

PC Series Linear Potentiometers With Cylindrical Case



Features

- Designed with mechanical strength to handle demanding applications
- 10mm [0.39 in] diameter rod, large steel joints, and reinforced structure are ideal for metalworking, woodworking and ceramics applications
- Designed for easy installation thanks to an absence of electrical signal variation in output
- Self-aligning and weight-bearing rod eyes permit assembly with free movement of the transducer axle
- All potentiometers are individually tested at the manufacturer, and an individualized Linearity Error Chart is included with each unit

PC Series Linear Potentiometers Selection Chart

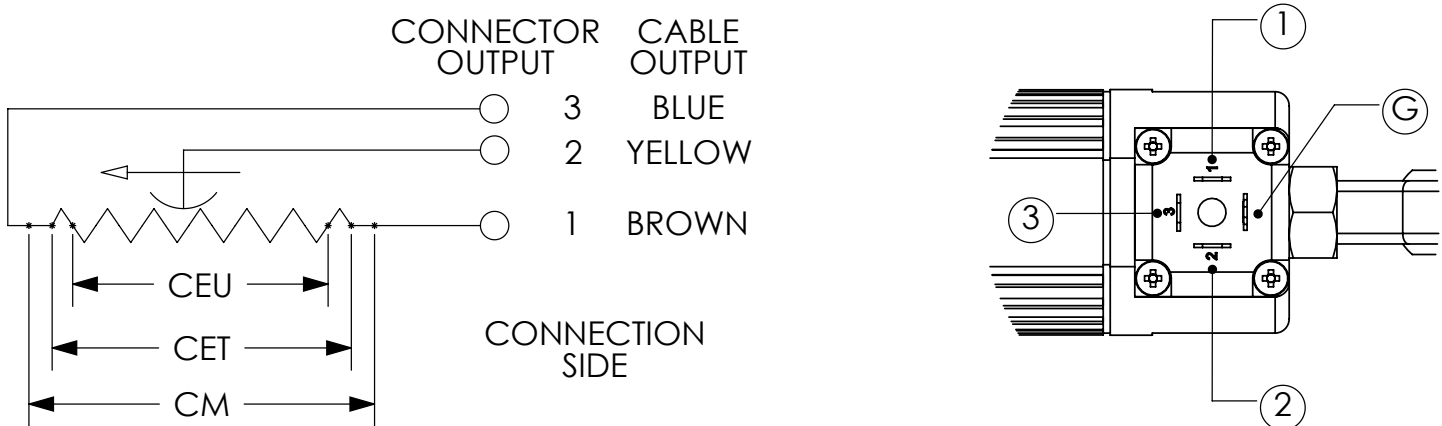
Part Number	Price	Drawing Link	Useful Electrical Stroke (CEU) mm [in]	Theoretical Electrical Stroke (CET) mm [in]	Resistance	Mechanical Stroke (CM) mm [in]	Case Length (A) mm [in]	Minimum Distance Between Rod Eyes (B) mm [in]
PC-M-0050-L	\$306.00	PDF	50 [1.97]	53 [2.09]	5KΩ	59 [2.32]	180.5 [7.11]	227
PC-M-0100-L	\$326.00	PDF	100 [3.94]	103 [4.06]	5KΩ	109 [4.29]	230.5 [9.07]	227
PC-M-0125-L	\$335.00	PDF	130 [5.12]	133 [5.24]	5KΩ	139 [5.47]	260.5 [10.26]	307
PC-M-0150-L	\$346.00	PDF	150 [5.91]	153 [6.02]	5KΩ	159 [6.26]	280.5 [11.04]	327
PC-M-0175-L	\$353.00	PDF	175 [6.89]	178 [7.01]	5KΩ	184 [7.24]	305.5 [12.03]	352
PC-M-0200-L	\$358.00	PDF	200 [7.87]	204 [8.03]	5KΩ	210 [8.27]	331.5 [13.05]	378
PC-M-0225-L	\$366.00	PDF	225 [8.86]	229 [9.02]	5KΩ	235 [9.25]	356.5 [14.04]	403
PC-M-0275-L	\$379.00	PDF	275 [10.83]	279 [10.98]	5KΩ	285 [11.22]	406.5 [16.00]	453
PC-M-0300-L	\$382.00	PDF	300 [11.81]	304 [11.97]	5KΩ	310 [12.20]	431.5 [16.00]	478

