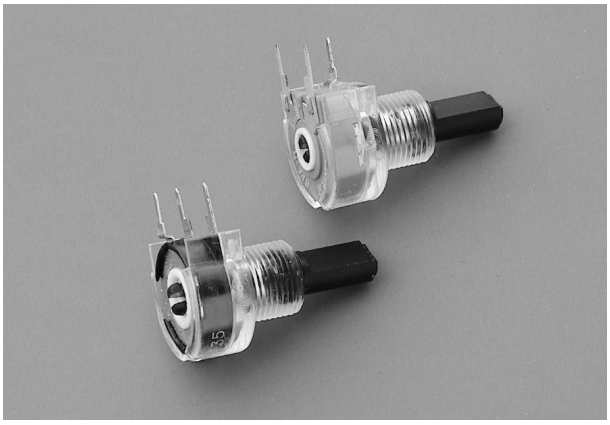
SM/SMC-15 15 mm Carbon/ Cermet Potentiometer



FEATURES

- Excellent low price control potentiometer.
- Based on the PT-15 / PTC-15 series.
- Available in carbon (SM-15) and cermet (SMC-15).
- Enclosed in plastic housing.

MECHANICAL SPECIFICATIONS

– Mechanical rotation angle:	265° ± 5°
– Electrical rotation angle:	240° ± 20°
– 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 (*)
  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 ------ ± 30%
- Max. Voltage: 250 VDC (lin) 125 VDC (no lin)
- Nominal Power: • 50°C (122°F) 0.25W (lin), 0.12W (no lin) carbon
  • 70°C (158°F) 0.5W (lin) 0.25W (no lin.)cermet
- Power derating: 0 Watt a 100°C
- Taper (**) : Lin., Log., Alog.
- Residual resistance(*): ≤0.5 % Rn (5 Ω min.)
- Operating temperature: -25°C + 70°C(***) (-13°F + 158°F) carbon
  -40°C + 90°C (-40 + 194°F) cermet
- Mechanical life: ≥ 10.000 (***)

(*) Others upon request. (***) Up to 85°C depending on application
(**) Others tapers on request. No linear tapers; values higher than 1 K Ω.
(***) For Ohmic values ≥ 1 K Ω. Lower values upon request

HOW TO ORDER SM-15

OPTIONAL EXTRAS

SM-15	H04	102	A	2020					S
Series	Code / Mounting Method	Value	Taper	Tolerance	Cut track	Shafts	Shaft Colour	Nut and Washer	
SM-15	H04 H 2.5A H14 H 5A H12 H 2.5PA H20 H 5 PA H24 HC 5A V02 V 12.5 V21 V 12.5P V12 VA V22 VA P V15 V 15 V17 V17.5 H16 BA H26 BB H03 H 2.5B H13 H 5B H22 H 2.5PB H30 H 5PB H23 HC 5B V23 V 15P	101 = 100Ω 102 = 1 K 504 = 500 K 505 = 5 M	A = Linear B = Log. C = Alog.	2020 = + 20% 3030 = + 30%	PCI = Initial PCF= Final	02 = Fig.2 06 = Fig.6 07 = Fig.7 08 = Fig.8 10 = Fig.10 11 = Fig.11 12 = Fig.12 17 = Fig.17 21 = Fig.21	RO = Red VE = Green AM = Yellow AZ = Blue IN = Natural MA = Brown GR = Grey NA = Orange CR = Cream	–TA = Loose nut and washer MTA = Assembled nut and washer –T– = Loose nut MT– = Assembled nut	
	(See note 1)	(See note 2)	(Other tapers on request)	(See note 3)		(See note 4)	(See note 5)		

HOW TO ORDER CUSTOM DRAWING

SM-15 H04 + 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

Cut track ..... Non cut track
Shaft ..... Fig. 9
Shaft colour ..... Black
Nut and washer ..... Without nut & washer

NOTES:

(1) Mounting Method: Positions with "P" will be with crimped terminals.
(2) Value: Code: 10 1 → 100 Ω
Number of zeros
2 first digits of the value.
• Standard values: Decades of 10, 20, 22, 25, 47, 50. Other values upon request.
(3) Tolerance (non standard). Upon request. Code eg.: +7 / -5 = 07 05 → negative tolerance / positive tolerance
(4) Shafts: These figures coincide with the PT15 references (Standard material).
(5) Colour: Only applicable to the shaft.

