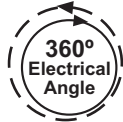




**360°
Electrical
Angle**



Fully Customisable



Reflow Soldering

FEATURES

Electrical travel: 360°

Conceived and designed for customisation

SMD, Horizontal or Through-hole Mount

Endless Rotation (360°)

Extended Mechanical Life

Working Temperature Range (-40°C to +120°C)

Low Profile (4.4 mm)

Precision: up to ± 6°

Embossed Tape or Bulk packaging

Reflow Soldering capability

Plug-in shafts

Shaft insertable from both sides

Polarised "T" rotor (European Home Appliance standard)

Ideal for Consumer Control and position sensing applications

STANDARD SPECIFICATIONS

Resistance values*:	5k, 10k
Tolerance:	± 40%
Nominal Power:	0.15 W @ 50°C
Precision*:	± 7°
Mechanical Life**:	100,000 cycles
Temperature Range:	-40°C to +120°C
Mechanical Angle:	360°
Rotational Torque:	≤ 20 mN.m
Max. Voltage:	250 VDC

(*) Others upon request

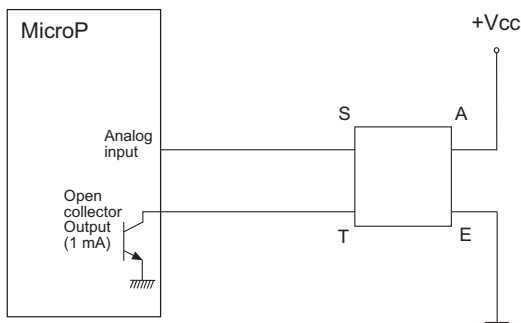
(**) 200,000 cycles version available upon request

TYPICAL APPLICATIONS

This product was designed to be a cost-effective replacement for absolute encoders of up to 5 bits.

The A15 series offers an SMD, Vertical and Through Hole mount solution for the majority of **Position/Angle Rotary Sensor** and **multi-purpose Control** applications.

SCHEMATIC AND FUNCTIONALITY



The absolute position is obtained by making 2 separate readings of the value at (S): one with (T) opened and the other with (T) closed.

HOW TO ORDER

A-15	T	S	103	4040
Series	Rotors	Mounting Method	Value	Tolerance
A-15	T	V = Through Hole S = SMD H = Horizontal Adjust	502 = 5 K 103 = 10 K	4040 = ± 40%

NOTES:

Shafts are not available mounted to the potentiometer and should be ordered separately
Horizontal adjust versions will be studied case by case

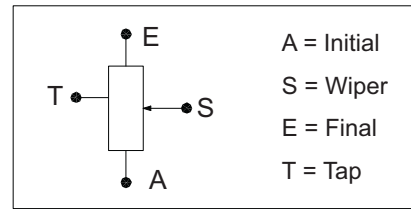
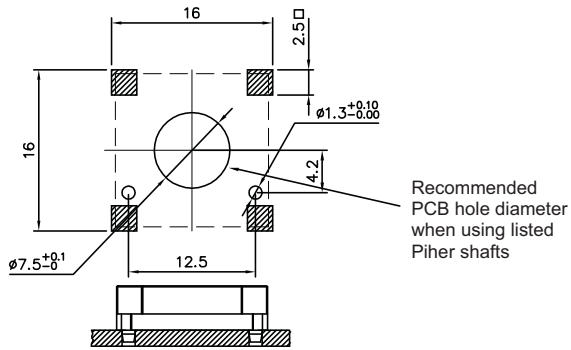
ISO TS 16949 / ISO 14001

