

Amplified Square Wave Speed Sensor

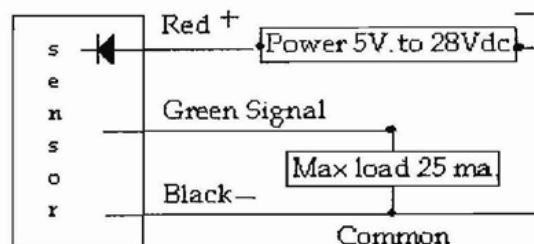
Theory of Operation

Combination of a VRS Sensor with a built-in amplifier changing the alternating current into a square wave (on-off) output with the passing of a ferrous metal gear or slot. Powered by your control unit or instrumentation, the sensor provides constant amplitude pulses at very low surface speeds and operates at much larger air-gap settings, with high output current and a very low output impedance.

Features

Low output impedance (typical 10 Ohm).
High output current (25 ma maximum).
Constant output amplitude independent of speed and gap distance, unaffected by run-out over a wide range.
Excellent sensitivity.
Does not need locating flats.

WIRING INSTRUCTIONS



Shell configuration

Shell material.....303 series Stainless Steel
Size..... 5/8"-18 UNF-2A
Overall length..... 3.00 - 5.00 Inches
Other threads and sizes available

Specifications

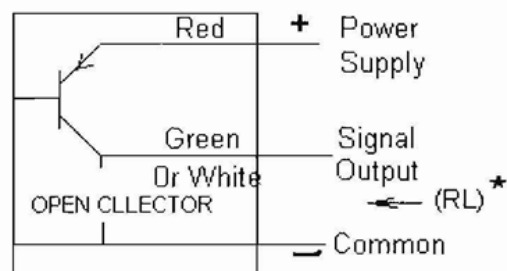
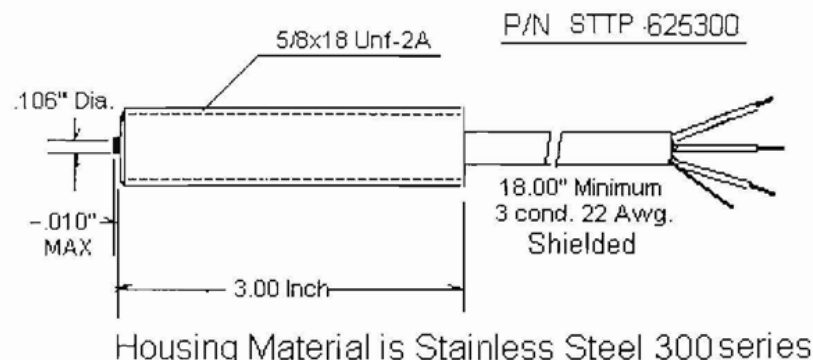
Power requirements5 to 28 Vdc
Reverse power protection
Output Logic: 0.....0 MV.
Logic: 1.....Approximately.
.....3/4 V less then Supply Voltage.
Sensing range: Up to 0.060 " on fine gears
Up to 0.120" on large gears
High Temperature range: ...-35C to + 85C.
Maximum Supply current.....35 ma.
Maximum Output current 25 ma.



Digital Magnetic Speed Sensors

SUPPLY VOLTAGE 5.0 to 24 VDC @ 20 mA max
 OPERATING TEMP. RANGE -40 TO 250F
 CUSTOMER LOAD (RL) * Not to exceed 2.2 K Minimum

