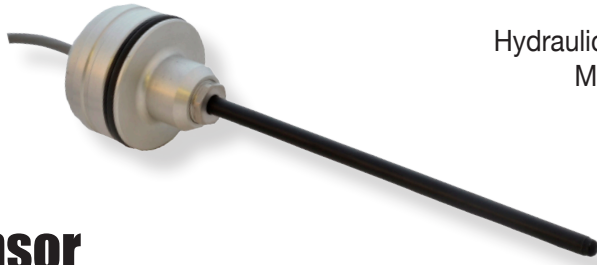


ME-7 Series

LVIT Linear Position Sensor



**NO MAGNET
REQUIRED!**

Lower cost, more robust alternative to magnetostrictive sensors

The ME-7 Series LVIT (Linear Variable Inductance Transducer) Position Sensors from Alliance Sensors Group has been designed as an alternative to magnetostrictive sensors and has more robust construction and a lower cost of ownership. The unit can be embedded into the end cap of industrial or mobile hydraulic cylinders and pneumatic actuators. These ME-7 Series sensors are based on a proprietary contactless inductive sensing technology that employs a 7 mm diameter probe with a shorter stroke-to-length ratio than most other technologies, and uses a gun drilled hole in the cylinder rod for sensing the rod position rather than requiring a ring magnet assembly.

An ME-7 has a 1.89 inch (48 mm) diameter sensor head with an o-ring and back up ring in a groove, so it can be mounted in the same cavity in the cylinder cap and locked in with radial set screws just like a magnetostrictive sensor. Because they are contactless, ME-7 Series sensors do not wear out and have no output signal deterioration over the life of the sensors, and because it uses an inductive coil, an ME-7 sensor can withstand much greater shock and vibrations than other technologies. A very useful element of the ME-7 sensors is ASG's proprietary SenSet™ feature whereby a sensor's analog output can be adjusted in the field after installation to match the range of motion of the cylinder rod.

Additional information can be found at www.alliancesensors.com.

Features:

- LVIT Technology™ (Linear Variable Inductance Transducer)
- Senses cylinder rod... **NO MAGNET REQUIRED**
- Easily adapts to existing cylinder designs
- Contactless sensing for long sensor life
- Proprietary SenSet™ for field adjustable range scaling

Specifications:

Analog I/Os	0 – 5 V or 0.5 – 4.5 V output with 8 – 30 V input, 35 mA max. 0 – 10 V output with 12 – 30 V input, 35 mA max. 4 – 20 mA (3-wire) output with 18 – 30 V input, 60 mA max. (75 C max.)
Measuring Ranges	0-25 mm to 0-600 mm (1 to 24 inches) Full Scale (nominal)
Linearity Error	±0.15% of Full Scale Output (FSO) typical, ±0.25% of FSO max.
Resolution	0.025% of FSO
Update Rate	300 Hz nominal
Operating Temperature	-20 to 85 C (-40 C to 105 C Extended Range)
Temperature Coefficient	±±0.015% of FS/deg C
Operating Pressure	5000 psig (350 bar) max operating, 7500 psig (520 bar) proof
Vibration	5-20 Hz 0.5 inch p-p; 20-2000 Hz 4.2 g p-p
Shock	1000g, 11 msec
Terminations	IEC IP-67
Humidity	95% RH, non-condensing

