



FEATURES

- Carbon resistive element.
- High mechanical endurance.
- Upon request:
 - Detents
 - Stereo matching
 - Switch
 - Nut & washer

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: 250 VDC (lin) 125 VDC (no lin)
- Nominal Power 50°C (122°F) (see power rating curve)
 0.2 W (lin) 0.1 W (no lin)
- Taper* (Log. & Alog. only $R_n > 1\text{K}$) Lin ; Log; Alog.
- Residual resistance*: $\leq 0.5\% R_n$ (5 Ω min.)
- Equivalent Noise Resistance: $\leq 3\% R_n$ (3 Ω min.)
- Operating temperature**: $-25^\circ\text{C} + 70^\circ\text{C}$ ($-13^\circ\text{F} + 158^\circ\text{F}$)

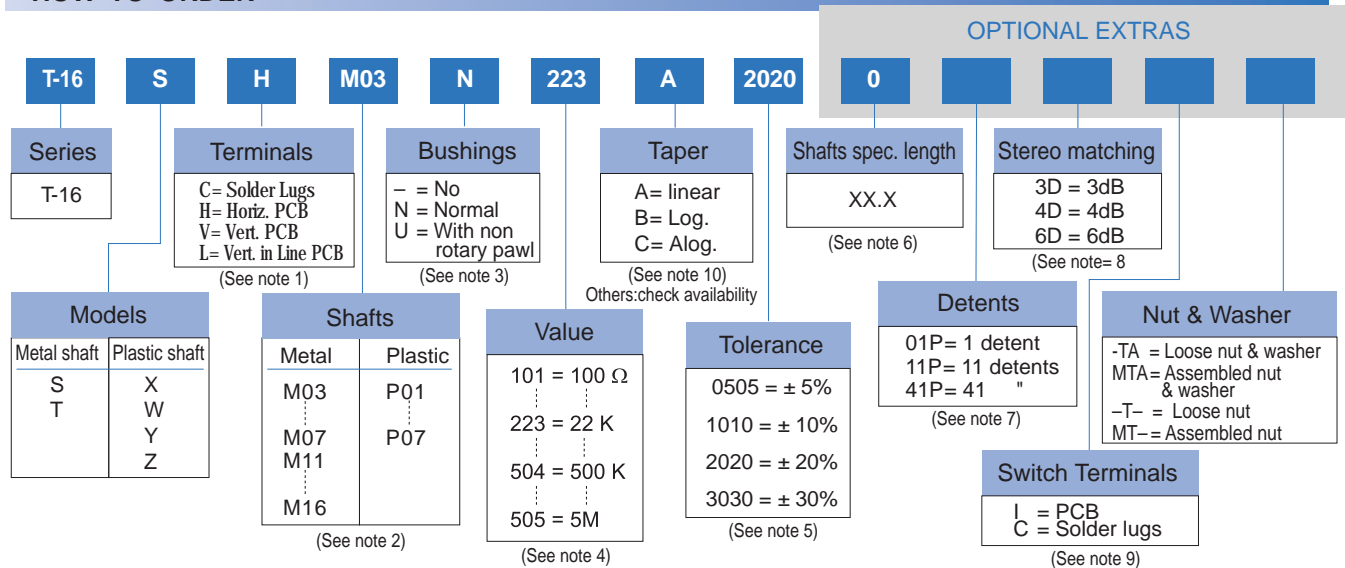
MECHANICAL SPECIFICATIONS

- Mechanical rotation angle: $300^\circ \pm 5^\circ$
- Electrical rotation angle: $280^\circ \pm 20^\circ$
- Torque: 0.5 to 1.5 Ncm.
(0.7 to 2.1 in-oz)
- Stop torque: $> 40\text{ Ncm.}$ ($> 56\text{ in-oz}$)

* Others upon request.

** Up to 85°C depending on application.

HOW TO ORDER



NOTES:

- Terminals: Model T is not available with terminals "V" or "L".
- Shafts: The codes indicate diameter and length. Shaft M05 only for double potentiometer.
- Bushings: – = Only for potentiometer model X, W.
U = Standard antirotation lugs (at 90° CW).
- Value:
 - Code: $\frac{10}{1} \frac{100}{\Omega}$ → Number of zeros
2 first digits of the value.
 - In model "T" with different values, ask by drawing.
- Tolerance (non standard), upon request. Example code: $\frac{+15}{-20}$
 - 15 → negative tolerance
 - 20 → positive tolerance
- Shafts length:
 - Only for special length and plain shafts (not knurled). Example: Shaft $\varnothing 6,25$ L= 24.5 M07 24.5 → Shafts length shafts
 - Flatted and slotted shafts, etc. will need drawings.
 - NOTE: Max. length 40 mm. (shafts 4, 6, 6.25)
- Detents : - Not available for models with plastic shaft X, W, Y, Z.
- Detents and switch are not compatible.
- Stereo matching: Only available in tandem models and upon request.
- Switch: Not available for models X, W, Y, Z, T.
- Switch option not available with antilog taper.

