Pickups for B1750 Meter

B170110 Hall Effect Sensor

DESCRIPTION

The B170110 is a 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%.

B170110 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 B170110 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. Make sure the sensor mounting screws line up with the mounting holes. If they do not, remove and rotate the sensor 180 degrees.

Electrical Connection for Pin Connector

Pin Number	Function
1	NC
2	NC
3	NC
4	Output
5	Ground
6	Supply
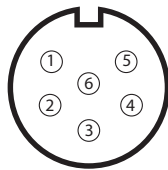
Figure 1: Pinout at male connector on sensor

Wiring Color Code

	Pin Number	Wire Color
Signal 1	4	White
Ground	5	Black
Supply Voltage	6	Red

SPECIFICATIONS

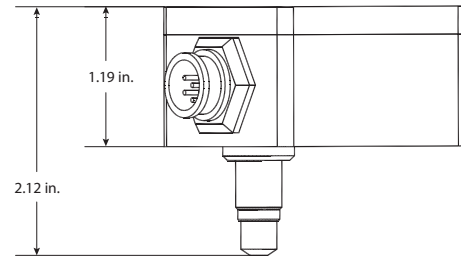|	
Supply Voltage	10…28V DC
Supply Current	8 mA @ 12V DC; 12 mA @ 24V DC
Duty Signal	50% ± 15%
Minimum Signal	0.5 Hz
Frequency Output	Flow dependent, up to 2000 Hz
Driving Capacity	50 mA maximum resistive load
Output Impedance	~ 40 Ohm analog switch and self-resetting fuse
Temperature Range	-40…185° F (-40…85° C)

DIMENSIONS

1.19 in.

2.12 in.

Figure 2: Dimensions

SOURCING OUTPUT CIRCUIT
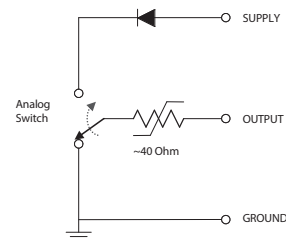

Figure 3: Sourcing output circuit

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

Badger Meter

Installation Data

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