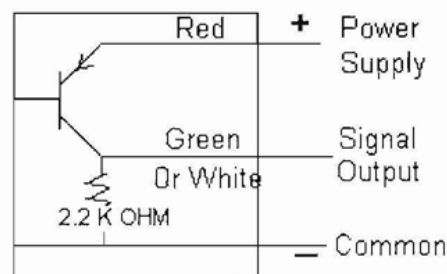
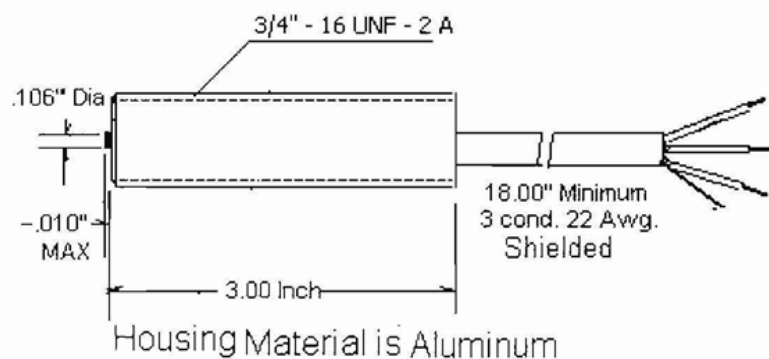
OUTPUT SIGNAL: **PNP OPEN COLLECTOR**



WITH INTERNAL RESISTOR

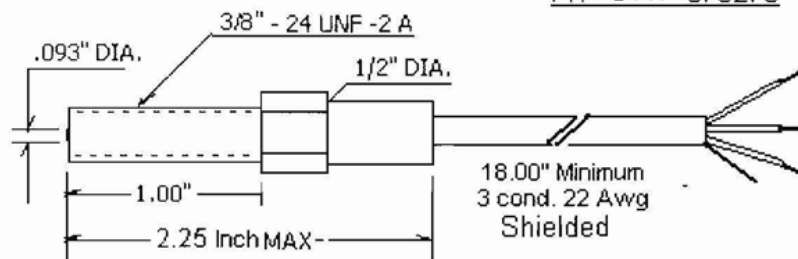
Low: 350 mV max. @ 20 mA current sink
 High: $= \frac{RL \times Vs}{RL + 2.2 K}$ RL = Load res in K Ohms
 Vs = Supply Voltage VDC.

P/N STTP 750300

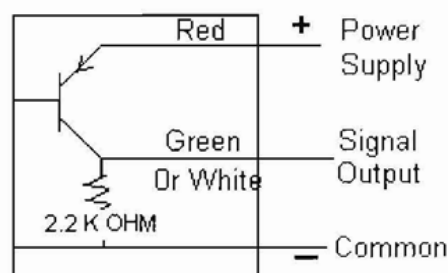


WITH INTERNAL RESISTOR

P/N STTP 375275



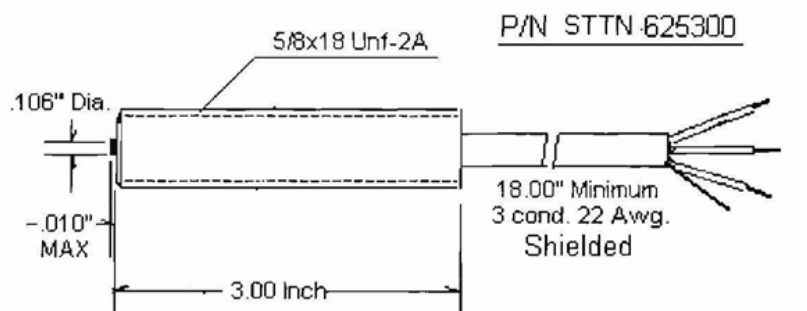
Housing Material is Stainless Steel 300 series
 Longer thread lengths, up to 6 Inches.
 Longer cable lengths.



