# LinoSense® Conductive Plastic - Small Stroke Linear motion Sensor

Small stroke length linear motion displacement sensors are widely used in different industries. Depending on the application they function as real sensors or indicators. The difference between sensors and indicators is only that an indicator does not have the same close tolerances as the sensor but is extremly low cost. In sensors & indicators there is a difference in the linearity tolerance and the repeatability. But in any case the indicator indicates a position whereas a sensor measures the position. The widest range upto a stroke length of 100 mm is available in conductive plastic as a resistance element . Inspite of low cost, a reproducibility and a resolution is possible at the sensor between 50 um and 150 um. Nobody can expect from these low cost items a mechanical life of more than 20 million strokes. The more expensive types such as the MM types even go upto 20 million shaft movement. Some of them are equipped with internal or external springs to assure a proper spring return of the shaft.

# **MTI 18**

#### Linear Displacement Sensor 18 x 18 mm Pulling rod type, Medium stroke length industrialstandard



Link for Datasheet : www.megauto.de/en/mti18.pdf

Stroke length	0 - 10 to 0 - 450 (For MTI)
Resolution	Quasi infinite
Linearity tolerance (%)	± 0.1
Repeatability (µm)	(typ.) 25 - 50
Power (watt)	3 - 10
Resistance value ( $\Omega$ )	1k / 5k
Mechanical life (strokes)	20 million

MTR 18	Linear Displacement Sensor  18 x 18 mm Pulling rod type, Medium stroke length industrialstandard			
	<ul> <li>Very small linear sensor</li> <li>Conductive plastic resistive element</li> <li>Optional signal conditioner.</li> <li>Aluminium housing18 mm square, plain bearings</li> <li>Plug or cable connection</li> <li>Accessories like ball joints or couplings</li> </ul>	Stroke length Resolution Linearity tolerance (%) Repeatability (μm) Power (watt) Resistance value (Ω)	0 - 10 to 0 - 100 (For MTR) Quasi infinite ± 0.1 (typ.) 25 - 50 3 - 10 1k / 5k	
Link for Datasheet : www.megauto.de/en/mtr18.pdf	Preloaded spring return	Mechanical life (strokes)	20 million	

MTC 13	Linear motion displacement Conductive plastic high r	
<b>N</b> 7	•13 mm round housing.	Stroke lengt
A A A A A A A A A A A A A A A A A A A	Conductive plastic resistive element.	Resolution
°	<ul> <li>Mini design for limited space.</li> </ul>	Linearity tol

· Conductive plastic resistive element Optional signal conditioner. • Aluminium housing18 mm square,

plain bearings

couplings

 Plug or cable connection · Accessories like ball joints or

· Preloaded spring return

<ul> <li>Anodised Aluminiur</li> </ul>	m Housing.
Duch Dull rod type	plug or cable

Push Pull rod type, plug or cable connection.

#### sensor 13 mm Diameter solution, long life

Stroke length	0 - 10 to 0 - 150 (For MTC13)
Resolution	Quasi infinite
Linearity tolerance (%)	± 0.1
Repeatability (mm)	± 0.01
Power (watt)	3 - 10
Operating Speed	5 m/s
Mechanical life (strokes)	30 million

Link for Datasheet : www.megauto.de/en/mtc13.pdf

**MTC 20** 

Linear motion displacement sensor 20 mm	Diameter
Conductive plastic high resolution, long	life

20 mm round housing.

- · Conductive plastic resistive element.
- Mini design for limited space.
- · Anodised Aluminium Housing.
- · Push Pull rod type, plug or cable connection.

Stroke length	0 - 10 to 0 - 100 (For MTC20)
Resolution	Quasi infinite
Linearity tolerance (%)	± 0.1
Repeatability (mm)	± 0.01
Power (watt)	3 - 10
Operating Speed	5 m/s
Mechanical life (strokes)	30 million

Link for Datasheet : www.megauto.de/en/mtc20.pdf

MKS1

### Small stroke very low cost linear motion spring return displacement sensor

- Metal housing,15X10 mm, robust design.
- · Aluminium housing with stainless steel link ball
- Stroke length (mm) 10,25,45...50.
- · Compact Design for Limited Space
- Double Sleeve Bearing.

Stroke length	0 - 10 to 0 - 50
Resolution	Quasi infinite
Linearity tolerance (%)	±1
Repeatability (mm)	± 0.01
Power (watt)	3
Operating Speed	3 m/s
Mechanical life (strokes)	20 million

Link for Datasheet : www.megauto.de/en/mks1.pdf

MM10	Linosense Small stroke Potentiometric long life displacement sensor		
		Series	MM10
	Conductive plastic element     Electrical travel : 10mm	Electrical travel	0 - 8 /0 - 12 mm
	Return spring (lower life)	Resolution	element infinite
	Resistance value : 5K     Special tolerances : +15%	Linearity tolerance	±2%

- Link for Datasheet : www.megatronsensor.de/mm10.pdf
- ial tolerances : ±15%
- Push rod material : stainless steel
- Two sleeve bearings

Electrical travel	0 - 8 /0 - 12 mm
Resolution	element infinite
Linearity tolerance	± 2 %
Repeatability	(approx.) 50 µm
Life (movements)	20 million
Resistance range ( $\Omega$ )	0 - 5k, 0 - 10k
Mechanical life	20 million

MM30		

Link for Datasheet : www.megatronsensor.de/mm30.pdf

## Linosense Small stroke Potentiometric long life displacement sensor

- Conductive plastic element
- Electrical travel : 30mm
- Return spring (lower life)
- Resistance value : 500 to 10K
- Special tolerances : ±10%
- · Push rod material : stainless steel
- Two sleeve bearings

#### Series **MM30** Electrical travel 0 - 10 /0 - 30 mm Resolution element infinite Linearity tolerance ± 1% Repeatability (approx.) 50 µm Life (movements) 40 million 0 - 5k, 0 - 10k Resistance range ( $\Omega$ )

С	P1	3
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## Linosense Small stroke Potentiometric long life displacement sensor

- Conductive plastic element
- Return spring (lower life) Resistance value : 500 to 10K
- Special tolerances : ±10% • Push rod material : stainless steel
- Two sleeve bearings

· Electrical travel : 30mm

Series	CLP13
Electrical travel	0 -13 / 0 - 100 mm
Resolution	element infinite
Linearity tolerance	± 0.5 %
Repeatability	(approx.) 50 μm
Life (movements)	40 million
Resistance range ( $\Omega$ )	0 - 5k, 0 - 10k

Link for Datasheet : www.megatronsensor.de/clp13.pdf

# MKP

## Linosense Small Stroke long life spring return displacement sensor

Link for Datasheet : www.megauto.de/mkp.pdf

МКТР	Linosense Small Stroke long life spring return displacement sensor
	<ul> <li>Plastic housing ,Plastic Shaft.</li> <li>Spring return sensor possible.</li> <li>Stroke length (mm):0-10, 0-25,0-45.</li> <li>Linearity : ±1%.</li> <li>Repeatability ± 0.01 mm.</li> <li>Conductive Plastic Element.</li> <li>Operation life 5 million movements.</li> </ul>

Stroke length 0 -10,0 - 20 mm
Very low cost linear sensor
Plastic housing ,Plastic Shaft
Flange mountable
Usable as displacement indicator with/without integrated spring return.
Conductive plastic element.

Link for Datasheet : www.megauto.de/mktp.pdf