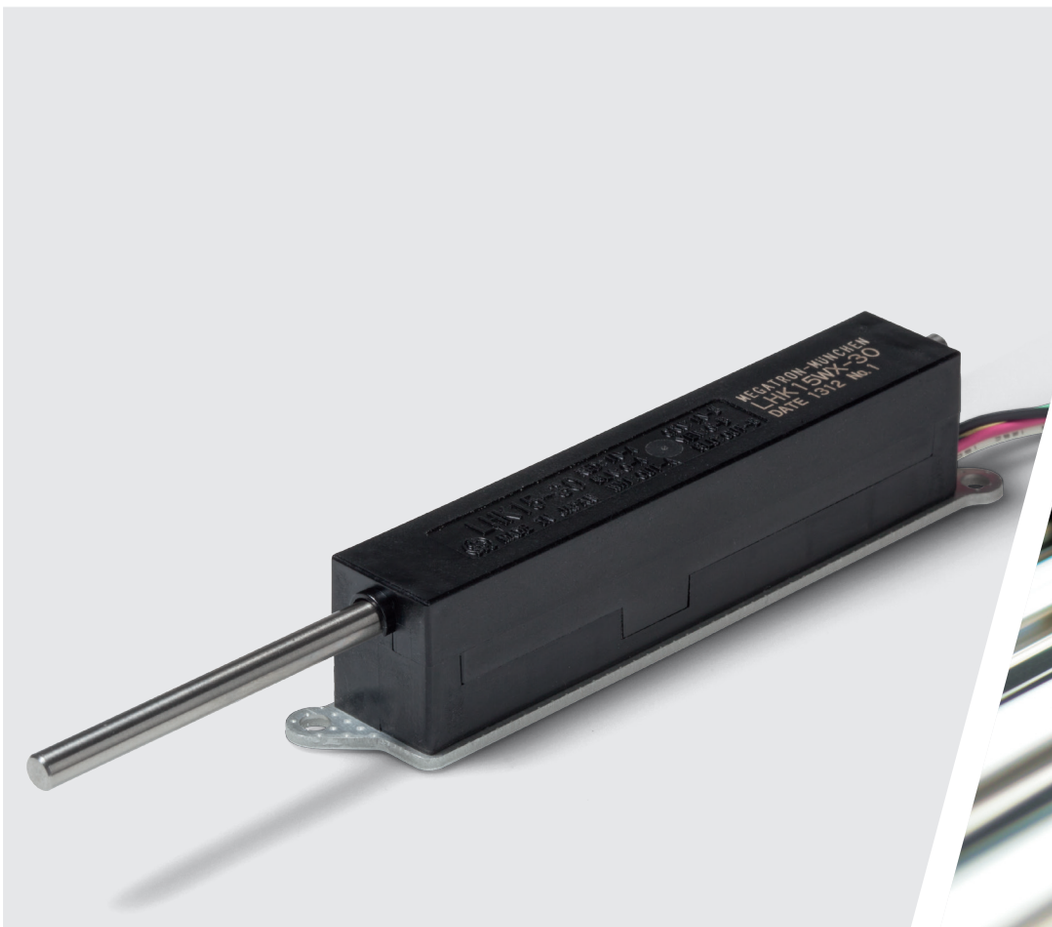
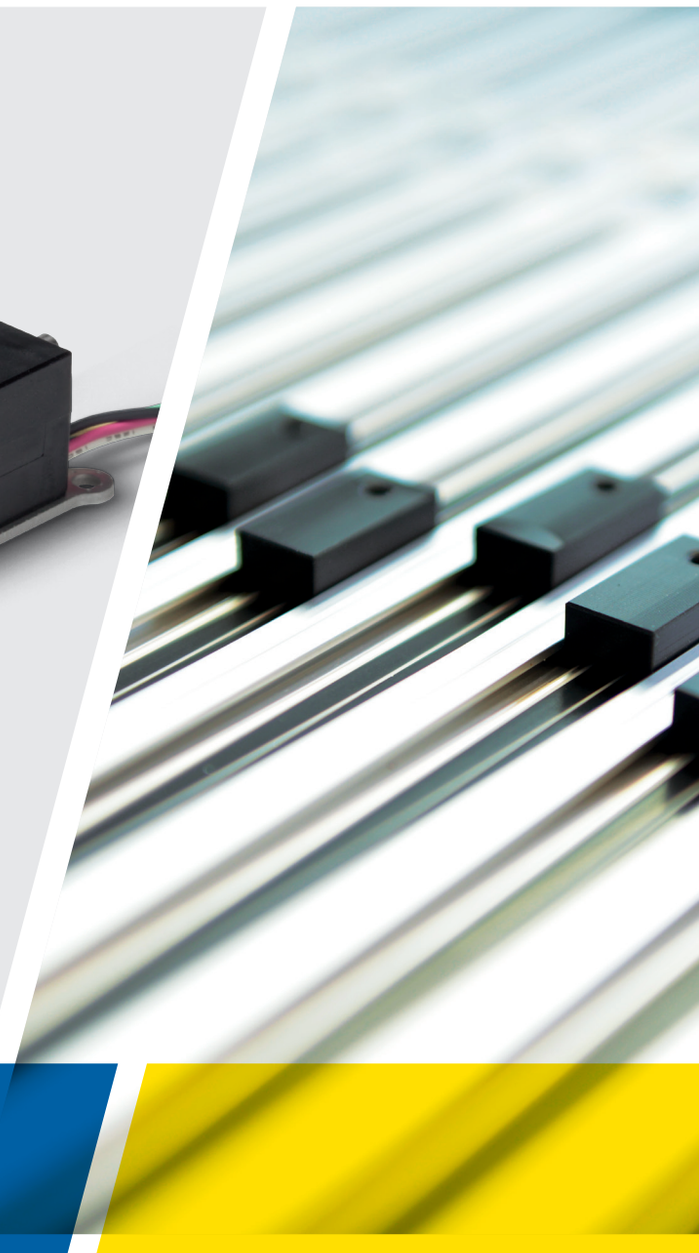
MEGATRON