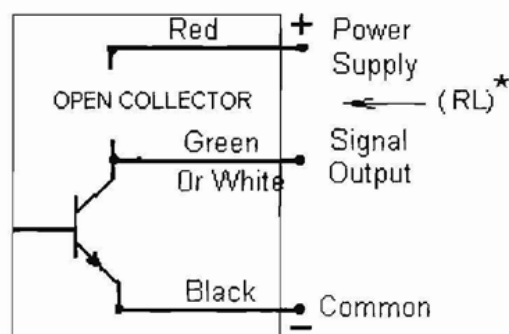
Digital Magnetic Speed Sensors

SUPPLY VOLTAGE 5.0 to 24 VDC @ 20 mA max
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 CUSTOMER LOAD (RL)* Not to exceed 2.2 K Minimum

OUTPUT SIGNAL: NPN OPEN COLLECTOR



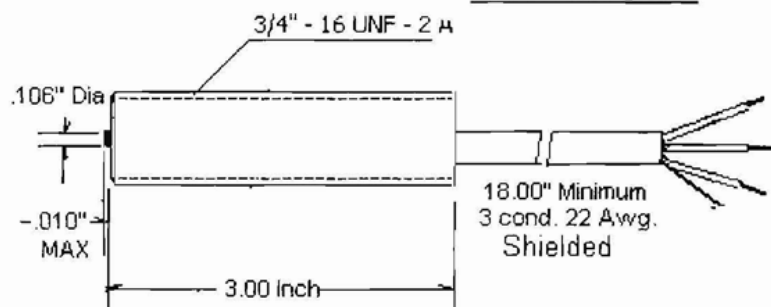
Housing Material is Stainless Steel 300 series



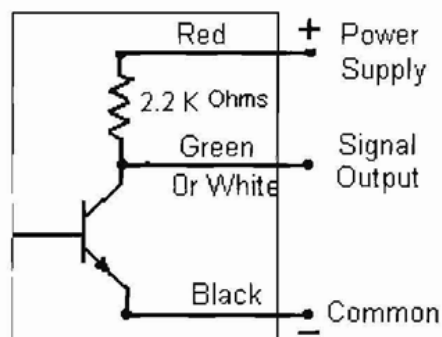
WITH INTERNAL RESISTOR

Low: 350 mV max. @ 20 mA current sink
 High: $= \frac{RL \times Vs}{RL + 2.2 K}$ RL = Load res in K Ohms
 Vs = Supply Voltage VDC.

P/N STTN 750300

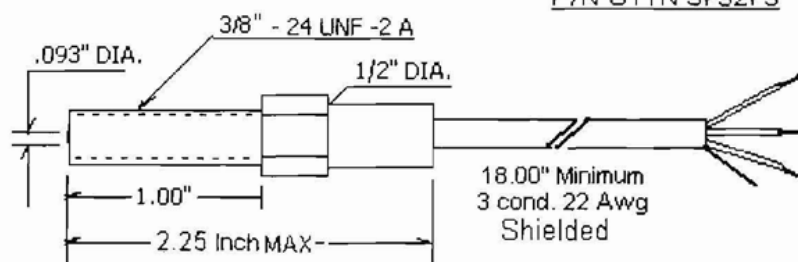


Housing Material is Aluminum

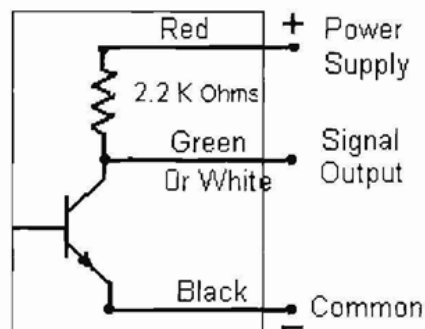


WITH INTERNAL RESISTOR

P/N STTN 375275



Housing Material is Stainless Steel 300 series
 Longer thread lengths, up to 6 Inches.
 Longer cable lengths.



Digital Magnetic Speed Sensors

SUPPLY VOLTAGE 5.0 to 24 VDC @ 20 mA max
 OPERATING TEMP. RANGE -40 TO 250F
 CUSTOMER LOAD (RL) * Not to exceed 1 K OHM Minimum

OUTPUT SIGNAL: EMITTER FOLLOWER

