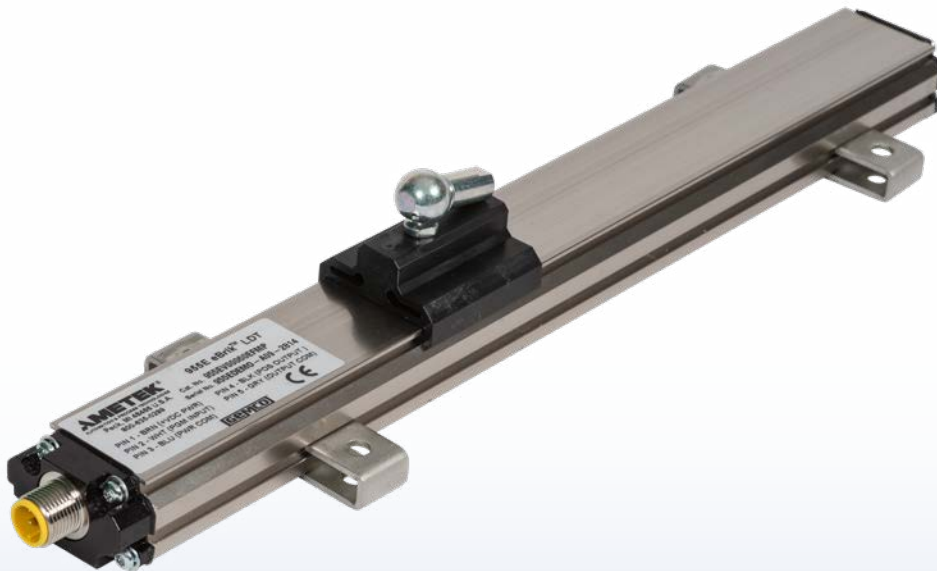




Series eBrik II™

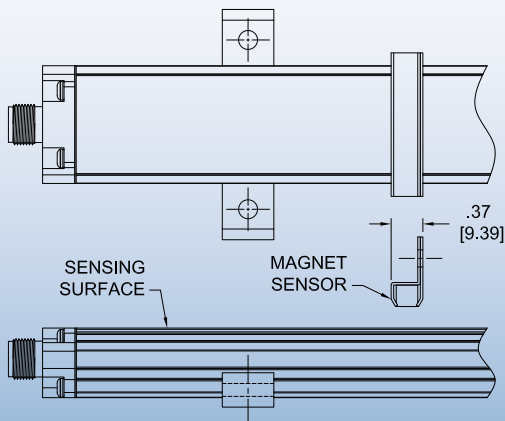
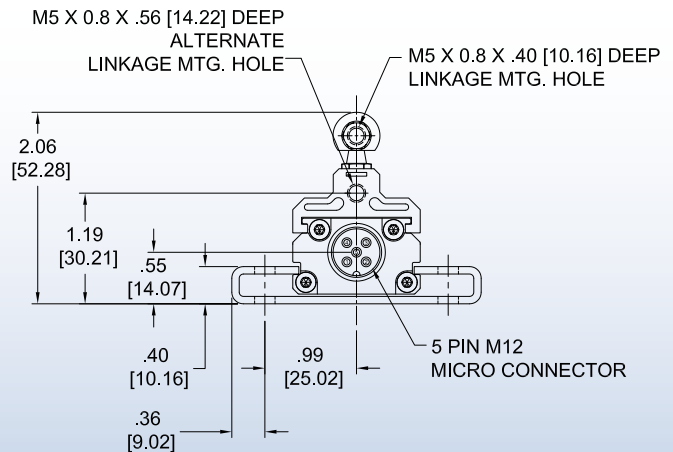
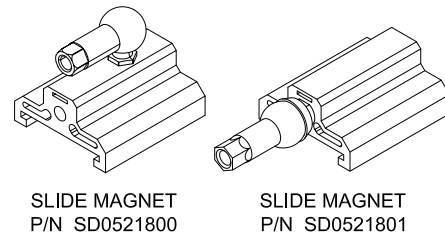
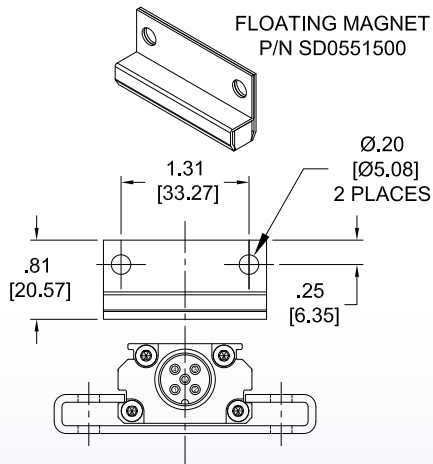
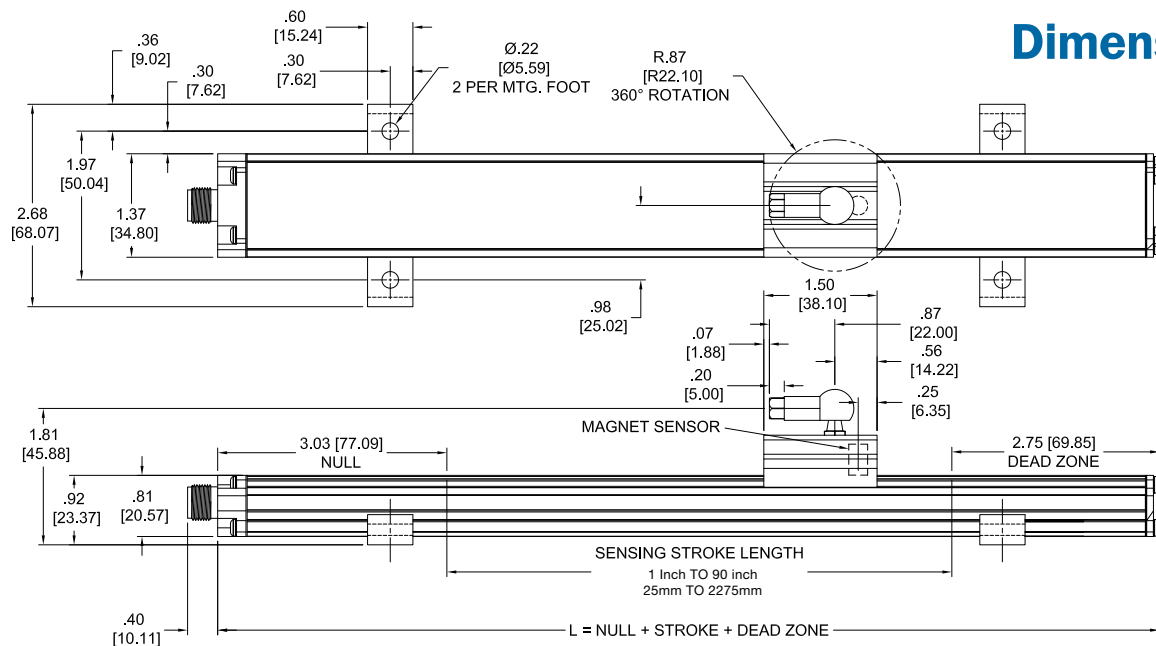
955 eBrik II™

Ordering Guide and Technical Information



**ABSOLUTE PROCESS CONTROL
KNOW WHERE YOU ARE... REGARDLESS**

Dimensions



All units are provided with mounting feet and a magnet assembly. The mounting feet (SD0522000) slide in the grooves on the side of the extruded housing. When tightened down with fastening hardware, the mounting brackets clamp the unit into place.

The need for automation is greater today than ever before

Linear Displacement Transducers (LDT) play an important role in factory automation. They provide accurate, reliable, absolute position feedback to help automate today's sophisticated machinery. Sensors must deliver value, be easy to set up, and interface easily into the host controller.

