

# ProPulse 2<sup>®</sup> Series Mini Turbine Flow Meter



- ✓ Excellent Chemical Resistance
- ✓ No Programming Required
- ✓ Ultra Low Flow Ranges | 50 ml/min | 0.013 GPM
- ✓ Large Temperature Range (-40 - 248°F | -40 - 120°C)
- ✓ Excellent Choice for Tubing
- ✓ NPN or PNP Pulse Output | 4 – 20mA | RS485
- ✓ Compact Lightweight Design
- ✓ NPN Pulse Relay Output

## Small but mighty

The ProPulse 2<sup>®</sup> provides superior performance and delivers accurate Ultra-Low Flow measurement that is highly repeatable under the most demanding of industrial environments.

The ProPulse 2<sup>®</sup> operates using a PVDF rotor with encapsulated magnetic inserts, which rotate on a long-wearing set of sapphire bearings designed to provide years of reliability. As the rotor spins, the magnetic field produced by the magnets is picked up via a Hall Effect Sensor, which converts the rotation into a square wave NPN pulse, 4 – 20mA, or RS485 output that can be sent directly to a metering pump or local display.

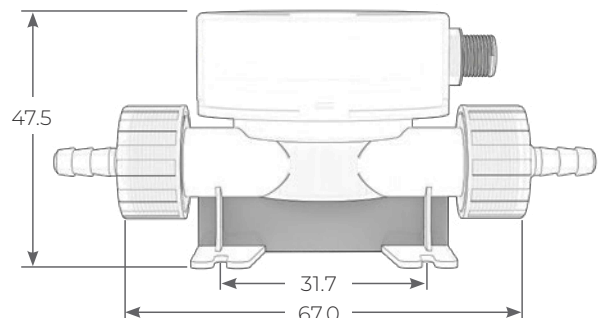
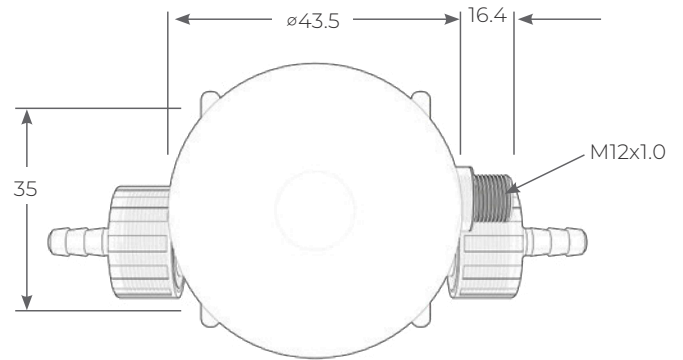


## PVDF Turbine

- ✓ Great Chemical Resistance
- ✓ Anti-Stick and Low Frictional Properties
- ✓ Excellent Impact Strength
- ✓ Excellent Mechanical Properties

## Example

- ✓ Prevent Pumps from Running Dry
- ✓ Notification for Filter | Strainer Change-Out
- ✓ Output to Alarm | Shut Off Pump



### Specifications

Body Material	PP   PVDF
O-Ring	Viton
Operating Temperature	-4°F – 176°F   -20°C – 80°C
Max. Working Pressure   Non-Shock	71 psi   5 bar
Accuracy	± 0.5% of F.S. @ 25°C
Output Current	PPW (Blind) 50mA max   PPM & PPR (Display) 150mA max
Max. Contact Current	1.5A
Power Supply	10 – 30 VDC
Protection Class	IP65   NEMA 4X

### Flow Range

Model	Flow Range (LPM)	Flow Range (GPM)	K Factor (LPM)	K Factor (GPM)
3/16" Tube	0.05 – 1.00	0.013 – 0.264	14,500	PPR & PPM: 14,500   PPW: 54,882
1/4" Tube (Low Flow)	0.06 – 2.00	0.016 – 0.528	9,000	PPR & PPM: 9,000   PPW: 34,065
1/4" Tube	0.30 – 5.00	0.079 – 1.321	2,200	PPR & PPM: 2,200   PPW: 8,327
3/8" Tube	0.50 – 15.00	0.132 – 3.963	1,050	PPR & PPM: 1,050   PPW: 3,974
1/2" FNPT	0.50 – 15.00	0.132 – 3.963	1,050	PPR & PPM: 1,050   PPW: 3,974

### Electrical Connections

**M12 Connection** (no Internal wiring required)

Color	PPR (RS485)	PPM (4-20mA)	PPW (Pulse)
Brown	+ 10-30 VDC	+ 10-30 VDC	+ 10-30 VDC
Black	RS-	NPN Alarm Output	PNP Output
Blue	0V	0V	0V
White	RS+	+V or +mA Output	NPN Output

NPN Output Current: 150mA max.

Output Current: 50mA max.

### Model Selection

PP - R - 05H - PP

Version	Process Connection	Material
<b>R</b> : LED Display with RS485	<b>03N</b> : 1/8" FNPT	<b>PP</b> : PP
<b>M</b> : LED Display with 4-20mA	<b>05H</b> : 3/16" Hose	<b>PF</b> : PVDF
<b>W</b> : Blind with Pulse Output	<b>05S</b> : 3/16" Straight Pipe	
	<b>06H</b> : 1/4" Hose	
	<b>06HL</b> : 1/4" Hose (Low Flow)	
	<b>08H</b> : 3/8" Hose	
	<b>08S</b> : 3/8" Straight Pipe	

