

**NO MAGNET  
REQUIRED!**

# ME-7 Series

## Inductive Linear Position Sensors

Lower cost, more robust alternative to magnetostrictive sensors

The ME-7 Series Inductive Linear Position Sensors from Alliance Sensors Group has been designed as an alternative to magnetostrictive sensors that 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 an 8 mm 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 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:

- Extremely robust construction
- Easily adapts to existing cylinder designs
- High resolution with choice of analog outputs
- Senses cylinder rod...no need for magnet
- Contactless sensing for long sensor life
- SenSet™ field scaling of analog output

### Specifications:

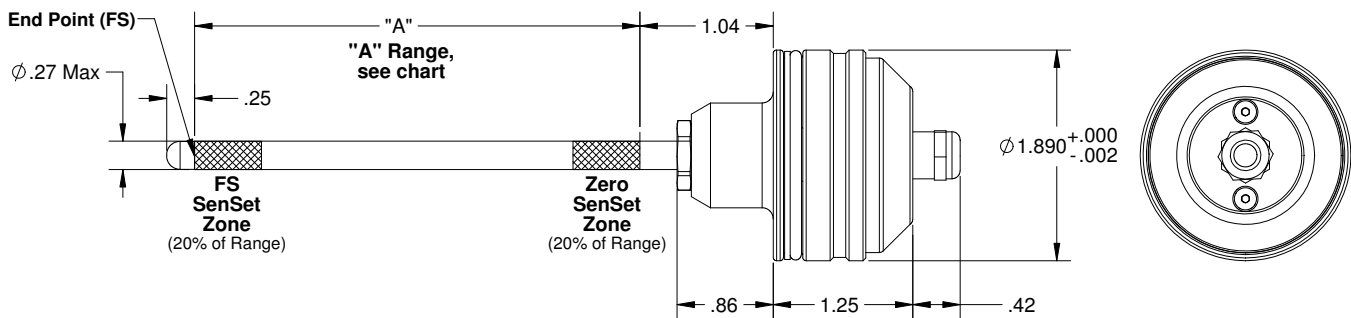
<b>Input Power</b>	15-30 V DC (24 V DC nominal) 35 mA max
<b>Analog Outputs</b>	0-10 V DC, (0.5 to 4.5 V DC optional) 4-20 mA sourcing
<b>Measuring Ranges</b>	0-100 mm to 0-600 mm (4 inches to 24 inches)
<b>Linearity Error</b>	±0.1% of FSO typical, ±0.15% FSO max
<b>Resolution</b>	0.025% of FSO
<b>Frequency Response</b>	500 Hz (nominal) Update Rate
<b>Operating Temperature</b>	0 C to 85 C (-40 C to 105 C Extended Range)
<b>Operating Pressure</b>	5000 psig max.
<b>Vibration</b>	5-20 Hz 0.5 inch p-p; 20-2000 Hz 4.2 g p-p
<b>Shock</b>	1000 g, 11 msec.

# ME-7 Series



Range	Dim. "A"
100 mm	4 inches
150 mm	6 inches
200 mm	8 inches
250 mm	10 inches
300 mm	12 inches
400 mm	16 inches
500 mm	20 inches
600 mm	24 inches

Wiring Table	
Function	Cable Color
DC power input	Red
Ground	Black
MEE voltage output	Green
MEI current output	Green
SenSet™	White



## Ordering information:

Series	Output Type	Probe Dia.	Range	Body Diameter	Termination	Output	Housing Material	Bore Size	Bore Material
<b>ME</b>	<b>X-</b>	<b>X-</b>	<b>XXX-</b>	<b>XX-</b>	<b>XX-</b>	<b>XX-</b>	<b>X</b>	<b>XX-</b>	<b>XX</b>
	<b>E - Voltage</b>	<b>7 - 7 mm</b>	<b>100 - 100 mm</b>	<b>48 - 48 mm</b>	<b>00 - 1-m cable</b>	<b>05 - 0.5-4.5 V DC</b>	<b>A - Aluminum</b>	<b>08 - 8 mm</b>	<b>AL - Aluminum</b>
	<b>I - Current</b>		<b>150 - 150mm</b>		<b>01 - 1-foot cable</b>	<b>10 - 0-10 V DC</b>	<b>S - Stainless Steel</b>	<b>09 - 9 mm</b>	<b>AS - Alloy Steel</b>
			<b>200 - 200mm</b>			<b>11 - 10-0 V DC</b>		<b>10 - 10 mm</b>	<b>CS - Carbon Steel</b>
			<b>250 - 250mm</b>			<b>20 - 4-20 mA</b>		<b>11 - 11 mm</b>	<b>SS - Stainless Steel</b>
			<b>300 - 300mm</b>			<b>21 - 20-4 mA</b>		<b>12 - 12 mm</b>	
			<b>400 - 400mm</b>						
			<b>500 - 500mm</b>						
			<b>600 - 600mm</b>						

**ALLIANCE SENSORS GROUP**  
A DIVISION OF H.G. SCHAEVITZ LLC

Alliance Sensors Group  
102 Commerce Drive, Unit 8  
Moorestown, New Jersey 08057 USA  
Ph: 856-727-0250  
www.alliancesensors.com  
info@alliancesensors.com