HOW TO ORDER CUSTOM DRAWING

T-16 SH + DRAWING NUMBER (Max. 16 digits)

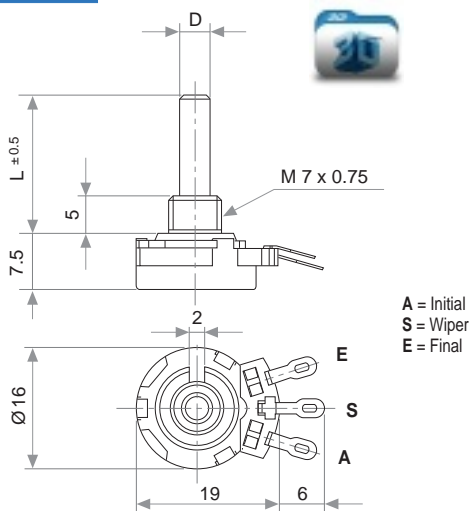
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

STANDARD OPTIONS

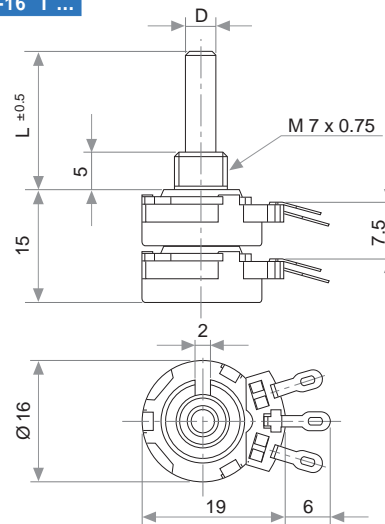
Shaft length	0 standard length
Detents	Not included
Stereo matching	Only for model "T" and upon request
Switch	No switch
Nut & washer	Without nut and washer
Packaging	Bulk

MODELS WITH METALIC SHAFTS

T-16 S ...

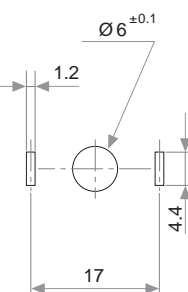
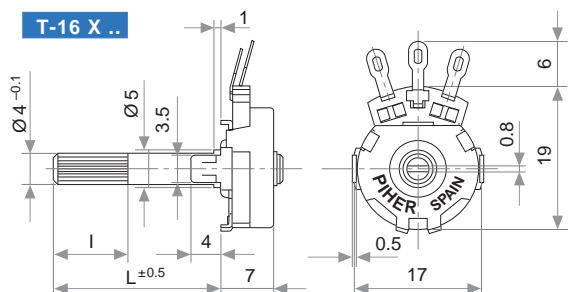


T-16 T ...

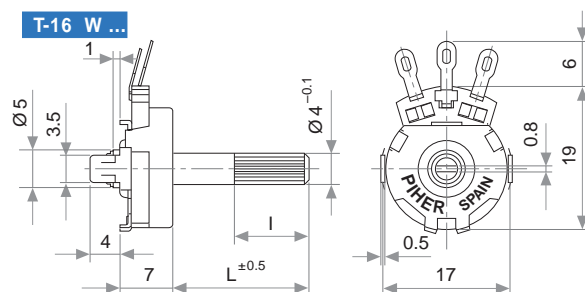


MODELS WITH PLASTIC SHAFTS

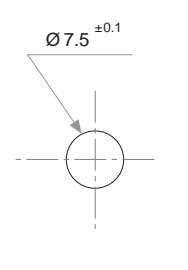
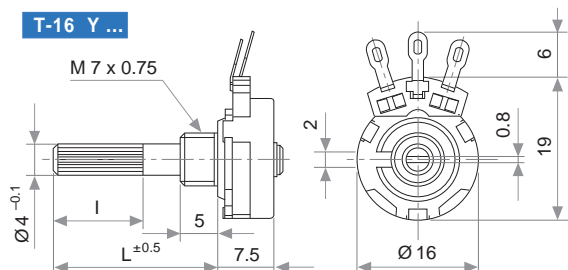
T-16 X ...