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

HOW TO ORDER SMC-15

OPTIONAL EXTRAS

SMC-15	H04	102	A	2020			
Series	Code / Mounting Method	Value	Taper	Tolerance	Shafts	Shaft Colour	Nut and Washer

Series

SMC-15

Code / Mounting Method

Code	Mounting Method
H04	H 2.5A
H14	H 5A
H12	H 2.5PA
H20	H 5PA
H34	HA 5A
V02	V 12.5
V21	V 12.5P
V12	VA
V22	VA P
V15	V 15
V17	V 17.5
H16	BA
H26	BB
H03	H 2.5B
H13	H 5B
H22	H 2.5PB
H30	H 5PB
H33	HA 5B
V23	V 15P

(See note 1)

Value

101 = 100Ω
102 = 1 K
504 = 500 K
505 = 5 M
000 = C M

(See note 2)

Taper

A = Linear
B = Log.
C = Alog.

(Other tapers on request)

Tolerance

1010 = ± 10%
2020 = ± 20%
3030 = ± 30%

(See note 3)

Shafts

02 = Fig.2
06 = Fig.6
07 = Fig.7
08 = Fig.8
10 = Fig.10
11 = Fig.11
12 = Fig.12
17 = Fig.17
21 = Fig.21

(See note 4)

Shaft Colour

RO = Red
VE = Green
AM = Yellow
AZ = Blue
IN = Natural
MA = Brown
GR = Grey
NA = Orange
CR = Cream

(See note 5)

Nut and Washer

–TA = Loose nut and washer
MTA = Assembled nut and washer
–T– = Loose nut
MT–= Assembled nut

HOW TO ORDER CUSTOM DRAWING

SMC-15 H04 + 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 ..... Fig. 9
Shaft colour ..... Black
Nut and washer ..... Without nut and washer

NOTES:

(1) Mounting Method: Positions with "P" are with crimped terminals.

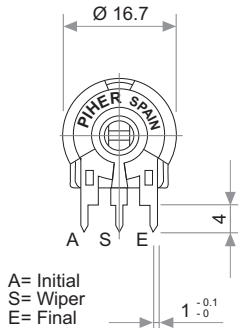
(2) Value: Code: 10 1 100 Ω
- 1 → Number of zeros
- 10 → 2 first digits of the value.
- Standard values: Decades of 10, 20, 22, 25, 47, 50. Other values upon request.
- 000 = CM = Switch 45° (see PTC-15).

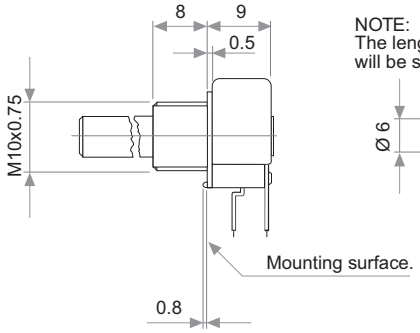
(3) Tolerance (non standard). Upon request. Code eg.: +7 / -5 = 07 05 → negative tolerance / positive tolerance

(4) Shafts: The figures coincide with the numbers for PT15. (Standard material).

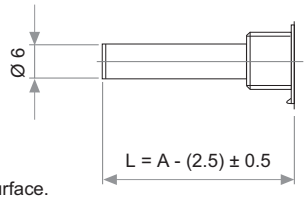
(5) Colour: Only applicable to the shaft.

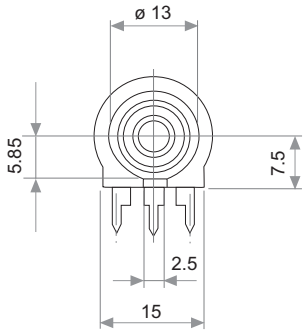
COMMON DIMENSIONS



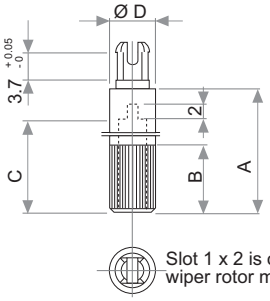


NOTE:
The length of the shaft size «A» will be shorter 2.5 mm. after it is mounted.





