

- ❑ Pipe Sizes ½ - 24"
- ❑ Lifetime Warranty
- ❑ Industry's Highest Accuracy:  $\pm 0.5\%$



### 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 TIW Digital Flow Meters are easy to install with exceptional guaranteed long-life performance. The TIW Series Paddle Wheel Flow Meters are highly repeatable, exceptionally accurate, extremely rugged and offer outstanding value and require no maintenance.

TIW 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.

TIW Series sensors are offered in various materials and are available to measure ½ - 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 TIW 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.

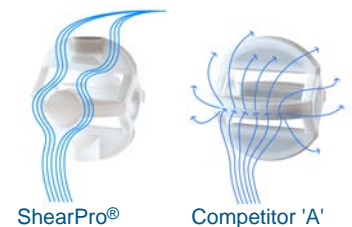


### Features

- ❑ Flying Lead | Hirschmann DIN Connection
- ❑ Flow Range | 0.3 to 33 ft/s
- ❑ Eprom Memory | Totalizer Value Will Not Be Lost
- ❑ Retrofits into Signet® Type Fittings
- ❑ Double O-Ring Seal
- ❑ Frequency Pulse Output

### New ShearPro® Design

- ❑ Superhydrophobic Design
- ❑ Contoured Flow Profile
- ❑ Reduced Turbulence
- ❑ Reduced Friction
- ❑ 78% Less Drag than Old 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



### Through-Pin Design

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



### Technical Specifications

| General   |  |                        |                                   |
|---|--|------------------------|-----------------------------------|
| Operating Range   | 0.3 to 33 ft/s                               | 0.1 to 10 m/s          |                                   |
| Pipe Size Range   | ½ to 4"                                      | 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 (Dark)   PP (Pigmented)   PVDF (Natural) |                        |                                   |
| O-Rings   | FKM   EPDM*   FFKM*                          |                        |                                   |
| Rotor Pin   Bushings  | Zirconium Ceramic   ZrO <sub>2</sub>         |                        |                                   |
| Paddle   Rotor  | ETFE Tefzel®                                 |                        |                                   |
| 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                               | 40 psi @ 140°F         | 12.5 bar @ 20°C    2.7 bar @ 60°C |
| PP  | 180 psi @ 68°F                               | 40 psi @ 190°F         | 12.5 bar @ 20°C    2.7 bar @ 88°C |
| PVDF  | 200 psi @ 68°F                               | 40 psi @ 240°F         | 14 bar @ 20°C    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

Optional\*

### 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

TKW- PF - L - S

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

