



**Badger Meter**

## Unscaled Pulse Transmitters

Model PFT3 (For Turbo Meters)

### DESCRIPTION

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

This transmitter incorporates a reed switch sensor. It will directly interface with the Badger Meter controllers, and electronic indicators 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 US 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...0.9999 (the scale factor), which will express the output pulses as standard engineering units of measure such as 1 pulse per US gallon, liter and quart.

The Badger Meter electronic batch controllers and 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-9 and ER-10 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 (121° C)
- 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)

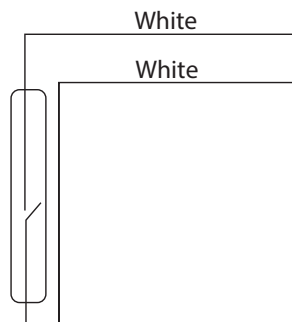
### OPERATION

Operating Temperature: 250° F Max. (– 40...121° C)

### SWITCH RATING

120V max.

0.5 Amp



## 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 US 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 US 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 US gallon.

Meter	Size	Pulse/US Gallon	Pulse/Liter
TURBO	2"	17.360	4.586
TURBO	3"	12.400	3.276
TURBO	4"	2.560	0.626
TURBO	6"	1.080	0.285

## Control. Manage. Optimize.

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[www.badgermeter.com](http://www.badgermeter.com)

The Americas | Badger Meter | 4545 West Brown Deer Rd | PO Box 245036 | Milwaukee, WI 53224-9536 | 800-876-3837 | 414-355-0400  
México | Badger Meter de las Américas, S.A. de C.V. | Pedro Luis Ogazón N°32 | Esq. Angelina N°24 | Colonia Guadalupe Inn | CP 01050 | México, DF | México | +52-55-5662-0882  
Europe, Middle East and Africa | Badger Meter Europa GmbH | Nurtinger Str 76 | 72639 Neuffen | Germany | +49-7025-9208-0  
Europe, Middle East Branch Office | Badger Meter Europe | PO Box 341442 | Dubai Silicon Oasis, Head Quarter Building, Wing C, Office #C209 | Dubai / UAE | +971-4-371 2503  
Czech Republic | Badger Meter Czech Republic s.r.o. | Mařikova 2082/26 | 621 00 Brno, Czech Republic | +420-5-41420411  
Slovakia | Badger Meter Slovakia s.r.o. | Racianska 109/B | 831 02 Bratislava, Slovakia | +421-2-44 63 83 01  
Asia Pacific | Badger Meter | 80 Marine Parade Rd | 21-04 Parkway Parade | Singapore 449269 | +65-63464836  
China | Badger Meter | 7-1202 | 99 Hangzhong Road | Minhang District | Shanghai | China 201101 | +86-21-5763 5412

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