PC Series Linear Potentiometers Specifications

Independent Linearity (Within CEU)	± 0.05%
Resolution	Infinite
Repeatability	0.01 mm [0.0004 in]
Electrical Connections	4 pole connector DIN43650
Displacement Speed	Standard ≤ 10 m/s [32.81 ft/s]
Protection Level	IP65
Life	> 25x106 strokes or > 100x106 operations, whichever is less (within CEU)
Displacement Force	≤ 15N
Vibrations	5-2000 Hz: Amax=0.75 mm [0.03 in], amax=20g
Shock	50g, 11ms
Acceleration	—
Tolerance on Resistance	±20%
Recommended Cursor Current	< 0.1 μA
Maximum Cursor Current	10mA
Maximum Applicable Voltage	60V
Electrical Isolation	>100MΩ at 500V~, 1bar, 2s
Dielectric Strength	< 100μA at 500V~, 50Hz, 2s, 1bar
Dissipation at 40 °C [104 °F] (0W at 120 °C [248 °F])	3W
Thermal Coefficient of Resistance	—
Actual Temperature Coefficient of Output Voltage	≤ 1.5 ppm/°C
Working Temperature	-30 to +100°C [-22 to +212°F]
Storage Temperature	-50 to +120°C [-58 to 248°F]
Case Material	Anodized aluminum, Nylon 66
Shaft Material	Stainless steel AISI 303
Mounting	Two self-loading and self-aligning rod eyes

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Electrical Connections



When choosing a transducer, it is important to remember that three different strokes exist:

- Mechanical Stroke (CM): The actual shift that the transducer's cursor (wiper) is able to make.
- Useful Electrical Stroke (CEU): The part of the mechanical stroke in which transducer linearity is guaranteed.
- Theoretical Electrical Stroke (CET): Stroke expressed in mm or angular degrees between the electrical zero ($V_{out}=0$) and the electrical limit switch ($V_{out}=V_s$), which physically is equal to the distance between the silver pitches at the ends of the resistive track.

Therefore, when designing an application, you should choose a transducer with a useful electrical stroke that is equal to or greater than the maximum displacement carried out by the moving part.

Linear Potentiometer Accessories

Connectors For Gefran Linear Potentiometers

Part Number	Price	Drawing Link	Description	Number of Poles
<u>CON006-1KJ</u>	\$8.00	<u>PDF</u>	Gefran field wireable connector, 18mm DIN 43650 Form A, 90-degree cable entry, 4-pole. For use with Gefran LT, PK and WPG linear position sensors.	4
<u>CON008-1KJ</u>	\$8.00	<u>PDF</u>	Gefran field wireable connector, 9.4mm DIN 43650 Form C, 90-degree cable entry, 4-pole. For use with Gefran PC series potentiometers.	4

[CON006-1KJ](#)

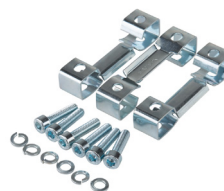
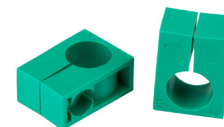
[CON008-1KJ](#)


Mounting Brackets and Accessories For Gefran Linear Potentiometers

Part Number	Price	Description
<u>PKIT009-1KJ</u>	\$12.00	Gefran mounting brackets, for use with Gefran LT Series potentiometers.
<u>PKIT015-1KJ</u>	\$21.50	Gefran rod eye joint accessory, for use with Gefran LT Series potentiometers.
<u>PKIT059-1KJ</u>	\$12.00	Gefran mounting brackets, for use with 100 to 900mm Gefran PK Series potentiometers.
<u>PKIT061-1KJ</u>	\$13.50	Gefran mounting brackets, for use with 1000 to 2000mm Gefran PK Series potentiometers.
<u>STA074-1KJ</u>	\$5.50	Gefran mounting brackets, for use with Gefran PZ12-S Series potentiometers.


[PKIT009-1KJ](#)

[PKIT015-1KJ](#)

[PKIT059-1KJ](#)

[PKIT061-1KJ](#)

[STA074-1KJ](#)