

**Single-Turn
Cermet
Potentiometers**

PC262 Series



Special features

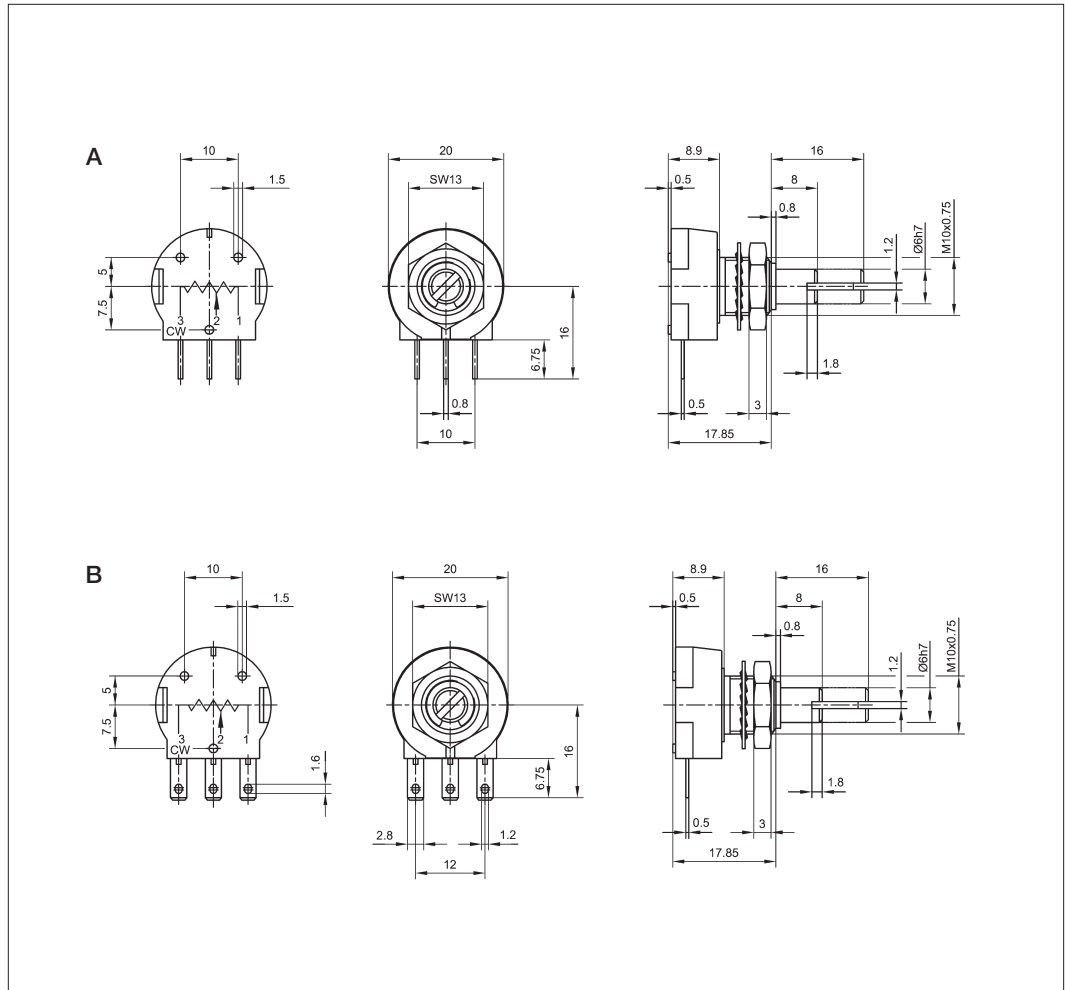
- very small dimensions
- 100×10^3 movements
- linearity $\pm 2\%$
- high resolution – better than 0.1°
- very robust

Low-cost potentiometer with a Cermet resistance element for control electronics and measuring applications.

The Cermet potentiometer combines the high resolution of a screen-printed resistor element with the robustness of a wirewound potentiometer.

The careful selection of the materials and high quality of components ensure a constant and high level of quality throughout the entire service life of the angle sensor.

Special designs with other angular ranges, and shaft dimensions are available on request.



Description

Size	housing diameter 20 mm
Housing	high-quality, temperature-consistent plastic
Shaft	brass, nickel plated
Bearings	sleeve bearings
Resistor element	Metalloxyd ceramics (Cermet)
Wiper assembly	precious metal multi-finger wiper
Electrical connections	tin plated

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Type designations	PC262...1A-MB	PC262...4A-MB
Mechanical Data		
Dimensions	see drawing A	see drawing B
Mounting	nut M10 x 0.75, serrated washer 3/8"	
Mechanical travel	272	°
Permitted shaft loading (axial and radial) static or dynamic force	1	N
Torque	≤ 1	Ncm
Permitted max. torque for mech. stops	100	Ncm
Maximum operational speed	120	RPM
Weight	14	g
Electrical Data		
Actual electrical travel	270 ±3	°
Available resistance values	1; 5; 10; 100; 1000	kΩ
Resistance tolerance	±10	%
Repeatability	0.04 (= 0.1°)	%
Effective temperature coefficient of the output-to-applied voltage ratio	100 (typical)	ppm/K
Independent linearity	±2	%
Max. permissible applied voltage	42	V
Recommended operating wiper current	≤ 1	μA
Max. wiper current in case of malfunction	100	mA
Insulation resistance (500 VDC, 1 bar, 2 s)	≥ 10,000	MΩ
Dielectric strength (AC, 50 Hz, 1 min, 1 bar)	1500	V
Environmental Data		
Temperature range	-25...+125	°
Vibration	30...2000 A _{max} = 0.75 a _{max} = 10	Hz mm g
Life	100 x 10 ³	movements
Shock (DIN IEC 68 T2-27)	50 7	g ms
Protection class (DIN 40050)	IP 50	

Order designations

Type	Art. no.	R in kΩ	Length shaft in mm
PC262 1K0 1A160 MB	72901	1	16
PC262 5K0 1A160 MB	82222	5	16
PC262 10K0 1A160 MB	72904	10	16
PC262 100K0 1A160 MB	72906	100	16
PC262 1M0 1A160 MB	72908	1000	16
PC262 1K0 4A160 MB	72926	1	16
PC262 5K0 4A160 MB	70853	5	16
PC262 10K0 4A160 MB	72928	10	16
PC262 100K0 4A160 MB	72930	100	16
PC262 1M0 4A160 MB	72932	1000	16

**Order designations /
Abbreviations**1A: connecting solder pin radial
4A: connecting pin, radial
MB: bushing M10 x 0.75,
axis Ø 6 mm with slot**Included in delivery**1 nut M 10 x 0.75
1 serrated washer 3/8"**Recommended accessories**

Fork coupling Z104 G6, Art. no. 005690;

Fork coupling Z105 G6 (back-lash-free), Art. no. 005691,
MAP process-control indicators
and display. MUP signal condi-
tioner for standardized output
signals.**Important**All values given for this series –
including linearity, lifetime, micro-
linearity, resistance to external
disturbances and temperature
coefficient in voltage dividing
mode – are quoted for the device
operating with the wiper voltage
driving an operational amplifier
working as a voltage follower
where virtually no load is applied
to the wiper (I_e ≤ 1 μA).

Subject to changes

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