Precision for your Design





LINEAR SENSORS

Potentiometric and Contactless
Position Sensors

MEGATRON

Our success story

MEGATRON is a specialist for mechatronic components for more than 50 years. In keeping with our motto “Precision for your Design,” we offer a wide range of sensors, components, input devices and industrial joysticks.

Our products are deployed throughout a wide variety of applications across almost any area of the processing industry and we are leaders in selected market segments. The guiding principle for all our actions is to find the best possible solution regarding functionality and economic efficiency together with our customers. The development of this ideal “design-in” is deeply rooted in our company culture and can be seen in our flexibility, in our distinct know-how on the application and product level as well as in our efficient processes.

We put great emphasis on long-term cooperation and support you over the course of your application’s entire life span. Our products and services are marketed worldwide by our approximately 60 Munich-based employees and partly by our distribution partners.

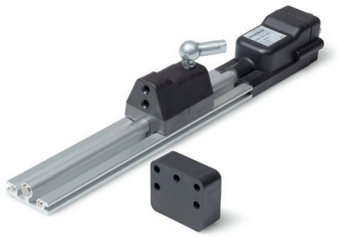
Contactless Linear Transducers

Ideal for small oscillating movements in automatically regulated systems

LHK Hall Effect linear transducer with analog signal

The Hall Effect Linear Sensor LHK is ideal for the detection of small, dynamic movements in automatically regulated systems without loss of accuracy due to wear. Compared to other contactless measurement principles it offers an excellent price / performance ratio. The sensor provides an active output signal which eliminates a complicated signal conversion.

