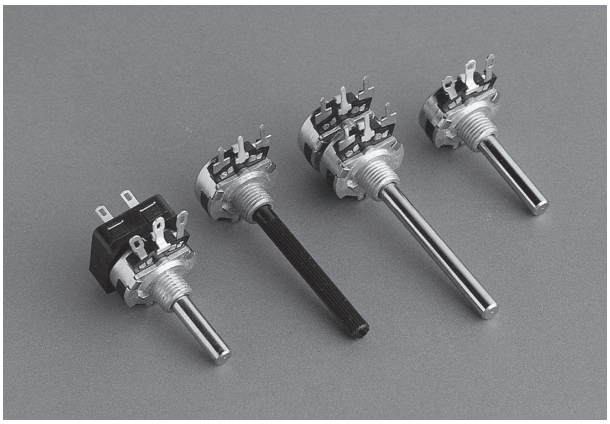
EN: This Datasheet/Document is presented by the manufacturer.

Please visit our website for pricing and availability at www.hestore.hu.

PIHER

T-16 16 mm Carbon Potentiometer



FEATURES

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

MECHANICAL SPECIFICATIONS

– Mechanical rotation angle:	300° ± 5°
– Electrical rotation angle:	280° ± 20°
– 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 (*)
  100Ω ≤ Rn ≤ 5 M (Decad. 1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)
– Tolerance (*): 100Ω ≤ Rn ≤ 1M Ω ------ ± 20%
  1MΩ < Rn ≤ 5M Ω ------ ± 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(*): ≤ 0.5% Rn (5 Ω min.)
– Equivalent Noise Resistance: ≤ 3% Rn (3 Ω min.)
– Operating temperature**: –25°C + 70°C (–13°F + 158°F)

* Others upon request

** Up to 85°C depending on application

HOW TO ORDER

STANDARD | OPTIONAL EXTRAS

T-16	S	H	M03	N	223	A	2020	0				

Series
T-16

Terminals
C= Solder Lugs
H= Horiz. PCB
V= Vert. PCB
L= Vert. in Line PCB
(See note 1)

Bushings
– = No
N = Normal
U = With non rotary pawl
(See note 3)

Taper
A= linear
B= Log.
C= Alog.
(See note 10)
Others laws upon request

Shafts spec. length
XX.X
(See note 6)

Stereo matching
3D = 3dB
4D = 4dB
6D = 6dB
See note 8

Models

Metal shaft	Plastic shaft
S	X
T	W
	Y
	Z

Shafts

Metal	Plastic
M03	P01
M07	P07
M11	
M16	

(See note 2)

Value
101 = 100 Ω
223 = 22 K
504 = 500 K
505 = 5M
(See note 4)

Tolerance
2020= +/-20%
3030= +/-30%
(See note 5)

Detents
01P= 1 detent
11P= 11 detents
41P= 41 "
(See note 7)

Nut & Washer
-TA = Loose nut & washer
MTA= Assembled nut & washer
–T– = Loose nut
MT– = Assembled nut

Switch Terminals
I = PCB
C = Solder lugs
(See note 9)

NOTES:

(1) Terminals: Model T is not available with terminals "V" or "L" .
(2) Shafts: The codes indicate diameter and length. Shaft M05 only for double potentiometer.
(3) Bushings: – = Only for potentiometer model X, W.
U = Standard antirotation lugs (at 90° CW).
(4) Value: • Code: 10 1 100 Ω → Number of zeros; 2 first digits of the value.
• In model "T" with different values, ask by drawing.
(5) Tolerance (non standard), upon request. Example code: +15 / -20 → 15 20 → negative tolerance; positive tolerance
(6) Shafts length:
• Only for special length and plain shafts (not knurled). Example: Shaft Ø 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)
(7) Detents : - Not available for models with plastic shaft X, W, Y, Z.
- Detents and switch are not compatible.
(8) Stereo matching: Only available in tandem models and upon request.
(9) Switch: Not available for models X, W, Y, Z, T.
(10) 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-16 SH + DRAWING NUMBER (Max. 16 digits)

