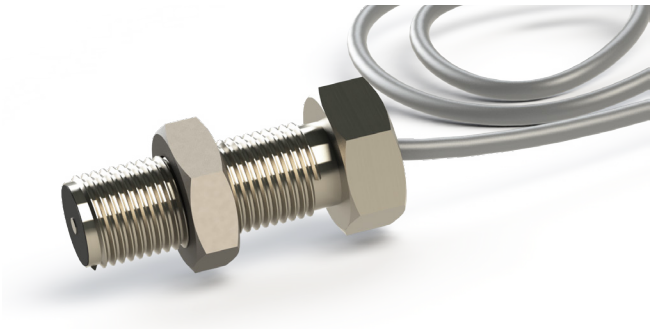
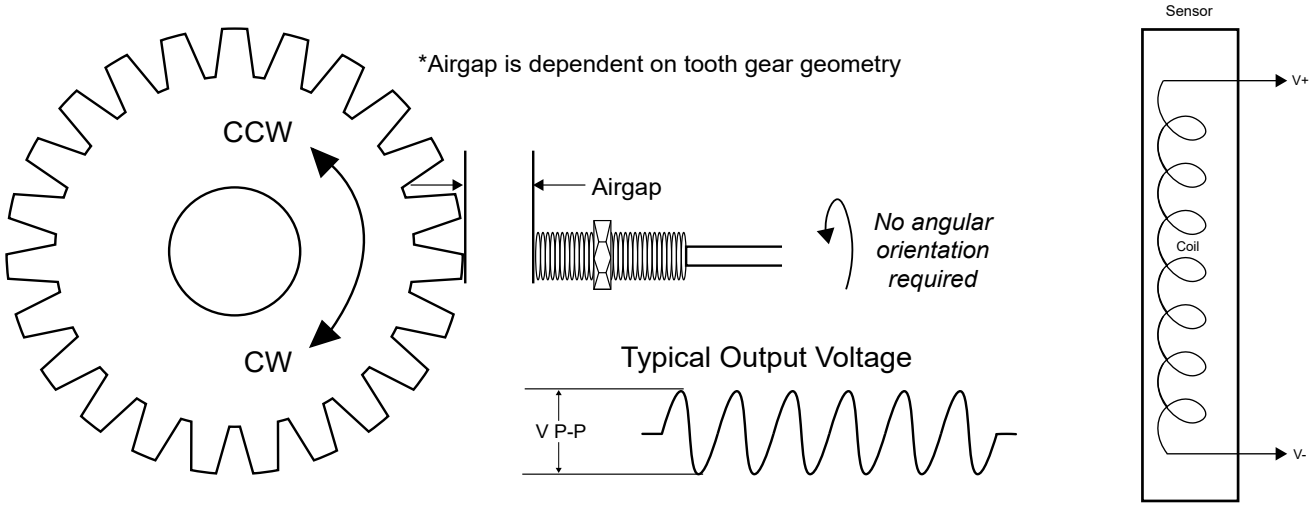
Features and Benefits

- Passive (no power required)
- Sinusoidal speed-dependent output
- 2 wires
- Aluminum housing
- M12 x 1.25 thread
- Cold roll steel zinch-plated nut
- Environmentally sealed
- Resistant to shock and vibration
- Corrosion proof and fungus resistant
- Humidity up to 100%

