

Pickups for B1750 Meter

Model B170210 Magnetic Pickup and Preamplifier for use with B175-A60 and B175-B60 Meters

DESCRIPTION

The Blancett Model B170210 Magnetic Pickup and Preamplifier is designed to directly replace a standard pickup within a B1750 flow meter when signal amplification is required. The pickup is a combination of a standard Blancett magnetic pickup and a solid-state electronic preamplifier, combined in a stainless steel housing.

OPERATING PRINCIPLE

As fluid flows through the meter, the spur gears rotate at a speed proportional to the fluid velocity. As the gear's blade passes through the magnetic field induced by the pickup, a voltage pulse is generated. The voltage signal generated by the pulses becomes amplified within the pickup. The output signal generated from the pickup is now in the form of a square wave. The frequency of this amplified signal is used to represent the flow rate of fluid passing through the turbine flow meter.

SPECIFICATIONS

Supply Voltage	24V DC @ 20 mA
Operating Frequency	3...10,000 Hz
Pulse Output	NPN Reverse polarity protected Open collector (OC) Open emitter (OE)
Temperature Range	-40...250° F (-40...120° C)
Magnetization	475 ±25 gauss
Construction	Housing: 303 stainless steel Solid epoxy encapsulation Connector: MC5; micro-C, 5-pin gold plated contacts

DIMENSIONS

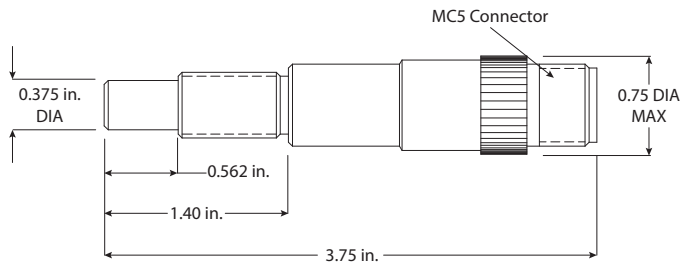


Figure 1: Dimensions

INSTALLATION

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

A swivel fitting is required for mounting the sensor. To receive the correct swivel fitting with your sensor, you must specify the meter part number when ordering.

1. Make sure that the flow meter sensor cavity is free of debris prior to installing the pickup.
2. Thread the pickup into the hole in the positive displacement meter (5/8 in. 18UNF) until the pickup bottoms out.
3. Tighten the pickup finger tight. Do not over-tighten.
4. Install the MC5 connector with the correct orientation.
5. Connect the wire ends according to the pin configuration shown in Figure 1.

NOTE: Mating cable part #B160512 is sold separately.

Electrical Connection for Pin Connector

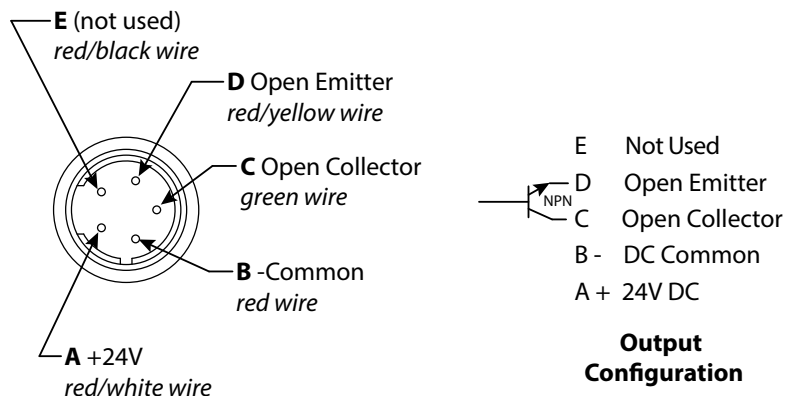


Figure 2: Pin configuration looking at male connector on sensor

Control. Manage. Optimize.

Blancett is a registered trademark of Badger Meter, Inc. Other trademarks appearing in this document are the property of their respective entities. Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists. © 2021 Badger Meter, Inc. All rights reserved.

www.badgermeter.com