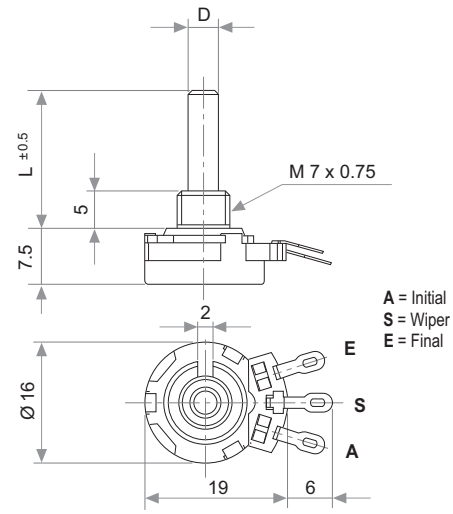
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

STANDARD OPTIONS

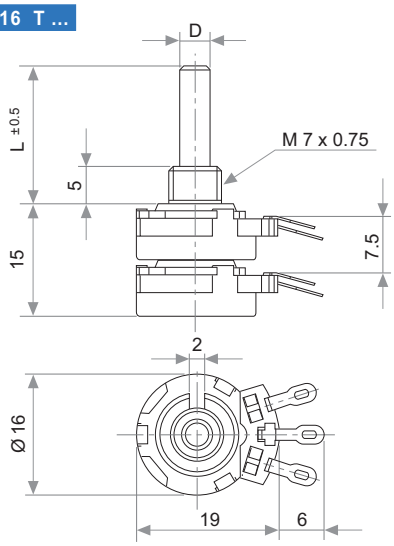
Shaft length	0 standard length
Detents	Not included
Stereo matching	Only for model "T" and upon request
Switch	No switch
Nut & washer	Without nut and washer

MODELS WITH METALIC SHAFTS

T-16 S ...

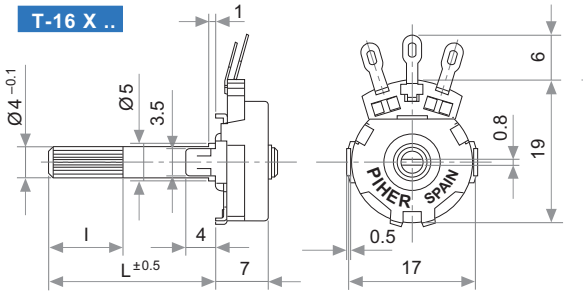


T-16 T ...

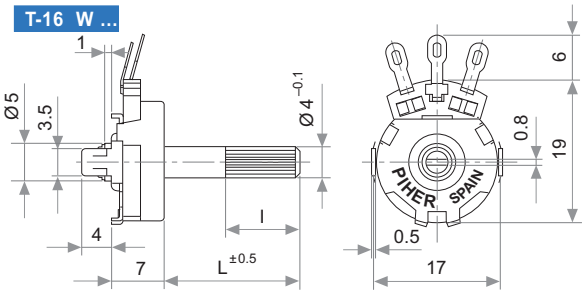


MODELS WITH PLASTIC SHAFTS

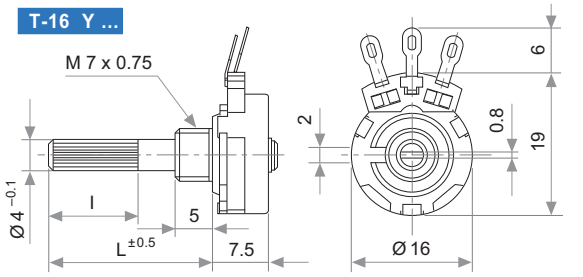
T-16 X ..



