

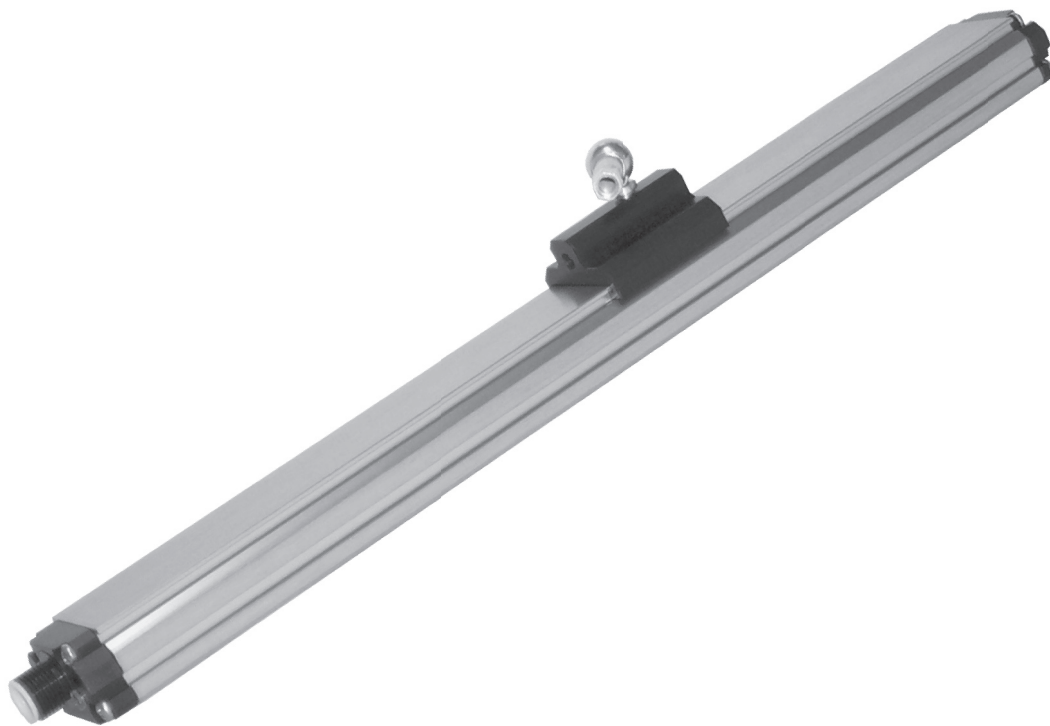


Series 955A

Gemco

The Brik Gen III

Linear Displacement Transducer



Installation and
Programming Manual

Product Information

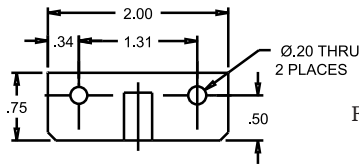
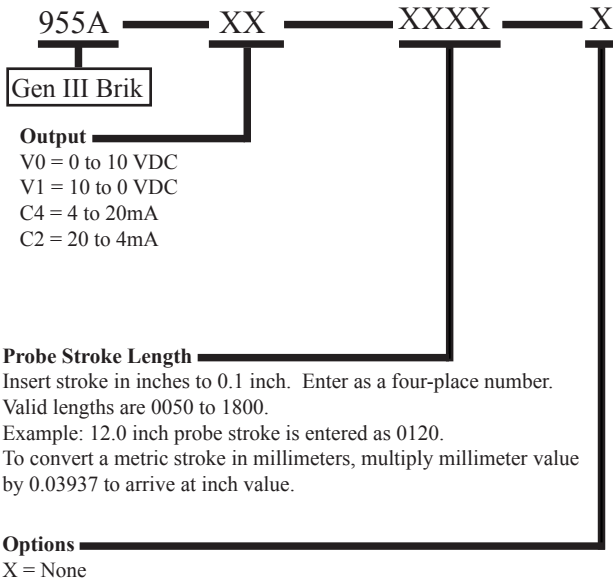
Gemco Series 955A Gen III Brik

The 955A Gen III Brik 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.

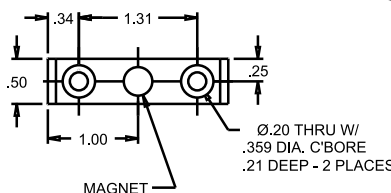
The 955A Gen III Brik has a few truly unique features. The first one being the LDT's auto-tuning capability, the ability to sense a magnet other than the standard slide magnet and adjust its signal strength accordingly. Another feature is the analog output is programmable over the entire active stroke 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 .

