

FEATURES

- Specifically designed for leadfree reflow soldering processes (excellent performance)
- 10k cycles mechanical life.
- Dust proof enclosure.
- Carbon resistive element.
- Self extinguishable plastic UL 94V-0.
- 10mm version available (PS-10)
- Also upon request:
 - Wiper positioned at 50% or fully clockwise.
 - Mechanical detents
 - Centering pins

MECHANICAL SPECIFICATIONS

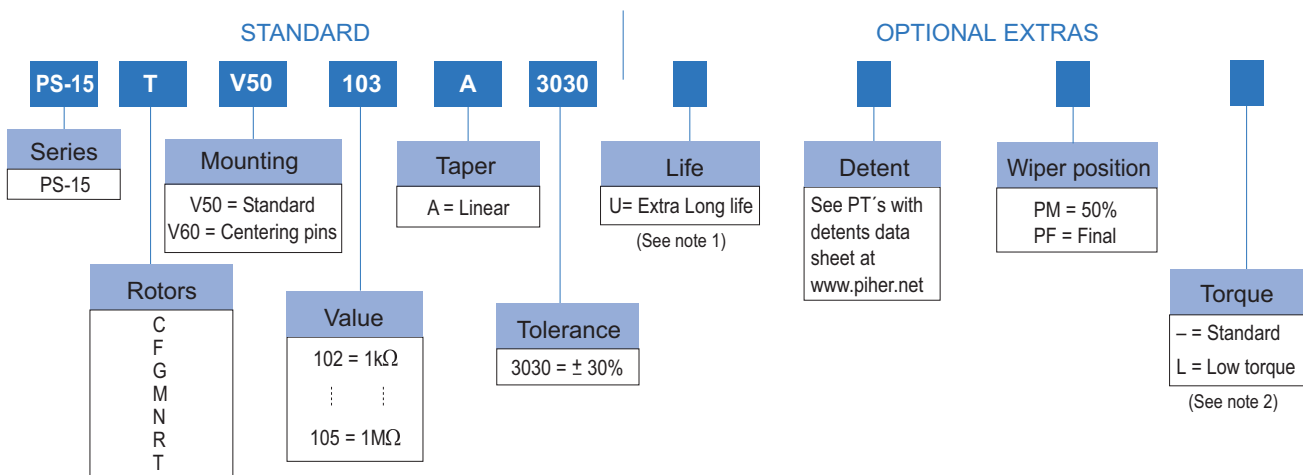
- Mechanical life: 10k cycles
- Mechanical rotation angle: $265^\circ \pm 5^\circ$
- Electrical rotation angle: $240^\circ \pm 20^\circ$
- Torque: 0.5 to 2.5 Ncm. (0.7 to 3.4 in-oz)
- Stop torque: > 10 Ncm. (>14 in-oz)

ELECTRICAL SPECIFICATIONS

- Value (*): 1k Ω to 1M Ω
- Tolerance (*): $\pm 30\%$
- Taper (*): Linear
- Nominal Power: 0.25W @ 50°C (122°F)
- Operating temperature: $-40^\circ\text{C} + 85^\circ\text{C}$
- Residual resistance: $\leq 0.5\% R_n$
- Equivalent Noise Resistance: $\leq 3\% R_n$

* Others upon request

HOW TO ORDER



NOTES:

- (1) Extra long life: 100k cycles (to be studied case by case)
- (2) Low Torque: $\leq 1.5\text{Ncm}$. No detent option available for low torque models

Shafts are not available mounted to the potentiometer and should be ordered separately

HOW TO ORDER CUSTOM DRAWING

PS-15 TV50 + DRAWING NUMBER (Max. 16 digits)

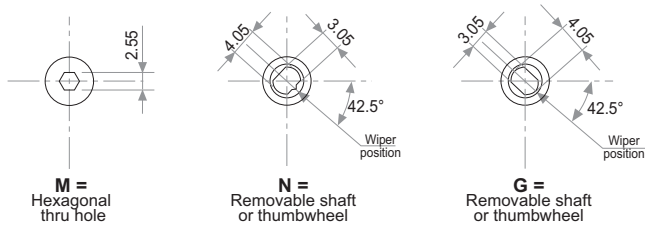
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

