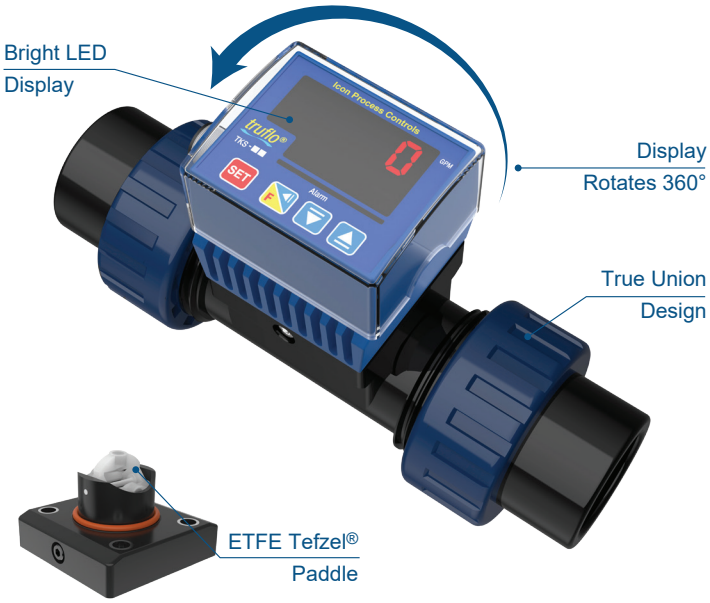
TKS SERIES
In-Line Paddle Wheel Flow Meter

- No Programming | Quick Installation
- Lifetime Warranty*
- Industry's Highest Accuracy: ±0.5%



PVC | PP | PVDF

RoHS Compliant CE

ETFE Tefzel® Paddle Rotor Design

- 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 TK Series Digital Flow Meters are easy to install with exceptional guaranteed long-life performance. TK Series Paddle Wheel Flow Sensors are highly repeatable, extremely rugged sensors that offer outstanding value and require no scheduled maintenance.

The TK 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. The sensor measures liquid flow rates in full pipes.

The Truflo® TK Series sensors are offered in various materials and are available from ½ - 4" 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 TK Series flow meter bodies are true-union designed up to 2" just as any true-union ball valve is designed. All models come completely pre-programmed with a bright LED Display that rotates 360°.

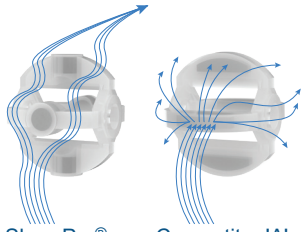
The Truflo® TK Series also comes equipped with a lifetime warranty on the paddle wheel assembly.

Features

- Display Rotates 360°
- Bright LED Display | Visible in the Dark
- Low Pressure Drop
- NEMA 4X | IP 66 Protection
- Password Protected Security
- True Union Design ½ - 2"
- Pulse + 1 Amp Relay 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" **

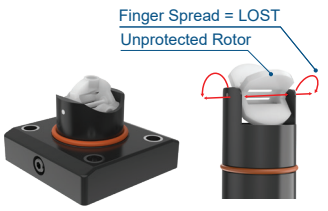
Zirconium Ceramic Rotor | Bushings

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



Through-Pin Design

- Eliminates Finger Spread
- No Lost Paddles
- Increased Temp. Rating
- 360° Housing Protects Rotor



https://www.grc.nasa.gov/www/k-12/airplane/shaped.html

TKS SERIES
In-Line Paddle Wheel Flow Meter

truflo®

Technical Specifications

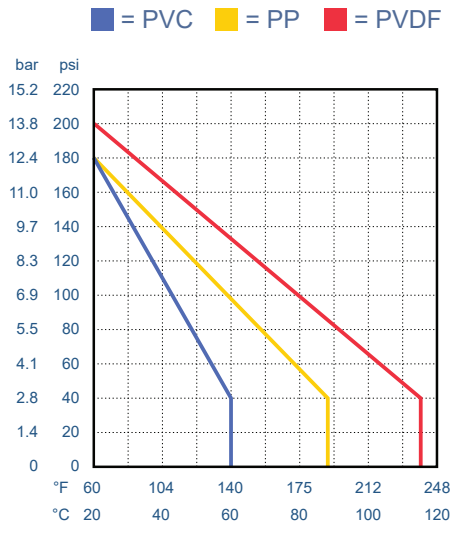
General				
Operating Range	0.3 to 33 ft/s	0.1 to 10 m/s		
Pipe Size Range	½ to 4"	DN15 to DN100		
Linearity	±0.5% of F.S @ 25°C | 77°F			
Repeatability	±0.5% of F.S @ 25°C | 77°F			
Wetted Materials				
Sensor Body	PVC (Dark) | PP (Pigmented) | PVDF (Natural)			
O-Rings	FKM | EPDM* | FFKM*			
Rotor Pin | Bushings	Zirconium Ceramic | ZrO_2			
Paddle | Rotor	ETFE Tefzel®			
Electrical				
Frequency	49 Hz per m/s nominal		15 Hz per ft/s nominal	
Supply Voltage	5 to 24 VDC ±10% regulated		3 VDC	
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	
Outputs				
TKS Series	Frequency Pulse + 1 Amp Relay			
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

TKS – ☐ – ☐ – ☐ – ☐

Material	Pipe Size	End Connections	Seals
P - PVC PP - PP PF - PVDF	15 - ½" 20 - ¾" 25 - 1" 40 - 1 ½" 50 - 2" 80 - 3" 100 - 4"	S - Sch 80 Soc T - NPT F - ANSI 150lb Flange B - Butt Fusion	FKM (Std) Suffix 'E' For EPDM