

# GE200 HP Electromagnetic Inductive Sensor Instruction Sheet



## SPECIFICATIONS:

<b>Speed Range:</b>	1-99,999 RPM
<b>Operating Distance:</b>	1 to 12 inches [2.54 to 30.48 cm] from coil/magneto
<b>Power required:</b>	3.3 to 24 Vdc, 4 mA for amplifier input
<b>Output Signal:</b>	Same as power supplied, TTL compatible
<b>Operating Temperature:</b>	-65° to 225° F [-54° to 107° C]
<b>Standard Cable Length:</b>	Sensor: 15 feet [4.572 m], Amplifier: 1.5 feet [0.457 m]
<b>Weight:</b>	Sensor: 9.25 oz [262.2 g], Amplifier: 1.73 oz [48.99 g]

Specifications are subject to change without notice.

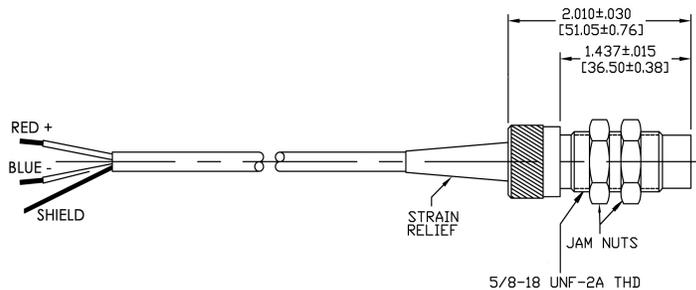


Figure 1 GE200 HP Dimensions

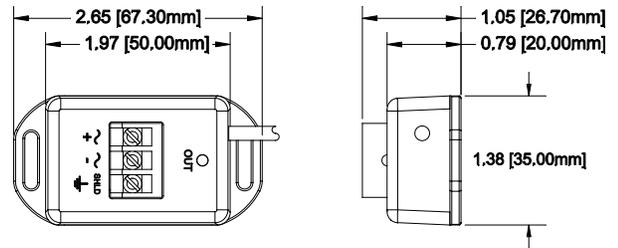


Figure 2 Amplifier Module Dimensions

## OVERVIEW:

The new GE200 HP is a non-contact electromagnetic inductive sensor designed for making RPM measurements on gasoline engines. The sensor will detect the high voltage flux field being induced from ignition coils or magnetos on 2 or 4 cycle gasoline engines. The GE200 HP must be connected to the Monarch amplifier module, which provides input power and a TTL pulse output. The GE200 HP includes an integral 15 foot (5 m) cable that can be extended to 150 feet (50 m). The Monarch amplifier module has a 1.5 foot (45.72 cm) cable with 3 tinned wires and a ground shield or 1/8 (3.5 mm) phone plug termination.

## CONNECTION DETAIL:

The GE200 HP is connected to the Monarch amplifier module and the amplifier module is connected to your tachometer or data acquisition system. The most popular application is using the GE200 HP with the Monarch magnetic amplifier module connected to a Monarch ACT-3X Panel/Bench top Tachometer to display RPM.

Refer to Figure 3 for GE200 HP sensor to amplifier module connection details. The connection details for the amplifier module are shown below Figure 3.

When using the amplifier module with tinned wires termination with any Monarch instrument, refer to the instrument instruction manual for connection detail. When using the amplifier module with phone plug termination with any Monarch instrument, plug the 1/8 (3.5 mm) phone plug into the input jack on the respective instrument.

## OPERATION:

The GE200 HP sensor can be mounted up to 12 inches (30 cm) away from the ignition coil or magneto. The sensor will detect the electromagnetic flux field through metal engine covers. To find the optimal mounting position, simply move the sensor around the high voltage flux source until the display on your tachometer indicates a steady RPM reading.

**NOTE:** Some engines will read 1/2 the actual RPM if the detector is pointed at 90 degrees to the flux source. For accurate and repeatable measurements ensure that the sensor is mounted firmly and is parallel to the high voltage flux source.

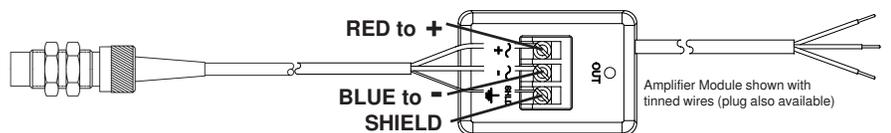


Figure 3 GE200 HP Sensor to Amplifier Connection Detail

### Connection Detail for Amplifier Tinned Wires:

Wire Color	Function	
Brown	Positive Power Supply	(+V)
Blue	Common	(Com)
Black	Signal (+V to 0 Vdc Pulse)	(Sig)
Shield	Sensor Shield	(Com)

### Connection Detail for Amplifier Plug:

