



For use in:
Hydraulic and Pneumatic Cylinders
Mobile Hydraulic Equipment

**No Magnet
Required!**

ME-7 Series LVIT Linear Position Sensor

Lower cost, more robust alternative to magnetostrictive sensors

The ME-7 series LVIT (Linear Variable Inductance Transducer) Position Sensors from Alliance Sensors Group was designed as an alternative to magnetostrictive sensors. This series has a more robust construction, a lower cost of ownership, and superior stroke-to-length ratio. The unit can be embedded into the end cap of industrial or mobile hydraulic cylinders and pneumatic actuators. These sensors are based on a proprietary, contactless, inductive sensing technology that employs a 7 mm diameter probe inserted into a target tube mounted inside of a gun-drilled blind hole in the cylinder.

The ME-7 sensor 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. Contactless ME-7 sensors do not wear out and have no output signal deterioration over the life of the sensors because it uses an inductive coil. The 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.

Features:

- LVIT Technology™ (Linear Variable Inductance Transducer)
- Extremely robust construction
- Easily adapts to existing cylinder designs
- High resolution with choice of analog I/Os
- Contactless sensing for longer 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	-40 to 105 C (4 - 20 mA I/O: -40 to 75 C)
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	1000 g, 11 msec
Terminations	IEC IP-67
Humidity	95% RH, non-condensing

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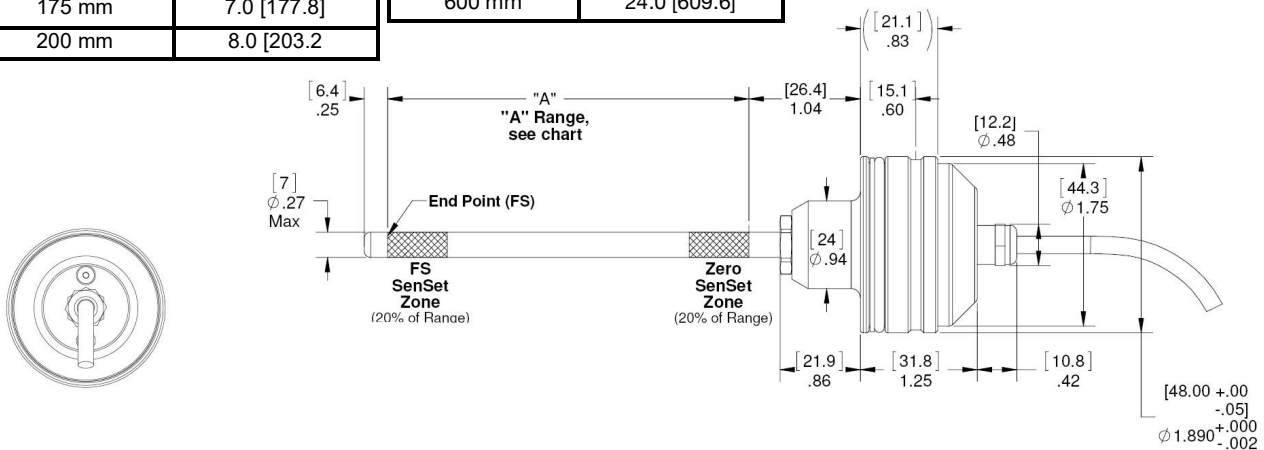
ME-7 Series



Unit Length Table	
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]

Min. Length	Max. Length
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]

Wire Color	
Wire Color	Wire Color
Power input	Red
Ground	Black
Analog output	Green
SenSet™	White



Ordering Information:

Series	Output Type	Probe Diameter	Range, Metric	Body Diameter	Termination	Output	Housing Material
ME	X-	X-	XXX-	XX-	XX-	XX-	X-
	E- Voltage	7- 7 mm	025 - 300 (25 mm increments)	48- 48 mm	00- 1-m cable	05- 0.5-4.5 VDC	A- Aluminum
	I- Current				01- 1 foot cable	06- 4.5-0.5 VDC	S- 300 Series SS
			300 - 500 (50 mm increments)			10- 0-10 VDC	
						11- 10-0 VDC	
			500 - 600 (100 mm increments)			20- 4-20 mA	
						21- 20-4 mA	
						50- 0-5 VDC	
						51- 5-0 VDC	

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