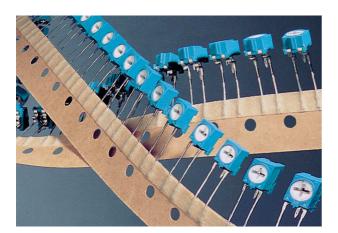
PIHER



N-6

6 mm Carbon Potentiometer

FEATURES

- RoHS compliant materials
- Carbon resistive element
- Plastic substrate
- Over-moulding manufacturing technique
- SMD or through hole
- Embossed Tape (for SMD), Tape on reel, Ammopack and Magazine packaging for automatic insertion and bulk for manual assembly
- Wiper positioned at 50%
- Both sides cross slot easy adjustment
- Accidental rotor movement protected
- Traceability insured through date code marking
- Assembly method: Stand up Lay down

MECHANICAL SPECIFICATIONS

 $- \mbox{ Mechanical rotation angle:} \qquad 280^{\circ} \pm 10^{\circ}$ $- \mbox{ Electrical rotation angle:} \qquad 245^{\circ} \pm 25^{\circ}$ $- \mbox{ Torque:} \qquad 0.2 \mbox{ to 3 Ncm.} \\ (0.28 \mbox{ to 4.2 in-oz)}$

- Stop torque: > 7.5 Ncm. (10.5 in-oz)

ELECTRICAL SPECIFICATIONS

Range of values *

 $100\Omega \leq Rn \leq \ 1M\Omega \ \big(1.0 \ \text{--} \ 2.0 \ \text{--} \ 2.2 \ \text{--} \ 2.5 \ \text{--} \ 4.7 \ \text{--} \ 5.0\big)$

- Tolerance*: 100Ω ≤ Rn ≤ 1MΩ..... ± 30%

- Max. Voltage: 100 VDC

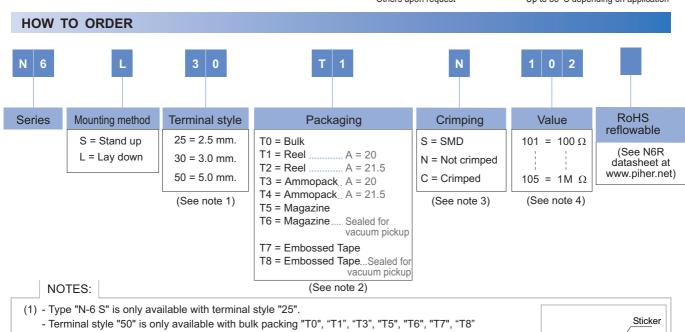
- Nominal Power 50°C (122°F) (see power rating curve): 0.1W

- Taper: linear

– End resistance: \leq 2% Rn (10 Ω min.)

– Equivalent noise resistance: ≤ 5% Rn

- Operating temperature**: -25°C + 70°C (-13°F + 158°F)



(2) - Delivery for "T2" and "T4" only available in: N-6 S 25 and N-6 L 30

- "T5", "T6", "T7" and "T8" only available in SMD.

- "T7", "T8" Embossed Tape 750 Units per Reel. Diameter: 330 mm, aprox. thickness: 30 mm.

- "T6" and "T8" are sealed for vacuum pickup (sticker at the bottom side)

(3) - Crimped terminals are only available in bulk packing "T0".

- Type "S" is only available in N-6 L 50 T0, N-6 L 50 T5, N-6 L 50 T6, N-6 L 50 T7, N-6 L 50 T8

(4) Value: Example: Code: 10 2 = 1 K

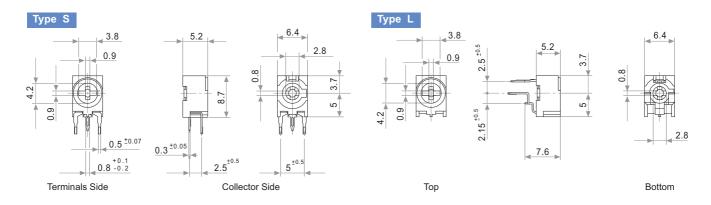
→ Number of zeros

→ First two digits of the value.

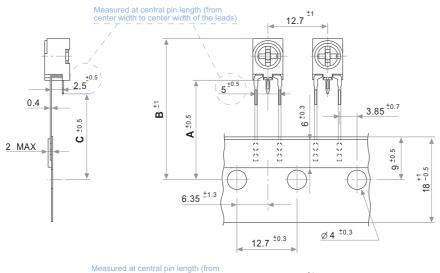
(5) - Option R: black housing & rotor colour. Range of values: $1 \text{K}\Omega \leq \text{Rn} \leq 500 \text{K} \Omega$ (1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)

 $This \ project \ has \ been \ financially \ supported \ by \ the \ Spanish \ Technological \ Development \ Institute \ (\ C\ D\ T\ I\).$

