



**Magnetic Pick-up  
with Preamplifier**

**Part No. B220210**

**for**

**Model 1100 and QuikSert®**

**Turbine Flow Meters**

**INSTALLATION & INSTRUCTION  
MANUAL**

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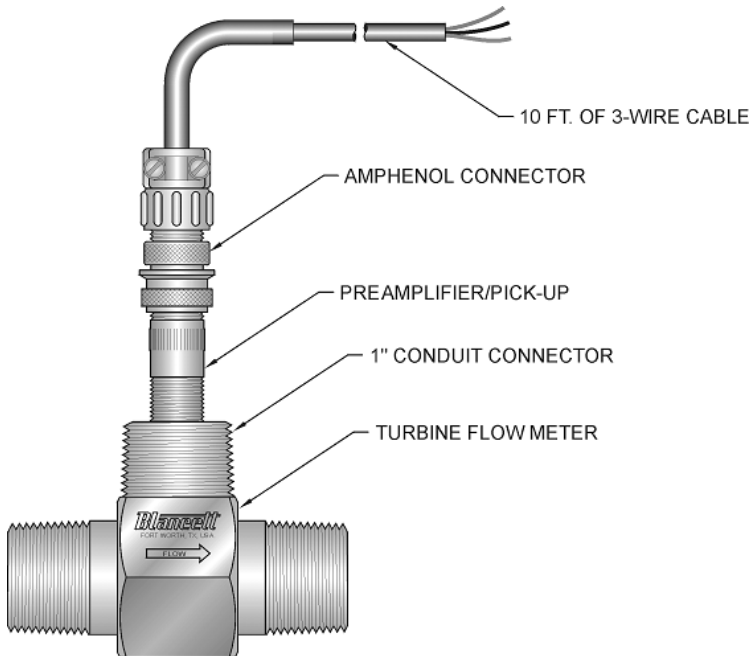


# INTRODUCTION

The Blancett B220210 Magnetic Pick-up with Preamplifier was designed to directly replace a standard pick-up within a turbine flow meter when signal amplification is required. The pick-up is a combination of a standard Blancett magnetic pick-up and a solid state electronic preamplifier in a single stainless steel housing.

# OPERATING PRINCIPLE

As fluid flows through the meter the turbine rotates at a speed proportional to the fluid velocity. As each turbine blade passes through the magnetic field at the base of the pickup, an AC voltage pulse is generated in the pick-up coil. The voltage signal generated by these pulses becomes amplified within the pick-up. The output signal generated from the pick-up 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.



**Figure 1**  
*Model 1100 flow meter  
with preamplifier pick-up and connecting cable*

# SPECIFICATIONS

**Supply Voltage:** +5 to 30 VDC

**Input Current:** 15 mA

**Current Sinking:** 25 mA maximum

**Pulse Out:** 0 to 10 V peak-to-peak

**Frequency Range:** 5Hz to 10kHz

**Transmit Distance:** 1500 feet maximum

**Temperature:** -20 °F to +160 °F (-29 °C to +71 °C)

**Housing:** Stainless steel and epoxy encapsulated

## Electrical

**Connection:** 3-pin straight Amphenol connector supplied with 10 feet of cable standard. (*Part No. B220-219, sold separately.*)

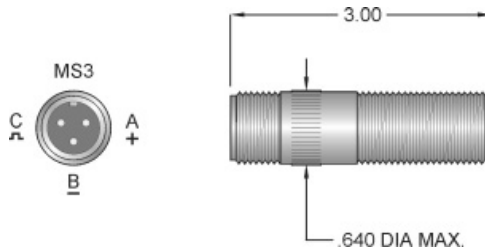
# INSTALLATION and WIRING INSTRUCTIONS

The B220210 is simply threaded into the hole ( $\frac{5}{8}$ "-18UNF) in the turbine meter until the pick-up bottoms out. Tighten the pick-up finger tight. Do not over tighten.

Install the 3-pin connector in the proper orientation and connect the wire ends of the cable using appropriate common wiring practices. Refer to **Table 1** and **Figure 2** for wiring specifications.

Pin	Description	Wire Color
A	Power: +5 to 30 VDC @ 15 mA	Red
B	Common: Power return	Black
C	Output Signal: 0 to 10 V (Square Wave)	Green or Clear

**Table 1**



**Figure 2**  
*Pin configuration*

# STATEMENT OF WARRANTY

Blancett Flow Meters, Division of Racine Federated Inc. warrants to the end purchaser, for a period of one year from the date of shipment from the factory, that all flow meters manufactured by it are free from defects in materials and workmanship. This warranty does not cover products that have been damaged due to defects caused by misapplication, abuse, lack of maintenance, modified or improper installation. Blancett's obligation under this warranty is limited to the repair or replacement of a defective product, at no charge to the end purchase, if the product is inspected by Blancett and found to be defective. Repair or replacement is at Blancett's discretion. A return goods authorization (RGA) number must be obtained from Blancett before any product may be returned for warranty repair or replacement. The product must be thoroughly cleaned and any process chemicals removed before it will be accepted for return.

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