- No wear-inducted degradation of signal quality
- Reliable measurement when exposed to vibrations
- Suitable for applications with small oscillating movements in automatically regulated systems
- Absolute analog signal / output without complicated signal conversion
- Excellent price / performance ratio
- Electrical Travel: 30 mm
- Housing: Rectangular plastic profile
- Profile Dimension: 15 x 19,5 mm
- Technology: Hall Effect
- Protection: IP65
- Design: Front and rear side rod with / without spring return
- Resolution: 12 bit



Free magnetic cursor

Linear transducer with high accuracy in IP65

OMS magnetostrictive linear transducer with analog signal

The mechanical detection of linear movement is done by a guided or free cursor, in which magnets are casted in sealing compound. In the IP65 sealed housing, the magnetostrictive sensor element is integrated into compact printed coil technology as well as the electronic runtime measurement.

- Very accurate and wear-free measuring principle
- Suitable for heavy-duty applications
- Optional with free magnetic cursor (up to ±2 mm tolerance in the vertical and horizontal displacement)
- Electrical Travel: 50 to 1500 mm
- Housing: Anodized aluminium profile
- Profile Dimension: 14 x 32 mm
- Technology: Magnetostrictive
- Protection: IP65
- Design: Guided or free cursor
- Resolution: Infinite

Linear transducer with high resolution up to 5 µm

MS50 incremental linear transducer with TTL or line driver interface

To reach high accuracy the push rod is guided with precise sleeve bearings. These are placed inside the shaft. On the push rod an accurate glass scale is mounted. Inside the sensor housing the glass scale passes an electronic board with optical detector, which generates counting pulses in TTL or line driver level up to 5 µm resolution. Due to the glass material the measurement is very temperature stable.

- Very accurate and wear-free measuring principle
- Easy mounting on shaft Ø8h 6 mm
- Temperature stable counting pulses because of glass scale
- Electrical Travel: 50 mm
- Housing: Rectangular aluminium profile, steel sheet cover
- Profile Dimension: 20 x 32 mm
- Technology: Incremental
- Protection: IP40
- Design: Front side rod with / without spring return
- Resolution: 5 µm, 10 µm

With loose core

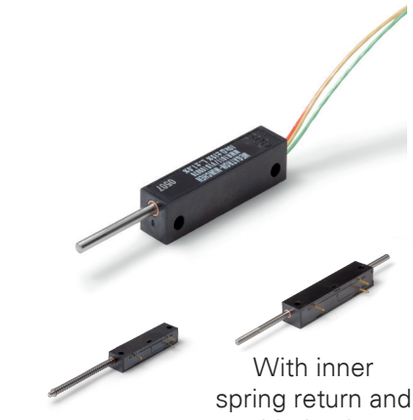
Linear transducer with integrated electronics

EDC inductive transducer with analog signal output

The EDC series uses the inductive measuring principle (LVDT) and has an integrated signal processing with a linear analog output signal. The inductive measurement delivers absolute signals, is true power on and has high resolution also for movement in micro steps.

- Very accurate and wear-free measuring principle for small strokes
- Suitable for applications with oscillating movements and high dynamics
- High resolution also for small steps
- Absolute analog signal output without external electronics
- Electrical Travel: 2, 10, 20, 50 mm
- Profile Dimension: Ø22 mm
- Technology: Inductive with electronics
- Housing: Cylindrical stainless steel profile
- Protection: IP40
- Design: Front side push rod with spring return
- Resolution: Infinite

Potentiometric Linear Transducers



With outer spring return and soldering lugs

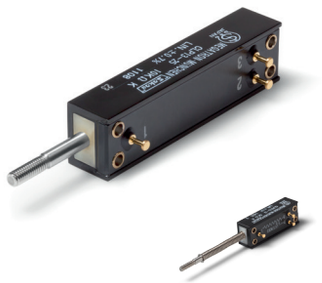
With inner spring return and soldering lugs

Linear transducer in miniature design

MM10 potentiometric linear transducer

The space-saving design of the MM10 is particularly suitable in case of limited space. Due to its high linearity, the high-resolution conductive plastic resistance element ensures a long life span and high accuracy. For mechanical coupling, the MM10 can be used both as a push-button and with a guided push rod.