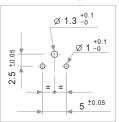
MOUNTING METHOD



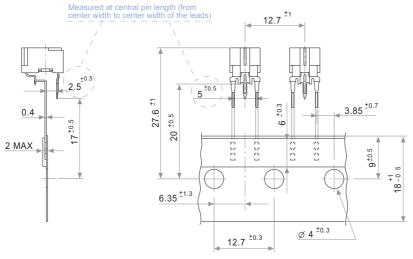
TAPE



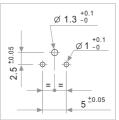
PCB Hole Layout



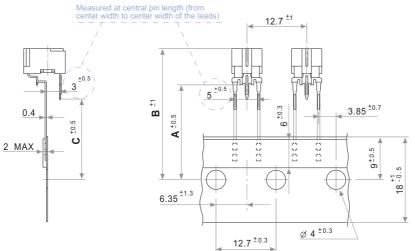
MODEL	Α	В	С
N-6 S 25 T1 / T3	20	28.7	17
N-6 S 25 T2 / T4	21.5	30.2	18.5



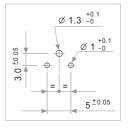
PCB Hole Layout



N-6 L 25 T1 / T3

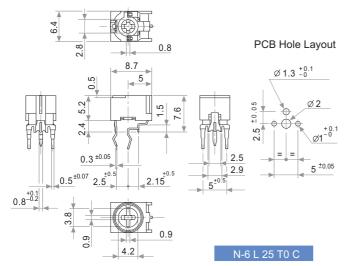


PCB Hole Layout

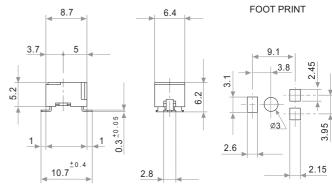


MODEL	Α	В	С
N-6 L 30 T1 / T3	20	27.6	17
N-6 L 30 T2 / T4	21.5	29.1	18.5

BULK TYPE L

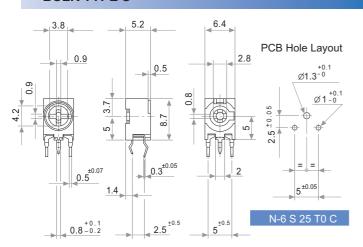


PCB Hole Layout 8.7 0.3 *0.05 0.3 *0.05 0.8 N-6 L 30 TO N



N-6 L 50 T0 S

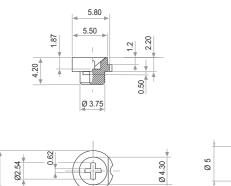
BULK TYPE S

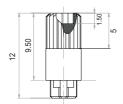


KNOB Ref.: 5680

SHAFT Ref.: 6133

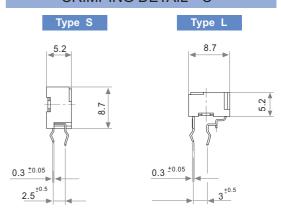
Please order both Knob and Shaft separately. If you wish to use your own custom plastic shaft/knob/actuator please contact Piher for advice about compatible materials.

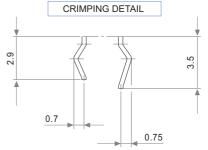




Ø 2.9

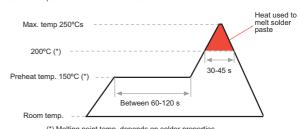
CRIMPING DETAIL "C"



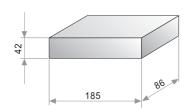


RoHS RECOMMENDED REFLOW PROFILE

Recommended profile for N6R and N6RE models



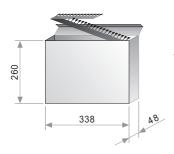
PACKAGING



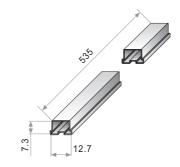
T0 BULK 500 Units per box.



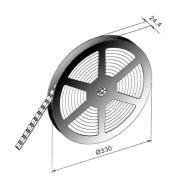
T1 / T2 TAPE ON REEL
Units per Reel according to type:
S: 1.000
L: 750



T3 / T4 AMMOPACK
Units per Box according to type.
S: 1.000
L: 750

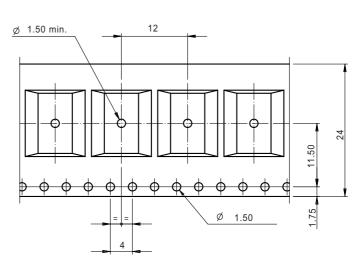


T5 / T6 MAGAZINE Units per magazine: 80



T7 / T8 EMBOSSED TAPE Units per reel: 750

6.40



AVAILABLE		TAPE			MAG	AZINE	EMB.	ВU	LK
COMBINATIONS	T1	T2	Т3	T4	T5	Т6	T7/T8	SMD	CRIMP
N-6 S 25	•	•	•	•					•
N-6 L 25	•		•						•
N-6 L 30	•	•	•	•					•
N-6 L 50	•		•		•	•	•	•	•

TESTS		TYPICAL VARIATIONS
ELECTRICAL LIFE	1.000 h. @ 50°C: 0.1 W	±10 %
MECHANICAL LIFE (CYCLES)	100 @ 10 CPM15 CPM	±3 % (Rn < 1 M Ω)
TEMPERATURE COEFFICIENT	–25°C; +70°C	±300 ppm (1K≤ Rn ≤100 K)
THERMAL CYCLING	16 h. @ 85°C; 2h. @ –25°C	±5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	±5 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz 55 Hz.	±2 %

W (%)
100 %
40 %
50° 70° C

POWER RATING CURVE

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

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