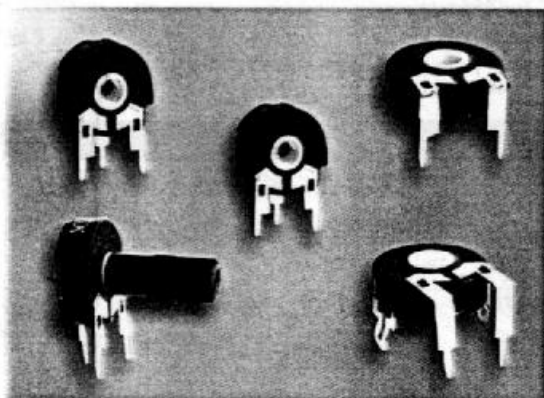


PT-15 15 mm Carbon Potentiometer



FEATURES

- Carbon resistive element.
- Dust proof enclosure.
- Polyester substrate.
- Also upon request:
 - ◇ Wiper positioned at 50% or fully clockwise.
 - ◇ Long life model for low cost control pot. applications
 - ◇ Low torque option
 - ◇ Supplied in magazines for automatic insertion.
 - ◇ Self extinguishable plastic UL 94V-0
 - ◇ Cut track option
 - ◇ Special Tapers
 - ◇ Mechanical detents

MECHANICAL SPECIFICATIONS

- Mechanical rotation angle: $265 \pm 5^\circ$
 $240^\circ \pm 5$ available under drawing (blue housing only)
- Electrical rotation angle: $250 \pm 20^\circ$
- Torque: 0.5 to 2.5 Ncm.
(0.7 to 3.4 in-oz)
- Stop torque: > 10 Ncm. (> 14 in-oz)

ELECTRICAL SPECIFICATIONS

- Range of values(*)
 $100 \Omega \leq R_n \leq 5M$ (Decad. 1.0-2.0-2.2-2.5-4.7-5.0)
- Tolerance(*): $100 \Omega \leq R_n \leq 1M \Omega$ ----- 20%
 $1M \Omega < R_n \leq 5M$ ----- 30%
- Max. Voltage: 250 VDC (lin) 125 VDC (no lin)
- Nominal Power $50^\circ C$ ($122^\circ F$) (see power rating curve)
 $0.25W$ (lin) $0.12W$ (no lin)
- Taper(*) (log. & Alog. only $R_n \geq 1k$) Lin; Log; Alog.
- Residual resistance: $\leq 5 \cdot 10^{-3} R_n$ (2Ω min.)
- Equivalent Noise Resistance: $\leq 3\% R_n$ (3Ω min.)
- Operating temperature**: $(-25^\circ C + 70^\circ C)$ ($-13^\circ F + 158^\circ F$)
- *Others upon request **Up to $85^\circ C$ depending on application

HOW TO ORDER

STANDARD					OPTIONAL EXTRAS				
PT-15	L	H01	223	A	2020				
Series PT-15	Code H01 H05 H25 H06 H10 V02 V12 V15 V17 V18 V24 V21 V22 V23	Mounting Method H2.5 H5 HC5 B H2.5P H5P V12.5 VA V15 V17.5 D VD15 V12.5P VAP V15P	Taper A=Lin. B=Log C=Alog.	Life E=Long life U=Extra Long life (See note 5)	Detent See PT's with detents data sheet	Flammability I=non flammable (See note 6)	Wiper position PM=50% PF=Final	Magazine T (See note 9)	
Rotors C F G L M N R T X W Y Z	Value 101=100 Ω 223=22K 504=500K 505=5M	Tolerance 2020= $\pm 20\%$ 3030= $\pm 30\%$ (See note 4)	Cut track PCI=Initial PCF=Final	Shaft Thum. 01 Fig.1 28 Fig.28	Shaft/rotor colour RO=Red NE=Black VE=Green AM=Yellow AZ=Blue MA=Brown GR=Grey NA=Orange CR=Cream. (See note 7)	Torque =Standard L=Low torque (See note 8)			
(See note 1)	(See note 2)	(See note 3)							

NOTES:

- (1) "z" adjustment only available on "H" versions. Standard colour for the "T" rotor: Orange
- (2) Terminal styles: "P" are crimped terminals
- (3) Value Example: Code: 10 1 100 Ω
 10 → Numb of zeros
 1 → First two digits of the value.
- (4) Non standard tolerance, upon request. Example: +7% Code: 07 05
 -5% → negative tolerance
 +5% → positive tolerance
- (5) Life ♦ Standard 500 cycles
 ♦ Long life 10000 cycles
 ♦ Extra Long life 100000 cycles (to be studied case by case)
- (6) Non flammable: housing, rotor and shaft.
- (7) Colour shaft/rotor: ♦ Potentiometer without shaft: only rotor
 ♦ Potentiometer with shaft: only shaft
 Cream colour only available in standard plastic
- (8) Low Torque: ≤ 1.5 Ncm. No detent option available for low torque models
- (9) Magazines (35pcs/mag): available for VA (12.5), V (12.5), V (12.5P), V (15), V (15P) and H models.
 For more information please contact us directly.

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

HOW TO ORDER CUSTOM DRAWING

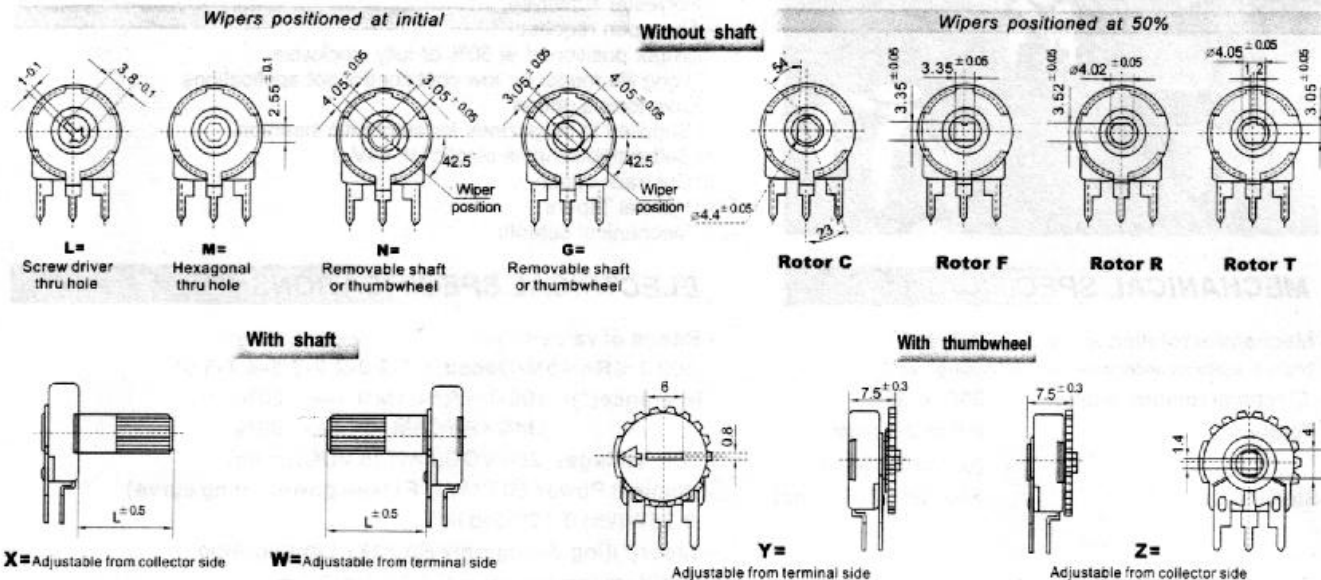
PT-15 LH 01+ DRAWING NUMBER (Max. 16 digits)