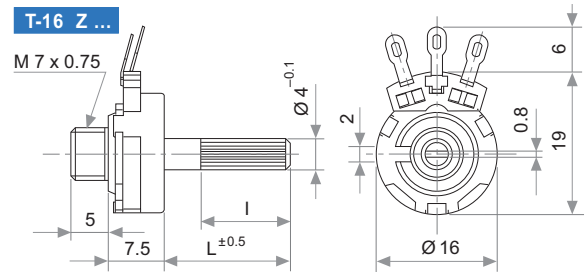
T-16 W ...



T-16 Y ...

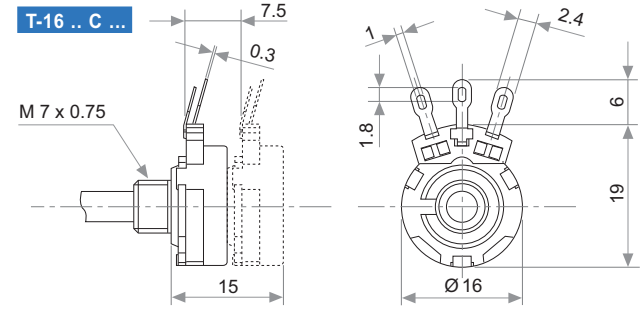


T-16 Z ...

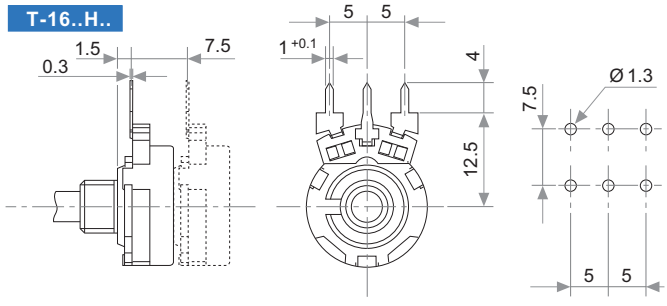


TERMINALS

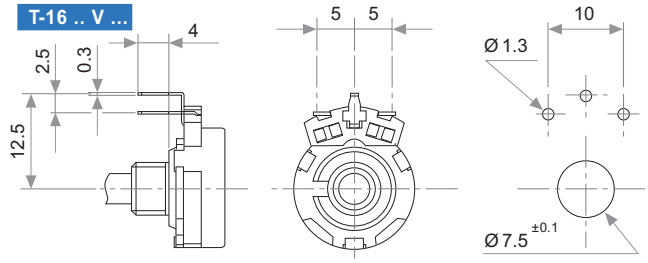
T-16 .. C ...



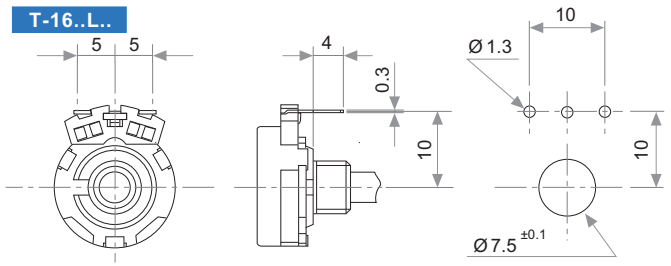
T-16..H..



T-16 .. V ...



T-16..L..



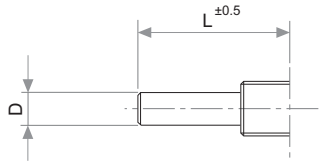
PLASTIC SHAFTS

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

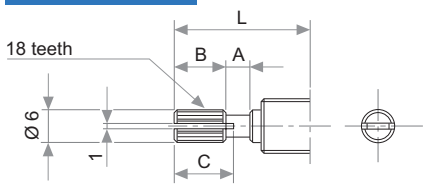
METALIC SHAFTS

PLAIN SHAFT



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

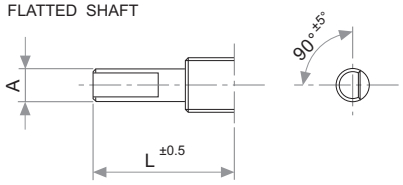
KNURLED SHAFT



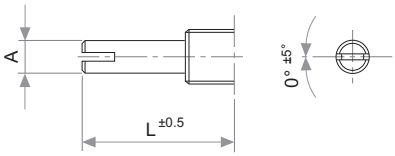
L	A	B	C	CODE
15	2	6	7	M11
20	2	10	11	M12
25	4	12	14	M13
30	4	12	14	M14
35	4	12	14	M15
40	4	12	14	M16