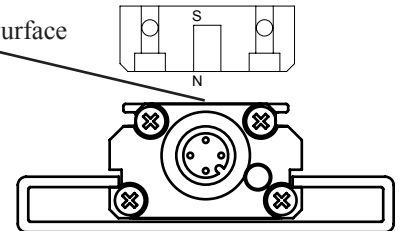
Specifications	
Input Voltage	13.5 to 30 VDC
Current Draw	2.5 Watts Maximum, 120 mA @ 15 VDC Typical
Output	0 to 10 VDC 10 to 0 VDC 4 to 20 mA 20 to 4 mA
Resolution	0.001"
1) Internal 2) Analog Output	16 Bit (1 part in 65,535)
Non-Linearity	+/- 0.05% of Stroke
Repeatibility	+/- 0.006% of Full Stroke
Update	
50" or less	1mS (Stroke Lengths 4" - 50")
51" to 100"	2mS (Stroke Lengths 51" - 100")
101" to 150"	3mS (Stroke Lengths 101" - 150")
151" to 180"	4mS (Stroke Lengths 151" - 180")
Operating Temperature	-20° to 70° C
Span Length	5" to 180"
Null Zone	3.00"
Dead Zone	2.00"
LED	Green = Power is applied and magnet is present. Red = Fault, magnet is in the Dead Zone or lost Yellow = Out of the active programmed range
Connector	Standard 5 Pin Micro 12mm Euro Connector
Approvals	CE
Enclosure	IP67
Specification are subject to change without notice. Specifications are based on a typical 36" LDT.	



Floating Magnet Assembly (SD0522100)



Sensing Surface



NOTE: The north pole of the magnet should be pointed towards the probe.

Item	Part Number
Slide Magnet	SD0521800
Float Magnet	SD0522100
Mounting Foot	SD0522000
6 Ft. Cable	949019L6
12 Ft. Cable	949019L12
6 Ft. Cable; Right Angle Connector	949020L6
12 Ft. Cable; Right Angle Connector	949020L12

Functional Overview

Mounting Instructions

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, (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.

Setting ZERO and SPAN Position

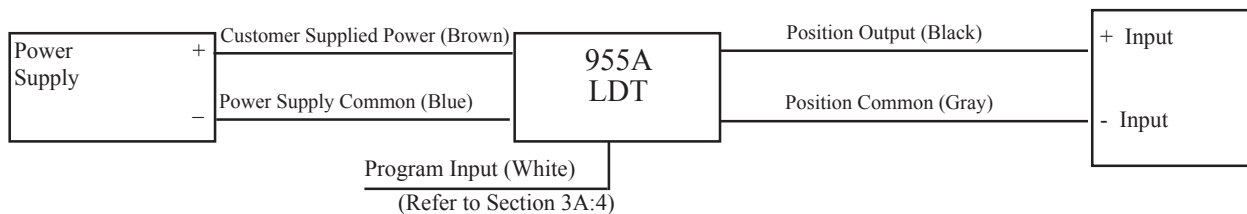
The Series 955A is programmable over the entire active stroke length of the LDT. Keep in mind that there is a 3" Null area at the connector end of the LDT and a 2.0" Dead area at the other end of the LDT that the magnet must stay out of at all times. The diagnostic LED can help aid you in the setup of 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:

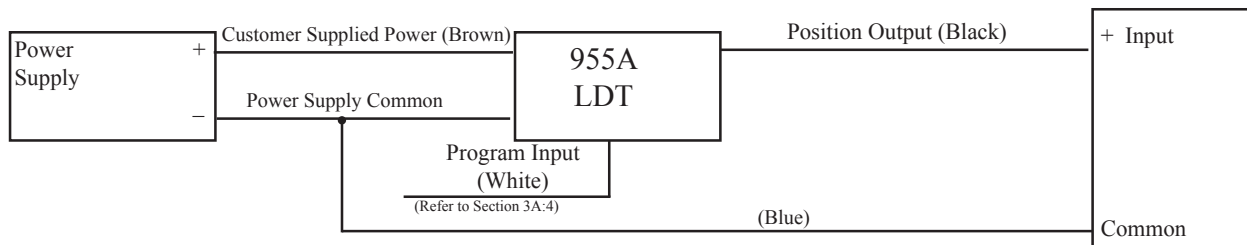
1. Power up the probe in normal operating mode (i.e. "PRGM" pin floating)
2. Place magnet assembly where ZERO is to be located, but within the active region of probe
3. Momentarily short "PRGM" pin (pin 2) to ground (pin 3)
4. Place magnet assembly where SPAN is to be located, but within the active region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

- NOTE: A. ZERO or SPAN can be adjusted individually without setting the other**
- B. ZERO = 0V on 0 to 10 VDC units and 4mA on 4 to 20mA units**

Differential Input



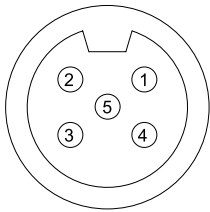
Single Ended Input



Note: 955A-C is current sourcing, which allows the current to flow from the LDT into the user's equipment.