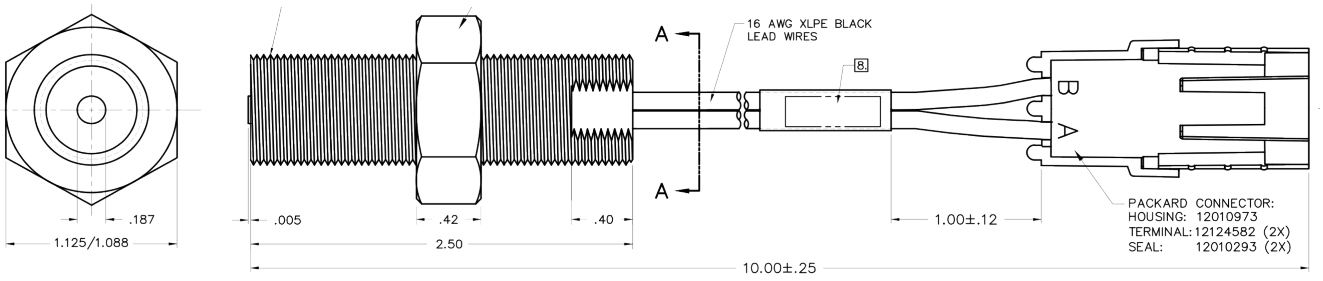


Sensor

Application Example



Physical Outline



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Sensor Characteristics *(T = -20 to 250°F)*

Table 2.2

Characteristic	Test Condition	Limits			
		Min.	Typ.	Max.	Units
Resistance	25°C	1280	1600	1920	Ohm
Inductance	25°C	264	330	396	mH
Output Voltage	Operating	5.5			V P-P
High Pot	Wires to Case	485	500	515	VRMS
Lead Pull	Operating	5			lbs

Test Conditions:

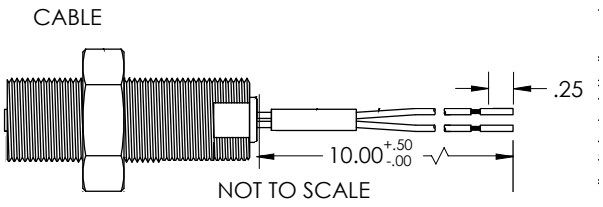
- Air Gap: .025 in
- Test Wheel: 10 pitch, ferrous
- Speed: 200 i.p.s.

Sensor Operation

The V Series provides an analog voltage output that is both frequency and amplitude dependent on target attributes, target speed,and the air gap between sensor and target. The output is typically a sinusoid when the target presented has regularly spaced areas of material/no material such as a spur gear.

One requirement of a target is that the material MUST be ferrous (iron, steel and 400 series or stainless steels). The output characteristics that you will achieve are difficult to predict and performance testing must take place. As a general rule, to maximize output, you would use a target that is iron/steel (low-carbon) with large teeth. As you move away from this combination, the output of the sensor will decrease at a given speed and air gap. V Series are passive, that is they do not require external power and are 2-wire versus a typical active Hall Effect gear tooth speed sensor, which is 3-wire. This can be an advantage in many applications.

Wiring



- 18 AWG
- PVC Insulation

Table 3.1

Standard Wiring Color Code	
	Cable
Pin 1	Red
Pin 2	Black

Pin 1 (red) negative with respect to Pin 2 (black) with the approach of a ferrous target

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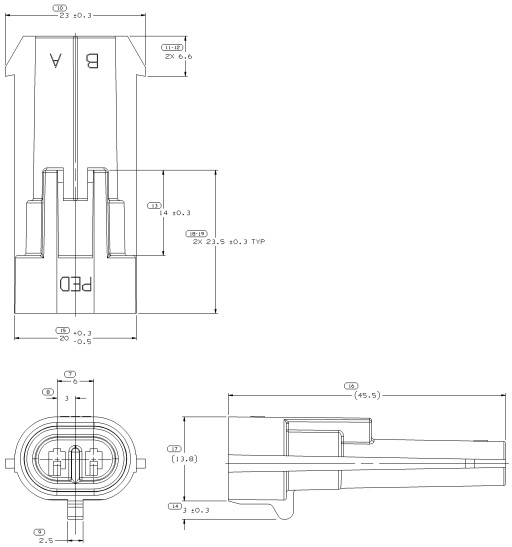
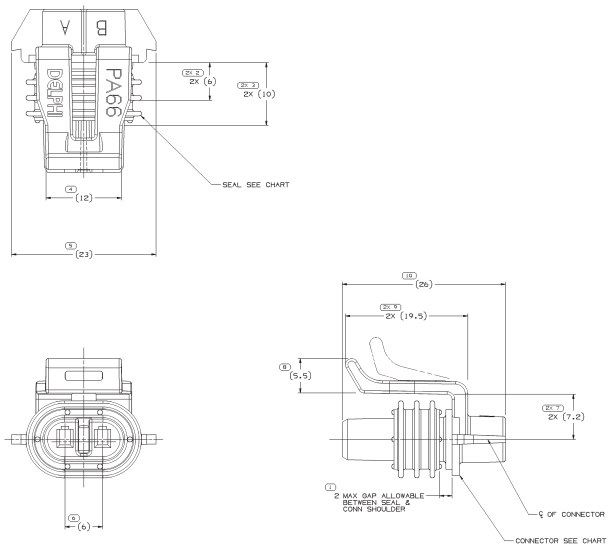
Connector Options