- Mini-Design
- Easy mounting by 2 x Ø2,3 mm holes
- Long life span
- Electrical travel: 8 to 15 mm
- Housing: Rectangular plastic profile
- Profile dimension: 7 x 8 mm
- Technology: Potentiometric
- Protection: IP40 (IP54 on request)
- Design: Front and rear side rod with / without spring return
- Resolution: Infinite



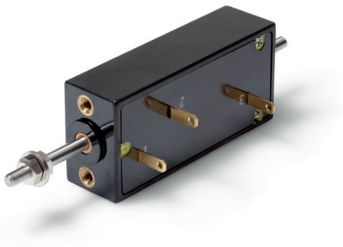
With spring return

Small profile with large measuring stroke

CLP13 potentiometric linear transducer

Despite the small dimensions, the CLP13 is available with a measuring stroke of up to 100 mm. Due to its high linearity, the high-resolution conductive plastic resistance element ensures a long life span and high accuracy. For mechanical coupling, the CLP13 can be used both as a push-button and with a guided push rod.

- Easy mounting by 4 x Ø2 mm tubular rivets
- Long life span
- Economical and proved potentiometer technology
- Electrical travel: 13 to 100 mm
- Housing: Rectangular profile
- Profile dimension: 11 x 13 mm
- Technology: Potentiometric
- Protection: IP40; on request IP54
- Design: Front side rod with / without spring return
- Resolution: Infinite

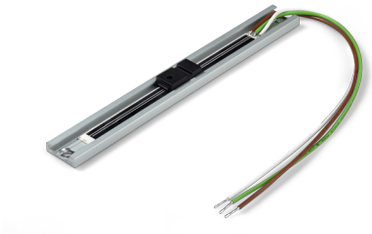


Compact and space-saving

MM potentiometric linear transducer

The construction of the MM is space-saving due to its small profile dimensions. For mechanical coupling, the MM can be used both as a push-button and with a guided push rod. Due to its high linearity, the high-resolution conductive plastic resistance element ensures a long life span and high accuracy.

- Economical and proved potentiometer technology
- Easy mounting by 2 x M3-threads and Ø10 mm flange
- Long life span
- Electrical travel: 10 to 30 mm
- Housing: Rectangular plastic profile
- Profile dimension: 15 x 24 mm
- Technology: Potentiometric
- Protection: IP40 (IP54 on request)
- Design: Front and rear side rod with / without spring return
- Resolution: Infinite



The flattest of its kind

MBX potentiometric linear transducer

The MBX series is extremely suitable for very limited space due to its extremely slim design. In addition, the universal cursor can be mechanically coupled in a flexible way. This saves time and costs during installation and offers freedom in the design of the customer's housing.

- Easy installation with 2 mounting holes
- Flexible mechanical coupling due to universal cursor
- Long life span
- Electrical travel: 50 to 200 mm
- Technology: Potentiometric
- Design: Guided cursor
- Housing: Open aluminium rail
- Profile dimension: 5,5 x 17 mm
- Protection: None (open)
- Resolution: Infinite

Potentiometric Linear Transducers

Sledging with up to 2000 mm measuring length

MSL38 potentiometric linear transducer

In the displacement sensor series MSL38 the mechanical detection of linear movement is done by a slider cursor. The cursor construction provides space saving integration up to 2000 mm measurement stroke. To avoid vertical or angular misalignment a link ball is integrated in the cursor sled.

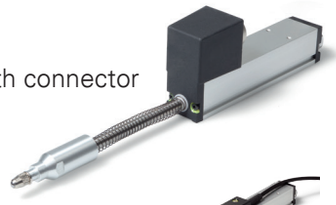
- Easy coupling by link ball on cursor sledge
- Long life span

- Electrical travel: 100 to 2000 mm
- Housing: Rectangular anodized aluminium profile
- Profile dimension: 21 ≤ 35 mm
- Technology: Potentiometric with electronics
- Protection: IP40
- Design: Guided cursor
- Resolution: Infinite

Current industrial design with 18 x 18 mm

SPR18 potentiometric linear transducer

With connector



With cable

The compact and robust housing profile of the SPR18 series made of anodized aluminium corresponds to the current industrial design with 18 x 18 mm in profile. The SPR18 is available with either a plug or a cable connection.