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

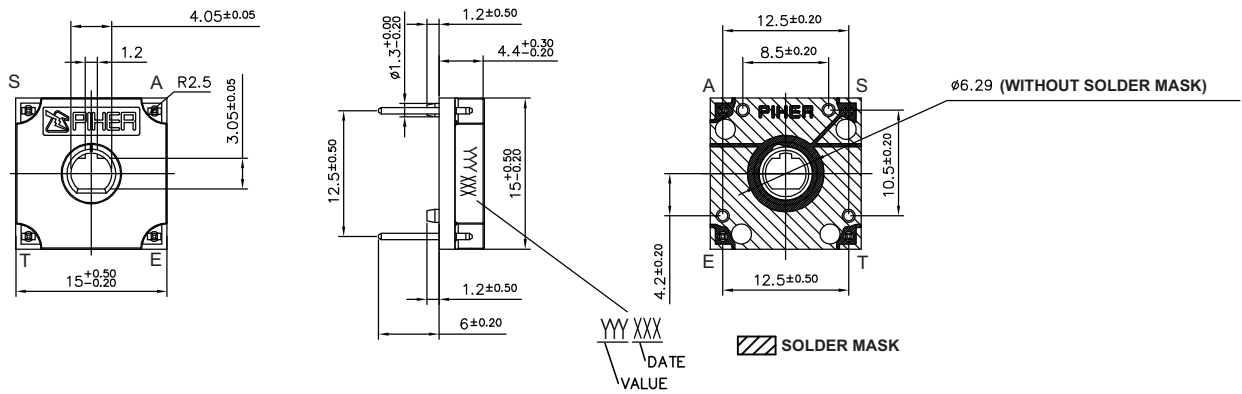
SMD MOUNT



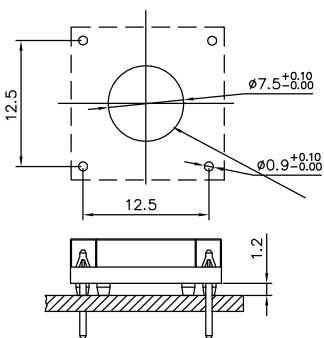
FOOT - PRINT



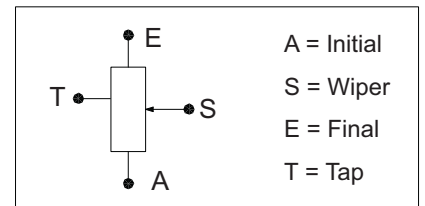
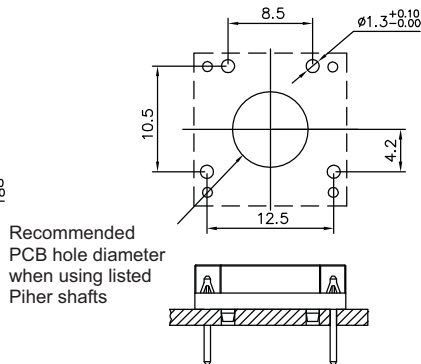
THROUGH HOLE MOUNT



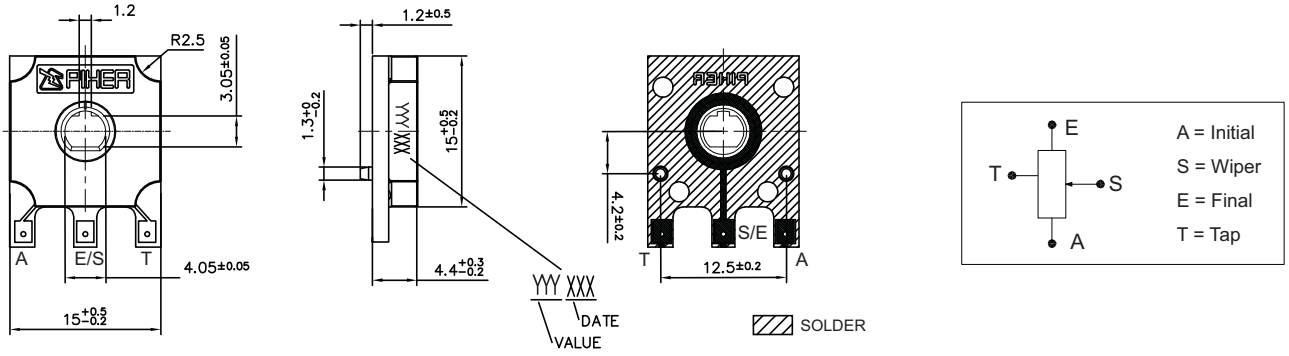
PCB HOLE LAYOUT 1



PCB HOLE LAYOUT 2



HORIZONTAL ADJUST - VERTICAL MOUNT



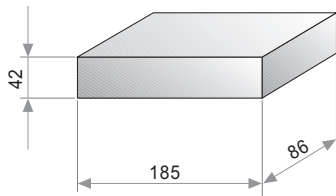
TESTS

TYPICAL VARIATIONS

ELECTRICAL LIFE	1.000 h. @ 50°C; 0.15 W	±40 %
MECHANICAL LIFE (CYCLES)	100,000 @ 20 CPM	±40 % (Rn < 100 K)
TEMPERATURE COEFFICIENT	-40°C to +120°C	±300 ppm (Rn < 100 K)
THERMAL CYCLING	10h. @ 120°C; 10h. @ -40°C	±40 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	±40 %