STANDARD OPTIONS

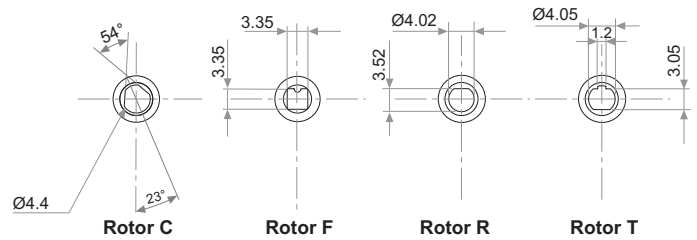
Mechanical Life.....	10k
Detents	None
Rotor colour	Dark grey
Housing colour	Dark grey
Wiper position	Initial
Torque	Standard

ROTORS (collector side view)

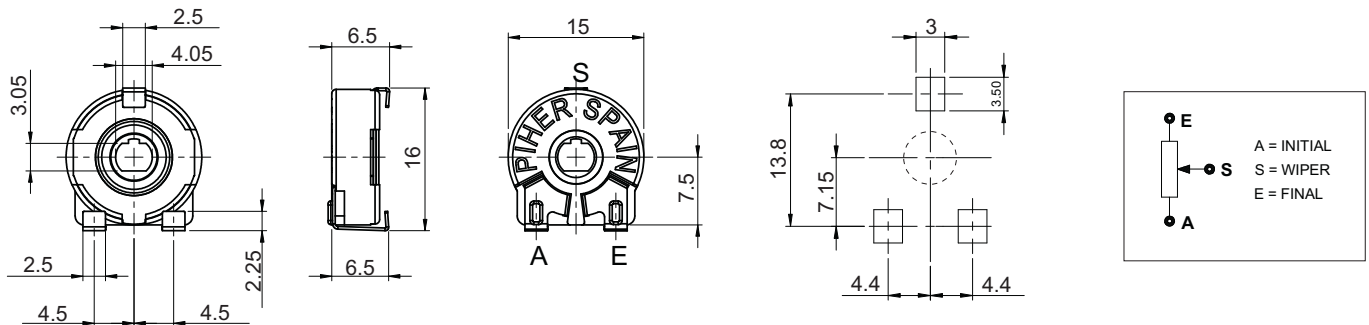
Wipers positioned at initial



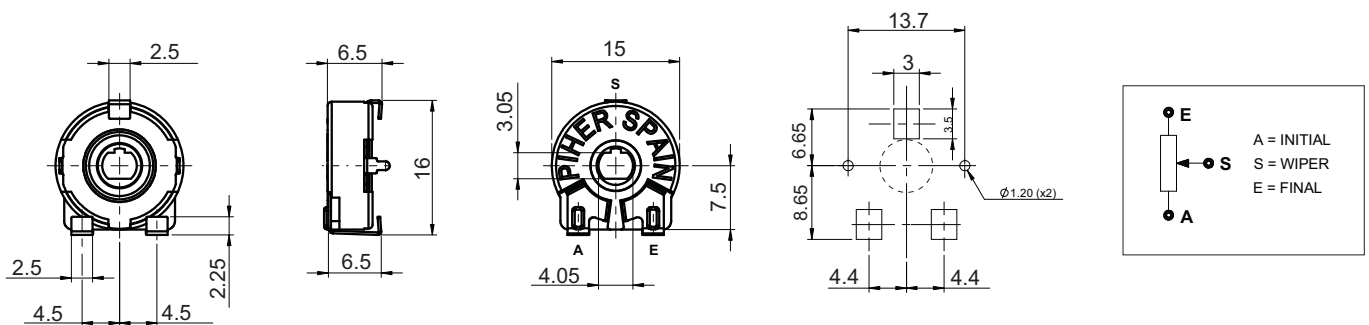
Wipers positioned at 50%



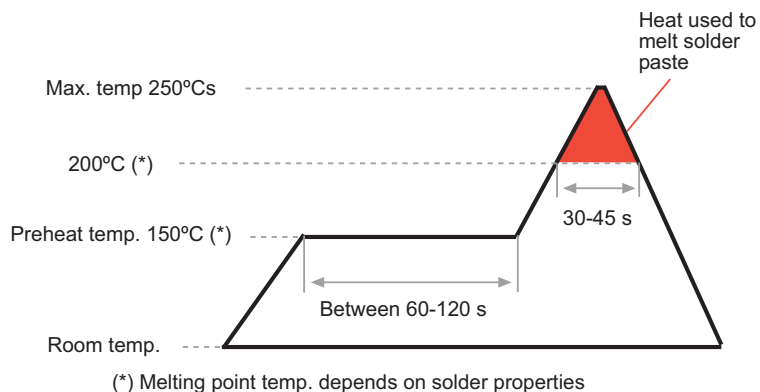
DIMENSIONS



DIMENSIONS (V60 version - with centering pins)