The 955 eBrik II™ Linear Displacement Transducer (LDT) is an ideal alternative to the traditional low-cost Linear Potentiometer. The advantages of the 955 eBrik II™ over the traditional potentiometer are that the 955 eBrik II™ is an accurate, programmable zero & span, auto-tuning, non-contact position sensor in an economical low profile package, that uses our field proven Magnetostrictive technology to give absolute analog feedback. The eBrik II™ takes the existing eBrik II™ family and expands its stroke range to 90" (2275mm) and adds higher shock & vibration performance for demanding applications.

Potentiometers are electro-mechanical devices that consist of a moveable wiper and resistive element to provide a voltage feedback. Potentiometers are subject to wear from repetitive operation and vibration, not to mention that they also drift with temperature. Contaminants are also a problem as they can enter into the sensors housing and interrupt the contact from the wiper to the resistive element, causing premature failure or erratic position signals.

With no moving parts and the IP67 rating the 955 eBrik II™ is an ideal alternative. The 5 pin connector simplifies wiring and allows for quick replacement. Programmability allows you to scale the LDT exactly for your application, or fine tune it in the field. Diagnostics are built into every unit and are transmitted to the host controller via the analog output. If there is ever a fault, the eBrik II™ will transmit a fault voltage or current warning the host controller that there is a problem.

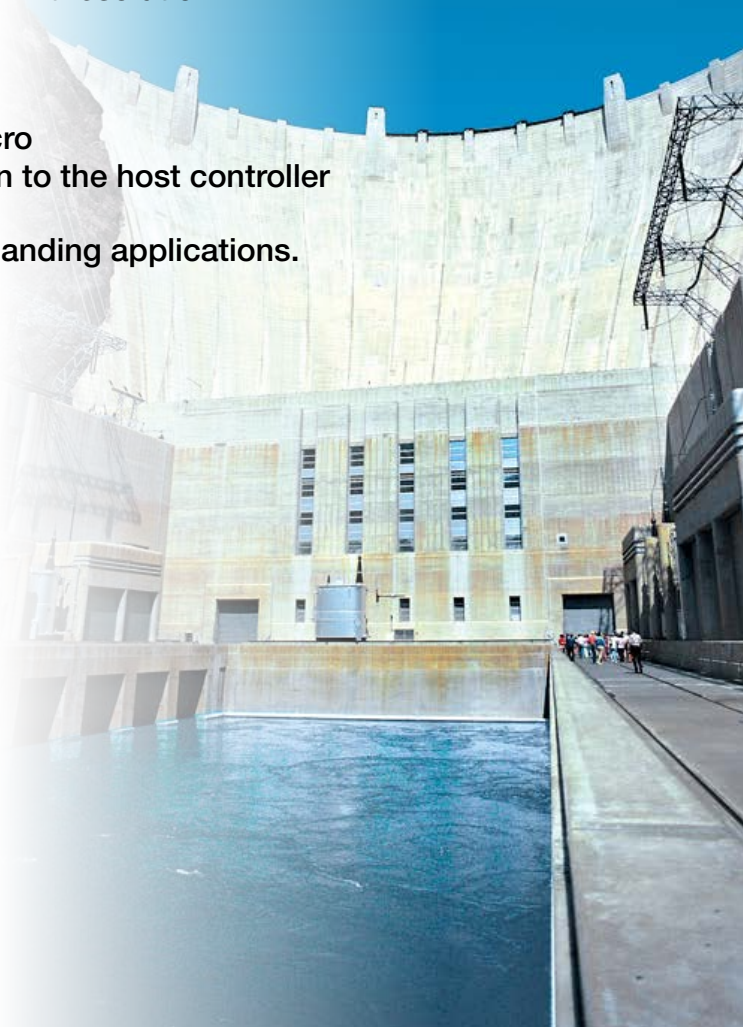


Typical Industries

- Plastic Injection Molding
- Hydro Power Generation
- Tire & Rubber
- Hydraulic Presses
- Sawmill & Woodworking
- Pulp & Paper
- Factory Automation
- Packaging Machinery
- Material Handling

Benefits

- Non-contact technology (Magnetostrictive)
- Absolute analog feedback (Voltage or Current) – 16-Bit resolution
- Longevity – Nothing to wear out
- Economically priced
- Programmable Zero & Span points
- Industry standard mating cordset- 5 pin 12mm Micro
- Floating or Slide magnet option for easy integration to the host controller
- Wide operation temperature range with low drift
- Rated to 100Gs Shock and 15Gs Vibration for demanding applications.



