Honeywell

Honeywell Sensing and Control



Order Product and Get Support

- U.S. Authorized Distributors
- Global Sales & Service
- N. American Sales Reps
- Distributor Inventory
- Technical Assistance
- White Papers
- Literature Request
- RoHS Product List
- Customer Feedback

3025



Actual product appearance may vary.

High Output VRS Sensor, 9,5 mm [0.375 in] M12 diameter, 55 Vp -p, -40 ºC to 107 ºC [-40 ºF to 225 ºF], 26 DP (module 0.98) or coarser, 40 kHz, 32 mm [1.25 in] approx. length

My Links

Login to iCOM
Login as Rep/AD
Login as Guest
Login to Digital University

Keyword Search

Search for product and support information.

All Sensing and Contr

Product Search

Part number search:

Use (*) to expand search

Specification Search

Features

Self-powered operation
Direct conversion of actuator speed to output frequency
Simple installation
No moving parts
Designed for use over a wide range of speeds
Adaptable to a wide variety of configurations
Customized VRS products for unique speed sensing applications
Housing diameters: 5/8 in (M16), 3/8 in (M12)
Housing materials/styles: stainless steel threaded or smooth
Terminations: MS3106 connector, preleaded
Output voltages: 8 Vp-p to 190 Vp-p

Potential Applications

Engine RPM (revolutions per minute) measurement on aircraft, automobiles, boats, buses, trucks and rail vehicles
Motor RPM measurement on drills, grinders, lathes and automatic screw machines
Motor RPM measurement on precision camera, tape recording and motion picture equipment
Process speed measurement on food, textile, paper, woodworking, printing, tobacco and pharmaceutical industry machinery
Motor speed measurement of electrical generating equipment
Speed measurement of pumps, blowers, mixers, exhaust and ventilating fans
Flow measurement on turbine meters
Wheel-slip measurement on autos and locomotives
Gear speed measurement

High Output VRS sensors are designed for use in applications where higher output voltages are needed. They perform best at low to medium speeds with medium to high impedance loads. Front-End Sealed versions are available for use where the sensor is exposed to fluids, lubricants or adverse environmental conditions. Passive VRS (Variable Reluctance Speed) Magnetic Speed sensors are simple, rugged devices that do not require an external voltage source for operation. A permanent magnet in the sensor establishes a fixed magnetic field. The approach and passing of a ferrous metal target near the sensor's pole piece (sensing area) changes the flux lines of the magnetic field, dynamically changing its strength. This change in magnetic field strength induces a current into a coil winding which is attached to the output terminals. The output signal of a VRS sensor is an ac voltage that varies in amplitude and wave frequency as the speed of the monitored device changes, and is usually expressed in peak to peak voltage (Vp-p). One complete waveform (cycle) occurs as each target passes the sensor's pole piece. If a standard gear were used as a target, this output signal would resemble a sine wave if viewed on an oscilloscope. Honeywell also offers VRS sensors for general purpose, power output, high resolution, high temperature, and hazardous location applications, as well as low-cost molded versions.

Supporting Documentation
None Available

Product Specifications	
Diameter	9,5 mm [0.375 in]
Available Metric Thread	M12
Test Condition Specifications	Surface Speed = 25 m/s [1000 in/s], Gear = 20 DP [module 1.27), Air Gap = 0.127 mm [0.005 in], Load Resistance = 100 kOhm
Min. Output Voltage (Peak to Peak)	55 Vp - p
Pole Piece Shape and Size	Round; 2,36 mm [0.093 in] diameter
Typ. Operating Temperature Range	- 40 ºC to 107 ºC [- 40 ºF to 225 ºF]
Gear Pitch Range	26 DP (module 0.98) or coarser
Typ. Operating Frequency	40 kHz
Max. Inductance	75 mH
Coil Resistance	275 Ohm to 330 Ohm
Min. Surface Speed	0,38 m/s [15 in/s]
Optimum Actuator	24 DP (module 1.06) ferrous metal gear
Mounting Thread	3/8 - 24 UNF - 2A
Vibration	Mil - Std 202F, Method 204D
Material	Stainless steel threaded
Approximate Housing Length	32 mm [1.25 in]
Termination	24 AWG Vinyl - insulated leads, 610 mm [24 in]
Weight	28 g [1.0 oz]
Series Name	High Output