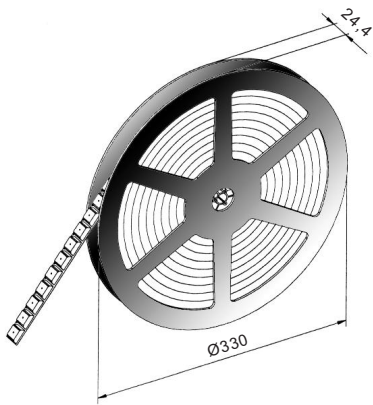
NOTE : Out of range values may not comply these results.

PACKAGING



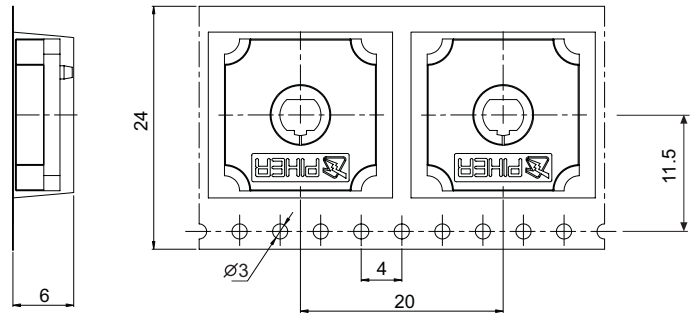
BULK

150 Units per box.
Through hole version only



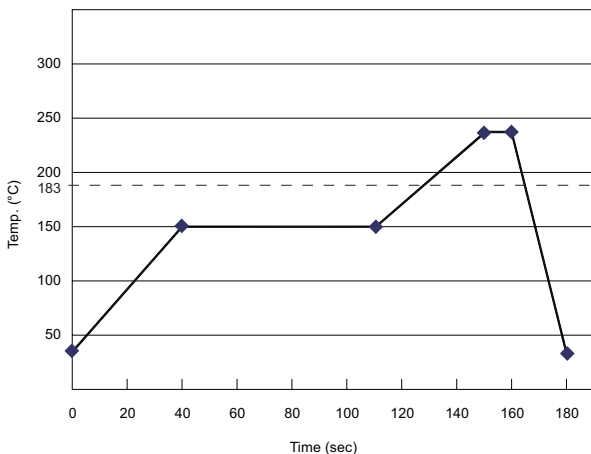
EMBOSSED TAPE

500 Units per Reel
SMD version only

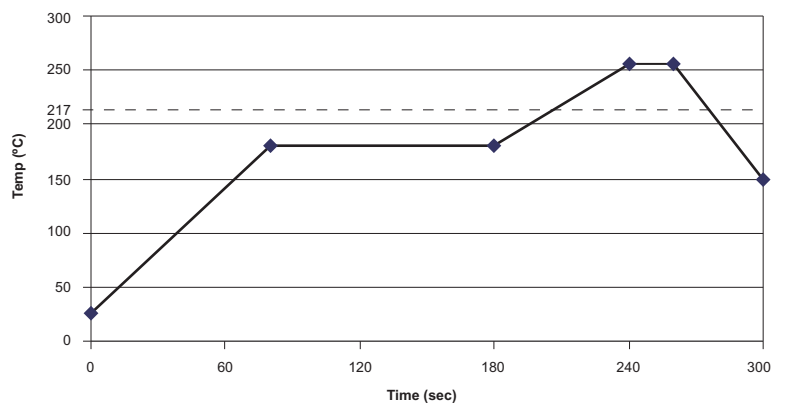


RECOMMENDED REFLOW PROFILE (SMD types)

