

#### **MECHANICAL SPECIFICATIONS**

300° ± 5° – Mechanical rotation angle: - Electrical rotation angle: 280° ± 20°

- Torque: 0.5 to 1.5 Ncm. (0.7 to 2.1 in-oz)

> 40 Ncm. ( > 56 in-oz) - Stop torque:

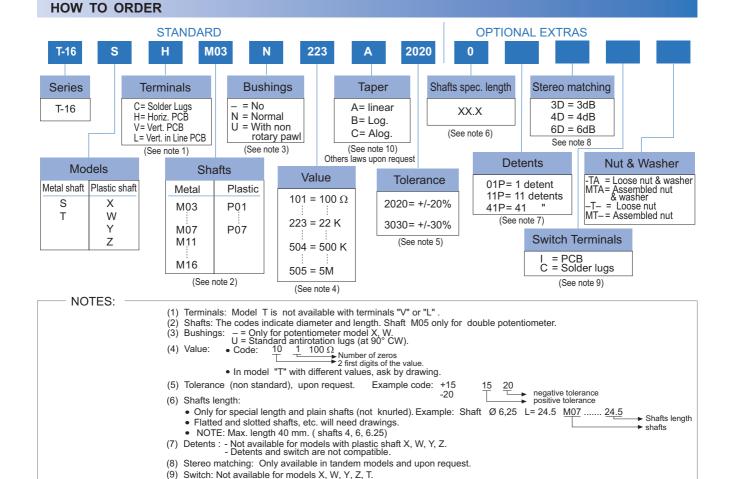
# T-16 16 mm Carbon Potentiometer

#### **FEATURES**

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

#### **ELECTRICAL SPECIFICATIONS**

- Range of values\*  $100\Omega \le Rn \le 5 M$  (Decad. 1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)
- − Tolerance (\*):  $100\Omega \le Rn \le 1M \Omega = \pm 20\%$  $1M\Omega$  < Rn  $\leq$  5M  $\Omega$  .....  $\pm$  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 Rn > 1K) Lin ; Log; Alog.
- Residual resistance\*:  $\leq 0.5\%$  Rn (5  $\Omega$  min.)
- Equivalent Noise Resistance:  $\leq 3\%$  Rn (3  $\Omega$  min.)
- Operating temperature\*\*: -25°C + 70°C (-13°F + 158°F)



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

(10) Switch option not available with antilog taper.

<sup>\*</sup> Others upon request.

<sup>\*\*</sup> Up to 85°C depending on application.

#### HOW TO ORDER CUSTOM DRAWING

#### STANDARD OPTIONS

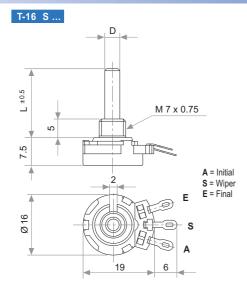
T-16 SH + DRAWING NUMBER (Max. 16 digits)

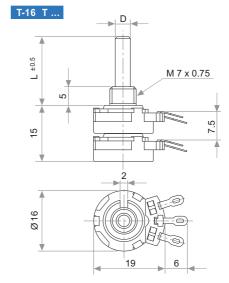
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

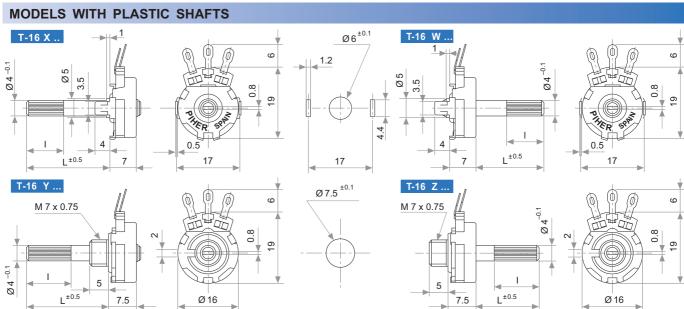
Shaft length 0 standard length
Detents Not included
Stereo matching Only for model "T" and upon request
Switch No switch

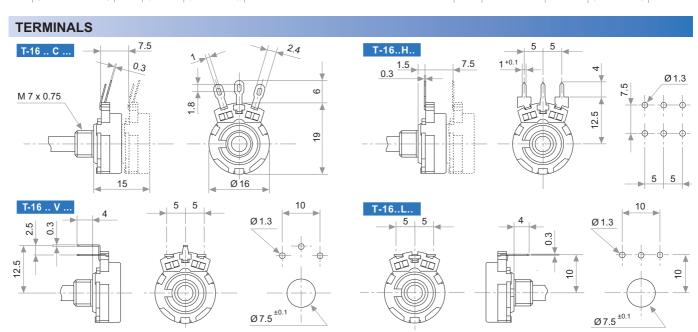
Nut & washer ...... Without nut and washer