RECOMMENDED REFLOW PROFILE



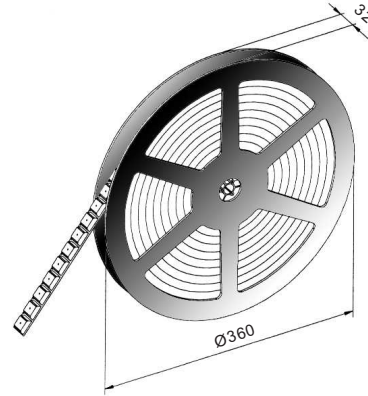
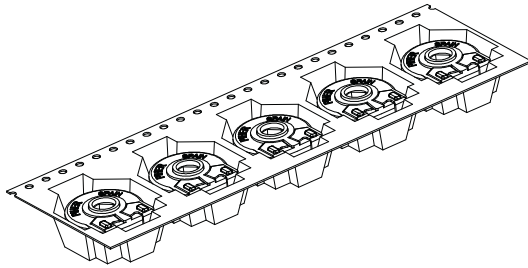
TESTS

TYPICAL VARIATIONS

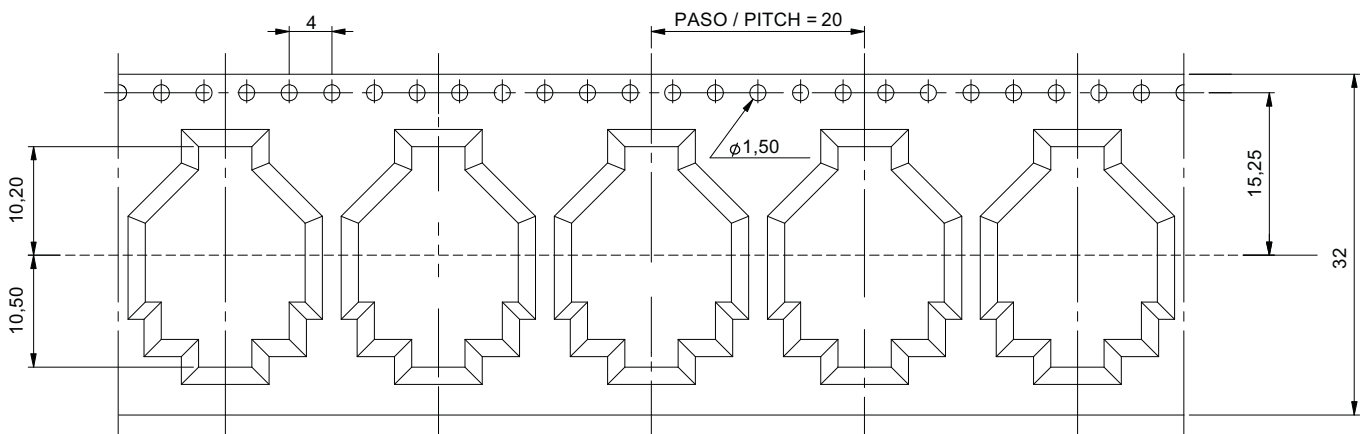
ELECTRICAL LIFE	1k h. @ 50°C; 0.25 W	±10 %
MECHANICAL LIFE	10k @ 10 CPM ...15 CPM	±10 %
TEMPERATURE COEFFICIENT	-40°C; +85°C	±1000 ppm
THERMAL CYCLING	16 h. @ 90°C; 2h. @ -40°C	±5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	±10 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz. ... 55 Hz.	±2 %

PACKAGING

Bulk: 500pcs / per Box (80 x 85 x 185 mm.)



EMBOSSED TAPE
400 Units per Reel



SHAFTS

Hollow model shafts

Solid model shafts

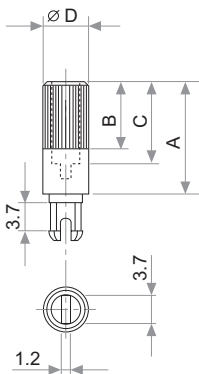


FIG.	A	B	C	D	Ref.
1	12	9	8	6	5272
2	19	9	15	6	5214
5	9.5	6.5	5.5	6	5208
9	35	9	31	6	5216
10	37.8	9	33.8	6	5218
11	35	25	15	6	5209
13	7.8	4.8	3.8	6	5265

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

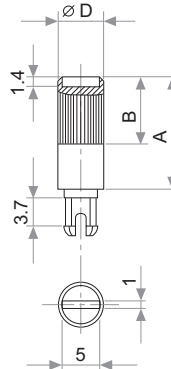


FIG.	A	B	D	Ref.
6	15	9	6	5219
7	16.8	9	6	5220
8	25.3	9	6	5207
12	46	5	6	5227

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

SHAFTS

If you wish to use your own custom plastic shaft/knob/actuator please contact Piher for advice about compatible materials.

