

DESCRIPTION

The B170210 is a MAG Hall Effect sensor that is compatible with the Aluminum and 303 Stainless Steel body B1750 series of flow meters. The sensor detects the rotation of the flow meter's gears and emits a frequency signal proportional to flow. The output signal is a square wave pulse which has a duty cycle of approximately 50%.

B170210 signal outputs are protected with a self-resetting fuse. The fuse has a 50 mA nominal trip point. When a trip occurs, turn off power to the sensor and remove output load and reset fuse.

The B170210 is configured for sourcing output.

INSTALLATION

NOTE: Wiring should be installed by a qualified instrumentation technician.

1. Make sure that the flow meter sensor cavity is free of debris prior to installing the pickup.
2. Thread the pickup into the meter until the sensor bottoms out in the sensor hole.
3. Tighten pickup finger tight and do not over tighten. DO NOT OVERTIGHTEN OR YOU WILL DAMAGE THE SENSOR.

Electrical Connection for Pin Connector

Pin Number	Function
A	+24V
B	Common
C	Open collector
D	Open emitter
E	Not used

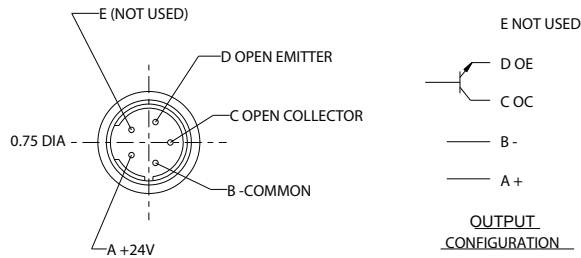


Figure 1: Pinout looking at male connector on sensor

SPECIFICATIONS

Supply Voltage	10...28V DC
Supply Current	8 mA @ 12V DC; 12 mA @ 24V DC
Duty Signal	50% ± 15%
Minimum Signal	0.5 Hz
Frequency Output	Flow dependent, up to 2000 Hz
Driving Capacity	50 mA maximum resistive load
Output Impedance	~ 40 Ohm analog switch and self-resetting fuse
Temperature Range	-40...250° F (-40...120° C)
Magnetization	475 ±25 gauss

DIMENSIONS

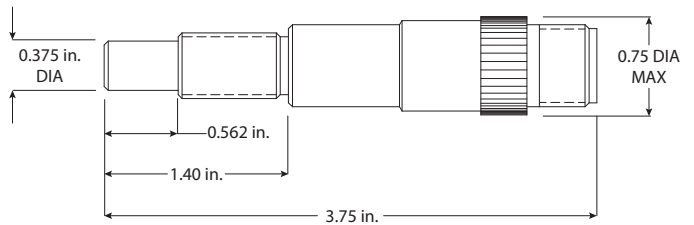


Figure 2: Dimensions

SOURCING OUTPUT CIRCUIT

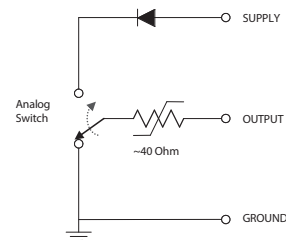


Figure 3: Sourcing output circuit

- Signal output square wave:
 $V_{high} = \text{Supply} - 1V$ @ no output load
 $V_{low} = 0.1V$
- Maximum sourced output voltage: Supply -0.5V
- Maximum current sourcing capabilities: 50 mA

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