

LT Series Linear Potentiometers



Features

- Excellent reliability under all conditions
- Suitable for use in applications with heavy vibration
- Designed for easy installation thanks to an absence of electrical signal variation in output
- Mounting grooves provide a good alternative to fastening with brackets
- Typical applications include plastic injection presses, vertical presses, and many other types of processing machinery
- All potentiometers are individually tested at the manufacturer, and an individualized Linearity Error Chart is included with each unit

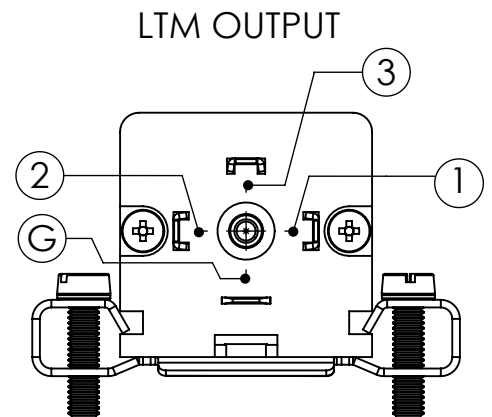
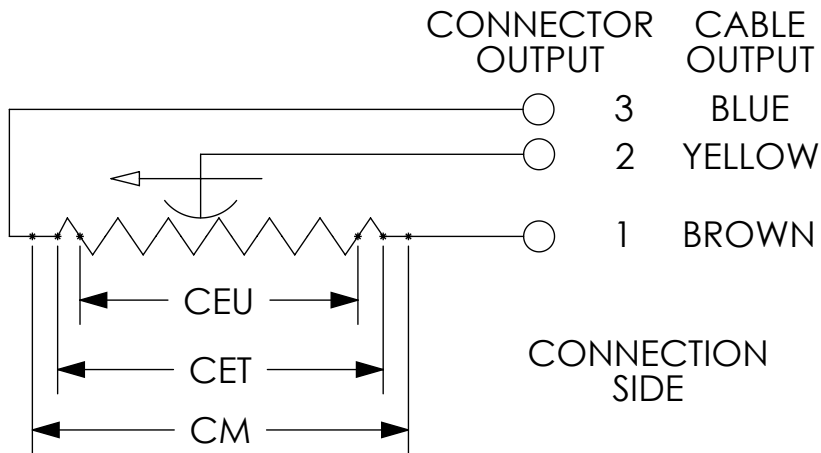
LT Series Linear Potentiometers Selection Chart

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]
LT-M-0050-S-L	\$160.00	PDF	50 [1.97]	53 [2.09]	5KΩ	59 [2.32]	113 [4.45]
LT-M-0075-S-L	\$169.00	PDF	75 [2.95]	78 [3.07]	5KΩ	84 [3.31]	138 [5.43]
LT-M-0100-S-L	\$172.00	PDF	100 [3.94]	103 [4.06]	5KΩ	109 [4.29]	163 [6.42]
LT-M-0130-S-L	\$180.00	PDF	130 [5.12]	133 [5.24]	5KΩ	139 [5.47]	193 [7.60]
LT-M-0150-S-L	\$188.00	PDF	150 [5.91]	153 [6.02]	5KΩ	159 [6.26]	213 [8.39]
LT-M-0175-S-L	\$193.00	PDF	175 [6.89]	178 [7.01]	5KΩ	184 [7.24]	238 [9.37]
LT-M-0200-S-L	\$196.00	PDF	200 [7.87]	204 [8.03]	5KΩ	210 [8.27]	264 [10.39]
LT-M-0250-S-L	\$219.00	PDF	250 [9.84]	254 [10.00]	5KΩ	260 [10.24]	314 [12.36]
LT-M-0300-S-L	\$222.00	PDF	300 [11.81]	304 [11.97]	5KΩ	310 [12.20]	364 [14.33]
LT-M-0400-S-L	\$311.00	PDF	400 [15.75]	406 [15.98]	5KΩ	412 [16.22]	466 [18.35]

LT 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	IP60
Life	> 25x10 ⁶ strokes or > 100x10 ⁶ maneuvers, whichever is less (within CEU)
Displacement Force	3.5 N (typical) IP60 version, 15N (typical) IP65 version
Vibrations	5-2000 Hz: Amax=0.75 mm [0.03 in], amax=20g
Shock	50g, 11ms
Acceleration	200 m/s ² max (20g)
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	-200 to +200 ppm/°C typical
Actual Temperature Coefficient of Output Voltage	≤ 5 ppm/°C typical
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	Brackets with adjustable distance between centers, or with M5 screw ISO4017-DIN933

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](#)

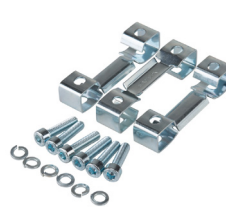
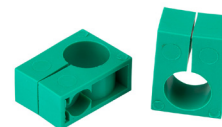
[CON008-1KJ](#)


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](#)

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[PKIT059-1KJ](#)

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[STA074-1KJ](#)