Dimensions and Wiring Diagram

Wiring Diagram

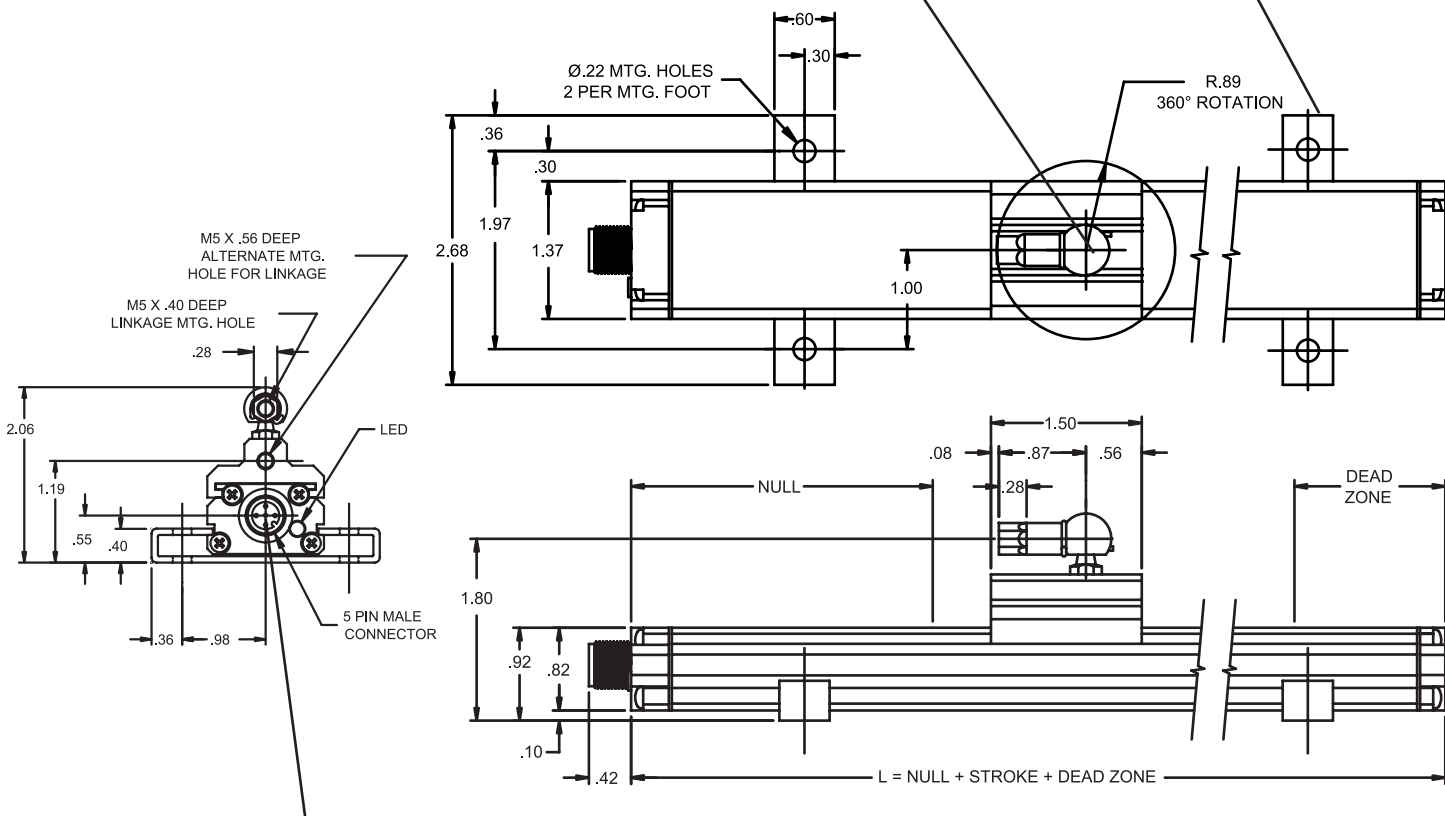


Pin #	Wire Color	Function
1	Brown	Customer Supplied Power (+VDC)
2	White	Program Input
3	Blue	Power Supply Common
4	Black	Position Output
5	Gray	Analog Output Common

Euro Connector (Micro 12 mm single keyway)

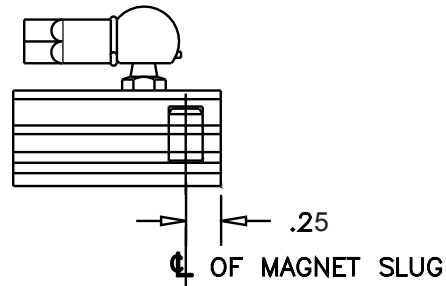
Mounting Brackets (SD0522000) slide in the grooves on the side of the extruded housing. When tightened down with fastening hardware the mounting brackets clamp the unit into place. It is recommended to use one mounting bracket on each end and every three feet between.

A standard female swivel mounting arm is provided with the slide magnet assembly. For extensions and other options contact the factory.



A standard 12 mm 5 pin micro connector is used. Straight mating cables can be ordered in a 6' length (949019L6), or 12' length (949019L12). If space is a consideration a right angle connector is also available, (949020L6 or 949020L12).

*** WARNING: do not use cord sets with LED's**



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