

Model PFT3 (For Turbo Meters)	Unscaled Pulse Transmitter	Technical Brief
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GENERAL

The model PFT3 is a reed switch transmitter which has an unscaled pulse output for use with Badger Meter's line of Industrial Turbo meters.

This transmitter incorporates a reed switch sensor. It will directly interface with Badger's PC-100 controller, ER-8 and ER-9 Indicator as well as other devices that have similar operating characteristics.

These transmitters do not have gear trains. The reed switch directly senses the magnet within the rotor as it turns.

OPERATION

The interaction between the transmitter sensor and the two (2) pole meter magnet, generates two pulses for each revolution of the magnet, which will rotate a precise number of times for a given quantity of fluid passing through the meter.

The table on the back lists the transmitter output, expressed in pulses per gallon, for the various sizes of Industrial Turbo meters that you could use with this transmitter.

These output pulses are normally fed to instrumentation that can multiply these pulses by a number between 0.0001 and 0.9999 (the scale factor), which will express the output pulses as standard engineering units of measure such as 1 pulse per gallon, liter, quart, etc.

Badger's PC-100 electronic batch controller, ER-8 and ER-9 electronic registers, have the ability to perform this scaling function.

APPLICATION

Specially designed for Turbo meter applications where external power is not available.

This transmitter can be directly connected to the ER-8 and ER-9 totalizer/rate indicator, which gives you a metering system that does not rely on any external power source.



FEATURES

- Does not require external power
- Interchangeable with PFT3E transmitter
- Rugged, high impact resistant enclosure
- High temperature rating: 250° F
- Corrosion resistant components
- Watertight - NEMA 4X housing
- Sealed pickup assembly

SPECIFICATIONS

HOUSING

Material: High Impact, Reinforced Nylon
Mounting: Bayonet Type with Set Screw,
 360° Orientation

Connections: Two 1/2" NPT Threaded Conduit Ports

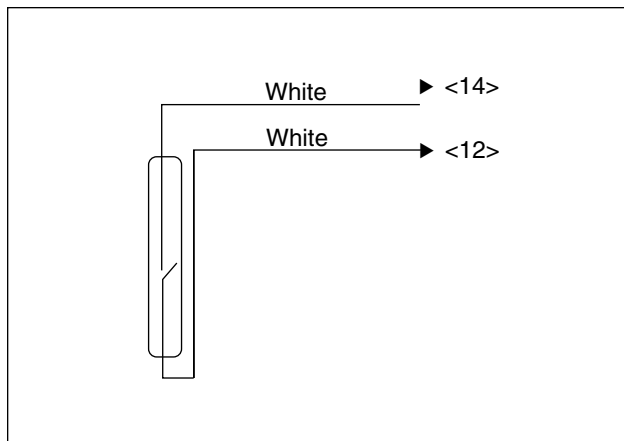
Protection: NEMA 4X
 (Watertight and Corrosion Proof)

OPERATION

Operating Temperature: 250° F Max.
 (-40° to 120° C)

SWITCH RATING

120V. Max.
 0.5 Amp.



PFT3 (PC-100 Connections Shown)

SCALE FACTOR CALCULATION

$$\text{Scale Factor} = \frac{\text{Pulses per unit wanted}}{\text{Transmitter output in pulses per unit}}$$

See the chart below for the average number of output pulses per gallon for your particular meter. For more precise calculations, use the information on the transmitter data plate when figuring scale factors.

Example:

Compute the scale factor for a 3" turbo meter. (You want to measure the flow to the nearest gallon.)

$$\text{Scale Factor} = 1/12.4 = \mathbf{0.0806}$$

Enter 0.0806 in the scaling function of the controller to read the meter flow to the nearest gallon.

Meter	Size (Inch)	Pulse/Gal.	Pulse/Liter
TURBO	2	17.36	4.6
TURBO	3	12.4	3.3
TURBO	4	2.56	0.7
TURBO	6	1.08	0.3



Please see our website at
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 for specific contacts.



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