# **Application Notes**



# **Application**

Injection Molding

## **Products Used**

955 eBrik<sup>™</sup>

#### **Problem**

A Plastic Injection Molding machine normally uses 4 axis or more of linear positioning to control the process. These axis typically are the injector screw position, carriage position, mold closure, and mold eject. In the past, OEM's relied on Linear Potentiometers which were less than reliable in this application.

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 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.

#### Solution

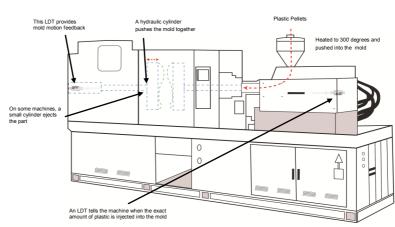
The 955 eBrik™ Linear Displacement Transducer (LDT) is an ideal alternative to the traditional low-cost Linear Potentiometer. The advantages of the 955 eBrik™ over the traditional potentiometer are the 955 eBrik™ is an accurate, programmable Zero & Span, auto-tuning, non-contact position sensor in an economical low profile package, that uses our field proven Magnetostrictive technology to give absolute analog feedback. With no moving parts and the IP67, rating the 955 eBrik™ 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™ will transmit a fault voltage or current warning the host controller that there is a problem.

### **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 host machine
- Wide operation temperature range with low drift

#### Conclusion

The 955 eBrik™ 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 injection molding, blow molding, extruding, hydraulic presses, roll positioning, tire press, material handling, web tensioning, sawmill, Hydro power generation and many more.









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