madshean

truflo®

Small in size

REALLY BIG ON VALUE

Monitoring Low Dosing Flows With Precision

 © Icon Process Controls Ltd.

Precision in Every Drop: **Monitoring Low Dosing Flows**

Amazing

~~Good~~ things come in small packages

Features

- Excellent Chemical Resistance
- Perfect for Metering or Dosing Applications
- Ultra Low Flow Ranges | 40 ml/min | 0.01 GPM
- Variety of End Connections:
  Hose Barb | Threaded | Flared | Straight Pipe
- Pulse | 4 – 20mA | RS485 | IO-Link
- Compact Lightweight Design
- ⅛" to ½" Sizes

PFA | PVC | PP | PVDF | FPM | RoHS Compliant | CE

Small but mighty

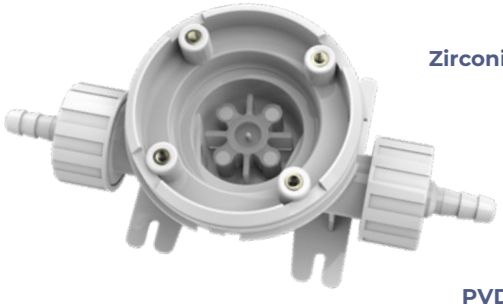
The ProPulse® 2 provides superior performance and delivers accurate ultra-low flow measurement that is highly repeatable under the most demanding of industrial environments.

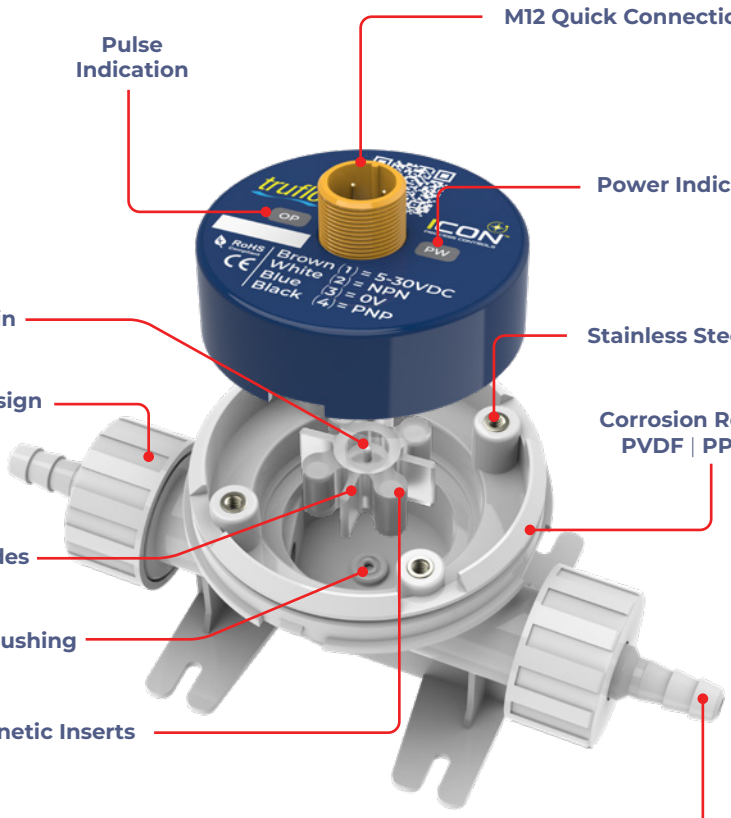
The ProPulse® 2 operates using a PVDF rotor with encapsulated magnetic inserts, which rotate on a long- wearing set of zirconium ceramic bushings, designed to provide years of reliability. As the rotor spins, the magnetic field produced by the magnets is picked up via a Hall Effect Sensor, which converts 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.

Small in size — REALLY BIG ON VALUE

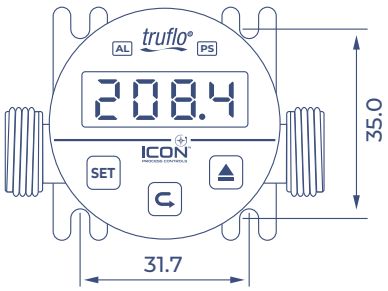
PVDF Turbine

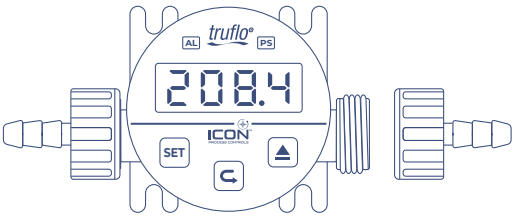
- Great Chemical Resistance
- Anti-Stick and Low Frictional Properties
- Superior Mechanical Properties

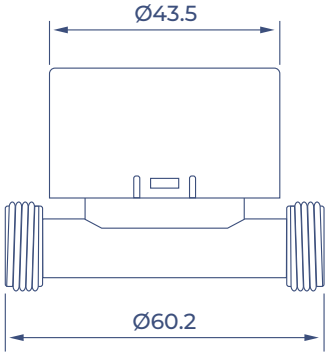




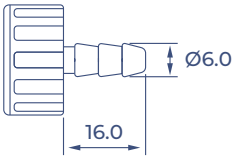
Dimensions







Hose Barb : 03H



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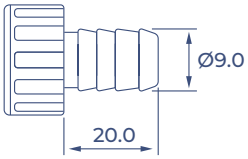
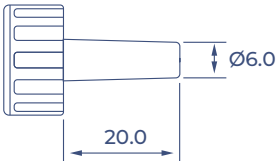


