



DELIVERING EXCELLENCE

Metal Bodied Speed Sensors (Engine Mounted)

FEATURES

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

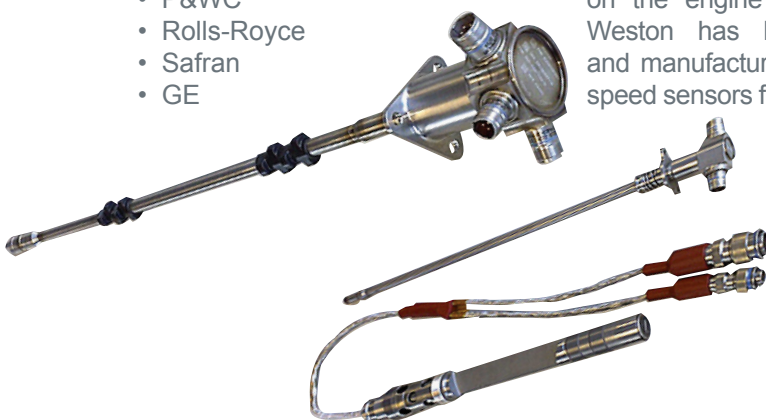
BENEFITS

- Over 40 million flying hours
- High accuracy
- Easily removed
- Reliable and long life
- Proven technology with over 40 years of pedigree

APPLICATIONS

Shaft Speed Measurement for:

- P&WC
- Rolls-Royce
- Safran
- GE



■ 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. This family of metal bodied speed sensors are Line Replaceable Units (LRU's), as they are externally mounted on the engine's accessory casing. The sensing tip projects inside the engine in close proximity to the shaft being monitored for speed. These sensors tend to be long as they mount on the engine outer casing and project into the centre of the engine where the phonic wheel is mounted on the engine shafts. Auxitrol Weston has been designing and manufacturing steel bodied speed sensors for over 30 years.

■ These sensors have been qualified and used on Engine accumulating many millions of flying hours.

■ These sensors use a typically stainless steel body, usually CNC machined, and come in many different configurations. The sensor's 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 6 channels) and connectors are designed in conjunction with the customer, many and various configurations are possible. The design often provides a firewall at the sensor flange. This construction provides a 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 coil and magnetic circuit.



Typical Dimensions

The sizes and dimensions for these types of sensor tend to be very specific to each application and are governed by the engine envelope:

- Lengths may be from 200mm to 800mm long
- Intrusive diameters from 14mm to 25mm
- Various head configurations supporting from 1 to 3 connectors

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	>1500 grammes typical

Featuring AUXITROL, WESTON & NORWICH products

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

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