ME-7 Series

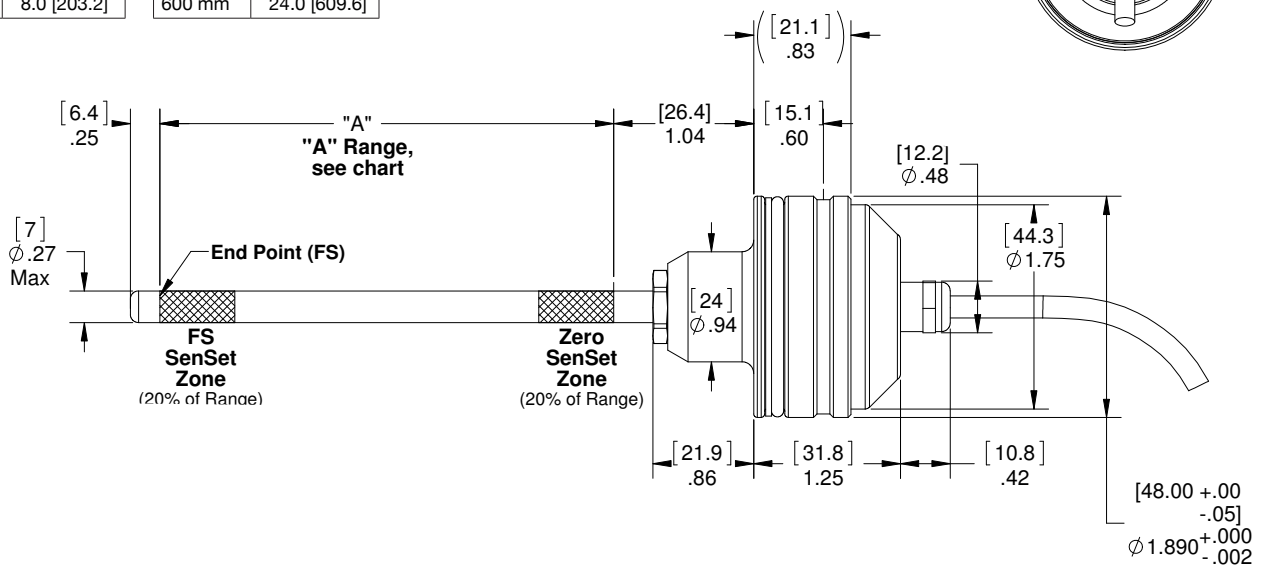
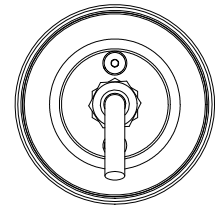


Nominal Range	Dim. "A" In. [mm]
25 mm	1.0 [25.4]
50 mm	2.0 [50.8]
75 mm	3.0 [76.2]
100 mm	4.0 [101.6]
125 mm	5.0 [127.0]
150 mm	6.0 [152.4]
175 mm	7.0 [177.8]
200 mm	8.0 [203.2]

Nominal Range	Dim. "A" In. [mm]
225 mm	9.0 [228.6]
250 mm	10.0 [254.0]
300 mm	12.0 [304.8]
350 mm	14.0 [355.6]
400 mm	16.0 [406.4]
450 mm	18.0 [457.2]
500 mm	20.0 [508.0]
600 mm	24.0 [609.6]

Ordering Guide	
Model	Output
MEE	Voltage
MEI	Current

Wiring Table	
I/O Function	Cable Color
Power input	Red
Ground	Black
Analog output	Green
SenSet™	White



Ordering information:

Series	Output	Probe Dia.	Range (mm)	Body Diameter	Termination	Output	Housing Material	Bore Size (mm)	Bore Material
ME	X-	X-	XXX-	XX-	XX-	XX-	X	XX-	XX
	E - Voltage	7 - 7 mm	025 - 300	48 - 48 mm	00 - 1 m cable	05 - 0.5 to 4.5 V	A - Aluminum	08 - 8 (25-100 ranges)	AL - Aluminum
	I - Current		(25 mm increments)		01 - 1 foot cable	06 - 4.5 to 0.5 V	S - 300 Series SS	95 - 9.5 (125-200 ranges)	AS - Alloy Steel
			300 - 500			10 - 0 to 10.0 V		11 - 11 (225-600 ranges)	CS - Carbon Steel
			(50 mm increments)			11 - 10.0 to 0 V			SS - Stainless Steel
			500 - 600			20 - 4 to 20 mA			
			(100 mm increment)			21 - 20 to 4 mA			
						50 - 0 to 5 V			
						51 - 5 to 0 V			

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