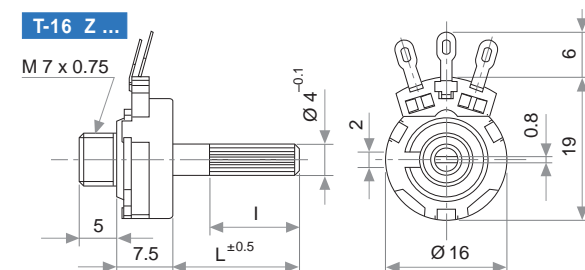
T-16 W ...



T-16 Y ...

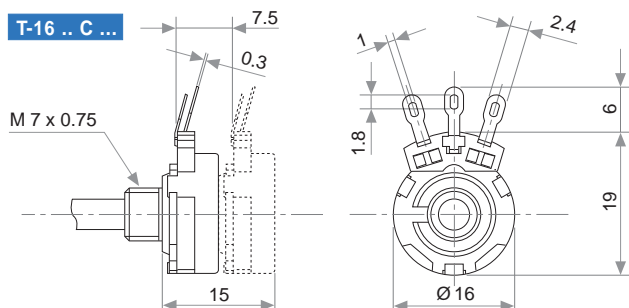


T-16 Z ...

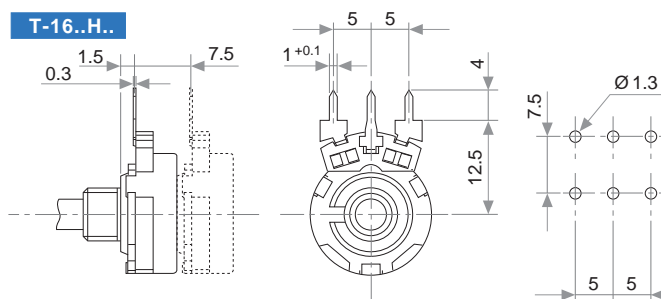


TERMINALS

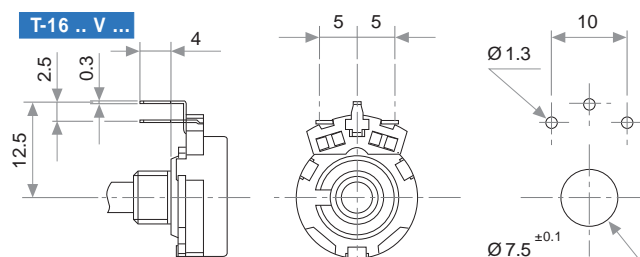
T-16 .. C ...



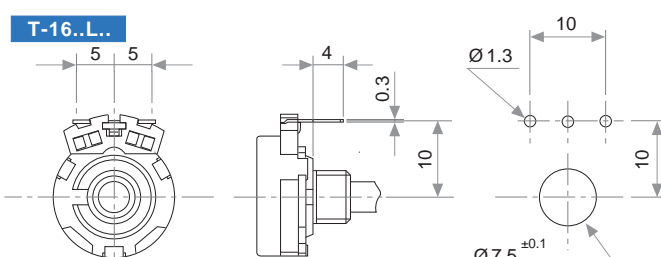
T-16..H..



T-16 .. V ...



T-16..L..



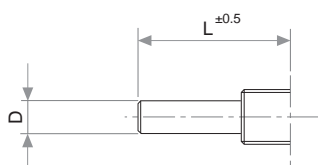
PLASTIC SHAFTS

T-16 X / Y		Without Switch		
T-16 X		T-16 Y		CODE
L	I	L	I	
2	—	—	—	P01
21	12	20.5	12	P02
24.5	15	24	15	P03
40	31	39.5	31	P04

T-16 W / Z		Without Switch
T-16 W & T-16 Z		CODE
L	I	
9.5	5	P05
23.5	19	P06
40	35	P07

