# TIW SERIES Paddle Wheel Flow Meter



- Up to 24" Pipe Size
- Zirconium Ceramic Rotor | Bearings
- Accuracy ±0.5% of Full Scale
- Retrofits Into Signet<sup>®</sup> Type Fittings

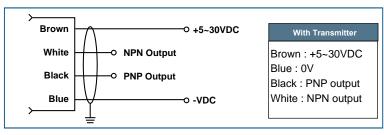


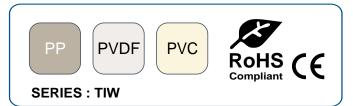
The TIW digital flow meters are easy to install with exceptional long life performance. Truflo TIW Series Paddle Wheel Flow Sensors are highly repeatable, rugged sensors that offer exceptional value with little or no maintenance. The TIW Series has a process-ready open collector signal with a wide dynamic flow range of 0.1 to 10 m/s (0.3 to 33 ft/s). The sensor measures liquid flow rates in full pipes and can be used in low pressure systems.

The Truflo TIW Series sensors are offered in a variety of materials for a wide range of pipe sizes and insertion configurations. The many material choices including PVC, PP and PVDF make the model highly versatile and chemically compatible to many liquid process solutions.

Sensors can be installed in  $\frac{1}{2}$  - 24" pipes using Truflo's comprehensive line of custom fittings. These custom fittings, which include tees, saddles and weldolets, seat the sensor to the proper insertion depth into the process flow.

#### Wiring Diagram





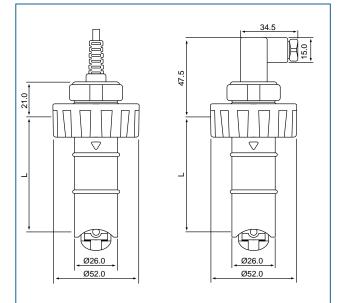
#### **Features**

- Lifetime Warranty on Paddle Wheel Assembly Large
- Flying Lead | Hirschmann DIN Connection
- High Accuracy | ±0.5 of Full Scale
- Pipe Size ½ 24"
- Flow Velocity Range | 0.33 to 33 ft/s
- NEMA 4X | IP65 Protection
- Flow Units | LPM | GPM | M3 | Ton
- Completely Corrosion Resistant
- PVC | PP | PVDF Body
- Zirconium Ceramic Rotor | Tefzel® Paddle
- Retrofits into Signet<sup>®</sup> Type Fittings
- Frequency Pulse Output

### **Applications**

- Chemical Processes
- Water Usage
- Filter| Strainer Change-Out
- Scrubber | Gas Stacks
- Sodium Hypochlorite

#### **Dimension (unit : mm)**





## **Specifications**

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   PVDF	PVC   PP   PVDF		
O-rings	FKM (std)   EPDM	FKM (std)   EPDM		
Rotor Pin   Bushings	Zirconium Ceramic	Zirconium Ceramic		
Rotor	ETFE TEFZEL <sup>®</sup>	ETFE TEFZEL <sup>®</sup>		
Electrical				
Frequency	49 Hz per m/s nominal	15 Hz per ft/s nominal		
Supply Voltage	5 to 24 VDC ±10%, regulated	5 to 24 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			
PVC	180 psi @ 68 °F	12.5 bar @ 20 °C		
	25 psi @ 140°F	1.7 bar @ 60 °C		
PP	180 psi @ 68 °F	12.5 bar @ 20 °C		
	25 psi @ 180 °F	1.7 bar @ 85 °C		
PVDF	200 psi @ 68 °F	14 bar @ 20 °C		
	25 psi @ 240 °F	1.7 bar @ 60 °C		
Operating Temperature				
PVC	32 °F to 140 °F	0 °C to 60 °C		
PP	0 °F to 195 °F	-20 °C to 90 °C		
PVDF	-40 °F to 250°F	-40 °C to 120 °C		
Standards and Approvals				
CE   FCC				
RoHS Compliant				

See Temperature and Pressure Graphs for more information

### **Temperature | Pressure Graphs**

**Note:** The pressure/temperature graphs are specifically for the Truflo Flow sensors. During system design the specifications of all components must be considered.

**Ordering Notes:** Most common part number combinations shown. For all other combinations contact factory.

