

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 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:

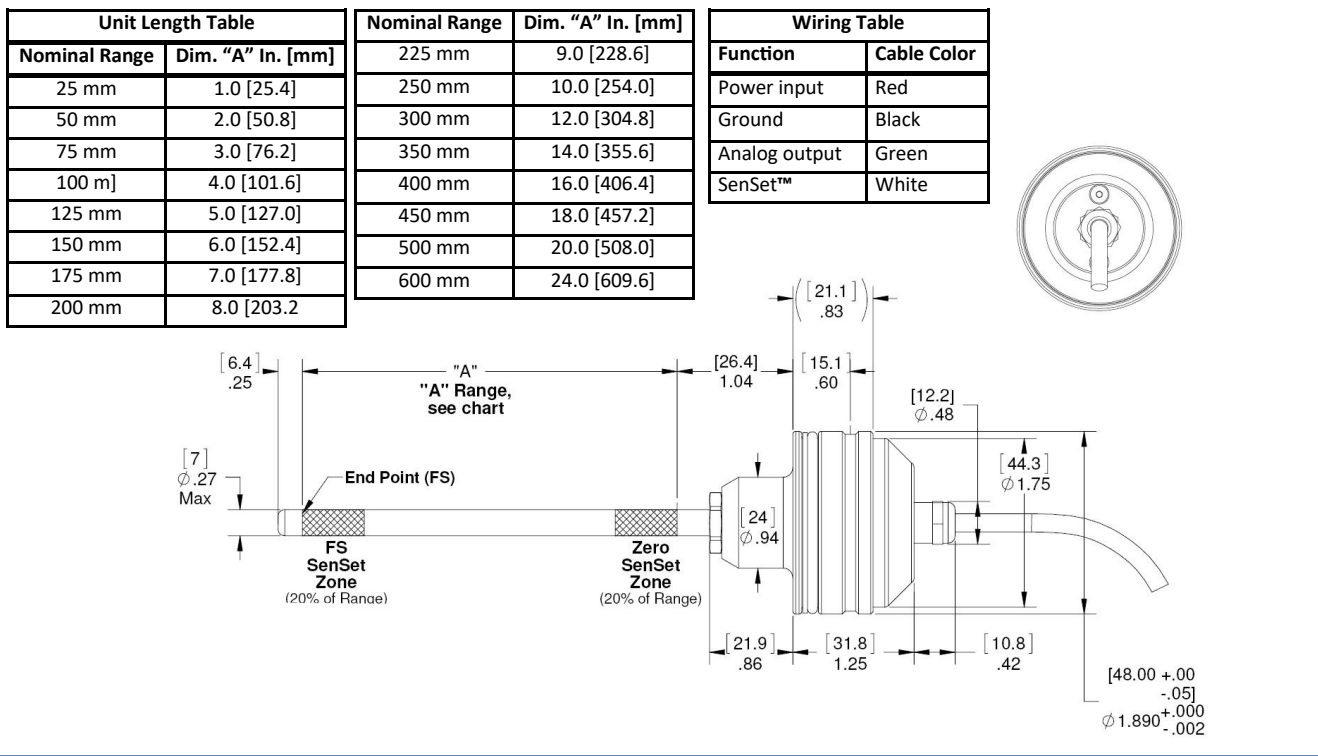
- LVIT Technology™ (Linear Variable Inductance Transducer)
- Senses cylinder rod... **NO MAGNET REQUIRED**
- Easily adapts to existing cylinder designs
- Contactless sensing for long sensor life
- Proprietary SenSet™ for field adjustable range scaling

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 to 105 C extended temperature 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	1000 g, 11 msec
Terminations	IEC IP-67
Humidity	95% RH, non-condensing

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ME-7 Series



Ordering Information:

Series	Output Type	Probe Diameter	Range, Metric	Body Diameter	Termination	Output	Housing Material	Bore Size (mm)
ME	X-	XX-	XXX-	XX-	XX-	XX-	X-	XX-
	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	08- 8 (25-100 mm ranges)
	I- Current		300 - 500 (50 mm increments)		01- 1 foot cable	06- 4.5-0.5 VDC	S- 300 Series SS	95- 9.5 (125-200 mm ranges)
			500 - 600 (100 mm increments)			10- 0-10 VDC		11- 11 (225-600 mm ranges)
						11- 10-0 VDC		
						20- 4-20 mA		
						21- 20-4 mA		
						50- 0-5 VDC		
						51- 5-0 VDC		

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