

955 Series



INSTALLATION MANUAL

LINEAR DISPLACEMENT TRANSDUCERS

955A BRIK

GEN III Analog LDT



Includes 955A
Programming & Maintenance
Instructions Plus Accessory Guide

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



Introduction

The **955A BRIK Gen III** is an accurate programmable, auto-tuning, non-contact, linear displacement transducer in an economical, low profile package. The transducer utilizes our field proven magnetostrictive technology to give absolute position, repeatable to .006% of the programmable sensing distance. 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 an analog output. It can be ordered with a 0 to 10 VDC or 4 to 20mA output.

The **955A BRIK Gen III** has a few truly unique features. One feature is the LDT's auto-tuning capability, the ability to sense a magnet other than the standard slide magnet and adjust its signal strength accordingly. Another feature is that the analog output is programmable over the entire active stroke length. The active stroke area of the LDT lies between the Null and Dead zones.

There is a diagnostic LED located at the connector end of the probe that remains green while a good magnet signal is present and when the magnet is in the programmed stroke area. The LED turns yellow when the magnet is out of the programmed active range, but still within the active stroke area. The LED turns red and the output goes to 0 volts on voltage output units, or 4mA on current output units when there is no magnet present or when the magnet is out of the sensing area. The unit can easily be changed in the field from a 0 - 10VDC to a 10 - 0VDC or 4 - 20mA to a 20 - 4mA .

Mounting

The transducer can be mounted vertically or horizontally using SD0522000 mounting brackets. The mounting brackets slide in the grooves on the lower part of the extrusion and clamp down when tightened. It is recommended to use one mounting bracket on each end and every three feet between.

Ferro-magnetic material, which is material readily magnetized, should be placed no closer than .25" from the sensing surface of the LDT.

Floating Magnet Assembly

When using the Floating Magnet assembly SD0522100, the magnet should be installed within 3/8" of the sensing surface. The magnet assembly should also be installed in such a manner that it remains an even distance from the aluminum extrusion throughout the entire stroke. Improperly installed magnets can result in output signal non-linearity.

LED Colors

Green: Magnet is present and within the active programmed range. **Red:** Fault, the LDT has lost its signal from the magnet or the magnet has moved into the Null or Dead zone. **Yellow:** The magnet is out of the programmed ZERO to SPAN range.

Note 1: ZERO or SPAN can be adjusted individually without setting the other. **Note 2:** ZERO = 0V on 0 to 10 VDC units and 4mA on 4 to 20mA units.

Setting Zero & Span Positions

The 955A is programmable over the entire active stroke length of the LDT. Keep in mind that there is a 3" Null area at the connector end of the LDT and a 2.0" Dead area at the other end of the LDT that the magnet must stay out of at all times. The diagnostic LED can aid you in the setup of the Zero and Span. A green or yellow LED means that it is OK to program the LDT in this area, a red LED means that the LDT cannot be programmed in this area.

To set the ZERO and SPAN position for the probe follow these steps.

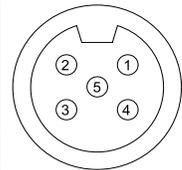
1. Power up the probe in normal operating mode (i.e. "PRGM" pin floating),
2. Place magnet assembly where ZERO is to be located, but within the active region of probe,
3. Momentarily short "PRGM" pin (pin 2) to ground (pin 3),
4. Place magnet assembly where SPAN is to be located, but within the active region of the probe,
5. Momentarily short "PRGM" pin (pin 2) to V+ (pin 1).

Wiring Diagram 955A Only

Euro Connector (Micro 12 mm single keyway)

Note: Refer to your specific model number and application manual for the correct wire diagram and pin location.

Pin #	Wire Color	Function
1	Brown	Customer Supplied Power (+VDC)
2	White	Program Input
3	Blue	Power Supply Common
4	Black	Position Output
5	Gray	Analog Output Common



AMETEK Automation & Process Technologies has checked the accuracy of this manual at the time it was approved for printing. However, this manual may not provide all possible ways of installing and maintaining the LDT. Any errors found in this manual or additional possibilities to the installation and maintenance of the LDT will be added in subsequent editions. Any comments you have for the improvement of this manual are welcomed. AMETEK reserves the right to revise and redistribute the entire contents or selected pages of this manual. All rights to the contents of this manual are reserved by AMETEK.



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