

# TIM SERIES

## Paddle Wheel Flow Meter

~~CORROSION~~



- Patent Pending Redesigned Paddle
- Lifetime Warranty
- Industry's Highest Accuracy:  $\pm 0.5\%$



330°

NEW

2in1 Wire Connector + Cable Gland Combo

All Wiring Can Now Be Done Externally

### ETFE Tefzel® Paddle

- Patent Pending ShearPro® Contoured Paddle
- Reduced Turbulence = Reduced Wear = Longer Life
- Outstanding Flex Fatigue & Creep Resistance
- Surpassed Only by Teflon® in Chemical Resistance
- Excellent Mechanical & Impact Properties
- Superior Wear Resistance vs PVDF

The TIM Digital Flow Meters are easy to install with exceptional guaranteed long-life performance.

The TIM Series Paddle Wheel Flow Meters are highly repeatable, exceptionally accurate, extremely rugged, offer outstanding value and require absolutely no maintenance.

TIM Series has a process-ready output signal with a wide dynamic flow range of 0.3 to 33 ft/s | 0.1 to 10 m/s.

TIM Series sensors are offered in various materials and are available to measure 1/2" - 24" pipe sizes.

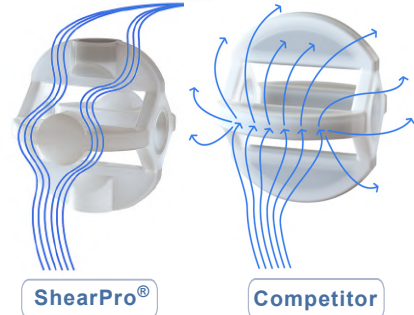
The many material choices, including PVC, PP and PVDF make this model highly adaptable and chemically resistant to many corrosive liquid process applications.

The TIM Flow Meters can be installed using Truflo's® extensive line of ANSI and DIN fittings. Truflo® offers SDR Pipe Saddles from DN15 - DN600 in GFPP material.

### New ShearPro® Design



- Superhydrophobic Design
- Contoured Flow Profile
- Reduced Friction
- Reduced Turbulence
- 78% Less Drag than Flat Paddle Design\*



\*Ref: NASA "Shape Effects on Drag" \*\*

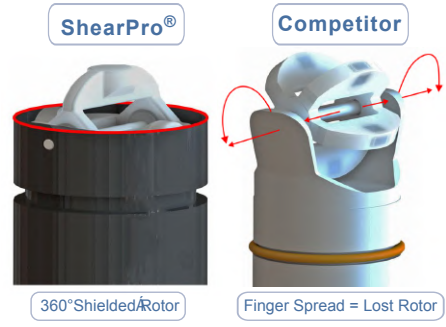
### Zirconium Ceramic Rotor | Bushings

- Industry's Highest Impact and Chemical Resistant Properties
- Up to 15x the Wear Resistance vs. Regular Ceramic
- Nano-Polished Mirror Finished vs. Regular Ceramic - Less Friction
- Integral Rotor Bushings Reduce Wear & Fatigue Stress



### Shielded Rotor Design

- Eliminates Finger Spread
- No Lost Paddles
- Increased Temp. Rating
- Protects Rotor Pin
- Reduced Turbulence



### Features

- LED Dual Display
- Cable Grip Wire Connector Combo
- Industry's Highest Accuracy:  $\pm 0.5\%$  F.S
- Frequency Pulse Output | Rate + Total | RS-485 \*\*
- Password Secured
- Retrofits into Signet® Type Fittings
- Double O-Ring Seal



\* Paddle Assembly

\*\* <https://www.grc.nasa.gov/www/k-12/airplane/shaped.html>

\* Patent Pending \*\* Optional

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### General

Operating Range	0.3 to 33 ft/s	0.1 to 10 m/s
Pipe Size Range	½ to 24"	DN15 to DN600
Linearity	±0.5% of F.S @ 25°C   77°F	
Repeatability	±0.5% of F.S @ 25°C   77°F	

### Wetted Materials

Sensor Body	PVC   PP   Pigmented   PVDF   Natural	
O-Rings	FKM   EPDM*   FFKM*	
Rotor Pin   Bushings	Zirconium Ceramic   ZrO <sub>2</sub>	
Paddle   Rotor	ETFE Tefzel®	

Optional\*

### Electrical

Frequency	49 Hz per m/s nominal	15 Hz per ft/s nominal
Supply Voltage	10-30 VDC ±10% regulated	
Supply Current	<1.5 mA @ 3.3 to 6 VDC	<20 mA @ 6 to 24 VDC

### Max. Temperature/Pressure Rating - Standard and Integral Sensor | Non-Shock

PVC	180 psi @ 68°F	12.5 bar @ 20°C
	40 psi @ 140°F	2.7 bar @ 60°C
PP	180 psi @ 68°F	12.5 bar @ 20°C
	40 psi @ 190°F	2.7 bar @ 88°C
PVDF	200 psi @ 68°F	14 bar @ 20°C
	40 psi @ 240°F	2.7 bar @ 115°C

### Operating Temperature

PVC	32°F to 140°F	0°C to 60°C
PP	-4°F to 190°F	-20°C to 88°C
PVDF	-40°F to 240°F	-40°C to 115°C

### Standards and Approvals

CE   FCC
RoHS Compliant

See Temperature and Pressure Graphs for more information

### Temperature | Pressure Graphs | Non-Shock

**Note:** The Pressure/Temperature graphs are specifically for the Truflo® Flow Sensors. during system design the specifications of all components must be considered.

### Model Selection

TIM - PF - L - S

Body Material	Size	Seals
P - PVC PP - PP PF - PVDF	S - ½"- 4" Pipe L - 6"- 24" Pipe	FKM   Std - S Suffix 'E' For EPDM

