

## MODEL 80 INSTALLATION INSTRUCTIONS

MM80 Installation(8.1).doc

March 10, 2008

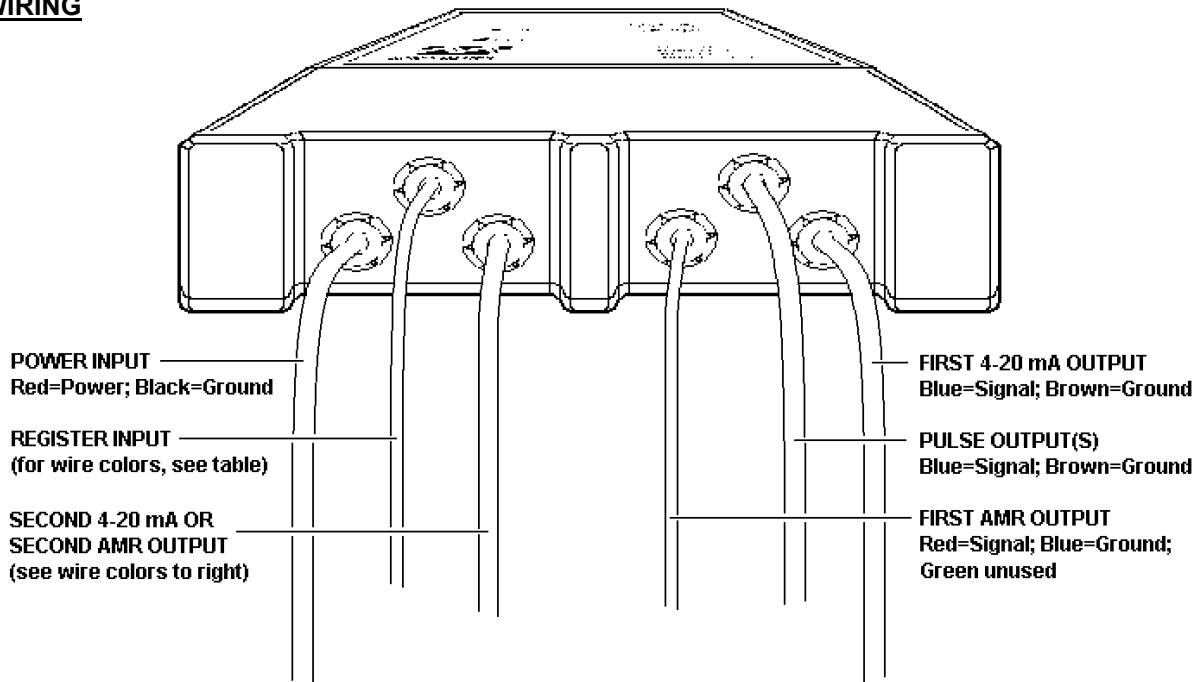
### POWER REQUIREMENTS

- External** (required if 4–20 mA)
  - Low Range (e.g., AC adapter) ..... 10 to 16 volts (regulated)
  - High Range ..... 12.5 to 30 volts (unregulated)
- Internal Battery** ..... 10.8 volts (pulse and/or AMR only)

### CURRENT REQUIREMENTS

- High Draw (all outputs) .... 100 mA max
- Low Draw (pulse only) ..... 20 mA max

### WIRING



#### Register Wiring

MM80 Wire Color	Encoder		
	Sensus / Badger / Hersey / Elster Invision	Neptune / Itron	Elster Non-Invision
Red	R (Red)	B (Black)	Green or White
Green	G (Green) or White	R (Red)	Red
Black	B (Black)	G (Green or Ground)	Black

Function
Power/ clock
Data 1
Ground

### MOUNTING

The two blue mounting brackets attach to the case using the small self-tapping screws. Typically, the brackets should be attached to the two unused holes at the top so that the wires hang down from the bottom of the unit after it is mounted. After the mounting brackets are attached, secure the Model 80 to the wall using the enclosed anchors and screws.

## **LED INDICATORS**

- SIGNAL (upper): Blinks every 4 seconds if the MM80 is receiving a good signal from the register.
- POWER (lower): Blinks every 4 seconds when power is connected.

## **MAXIMUM WIRE LENGTHS (estimated)**

Register input ..... 1000'+  
AMR (Touchpad) output ..... 250'  
4-20mA output ..... 1.2 miles (with 26 gauge wire; 7.5 miles with 18 gauge)  
Pulse output ..... 500' (with shielded cable and isolated input connection)

NOTE: Pulse output wire length can be extended with a pull-up resistor.

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## **FAQS**

- **Is the Model 80 Pulse Output A “Dry Contact”?** No; it is an open collector. However, this output can be used with all applications as long as the signal voltage supplied to the Model 80 is DC and between 3 and 40 volts,
- **Does Pulse Output Require A Pull-Up Voltage?** Yes. However, the MM80 can be ordered with internal pull-up.

## **TROUBLESHOOTING**

- **The MM80 Performs Irregularly:** Disconnect power for one minute, then reconnect.
- **Pulse Output Seems Not To Be Working:** Confirm that equipment is able to receive pulses at the Hertz of the Model 80's output. Unless otherwise specified, unit is normally programmed to output pulses at 10 Hz.
- **Readings Are Bad/Corrupted:** If wires are coiled together, try uncoiling the wires or cutting and removing extra wire so they are not bundled together.

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## **TECHNICAL SUPPORT**

Contact us at: [service@meter-master.com](mailto:service@meter-master.com) or 1-888-388-FLOW (3569).