

GEARTOOTH SPEED SENSOR

GS102301

Threaded, straight connector gear speed
Sensor rated to 140°C



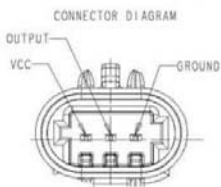
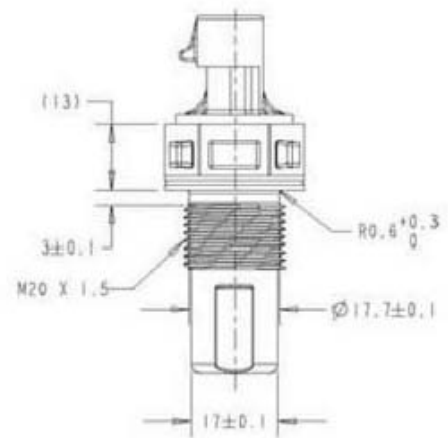
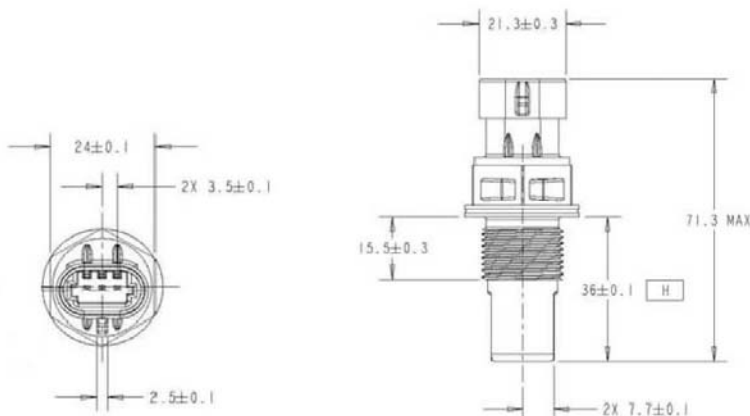
Features and Benefits

- Capable of operating up to 140°C
- Sealed design meets IEC60529 IP68 standard for immersion
- Resistant to fuels, solvents and lubricants associated with engines, transmissions, brakes and chassis systems.
- ESD resistant to 15kV (contact discharge)
- Operates at near zero speed
- Supplied with installed Viton o-ring
- Installs into a standard M20 x 1.5 o-ring port
- Mating connector: Packard sealed female connector assembly 3F

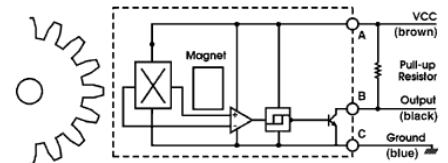
Applications

- Transmission Speed
- Wheel Speed
- Engine Speed
- Anti-lock braking systems

Dimensions mm



RECOMMENDED EXTERNAL PULL-UP RESISTOR				
Volts (DC)	5	9	12	15
Ohms	1000	1800	2400	3000



GEARTOOTH SPEED SENSOR

GS102301

Mechanical Specifications

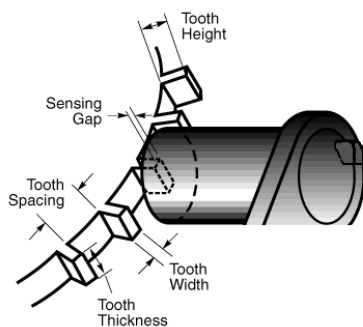
Maximum Air Gap	2.0 mm (With Cherry Test Gear)
Maximum Installation Torque	15*ft lbs

Electrical Specifications

Operating Voltage Range	9 to 16 volts
Supply Current	6 mA max
Output Saturation Voltage	600 mV mx
Output Current	25 mA max
Operating Temperature Range	-40° to 140°C
Storage Temperature Range	-40° to 150°C
Output Risetime	10 μ S
Output Faltime	10 μ S
Bulk Current Injection	SAE J1113-4 (250kHz to 500MHz; 100mA/m)
Conduction and Coupling	SAE J1113-12 (\pm 200V)
Electronic Discharge	SAE J1113-13 (\pm 15 kV)
Radiated Immunity	SAE J1113-21 (10kHz to 18GHz; 200 V/m)
Immunity to Magnetic Fields	SAE J1113-22 (600 μ T AC Field; 5Hz to 2kHz; 0.2mT & 1mT DC field)
Radiated Emissions	SAE J1113-23
Immunity to AC Fields	SAE J1113-25 (15kV/m)
Radiated Emissions	SAE J1113-41 (Class 4)

Environmental Specifications

Water Immersion	IEC 60529 IP68
Dust, Sand and Gravel Bombardment	SAE J400 JUN80
Vibration	Sinusoidal vibration max 15g's from 40 to 2000Hz
Mechanical Shock	18 shocks at 50g's for 11ms per Mil Std 202F



For best results we recommend targets made from low carbon cold rolled steel. Other factors that influence sensor performance include geartooth height and width, space between teeth, shape of the teeth and thickness of the target. As a general guideline consider a target with the following minimum parameters

Tooth Height	Tooth Width	Distance Between Teeth	Target Thickness
.200"	.100"	.400"	.250"

Contact

Call, fax or visit our website
For more information.

ZF Electronics Corporation
11200 88th Avenue
Pleasant Prairie, WI 53158

Phone: 262.942.6500
Web: www.cherrycorp.com

E-Mail: cep_sales@zf.com
Fax: 262.942.6566

© 2010 ZF Electronics Corporation

Specifications subject to change without notice.