SnPb Reflow Profile



Lead Free Reflow Profile



SHAFTS

Hollow model shafts

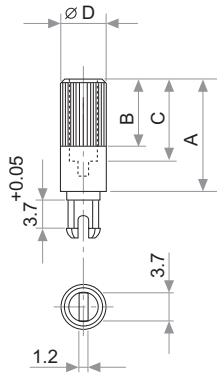


FIG.	A	B	C	D	Ref.
1	12	9	8	6	5272
2	19	9	15	6	5214
5	9.5	6.5	5.5	6	5208
9	35	9	15	6	5216
10	37.8	9	33.8	6	5218
11	35	25	15	6	5209
13	7.8	4.8	3.8	6	5265

Solid model shafts

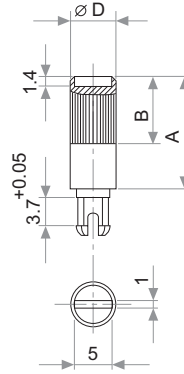


FIG.	A	B	D	Ref.
6	15	9	6	5219
7	16.8	9	6	5220
8	25.3	9	6	5207
12	46	5	6	5227

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

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

Other shafts

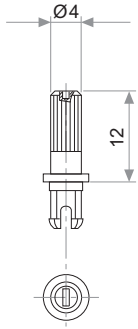


Fig. 3 / Ref. 5372

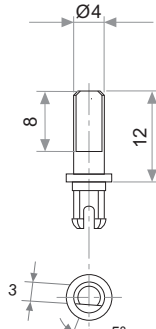


Fig. 15 / Ref. 5217

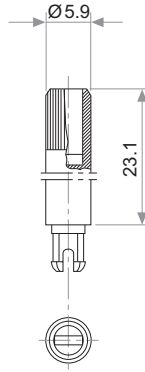


Fig. 17 / Ref. 5210

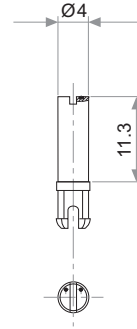


Fig. 18 / Ref. 5271

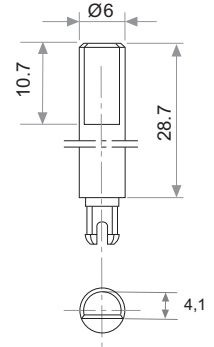


Fig. 19 / Ref. 6032*

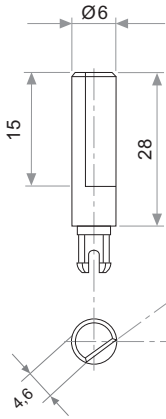


Fig. 20 / Ref. 5369*

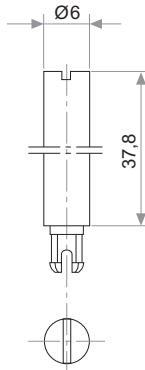


Fig. 21 / Ref. 6031*

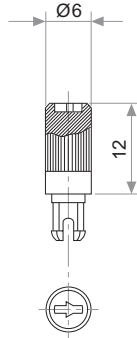


Fig. 22 / Ref. 6029

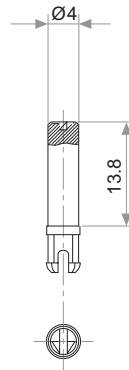


Fig. 23 / Ref. 6022

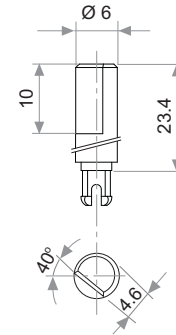


Fig. 29 / Ref. 6162

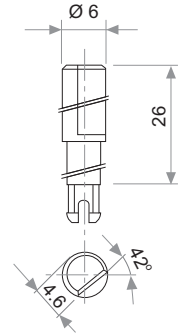


Fig. 25 / Ref. 6059

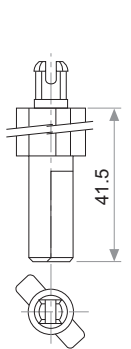


Fig. 27 / Ref. 5268*

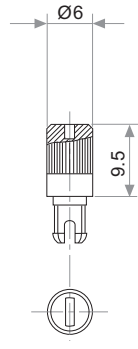


Fig. 28 / Ref. 6055

* Not available in self extinguishable plastic

POWER RATING CURVE