Straight Tube : 04T



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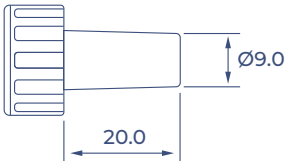

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Truflo® — ProPulse® 2 Series
Mini Turbine Flow Meter

ICON PROCESS CONTROLS™ Corrosion-Free Instrumentation Equipment™

Technical Specifications

Body Material	PP | PVDF
O-Ring	Viton®
Environmental Conditions	-4°F to 176°F | -20°C to 80°C (35% – 85% RH)
Operating Temperature	PP : -4°F to 203°F | -20°C to 95°C PVDF : -40°F to 250°F | -40°C to 120°C
Max. Working Pressure | Non-Shock	PP: 145 Psi | 10 Bar, PVDF: 217 Psi | 15 Bar
Accuracy	± 1.0% of F.S. @ 25°C (PPW model) ± 0.5% of F.S. @ 25°C (PPM & PPR models)
Output Current	PPW (Blind) 50mA max PPM &PPR (Display) 150mA max
Operating Voltage	10 – 30 VDC (PPM & PPR models) 5 – 30 VDC (PPW model)
Protection Class	NEMA 4X, IP65
Display	4 digits: 0.0 – 9999 (PPM & PPR models)

Flow Characteristics

Connection		Flow Range (LPM)	Flow Range (GPM)	K Factor (LPM/GPM)
02N	⅛" NPT	0.12 – 16.20	0.032 – 4.280	5,350
03H	3/16" Hose Barb	0.04 – 2.20	0.010 – 0.581	5,350
04T	¼" Straight Tube	0.12 – 8.20	0.032 – 2.166	1,700
04F	¼" Flared	0.40 – 2.80	0.106 – 0.740	1,700
06T	⅜" Straight Tube	0.12 – 16.20	0.032 – 4.280	875
06H	⅜" Hose Barb	0.12 – 16.20	0.032 – 4.280	875
06F	⅜" Flared	0.40 – 9.80	0.106 – 2.589	875

IO-Link madshean truflo®

Electrical Connections

PPW – Blind (Pulse)

Pin	Color	Function
1	Brown	+ 5-30 VDC
2	White	NPN Output
3	Blue	0V
4	Black	PNP Output

PPR – Display (RS485)

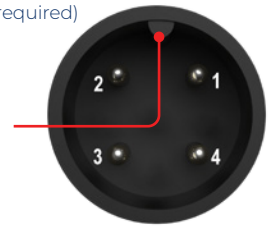
Pin	Color	Function
1	Brown	+ 10-30 VDC
2	White	RS+
3	Blue	0V
4	Black	RS-

PPM – Display (4-20mA + Pulse)

Pin	Color	Function
1	Brown	+ 10-30 VDC
2	White	NPN Alarm Output
3	Blue	0V
4	Black	V+ or +mA Output

M12 Connection
(no Internal wiring required)

Keyed to ensure correct connection



Model Selection

ProPulse® 2 — Turbine Flow Meter (Display)

Size	Display Version	Material: PP Part Number	Material: PVDF Part Number
⅛" NPT	LED: RS485	PP-R-02N-PP	PP-R-02N-PF
3/16" Hose Barb	LED: RS485	PP-R-03H-PP	PP-R-03H-PF
¼" Straight Tube	LED: RS485	PP-R-04T-PP	PP-R-04T-PF
¼" Flared	LED: RS485	PP-R-04F-PP	PP-R-04F-PF
⅜" Straight Tube	LED: RS485	PP-R-06T-PP	PP-R-06T-PF
⅜" Hose Barb	LED: RS485	PP-R-06H-PP	PP-R-06H-PF
⅜" Flared	LED: RS485	PP-R-06F-PP	
⅛" NPT	LED: 4-20mA + Pulse	PP-M-02N-PP	PP-M-02N-PF
3/16" Hose Barb	LED: 4-20mA + Pulse	PP-M-03H-PP	PP-M-03H-PF
¼" Straight Tube	LED: 4-20mA + Pulse	PP-M-04T-PP	PP-M-04T-PF
¼" Flared	LED: 4-20mA + Pulse	PP-M-04F-PP	PP-M-04F-PF
⅜" Straight Tube	LED: 4-20mA + Pulse	PP-M-06T-PP	PP-M-06T-PF
⅜" Hose Barb	LED: 4-20mA + Pulse	PP-M-06H-PP	PP-M-06H-PF
⅜" Flared	LED: 4-20mA + Pulse	PP-M-06F-PP	

ProPulse® 2 — Turbine Flow Meter (Blind)

Size	Display Version	Material: PP Part Number	Material: PVDF Part Number
⅛" NPT	Blind: NPN | PNP	PP-W-02N-PP	PP-W-02N-PF
3/16" Hose Barb	Blind: NPN | PNP	PP-W-03H-PP	PP-W-03H-PF
¼" Straight Tube	Blind: NPN | PNP	PP-W-04T-PP	PP-W-04T-PF
¼" Flared	Blind: NPN | PNP	PP-W-04F-PP	PP-W-04F-PF
⅜" Straight Tube	Blind: NPN | PNP	PP-W-06T-PP	PP-W-06T-PF
⅜" Hose Barb	Blind: NPN | PNP	PP-W-06H-PP	PP-W-06H-PF
⅜" Flared	Blind: NPN | PNP	PP-W-06F-PP	

ProPulse® 2 — Transition Fittings

Version	Part Number
¼" Tube x Tube	PP2-TT14
⅜" Tube x Tube	PP2-TT38
¼" Tube x NPT	PP2-TN14
⅜" Tube x NPT	PP2-TN38

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