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

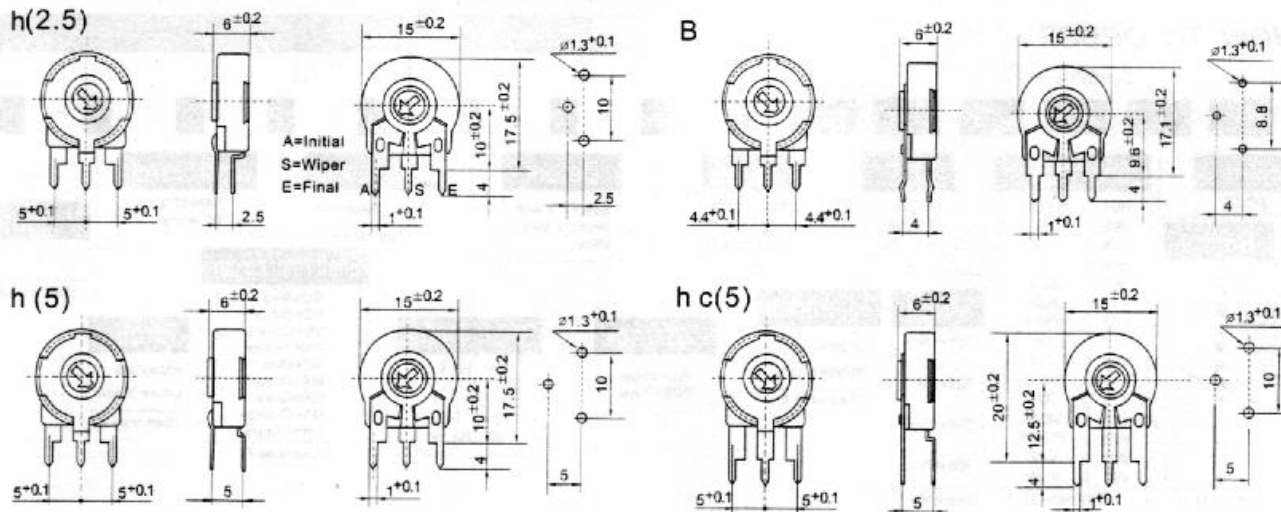
STANDARD OPTIONS

Mechanical Life.....	500 cycles
Cut track	No
Detents	None
Non flammable.....	No
Rotor colour	White
Shaft colour.....	Natural
Wiper position.....	Initial
Torque	Standard

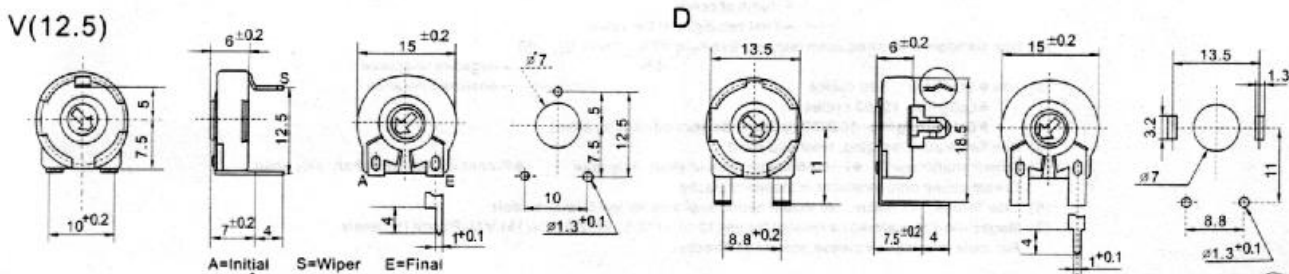
ROTORS



VERTICAL MOUNT-HORIZONTAL ADJUST

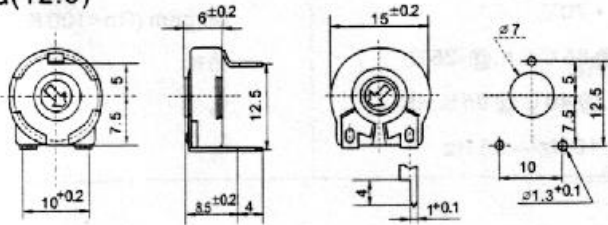


HORIZONTAL MOUNT-VERTICAL ADJUST

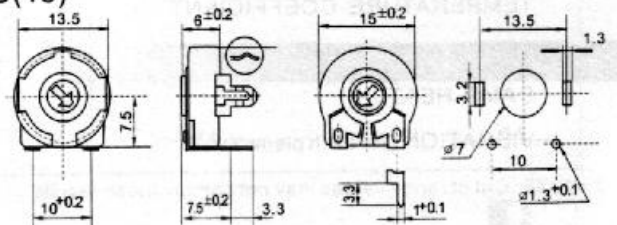


HORIZONTAL MOUNT-VERTICAL ADJUST

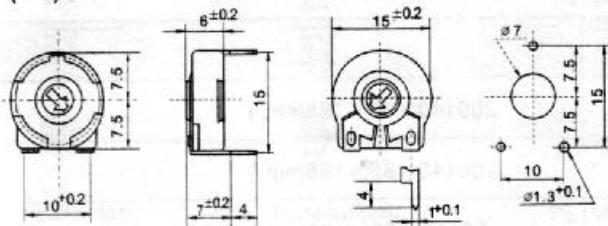
Va(12.5)



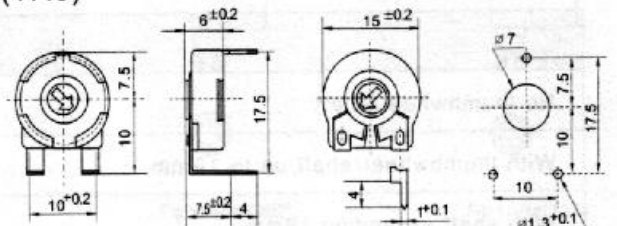
VD(15)



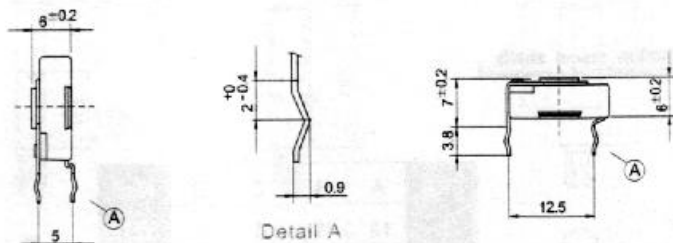
V(15)



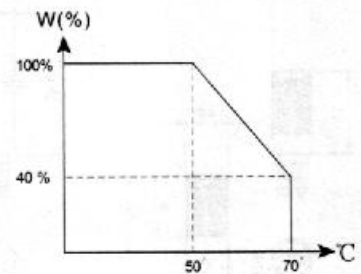
V(17.5)



CRIMPED TERMINALS (DETAIL)



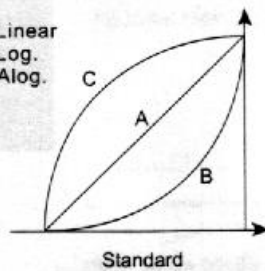
POWER RATING CURVE



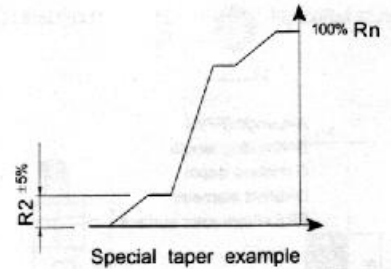
TAPERS

NOTE: Please note terminals disposition when ordering non linear curves.

A=Linear
B=Log.
C=Alog.



Standard

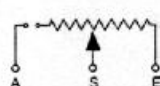


Special taper example

OPTIONS

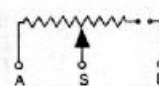
Cut Track

CCW on-off(A)



Std. Position=CCW

A=Initial
S=Wiper
E=Final



CW on-off(E)



TESTS

TYPICAL VARIATIONS

ELECTRICAL LIFE	1.000 h. @ 50°C : 0.25 W	%
MECHANICAL LIFE (CYCLES)	500 @ 10 CPM ---- 15 CPM	%(Rn < 1 MΩ)
TEMPERATURE COEFFICIENT	5°C; + 70°C	00 ppm (Rn < 100 K)
THERMAL CYCLING	16h. @ 85°C; 2 h. @ -25°C	.5%
DAMP HEAT	500 h. @ 40°C @ 95% HR	%
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz --- 55 Hz	%

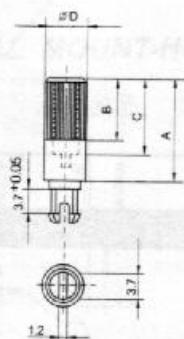
NOTE: Out of range values may not comply these results

PACKAGING

Model	Quantity
No thumbwheel/shaft	200 (40×85×185mm.)
With thumbwheel/shaft up to 19mm.	100 (40×85×185mm.)
With shaft exceeding 19mm.	50 (40×85×185mm.)