#### **MODELS WITH METALIC SHAFTS**







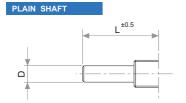


## PLASTIC SHAFTS

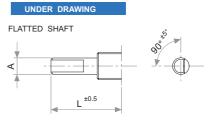
	T-16	X/Y	Withou	t Switch
T-16 X		T-16 Y		CODE
L	1	L	I	
2	_	_	_	P01
21	12	20.5	12	P02
24.5	15	24	15	P03
40	31	39.5	31	P04

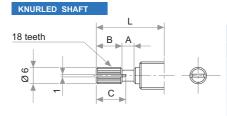
T-16 W / Z Without Switch			
T-16 W	& T-16 Z	CODE	
L	1		
9.5	5	P05	
23.5	19	P06	
40	35	P07	

#### **METALIC SHAFTS**

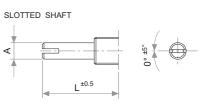


L	CODE
30	M03
40	M04
40	M06
40	M07
40/30	M05
	40 40 40

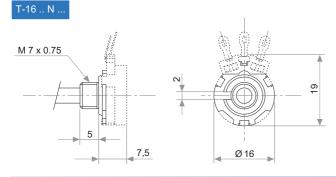


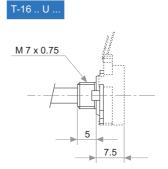


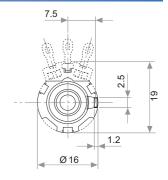
L		Α	В	С	CODE
15	5	2	6	7	M11
20	)	2	10	11	M12
25	5	4	12	14	M13
30	)	4	12	14	M14
35	5	4	12	14	M15
40	)	4	12	14	M16



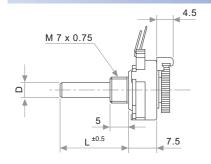
#### **BUSHINGS**

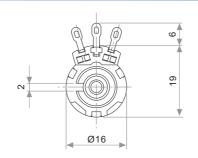






#### **DETENTS**





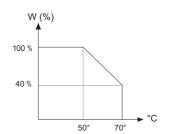
CODE	DETENTS
01 P.	1 detent (at 50%)
11 P.	11 detents
41 P.	41 detents

Only models with metalic shaft.

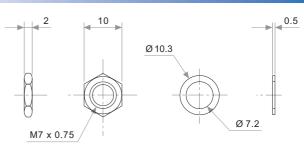
#### **TAPERS**

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## **POWER RATING CURVE**



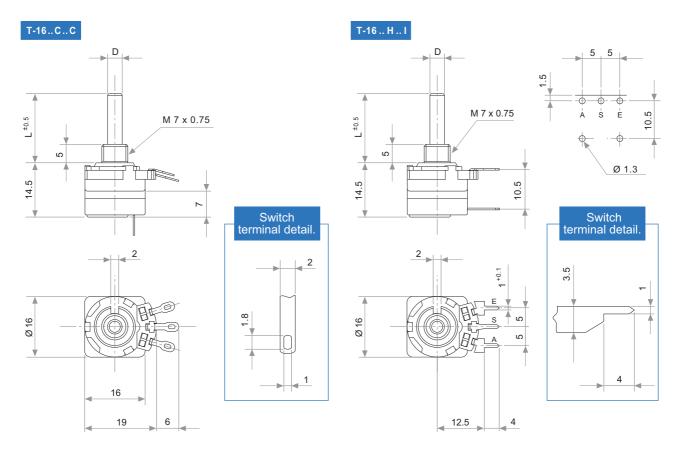
#### **NUT & WASHER**



TESTS	TYPICA	L 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**



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

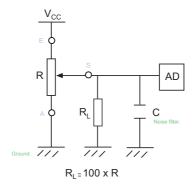
# **PACKAGING**

MODEL	PACKAGING
T 16 – L = 40 mm.	400 UNITS IN BOX
T 16 – L = 20 mm.	600 UNITS IN BOX
T 16 - c/i - Tandem	200 UNITS IN BOX

#### RECOMMENDED CONNECTIONS

Piher potentiometer's recommended connection circuit for a position sensor or control application.

(voltage divider circuit electronic design).



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