

## FEATURES

- Carbon resistive element.
- Dust proof enclosure.
- With or without actuating knob
- Optional SPST switch

## MECHANICAL SPECIFICATIONS

- Mechanical rotation angle:  $255^\circ \pm 5^\circ$
- Electrical rotation angle:  $220^\circ \pm 20^\circ$
- Torque: 0.5 to 1.5 Ncm.  
(0.7 to 2.1 in-oz)
- Stop torque: > 40 Ncm. (> 56 in-oz)

## ELECTRICAL SPECIFICATIONS

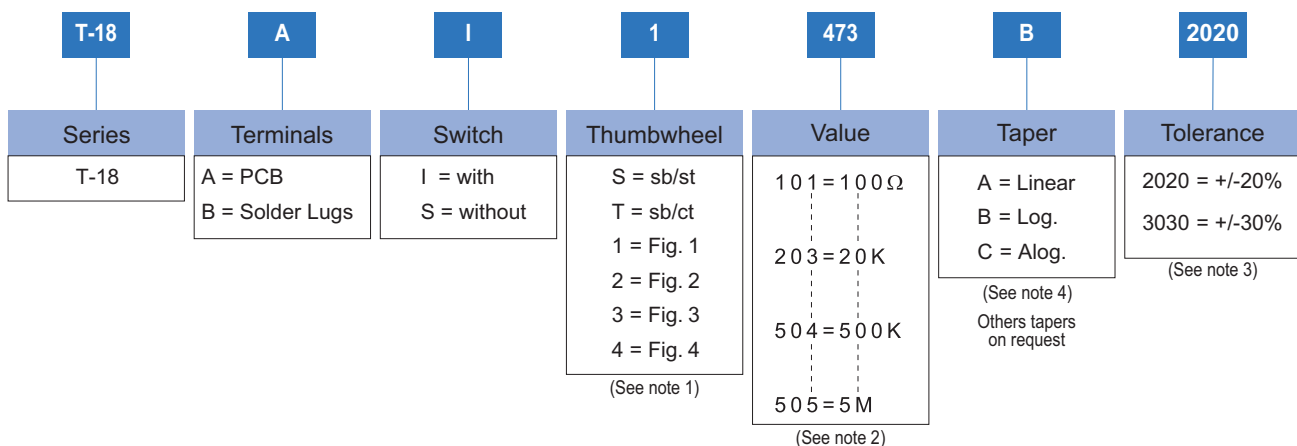
- Range of values (\*)  
 $100\Omega \leq R_n \leq 5\text{ M}$  (Decad. 1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)
- Tolerance (\*):  $100\Omega \leq R_n \leq 1\text{M}\Omega$  .....  $\pm 20\%$   
 $1\text{M}\Omega < R_n \leq 5\text{M}\Omega$  .....  $\pm 30\%$
- Max. Voltage: 200 VDC (lin) 100 VDC (no lin)
- Nominal Power  $50^\circ\text{C}$  ( $122^\circ\text{F}$ ) (see power rating curve)  
0.25 W (lin) 0.12 W (no lin)
- Taper (\*) (Log. & Alog. only  $R_n > 1\text{K}$ ) Lin ; Log; Alog.
- Residual resistance(\*):  $\leq 0.5\% R_n$  ( $5\Omega$  min.)
- Equivalent Noise Resistance:  $\leq 3\% R_n$  ( $3\Omega$  min.)
- Operating temperature\*\*:  $-25^\circ\text{C} + 70^\circ\text{C}$  ( $-13^\circ\text{F} + 158^\circ\text{F}$ )

\* Others upon request

\*\* Up to  $85^\circ\text{C}$  depending on application

## HOW TO ORDER

### STANDARD



### NOTES:

- (1) Thumbwheel: S = without knob, without screw  
T = without knob, with screw  
Fig. 1, 2 y 3: countersunk knob  
Fig. 4: knob with screw  
knob colour: Black

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

- (2) Value: • Code:  $\begin{matrix} 10 & 1 & 100\Omega \\ \downarrow & \downarrow & \downarrow \\ \text{Number of zeros} & \text{Number of zeros} & \text{Number of zeros} \\ \text{2 first digits of the value.} & \text{2 first digits of the value.} & \text{2 first digits of the value.} \end{matrix}$
- Others values upon request.

- (3) Tolerance (non standard), upon request.  
Rotary switch with Alog. curve is not available.

Example code: +7 =  $\begin{matrix} 07 & 05 \\ \downarrow & \downarrow \\ \text{negative tolerance} & \text{positive tolerance} \end{matrix}$

- (4) Switch option not available with antilog taper.