UNDER DRAWING

FLATTED SHAFT

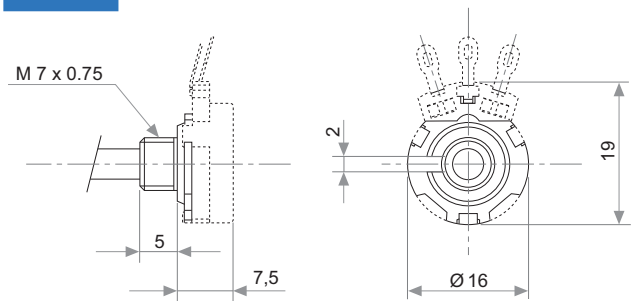


SLOTTED SHAFT

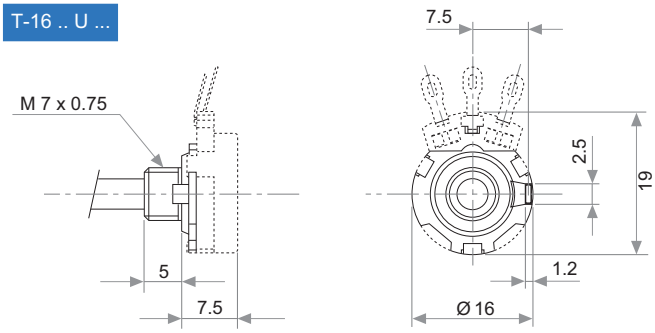


BUSHINGS

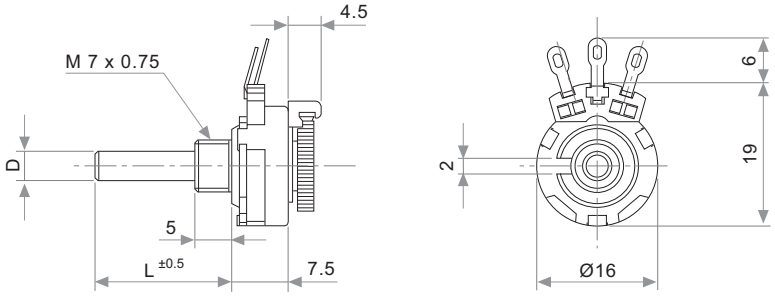
T-16 .. N ...



T-16 .. U ...



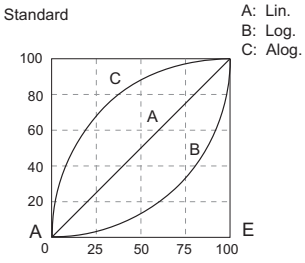
DETENTS



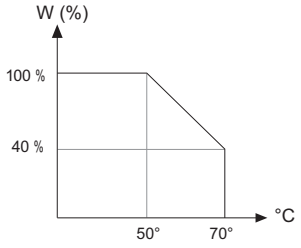
CODE	DETENTS
01 P.	1 detent (at 50%)
11 P.	11 detents
41 P.	41 detents

Only models with metalic shaft.

