

LINEAR POSITION TRANSDUCERS

“Rodless, Sliding System for Long Distance Measurements”



GENERAL FEATURES

The most important feature of LTK series position sensors is that they have a rodless and sliding system. They take measurement by movement of the sled along the profile. This provides the body to be shorter and allows up to 1000 mm stroke lengths.

They work as ABSOLUTE because they are measuring with the potentiometric principle, that is, they do not lose their position in case of power off. Potentiometric, 4-20 mA (optional 0-20 mA) or 0-10V analog output options are available.

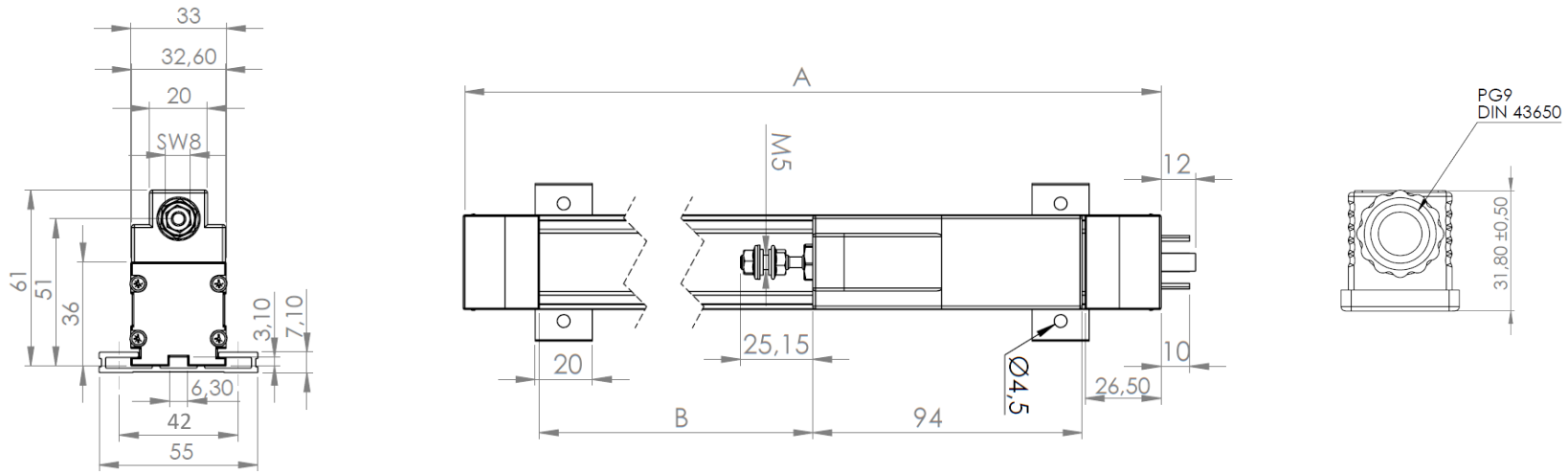
Because of their linearized conductive plastic resistance alloy and special contacts, they are not affected by wear and operate for a long time with a life cycle of up to 100 million. They are stable by being linear and they measure evenly.

- Rodless, sliding system
- Measuring lengths between 50 mm and 1000 mm
- Potentiometric measurement
- Potentiometric, 4-20 mA or 0-10V analog output options
- Long life up to 100 million movements
- High accuracy
- Compact design
- DIN43650-A socket connection
- IP 40 protection class
(if slider is mounted upside down, it becomes IP54)

TECHNICAL SPECIFICATIONS

| Model | LTK 50 | LTK 75 | LTK 100 | LTK 125 | LTK 150 | LTK 175 | LTK 200 | LTK 225 | LTK 250 | LTK 275 | LTK 300 | LTK 325 | LTK 350 | LTK 360 | LTK 375 | LTK 400 | LTK 450 | LTK 500 | LTK 550 | LTK 600 | LTK 650 | LTK 700 | LTK 750 | LTK 800 | LTK 900 | LTK 1000 | | |
|----------------------------|---|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|--|--|
| Electrical Stroke (mm) | 50 | 75 | 100 | 125 | 150 | 175 | 200 | 225 | 250 | 275 | 300 | 325 | 350 | 360 | 375 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 900 | 1000 | | |
| Resistance (KΩ) | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 10 | 10 | 10 | 10 | 10 | 10 | | |
| Resistance Tolerance (±%) | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Independent Linearity (±%) | 0,1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Repeatability | 0.01 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Speed | ≤ 5 m/s | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Resistance Element | Conductive Plastic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output Signal | 4-20 mA (optional 0...20 mA), 0-10V or Potentiometric | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supply Voltage | For Current and Voltage output models: 12...30 VDC For potentiometric output model: 42V max. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Electrical Connection | DIN 43650-A 4 pin socket | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mechanical Fixing | Adjustable (sliding) mounting feet | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature | -30°C...+100°C | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IP Protection Class | IP40 (if slider is mounted upside down, it becomes IP54) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Life | 100 x 10 ⁶ movements | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Material | Sliding parts: Plastic Body: Aluminum | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MECHANICAL DIMENSIONS (mm)

