

# TK3P SERIES

## In-Line Paddle Wheel Flow Meter



- ❑ No Programming | Quick Installation
- ❑ Lifetime Warranty
- ❑ Industry's Highest Accuracy:  $\pm 0.5\%$



316 SS

ETFE

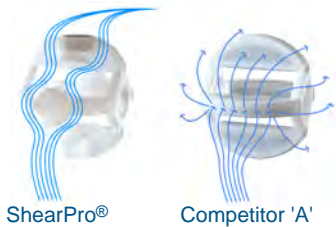
FKM

### Features

- ❑ Display Rotates 360°
- ❑ Bright LED Display | Visible in the Dark
- ❑ No Programming Required
- ❑ No Pressure Drop
- ❑ NEMA 4X | IP66 Protection
- ❑ Password Protected Security

### 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" \*\*

### Re-Designed Tefzel® Rotor

- ❑ 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 TK3P Series Digital Flow Meters are easy to install with exceptional guaranteed long-life performance. TK3P Series Paddle Wheel Flow Sensors are highly repeatable, extremely rugged sensors that offer outstanding value and require no scheduled maintenance.

The TK3P 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® TK3P Series sensors are available from 1/4" - 4" pipe sizes. All models come completely pre-programmed with a bright LED Display that rotates 360°.

The TruFlo® TK3P Series also comes equipped with a lifetime warranty on the paddle wheel assembly.

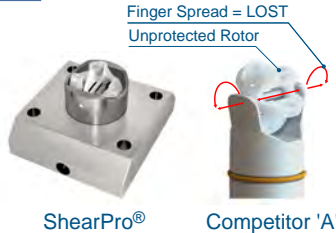
### Zirconium Ceramic Rotor | Bushings

- ❑ 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>

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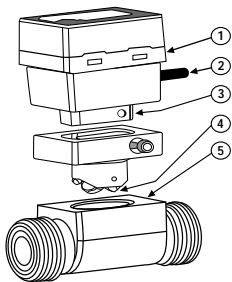
## In-Line Paddle Wheel Flow Meter



### 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	316 SS	
O-Rings	FKM (std)   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	5 to 24 VDC ±10% regulated	
Supply Current	<1.5 mA @ 3.3 to 6 VDC	<20 mA @ 6 to 24 VDC
Operating Temperature		
316 SS	-40°F to 212°F	-40°C to 100°C
Outputs		
TK3M Series	Flow Pulse Output + Totalizer Pulse Output    RS-485 Opt	
Standards and Approvals		
CE   FCC   RoHS Compliant		

### Exploded View



1. Flow Controller
2. Lead Wire
3. Hall Sensor
4. Paddle Wheel
5. Body 316 SS

\* Note : CPVC Union Ends Available

### Model Selection

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Output	Pipe Size	End Connections	Seals
P - Frequency Pulse	15 - ½"	S - Sch 80 Soc	FKM   Std
R - RS-485 Modbus	20 - ¾"	T - NPT	E - EPDM
	25 - 1"	FT - FNPT	K - FFKM   Kalrez®
	40 - 1 ½"	F - ANSI 150lb Flange	

### Application Example