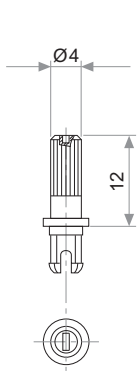


Fig. 3 / Ref. 5372

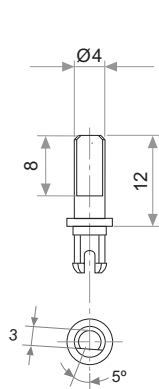


Fig. 15 / Ref. 5217

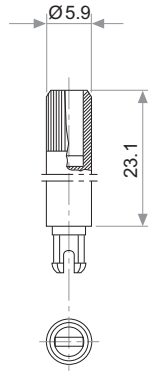


Fig. 17 / Ref. 5210

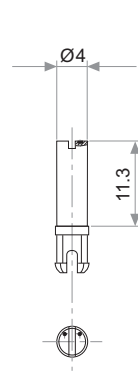


Fig. 18 / Ref. 5271

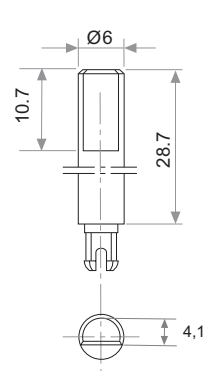


Fig. 19 / Ref. 6032*

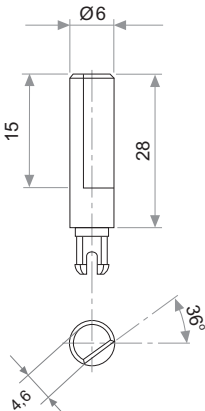


Fig. 20 / Ref. 5369*

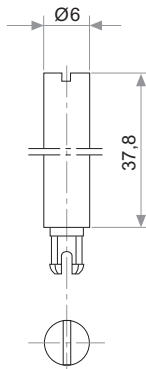


Fig. 21 / Ref. 6031*

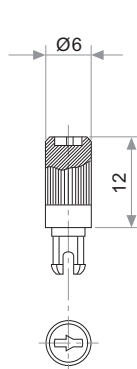


Fig. 22 / Ref. 6029

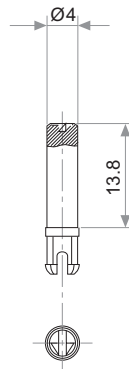


Fig. 23 / Ref. 6022

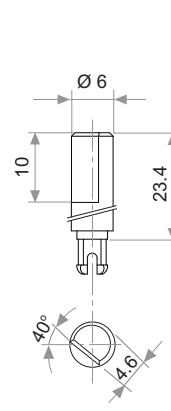


Fig. 29 / Ref. 6162

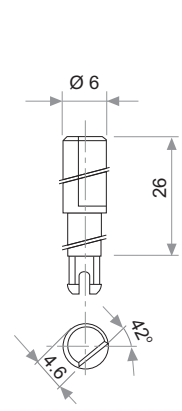


Fig. 25 / Ref. 6059

* Not available in self extinguishable plastic

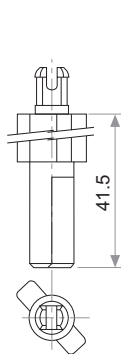


Fig. 27 / Ref. 5268*

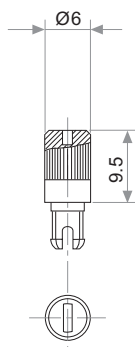


Fig. 28 / Ref. 6055

* Not available in self extinguishable plastic

THUMBWHEEL

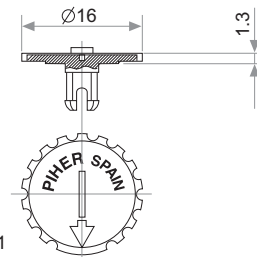
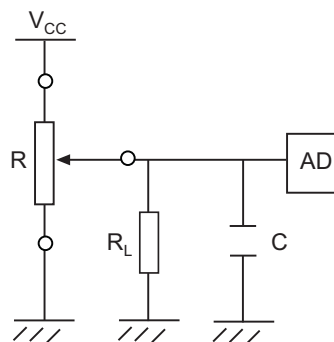


Fig. 4 / Ref. 5371

RECOMMENDED CONNECTIONS

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



$$R_L \approx 100 \times R$$