The 955 eBrik II™

The 955 eBrik II™ is an accurate, programmable zero and span, auto-tuning, non-contact linear position sensor in an economical, low-profile package. The sensor utilizes our field-proven Magnetostrictive technology to provide absolute position, repeatable to .001% of the sensing distance.

The 955 eBrik II™ is a cost effective linear sensing solution. The streamlined anodized aluminum extrusion houses the sensing element and electronics. The magnet moves over the sensing element that determines the position and converts it to a readable output. The 955 eBrik II™ is a self-contained unit and does not have a “can” or head assembly. All of the electronics are incorporated in the transducer, which is less than one inch tall.

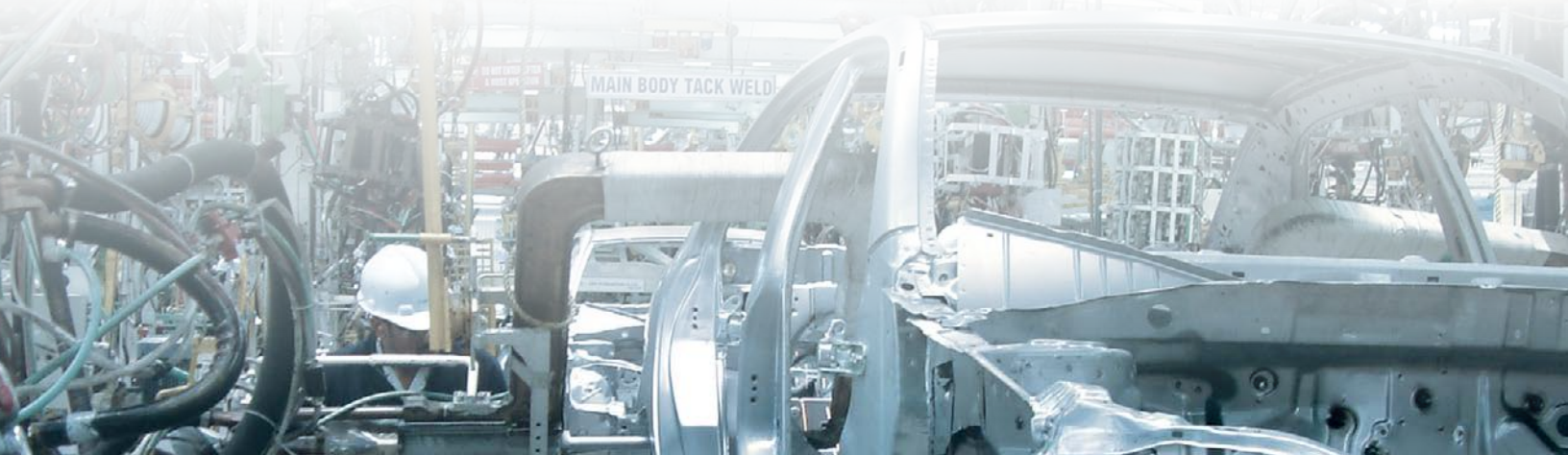
Units can be ordered in span lengths up to 90 inches long in 1 inch or 25mm increments. The slide magnet is, designed to move effortlessly along the transducer in guide tracks, or a floating magnet assembly can be positioned above the unit. A variety of hardware is available for attaching the magnet slide to the moving portion of the process. The transducer can be ordered with 0 to 10 VDC or 4 to 20 mA output.

All units are provided with our standard 5 pin 12mm Euro Micro connector, mounting feet and magnet assembly. Mating cables are sold in various lengths and must be ordered separately.