- Compact industrial design
- Easy integration with spring return device

- Electrical travel: 25 to 100 mm
- Housing: Rectangular anodized aluminium profile
- Profile dimension: 18 x 18 mm
- Technology: Potentiometric with electronics
- Protection: IP40 (optional IP54)
- Design: Front and rear side push rod with spring return
- Resolution: Infinite

Potentiometric Linear Transducers for harsh environmental conditions

Versatile mounting options in compact design

RC13 potentiometric linear transducer

For mechanical coupling the RC13 series provides three mounting versions: flange, mounting brackets or ball joints. Due to his compact design with only 13 mm diameter in the profile and the different mounting possibilities, a space saving and easy integration can be reached up to 250 mm measurement stroke.

- Easy mounting by flange, ball joint or mounting brackets
- Long life span
- Electrical travel: 25 to 250 mm
- Housing: Cylindrical anodized aluminium profile
- Profile dimension: Ø13 mm
- Technology: Potentiometric
- Protection: IP60
- Design: Front side rod without spring return
- Resolution: Infinite

Versatile mounting options with high protection class

RC20 potentiometric linear transducer

For mechanical coupling the RC20 series provides three mounting versions: flange, ball joints or mounting brackets. The compact and rugged construction of the RC20 series with anodized aluminium housing of 20 mm diameter can be integrated in a space saving way up to a measuring distance of 300 mm. Optionally a robust design with protection class IP67 is available.

- Three mounting variants: By flange, ball joints or mounting brackets
- Long life span
- Also available in robust construction with IP67 protection
- Electrical travel: 25 to 300 mm
- Housing: Cylindrical anodized aluminium profile
- Profile dimension: Ø20 mm
- Technology: Potentiometric
- Protection: IP60 (optional IP67)
- Design: Front side rod without spring return
- Resolution: Infinite

Potentiometric Linear Transducers for harsh environmental conditions

Internal flange

Robust and space-saving in hydraulic applications

HEM12 (E) potentiometric linear transducer

The design of the HEM12 is particularly suitable for hydraulic applications. The displacement is measured by a magnetic drag.

- Easy mounting by flange head with only Ø20 mm fit or M24 x 1,5 thread
- Suitable for hydraulic applications up to 350 bar
- Long life span
- Expandable with integrated signal converter electronic (e-version HEM12E)
- Electrical travel: 50 to 1000 mm
- Housing: Cylindrical stainless steel profile
- Profile dimension: Ø13 mm
- Technology: Potentiometric
- Protection: IP67
- Design: Free cursor
- Resolution: Infinite

