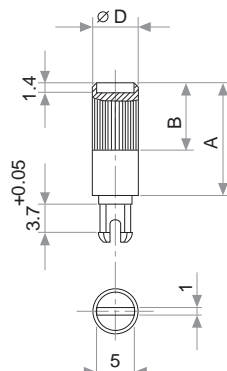


FIG.	A	B	D	Ref.
6	15	9	6	5219
7	16.8	9	6	5220
8	25.3	9	6	5207
12	46	5	6	5227

Slott (1 x 1.4) perpendicular to wiper position. Fig. 12 slot is on line with wiper position.

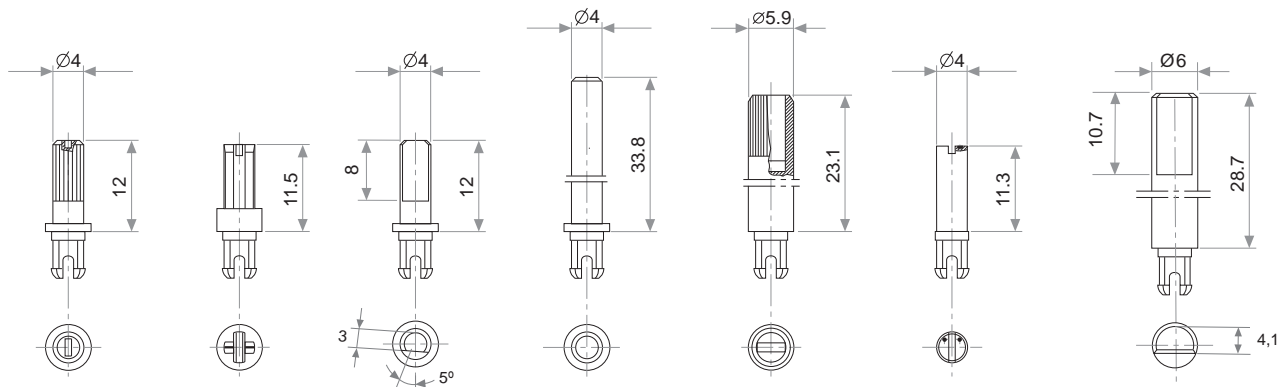


Fig. 3 / Ref. 5372 Fig. 14 / Ref. 5248 Fig. 15 / Ref. 5217 Fig. 16 / Ref. 5262 Fig. 17 / Ref. 5210 Fig. 18 / Ref. 5271 Fig. 19 / Ref. 6032

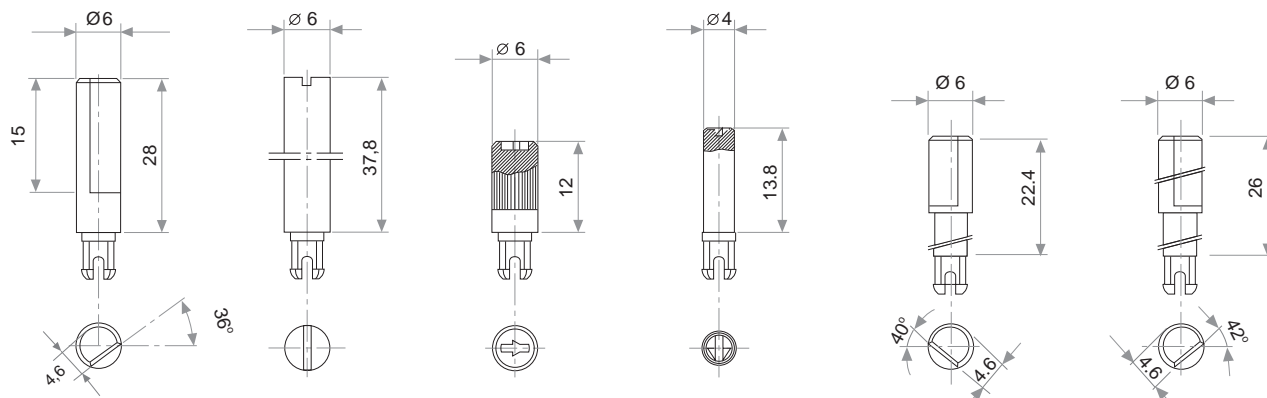


Fig. 20 / Ref. 5369 Fig. 21 / Ref. 6031 Fig. 22 / Ref. 6029 Fig. 23 / Ref. 6022 Fig. 24 / Ref. 6058 Fig. 25 / Ref. 6059

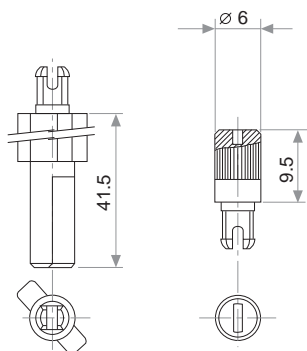


Fig. 27 / Ref. 5268 Fig. 28 / Ref. 6055

THUMBWHEEL

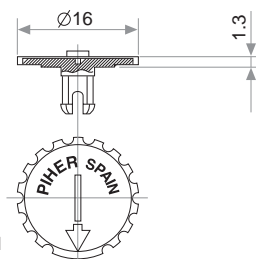


Fig. 4 / Ref. 5371