SHAFTS

Hollow model shafts



A=Length(FRS)
B=Knurling length
C=Hollow depth
D=Shaft diameter
FRS=From rotor surface

FIG.	A	B	C	D	Ref.
1	12	9	8	6	5272
2	19	9	15	6	5214
5	9.5	6.5	5.5	6	5208
9	35	9	15	6	5216
10	37.8	9	33.8	6	5218
11	35	25	15	6	5209
13	7.8	4.8	3.8	6	5265

Solid model shafts

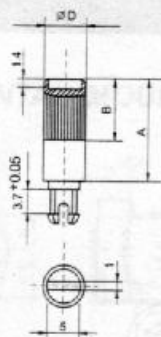


FIG.	A	B	D	Ref.
6	15	9	6	5219
7	16.8	9	6	5220
8	25.3	9	6	5207
12	46	5	6	5227

Slot (1×1.4) perpendicular to wiper position. Fig. 12 slot is on line with wiper position.

SHAFTS

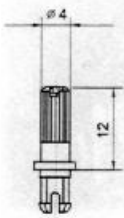


Fig. 3/Ref. 5372

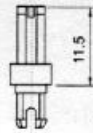


Fig. 14/Ref. 5248

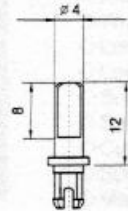


Fig. 15/Ref. 5217

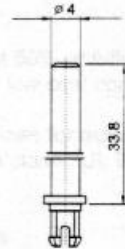


Fig. 16/Ref. 5262*

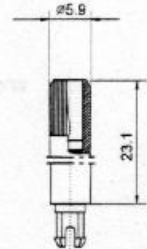


Fig. 17/Ref. 5210

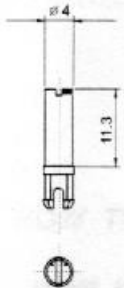


Fig. 18/Ref. 5271

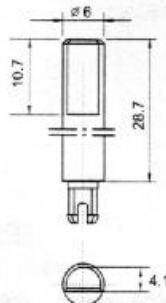


Fig. 19/Ref. 6032*

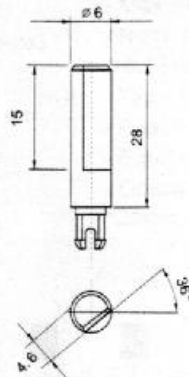


Fig. 20/Ref. 5369*

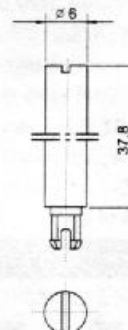


Fig. 21/Ref. 6031*

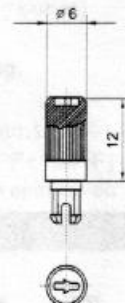


Fig. 22/Ref. 6029

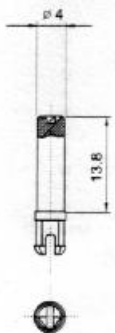


Fig. 23/Ref. 6022

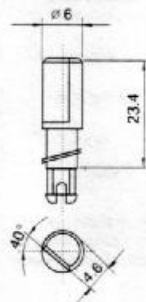


Fig. 24/Ref. 6058

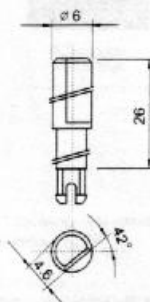


Fig. 25/Ref. 6059

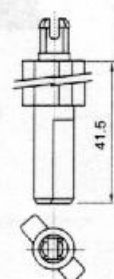


Fig. 27/Ref. 5268*

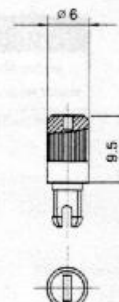


Fig. 28/Ref. 6055

* Not available in self extinguishable plastic

THUMBWHEEL

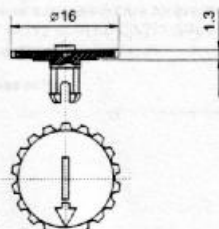


Fig. 4/Ref. 5371