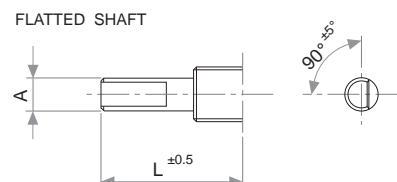
METALIC SHAFTS

PLAIN SHAFT

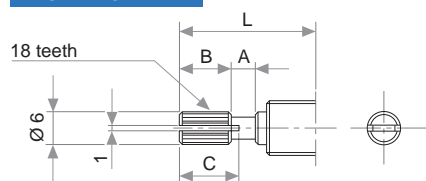


D	L	CODE
3	30	M03
4	40	M04
6	40	M06
6.25	40	M07
3/4	40/30	M05

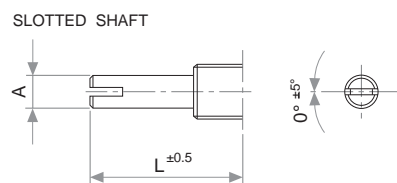
UNDER DRAWING



KNURLED SHAFT

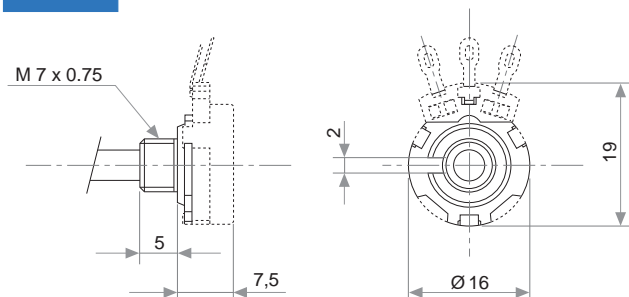


L	A	B	C	CODE
15	2	6	7	M11
20	2	10	11	M12
25	4	12	14	M13
30	4	12	14	M14
35	4	12	14	M15
40	4	12	14	M16

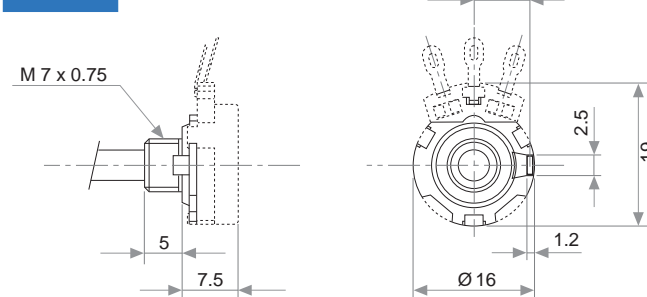


BUSHINGS

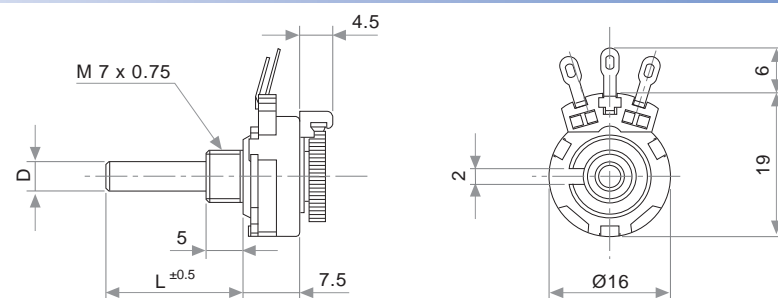
T-16 ... N ...



T-16 ... U ...



DETENTS



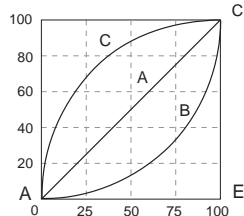
CODE	DETENTS
01 P.	1 detent (at 50%)
11 P.	11 detents
41 P.	41 detents

Only models with metallic shaft.

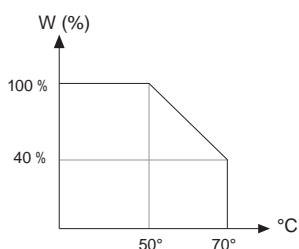
TAPERS

Standard

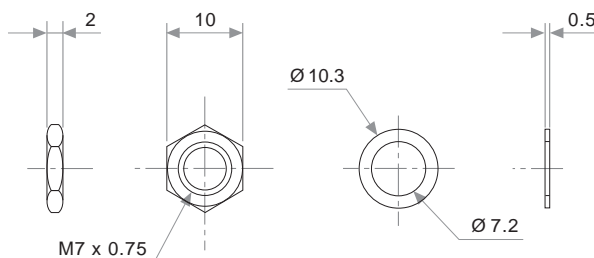
A: Lin.
B: Log.
C: Alog.



POWER RATING CURVE



NUT & WASHER

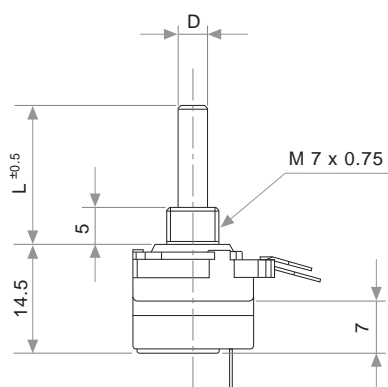


TESTS		TYPICAL VARIATIONS
ELECTRICAL LIFE	1.000 h. @ 50°C; 0.20 W	± 5 %
MECHANICAL LIFE : POT. SWITCH	25.000 (10–15 CPM) 10.000 (1A, 50 VAC)	± 3 % (Rn < 1 MΩ)
TEMPERATURE COEFFICIENT	–25°C; +70°C	± 300 ppm (Rn < 100 K)
THERMAL CYCLING	16 h. @ 85°C; 2h. @ –25°C	± 2.5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	± 5 %
VIBRATION (each plane X,Y,Z)	2 h. @ 20 g. 10 Hz ... 55 Hz.	± 2 %