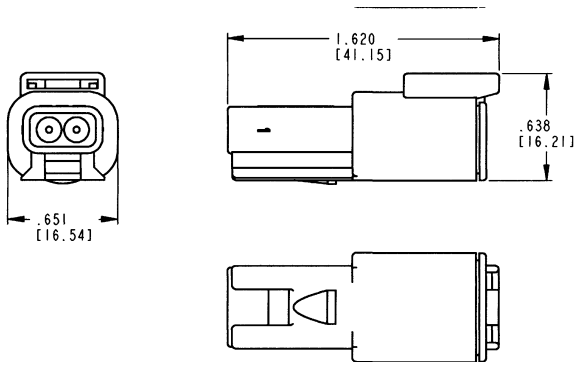
Aptiv Metri-Pack 150 Series (Male)



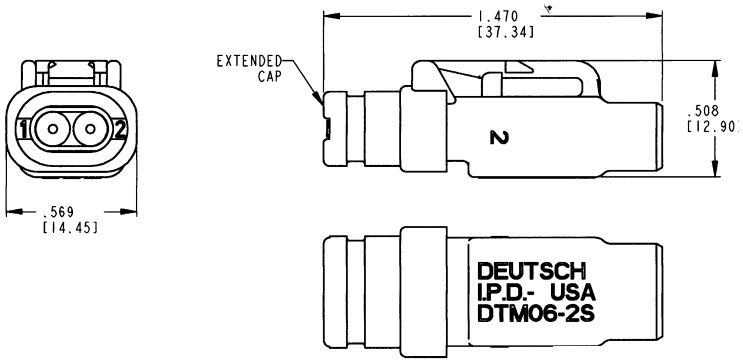
Aptiv Metri-Pack 150 Series (Female)



Deutsch DTM-04 (Male)



Deutsch DTM-06 (Female)



Need a different connector? Contact sales@phoenixamerica.com.

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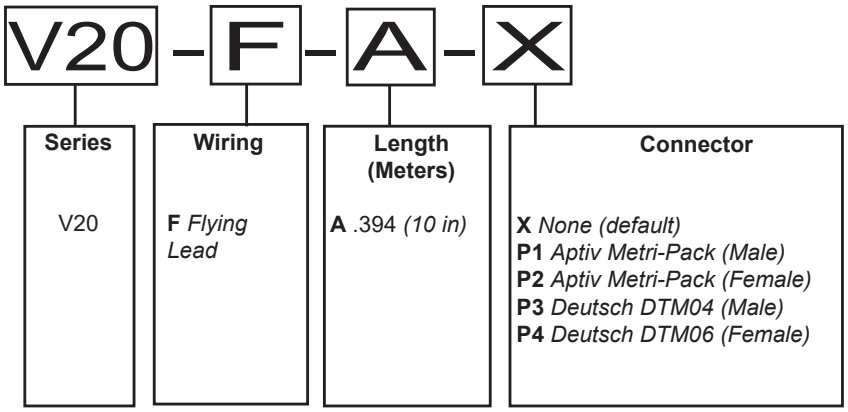
Part Number Description



Example: V20-F-A-X

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