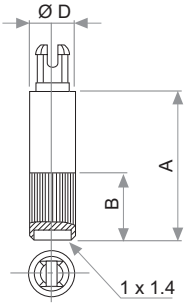
SHAFTS



Hollow model shafts

FIG.	A	B	C	D	Ref.
2	19	9	15	6	5214*
9	35	9	31	6	5216
10	37.8	9	33.8	6	5218
11	35	25	15	6	5209

* Only available in black colour



Solid model shafts

FIG.	A	B	C	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 x 1.4) perpen to wiper position
Fig. 12 slot is on line with wiper pos.

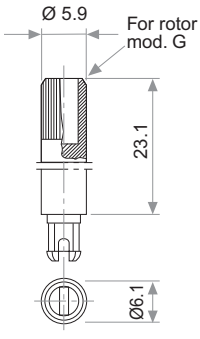


Fig. 17 - 5210

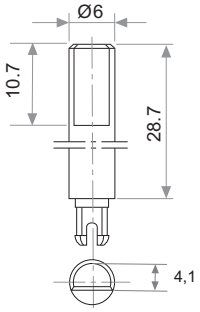


Fig. 19 * - 6032

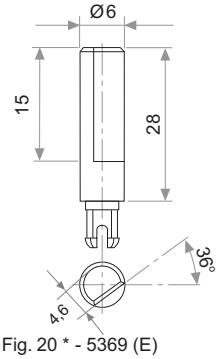


Fig. 20 * - 5369 (E)

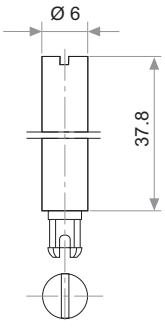


Fig. 21- 6031
(*) Only available under drawing.

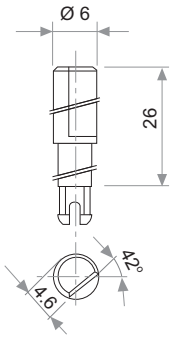
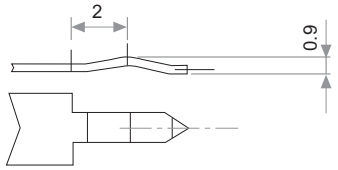