The 955 eBrik II™ has some truly unique features. One feature is the LDT's auto-tuning capability, the ability to sense the distance between the magnet and the sensing surface and adjust its signal strength accordingly. As a bonus feature, the 955 eBrik II™ offers programmability, the ability to rescale the zero and span positions or invert the positions in the field. This is an optional feature and must be called out at time of order under the “Options” field. All units come fully programmed from the factory, are 100% absolute, and do not require reprogramming unless desired. There is a unique diagnostic that is built into the analog output on every unit. If there is a loss of magnet, or if the magnet assembly moves beyond the programmed range, the analog output will transmit a fault voltage or current, warning the host controller that it is out of range.

The transducer can be mounted vertically or horizontally using our mounting feet which slide on the lower part of the extrusion and clamp down when tightened. This packaging provides a compact and easy method of mounting for machine builders.

The 955 eBrik II™ is designed for applications where economical continuous feedback is necessary. The sensor can be a cost effective replacement to linear potentiometers, limit and proximity sensors. Applications include presses, blow molding, injection molding, extruding, roll positioning, tire press, material handling, web tensioning, sawmill, hydro power generation and many more.



Part Numbering

955e — V0 — 0120 — E — FM — X

955 eBrik II™

Output

V0 = 0 to 10
V1 = 10 to 0
C2 = 20 to 4mA
C4 = 4 to 20mA

Stroke Length

Insert stroke length to 1 inch or 25mm. Enter as a four-place number.

Example: 12.0 inch stroke is entered as 0120 (E) or 100mm is entered as 0100 (M).

Units of Measure

E = English US Inches / M = Metric

Magnet Type

FM = Floating Magnet (Standard)
SM = Slide Magnet Top Swivel
SF = Slide Magnet Front Swivel
X = No Magnet

Options

X = No Options
P = Programmable Zero and Span

Accessories

| Item | Part Number |
|--------------------------------|-------------|
| Slide Magnet | SD0521800 |
| Large Float Magnet | SD0551500 |
| Mounting Foot | SD0522000 |
| 6 Ft, 5 Pin Straight Cable | 949019L6 |
| 12 Ft, 5 Pin Straight Cable | 949019L12 |
| 6 Ft, 5 Pin Right Angle Cable | 949020L6 |
| 12 Ft, 5 Pin Right Angle Cable | 949020L12 |

Specifications

General Specifications

| | |
|--------------|---|
| Connector | 5-pin 12mm Euro Micro |
| Displacement | 1" (25mm) to 90" (2275mm) in 1" (25mm) Increments |

Electrical Specifications

| | |
|------------------------|--|
| Input Voltage | 24 VDC $\pm 20\%$ |
| Current Draw | 1.1W (44mA typical) |
| Dead Band | 2.75" |
| Null Zone | 3.03" |
| Non-linearity | less than $\pm 0.03\%$ of stroke or $\pm 0.013\%$, whichever is greater |
| Repeatability | 0.001% |
| Hysteresis | less than 0.001" for strokes up to 74", less than 0.004" for strokes up to 90" |
| Operating Temperature: | -40°C to 85°C |

Analog Output Specifications

| | |
|--|--|
| Voltage Output Minimum Load Resistance | 2K Ohms |
| Output Current | Guaranteed 5mA minimum for voltage units |
| Analog Ripple | 1 mV maximum |
| Current Output Maximum Load Resistance | 500 Ohms |
| Update Time | 1ms for strokes up to 79", 2ms for strokes 80" and above |

Resolution

| | |
|----------|---------|
| Internal | .00006" |
| Output | 16-bit |

Output Type

| | |
|----------------|--------------------------|
| Voltage Output | 0V to 10V, 10V to 0V |
| Current Output | 4mA to 20mA, 20mA to 4mA |

Other Specifications

| | |
|------------------|--------------------------------------|
| Enclosure Rating | IP-67 (IEC 60529) |
| Shock | 100G, IEC 60068-2-27 (survivability) |
| Vibration | 15G / 10 to 2000Hz, IEC 60068-2-6 |
| Approvals | CE (EMC) |