PRODUCT DESCRIPTION

The 0171Q & 0172Q Directional Zero Speed Sensor provides a square wave quadrature signal at Frequency A and Frequency B outputs and contains internal decoding logic to determine Clockwise/Counterclockwise direction. The direction information is available as a logic level at the direction output. Operation is consistent down to zero speed.

The standard output is NPN Supply Tracking 0-Vs, provided from a 3.1k Ohm internal pull-up resistor to a collector, which can sink up to 25 mA. The output is normally high with no target present. Other output signal options are available such as 5V TTL compatible and Open Collector. Please see Page 2 for details.

For intrinsically safe versions refer to bulletin: IS170 & IS171
For Non-Incendive versions refer to bulletin: N170 & N171

SPECIFICATIONS

Vs, Supply Voltage: 5 to 30 Vdc @≤ 15 mA
Vo, Output/Logic: See Page 2
Operating Freq.: 0 to ~20 kHz
(Depending on target size & distance)
Air Gap: 5DP: = .160"(4mm)
48DP: = .025"(.6mm)
(Low Mag ~50% less)
Rise/Fall Time: Standard: 0.04 µs / 0.18 µs (Nom.)
Direction: Logic 1: High (5V or Vs), Forward
(Target rotates toward alignment mark)
Logic 0: Low (0V), Reverse
Magnetization: Standard: ~1500 Gauss
Low Mag: ~500 Gauss
Temperature Range: -40° to 255°F (-40° to 125°C)
Construction: 300 Series stainless steel housing
Solid epoxy encapsulation
Connectors & Pin Assignments: See Page 2
All have gold plated contacts
Lead Wire & Assignments: 22 AWG, Shielded Cable
Red: Supply (+)
Black: Common (-)
White: Signal, A
Yellow or Orange: Signal, B
Green: Signal, Direction
Bare: Shield
CE-Compliance: EN55011, EN50022-2

OPTIONS

Custom configurations, special materials of construction, temperature probe (NTC10, RTD100, or others).
Note: The magnetization level for special or low mag sensors is designated as a suffix to the P/N.

i.e.: 01xx-xxxx-500G designating a Gauss level of 500±50. (Standard mag. level will not have a suffix.)