

# P-2026

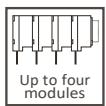
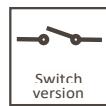
## 16-mm carbon panel mount angular sensor

The PC-2026 is a single-turn panel control potentiometer using a carbon resistive element with metal housing and incorporated shaft. A wide variety of configurable options, such as non-linearity resistor, additional switch, various input ranges, different shaft types and tapers, make the PC-2026 suitable for numerous applications in the home appliance, industrial and automotive markets.



### KEY FEATURES

- ▶ IP54 protection according to IEC 60529
- ▶ Modular gang type (up to 4)
- ▶ Self extinguishable material UL 94-V0
- ▶ Selection of plastic and metal shafts
- ▶ Linear, log (audio) and antilog (reverse) tapers
- ▶ Solder lugs or PC pins
- On request



- ▶ Stereo matching
- ▶ Rotary switch
- ▶ Nut & washer

### ELECTRICAL SPECIFICATIONS

Taper	Linear, Logarithmic, Alogarithmic
Range of values (1 - 2 - 2.2 - 2.5 - 4.7 - 5) Lin, Log, Alog	1kΩ ≤ Rn ≤ 5MΩ
Tolerance 1kΩ ≤ Rn ≤ 1MΩ 1MΩ < Rn ≤ 5MΩ	±20% ±30%
Max. Voltage Lin, Log, Alog	250 VDC
Nominal power 50°C (122°F) Lin, Log, Alog	0.1 W
Residual resistance	≤ 5% Rn (5Ω min.)
Equivalent noise resistance	≤ 3% Rn (3Ω min.)
Operating temperature*	-25°C to +70°C (-13°F to +158°F)

\* Up to 85°C depending on application

### APPLICATIONS

- ▶ Appliance program selection
- ▶ Thermostat adjustment
- ▶ HVAC control
- ▶ Consumer electronics
- ▶ Industrial controls
- ▶ Automotive control
- ▶ Home and building automation

### MECHANICAL SPECIFICATIONS

Mechanical rotation angle	300° ±5°
Electrical rotation angle	280° ±20°
Rotational torque <sup>1</sup>	0.5 to 1.5 Ncm (0.7 to 2.1 in-oz)

<sup>1</sup> For single models. Tandem, triple and quadruple versions have a higher torque

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## PARAMETER AND TESTING

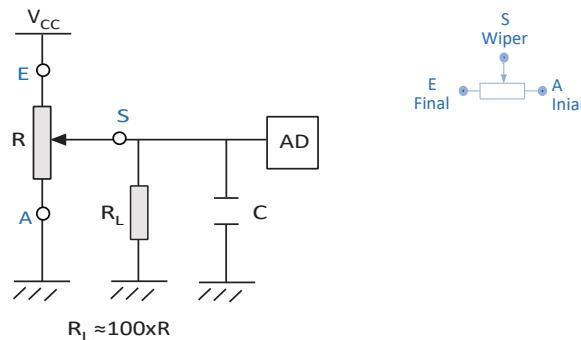
Test method (CEI 393-1)		ΔR(%) - Piher typical test results
Electrical life	1.000h at 50°C; 0.15W	±5%
Mechanical life Potentiometer* Switch	25.000 cycles at 10 to 15 cpm 10.000 cycles at 1A and 50 VAC	±3% (Rn < 1MΩ)
Temperature coefficient	-25°C; +70°C	±300 ppm/°C (Rn < 100KΩ)
Hysteresis	3 full cycles	±2.5%
Non-linearity	IEC 770 Type B only	±5%
Maximum error	IEC 770	±2%
Storage	6 month at 23°C ±2°C and 50% RH	±2.5%

\* Only applicable to values  $\geq 1\text{K}\Omega$ . For lower values please contact us.

Out of range values may not comply with these results. Standard test conditions: temperature:  $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$  and 45% to 70% RH.

## RECOMMENDED CONNECTIONS

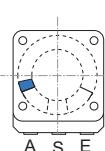
Recommended connection circuit for a position sensor or control application (voltage divider circuit electronic design).



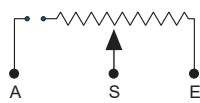
## SELECTION TABLE

Type	Input range	Unit	Resistance	
			Linear B	Log A
1	0 -- 5,2	rad	0 - 10 kΩ	0 - 1 kΩ
2	0 -- 300	deg	0 - 10 kΩ	0 - 1 kΩ
3	0 -- 300	deg	10 - 0 kΩ	1 - 0 kΩ
4	0 - 10	--	0 - 10 kΩ	0 - 1 kΩ
5	0 -- 1000	--	0 - 10 kΩ	0 - 1 kΩ
6	0 -- 5,2	rad	10 - 0 kΩ	1 - 0 kΩ

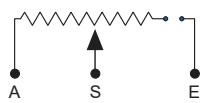
## Connection Diagram



PCI  
Cut track at the beginning  
of the travel



PCF  
Cuttrackattheend  
ofthetravel





### CCWon-off(A)

A = Initial S = Wiper E = Final.

PCI, PCF and other configurations available upon request. Check the ordering code with Piber

# PC-16

## 16-mm carbon panel mount potentiometer

### PACKAGING

Bulk

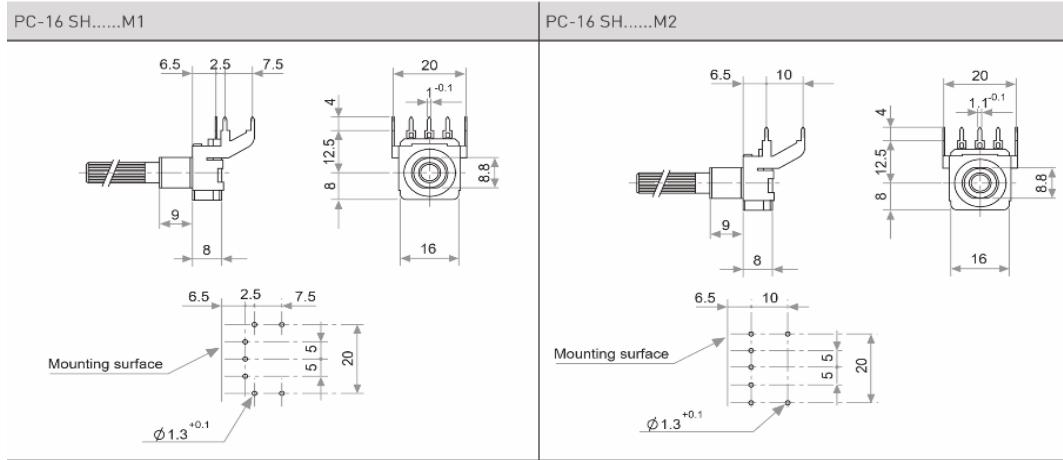


Box dimensions (mm): 250x160x95

Units per box: 100 pcs

(Triple and quadruple models with switch: 50pcs)

Technical drawings showing front and side views of the potentiometer.



Nominal current	1A, 250 VAC
Contact resistance (initial)	mΩ
Operating torque	to 3 Ncm (1.4 to 4.2 in-oz)
Operating angle	30°±5°
Test voltage	V