

### FEATURES

- High reliability
- Simple construction (only 3 component parts)
- Over-moulding manufacturing technique
- Plastic or metal clip versions available
- Various fixation means: clip type (inward/outward actuating), locating pins,...

### TYPICAL APPLICATIONS

Provides a low cost, highly reliable solution for all position sensing applications:

- Automotive seat position memory, central locking, headlamp position and rear-view mirror position sensors.

### MECHANICAL SPECIFICATIONS

Mechanical travel:

- NPL07.....7,25mm
- NPL08.....8mm
- NPL11.....11mm
- NPL12.....12mm

Electrical travel: (see how to order)

Sliding force:  $\leq 2N @ 10mm/sec$

Stop strenght: 30N for 5 secs

### ELECTRICAL SPECIFICATIONS

Range of values:	1K to 100K ohms
Tolerance:	$\pm 30\%$
Max. voltage*:	50 VDC to 100 VDC
Power rating*:	0.20 W @ 50°C
Operating temperature:	-40°C to +105°C
Taper**:	Linear
Relative linearity**:	$\pm 2\%$
Mechanical Life:	50k cycles

\* Depending on model \*\* Others upon request

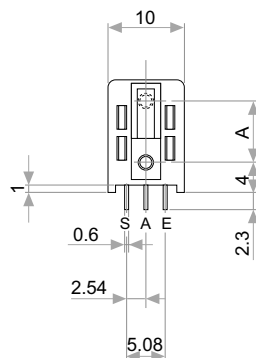
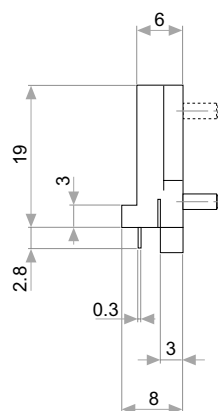
### HOW TO ORDER

Series	Electrical Travel	Value	Tolerance	Clip Style
NPL 07 P	0 6	1 0 2	3 0 3 0	O
NPL 11 P	6 to 8	102 = 1K	3030 = $\pm 30\%$	I = Inward
NPL 12 P	6 to 12	104 = 100 K	(See note 4)	O = Outward
NPL 08M	6 to 8	(See note 3)		W = Without clip
(See note 1)	(See note 2)			S = Straight
				C = Crimped
				(See note 5)

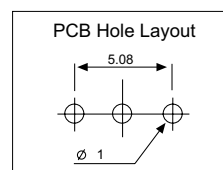
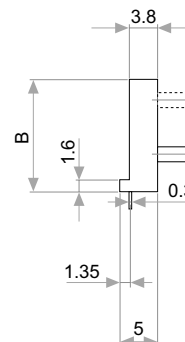
### NOTES:

- (1) Suffixes: P = Plastic, M= Metal
- (2) Each NPL series has its own Electrical Travel range as shown.
- (3) Value Example: Code: 10 2  $\rightarrow$  1k $\Omega$   
 $\rightarrow$  Number of zeros  
 $\rightarrow$  First two digits of the value.
- (4) Non standard tolerance, upon request. Example: +25% -20% Code: 25 20  
 $\rightarrow$  negative tolerance  
 $\rightarrow$  positive tolerance
- (5) S and C options only available for NPL08M (metal version)  
W option only available for NPL07P and NPL11P  
I and O options only available for NPL12P

NOTE: The information contained here should be used for reference purposes only.  
This project has been financially supported by the Spanish Technological Development Institute (CDTI).

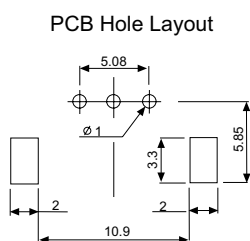
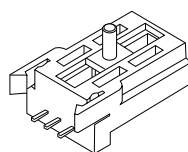
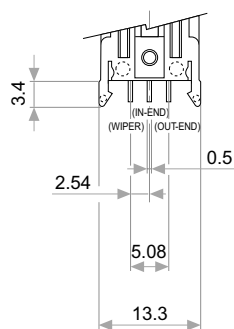


All dimensions in mm.

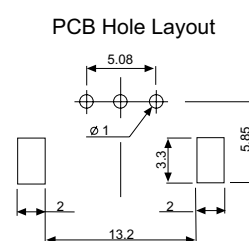
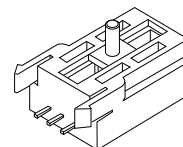
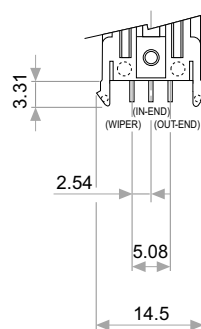


### CLIP STYLE DETAILS (FOR NPL12P)

## INWARD FACING CLIPS

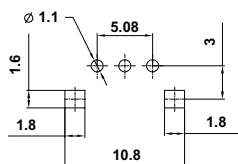
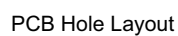
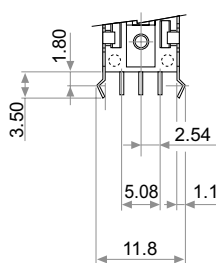


## OUTWARD FACING CLIPS



## METAL VERSION (NPL08M)

CRIMPED



## STRAIGHT