IP67

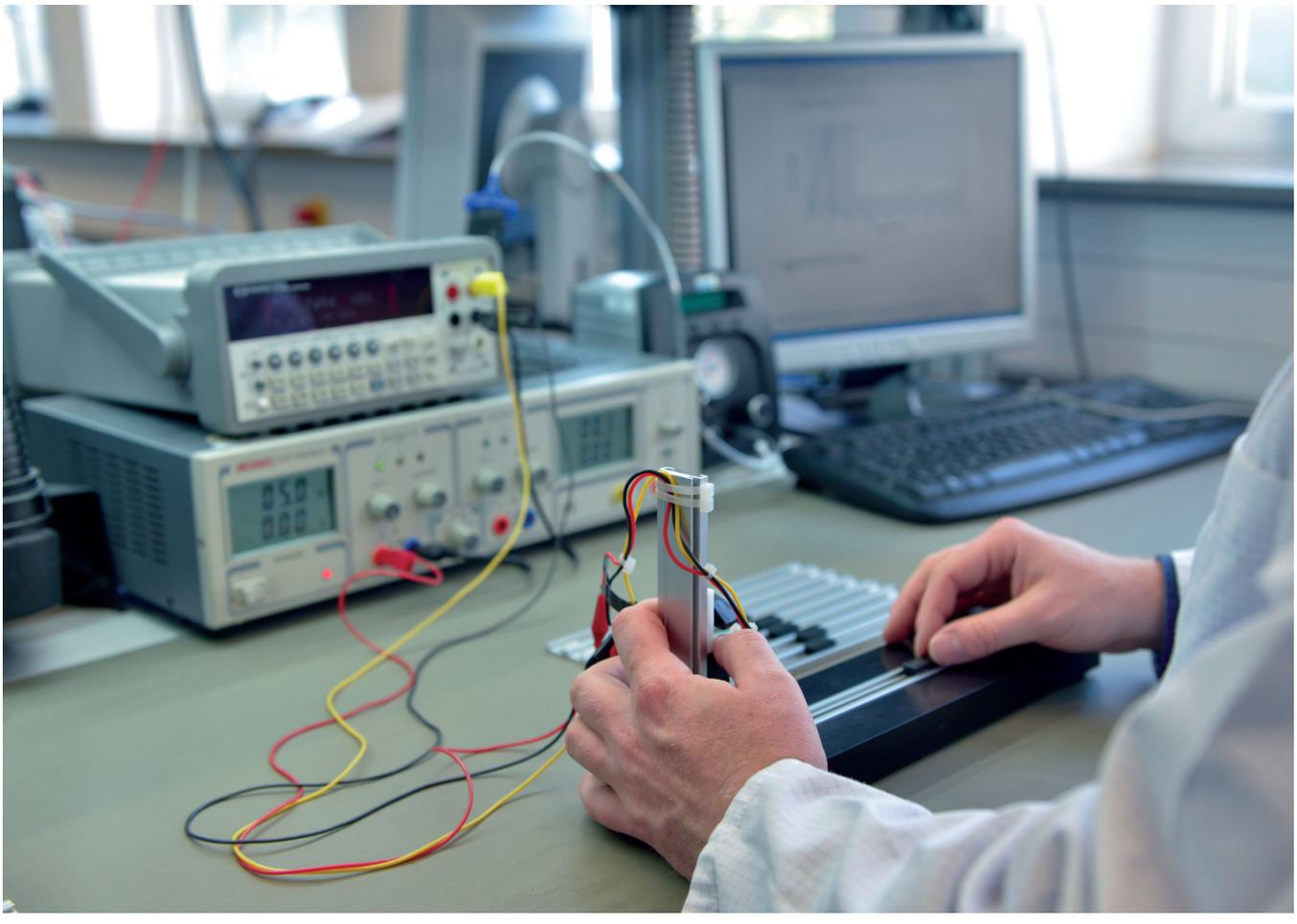
IP65

The rugged for harsh environments

RC35 potentiometric linear transducer

For easy mechanical coupling the sensor is equipped with two strong ball joints, which allow a free mounting position. Due to its robust construction in protection class IP65 (optional IP67), this series is suitable for harsh environmental conditions.

- Easy mechanical coupling by ball joints
- Long life span
- Also available in very robust version with IP67 protection
- Electrical travel: 50 to 750 mm
- Housing: Cylindrical anodized aluminium profile
- Profile dimension: Ø35 mm
- Technology: Potentiometric with electronics
- Protection: IP65 (optional IP67)
- Design: Front side rod without spring return
- Resolution: Infinite



MEGATRON

your solution – our adjustment

It is one of MEGATRON's specialities to adjust almost every product regarding its function, design and mechanical as well as electrical interfaces to the specific needs of the customer – also for small quantities. This is possible due to our variety of options, our modular product concepts and our flexible organisation.

Therefore, you will receive a functional and economic solution within your existing and desired design. With MEGATRON, you can reduce your costs and realise short development periods. That way, we provide you with an advantage in competition.

MEGATRON Elektronik GmbH & Co. KG is a leading German supplier of precision sensors, industrial joysticks, small plastic parts and electronic housings. Founded in 1960, MEGATRON is an owner-run company based in Putzbrunn near Munich, Germany. It develops, produces and markets its own products as well as those of its longstanding international partners all over the world. MEGATRON works closely with OEM customers to develop individual and economical product solutions. A wide selection of immediately available stock items completes the portfolio.

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