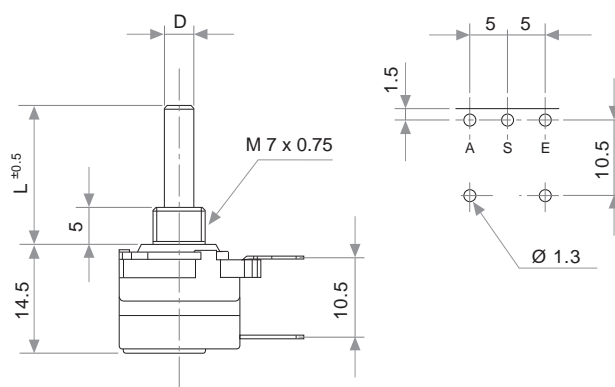
NOTE: Out of range values may not comply these results.

SWITCH

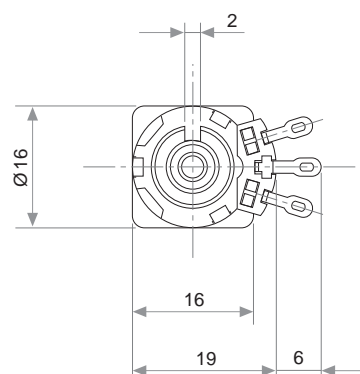
T-16..C..C



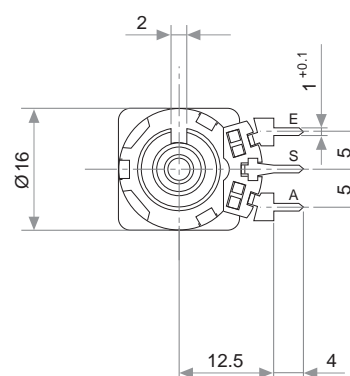
T-16..H..I



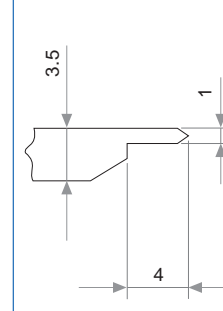
Switch terminal detail.



Switch terminal detail.



Switch terminal detail.



SWITCH SPECIFICATIONS

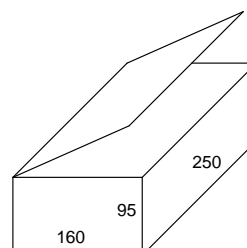
NOMINAL CURRENT	1A, 250 VAC
CONTACT RESISTANCE (Initial)	10 mΩ
OPERATING TORQUE	1 to 3 Ncm (1.4 to 4.2 in-oz)
OPERATING ANGLE	30° ±5°
TEST VOLTAGE	500 V

PACKAGING

MODEL	PACKAGING
T 16 – L = 40 mm.	400 UNITS PER BOX (BULK)
T 16 – L = 20 mm.	600 UNITS PER BOX (BULK)
T 16 – c/i – Tandem	200 UNITS PER BOX (BULK)



Box dimensions (cms).

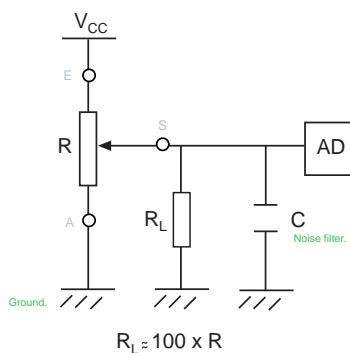


Default packaging is bulk.

Blisters and other packaging types are available upon request, please contact sales@piher.net.

RECOMMENDED CONNECTIONS

Piher potentiometers recommended connection circuit for a position sensor or control application. (voltage divider circuit electronic design).



Piher's advantage

- ✓ Outstanding customer support.
- ✓ Design in support.
- ✓ Switch function.
- ✓ Cable & Connector assembly.
- ✓ Manufacturing competence for high and low volume in Europe & Asia.
- ✓ One-stop solution provider for inductive, capacitive, hall-effect and resistive solutions.
- ✓ Amphenol Global footprint and customer care.

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