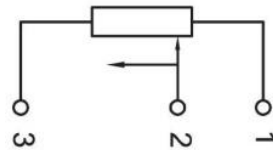
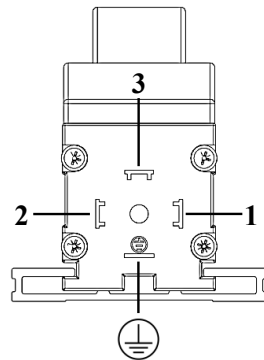


| MODEL | 50 | 75 | 100 | 125 | 150 | 200 | 225 | 250 | 275 | 300 | 325 | 350 | 360 | 375 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 900 | 1000 |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Electrical Stroke (mm) | 50 | 75 | 100 | 125 | 150 | 200 | 225 | 250 | 275 | 300 | 325 | 350 | 360 | 375 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 900 | 1000 |
| Mechanical Stroke (B) (mm) | 54 | 79 | 104 | 129 | 154 | 204 | 229 | 254 | 279 | 304 | 329 | 354 | 364 | 379 | 404 | 454 | 504 | 554 | 604 | 654 | 704 | 754 | 804 | 904 | 1004 |
| Body Length (A) (mm) | 205 | 230 | 255 | 280 | 305 | 355 | 380 | 405 | 430 | 455 | 480 | 505 | 515 | 530 | 555 | 605 | 655 | 705 | 755 | 805 | 855 | 905 | 955 | 1055 | 1155 |

ELECTRICAL CONNECTION

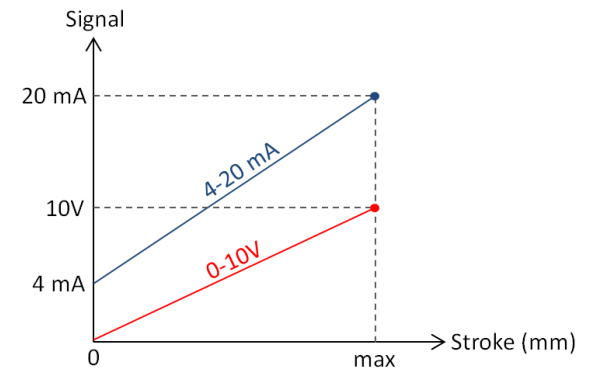
| SIGNAL | DIN 43650-A SOCKET |
|----------------|--------------------|
| + V | Pin 1 |
| Output Signal* | Pin 2 |
| - V | Pin 3 |

* **Output Signal** may be potentiometric, 0-10 VDC or 4-20 mA depending on the model (See Product code table).



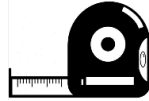
Potentiometer Connection (Voltage Divider)

Note: The GND line of the feed and signal output is common. Therefore it can be connected with 3-wire cable.



SAMPLE APPLICATION FIELDS

- Measuring /control technology
- Manufacturing engineering like woodwork machines, riveting machines, packaging machines etc.
- Hydraulic machines
- Press brakes
- Metal working machines
- Bending machines
- Assembly and test equipment
- Medical applications
- Building technology
- Textile machinery
- Plastic and metal injection machines





ORDER CODE


| Model No | | | | Resistance Value | | | | Electrical Connection | | |
|----------|---|---|---|--|---|---|---|---|---|---|
| L | T | K | - | X | - | X | - | X | - | X |
| | | | | 5K: 5K Ω 10K: 10K Ω | | | | No code: DIN43650-A Socket (standard) | | |
| | | | | Measuring length (Stroke) Different measuring lengths between 50 mm and 1000 mm | | | | Output Signal A: 4-20 mA (*Optional 0-20 mA) V: 0-10 VDC No Code: Potentiometric | | |

Sample Code: LTK-1000-10K-A
 LTK series, 1000 mm stroke, 10K resistance, 4-20 mA output, DIN43650-A socket

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