



DELIVERING EXCELLENCE

Metal Bodied Speed Sensors (Gearbox mounted)

FEATURES

- OEM Qualified/Certified
- Variable reluctance sensor
- Passive
- Multi or Single channel
- Output via mounts points
- Typically hermetically sealed

BENEFITS

- Over 40 million flying hours
- High accuracy
- Light weight design
- Reliable and long life
- Proven technology with over 40 years of pedigree

APPLICATIONS

Shaft Speed Measurement

- P&WC
PW series, PT6, FT8
- Rolls-Royce
Industrial
BR700/800
Tay
RB3043
- IAE V2500
- And many others.



■ Auxitrol Weston's speed sensors are passive, using variable reluctance technology, and require the sensor to work in conjunction with a phonic wheel which is typically an integral part of the engine or gearbox. This family of metal bodied speed sensors are typically Line Replaceable Units (LRU's), as they are externally mounted on the engine's accessory gearbox. The sensing tip projects inside the gearbox in close proximity to the shaft being monitored for speed. Auxitrol Weston has been designing and manufacturing steel bodied speed sensors for over 40 years. These sensors have been qualified and used on Engine accumulating over 40

million flying hours. (based on BR700 alone where the engine has accumulated 10 million hours and has 4 sensors)

■ These sensors use a stainless steel body which is typically CNC machined. Output is via a hermetic connector which is welded to the sensor. The sensor configuration, mounting flange, sealing arrangement, number of channels (typically one to 3 channels) and connectors are designed in conjunction with the customer and many configurations are possible. The design often provides a firewall at the sensor flange. This construction provides a lightweight, reliable, robust and cost-effective speed sensor design.

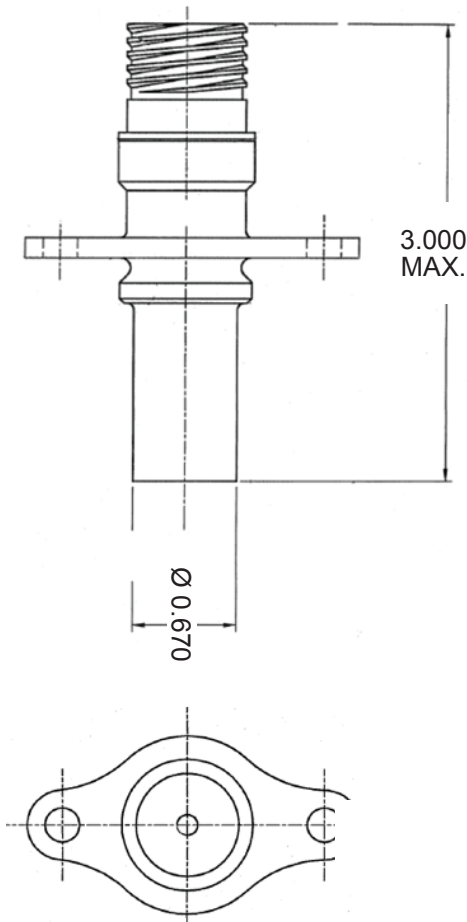
■ The signal generated is sinusoidal with the sensor output frequency being the same as the phonic wheel tooth passing frequency and directly proportional to the shaft speed. Output characteristics can be customized to customer requirements by modifying the sensor's coil and magnetic circuit.

Typical Dimensions

Typical dimensions above are an example, Auxitrol Weston has designed numerous steel bodied gearbox mounted sensors, final dimensions and sensor configuration can be developed with the customer to meet their needs.

Typical Performance Specification

| | |
|-------------|--------------------------------|
| Temperature | -65 to +210°C |
| Technology | Passive Variable Reluctance |
| Vibration | Up to 40g input |
| Life | >50,000 Operating Hours |
| Reliability | >2,000,000 Flight Hours (MTTF) |
| Weight | 120 grams typical |



UNITS: MILLIMETRES

Examples shown above are for information, dimensions can be modified to meet unique installations

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