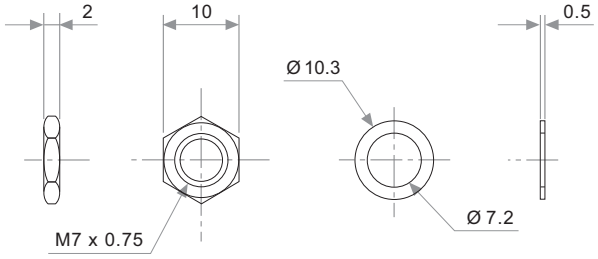
TAPERS



POWER RATING CURVE



NUT & WASHER

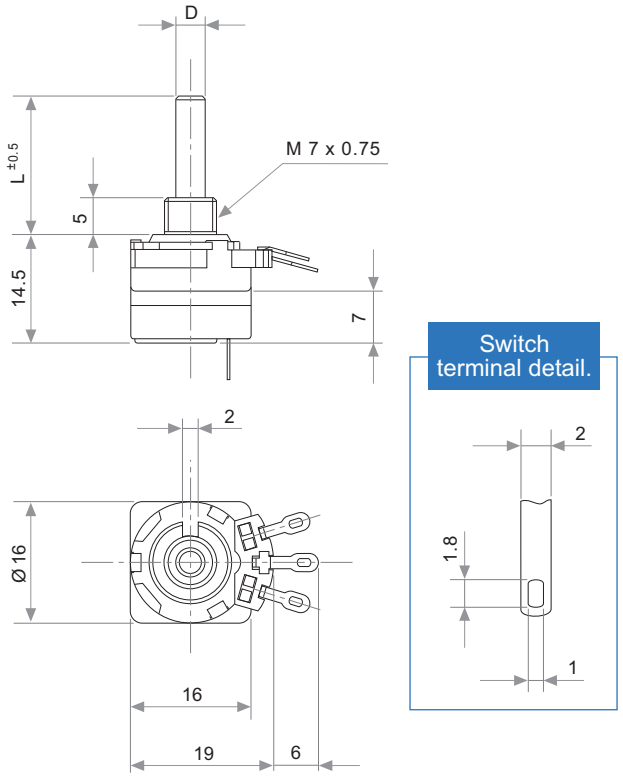


TESTS		TYPICAL VARIATIONS
ELECTRICAL LIFE	1.000 h.@ 50°C; 0.20 W	± 5 %
MECHANICAL LIFE : POT. SWITCH	25.000 (10–15 CPM) 10.000 (1A, 50 VAC)	± 3 % (Rn < 1 MΩ)
TEMPERATURE COEFFICIENT	–25° C; +70° C	± 300 ppm (Rn <100 K)
THERMAL CYCLING	16 h. @ 85° C; 2h. @ –25° C	± 2.5 %
DAMP HEAT	500 h. @ 40° C @ 95%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

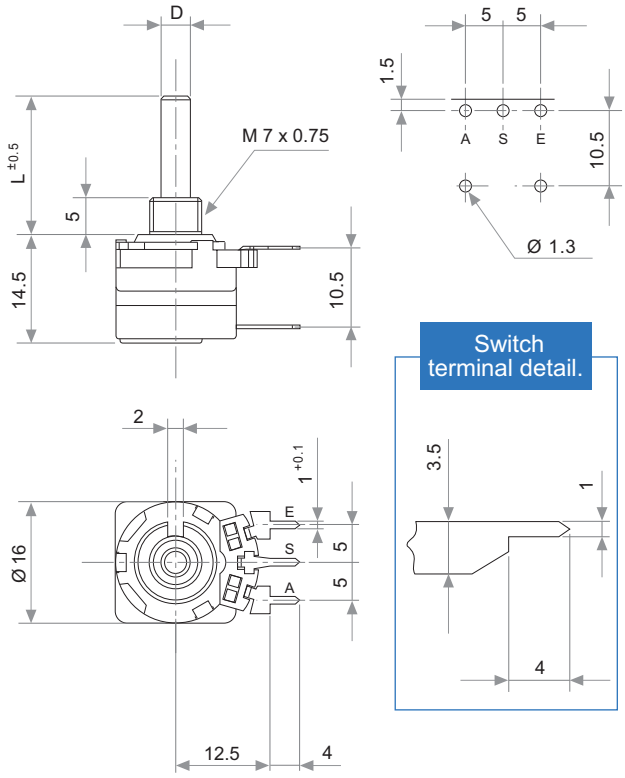
NOTE: Out of range values may not comply these results.

SWITCH

T-16 .. C .. C



T-16 .. H .. I



SWITCH 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