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

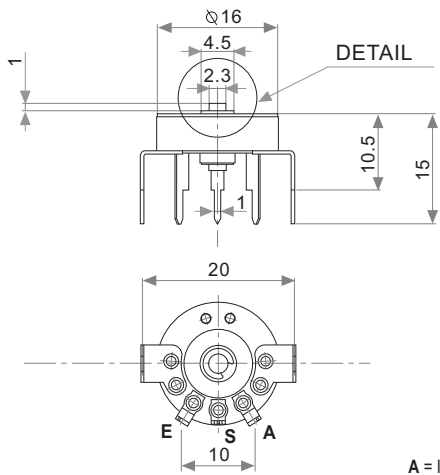
## HOW TO ORDER CUSTOM DRAWING

T-18 A I + DRAWING NUMBER (Max. 16 digits)

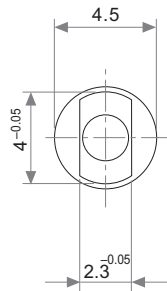
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

### TERMINALS

T-18 A

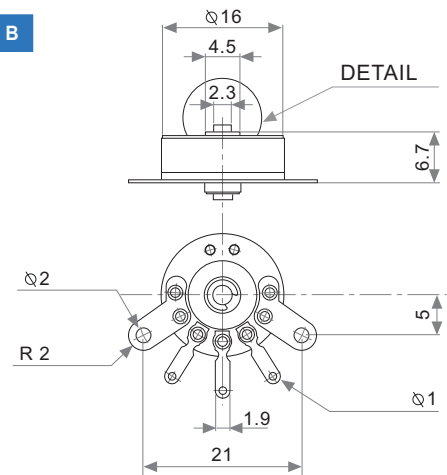


DETAIL

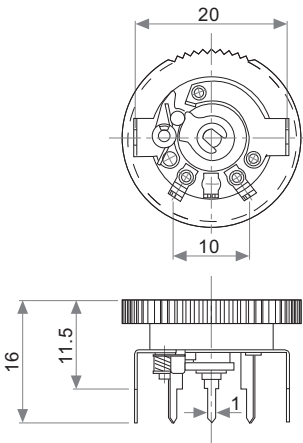


A = Initial S = Wiper E = Final

T-18 B

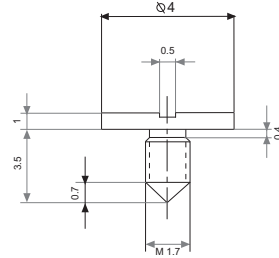


### SWITCH

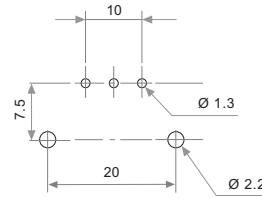


#### ELECTRICAL AND MECHANICAL

SWITCH RATING	0.5 A; 12V DC
SWITCH OPERATING ANGLE	25°±10°
MECHANICAL LIFE (CYCLES)	10.000

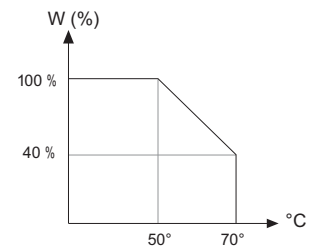


SCREW



FOOTPRINT

### POWER RATING CURVE



### THUMBWHEEL

Fig. 1 / Ref. 5950

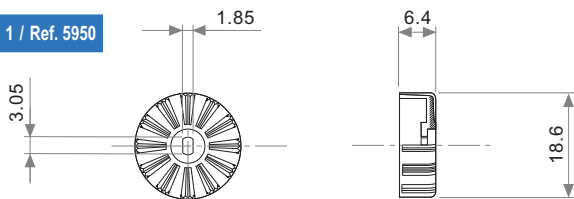


Fig. 2 / REF. 5951

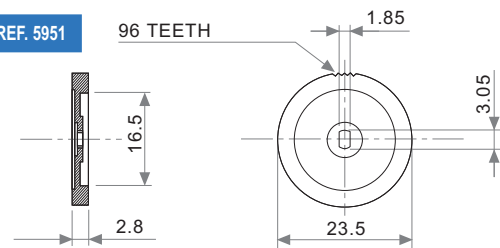


Fig. 3 / Ref. 5952

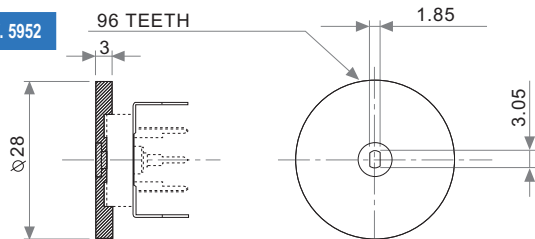
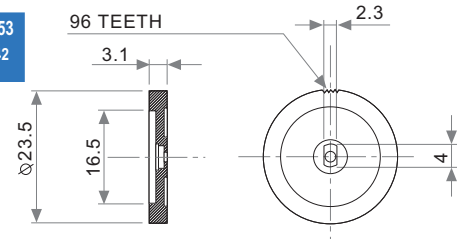


Fig. 4 / Ref. 5953  
(Screw Ref. 5342 is required)



### TESTS

### TYPICAL VARIATIONS

TESTS	TYPICAL VARIATIONS	TYPICAL VARIATIONS
ELECTRICAL LIFE	1.000 h. @ 50°C; 0.25 W	±5 %
MECHANICAL LIFE : POT.	25.000 (10-15 CPM)	±3 % (Rn < 1 M)
TEMPERATURE COEFFICIENT	-25 °C; +70 °C	±300 ppm (Rn < 100 K)
THERMAL CYCLING	16 h. @ 85 °C; 2h @ -25 °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.