Fig. 25 * - 6059

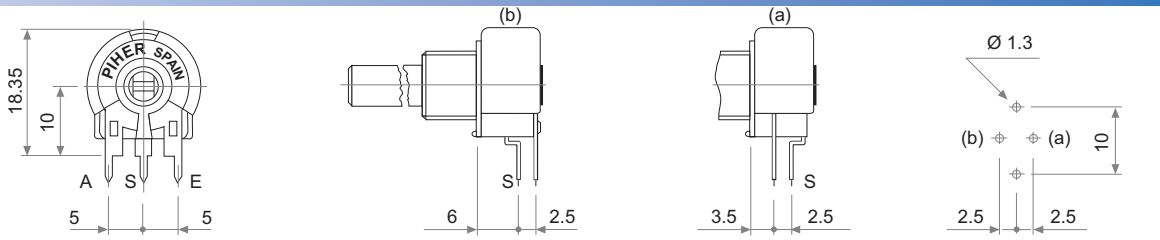
SNAP IN TERMINAL

P

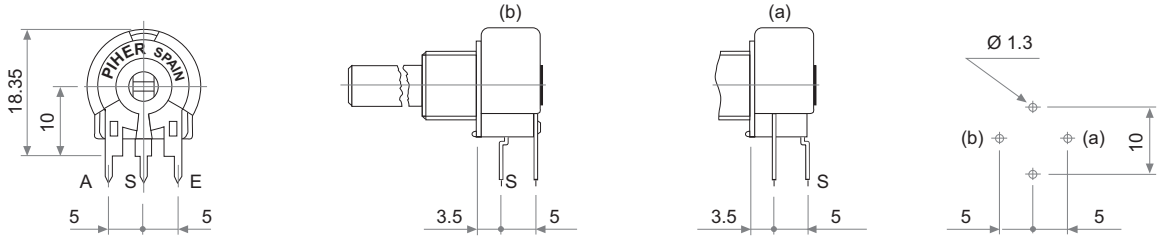


TERMINAL STYLES

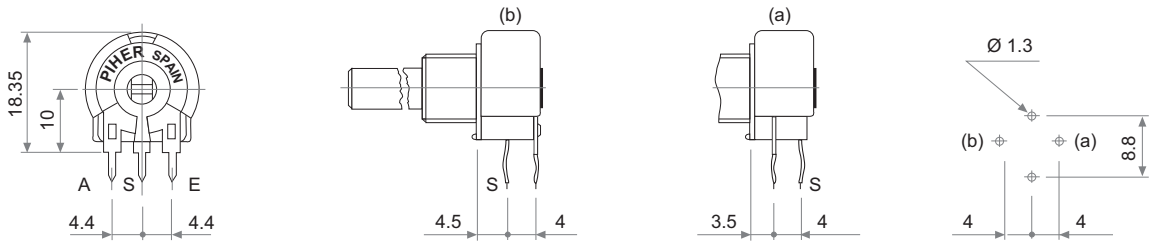
h 2.5



h 5

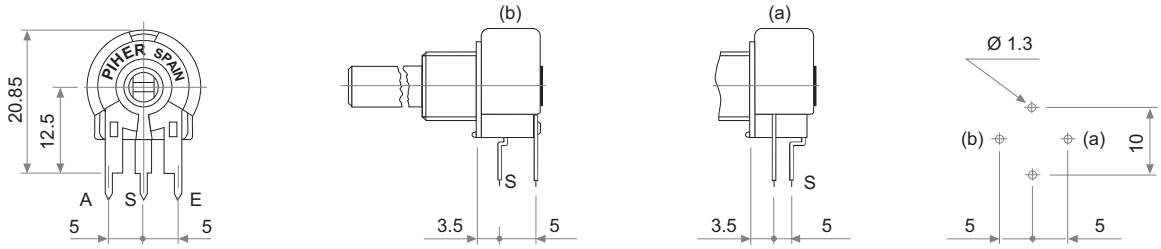


B



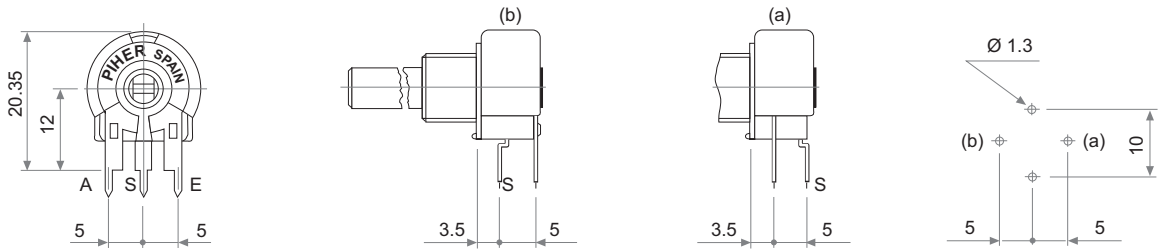
h C 5

Only SM-15

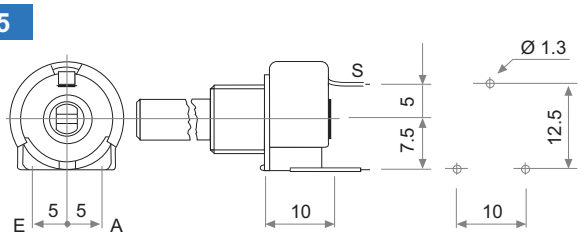


h A 5

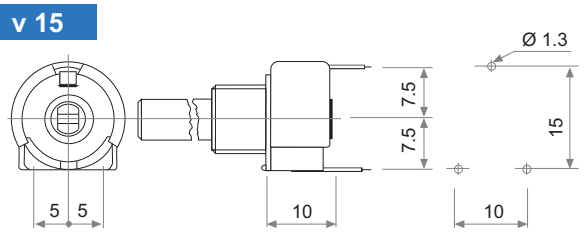
Only SMC-15



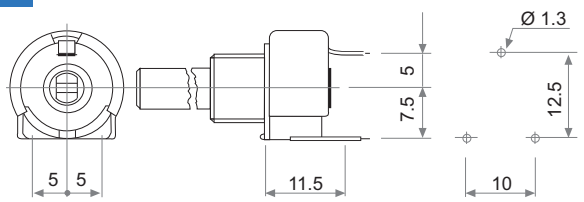
v 12.5



v 15



va 12.5



v 17.5