

# TK3P SERIES

## Paddle Wheel Flow Meter

~~CORROSION~~



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



### 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

### Product Description

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.

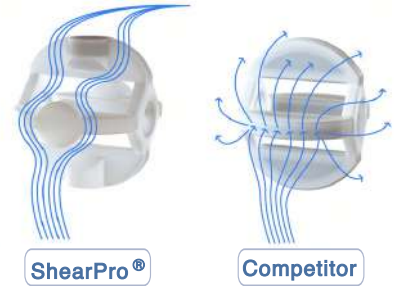
The TK3P Series has a process-ready output signal with a wide dynamic flow range of 0.3 to 33 ft/s | 0.1 to 10 m/s. The sensor measures liquid flow rates in full pipes.

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

### New ShearPro® Rotor Design

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



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

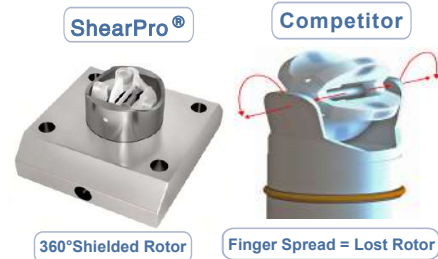
### Zirconium Ceramic Rotor | Bushings

- ❑ 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



### Shielded Rotor Design

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



### Features

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

316 SS

ETFE

FKM



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

## Specifications

### General

Operating Range	0.3 to 33 ft/s	0.1 to 10 m/s
Pipe Size Range	¼ to 4"	DN08 to DN10€
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

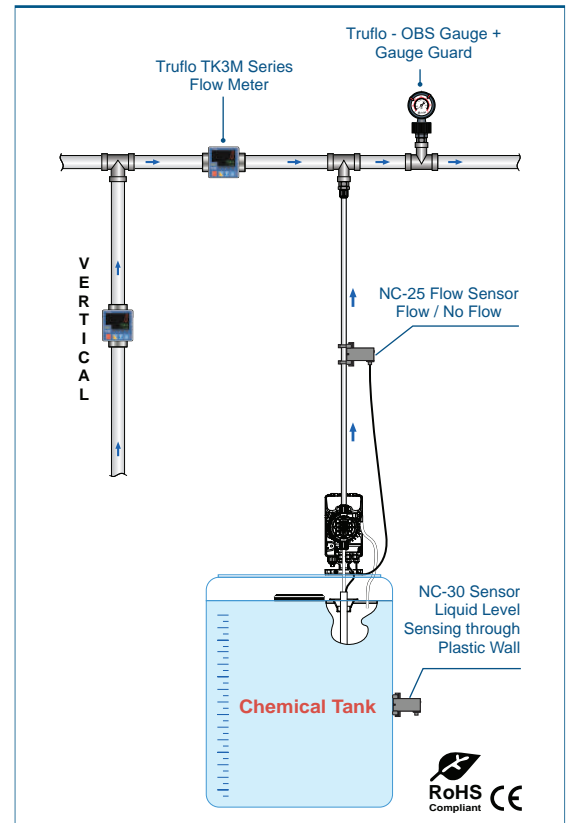
### Operating Temperature

316 SS	-40°F to 212°F	-40°C to 100°C
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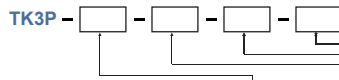
### Output and Approvals

TK3P Series : Flow Pulse Output + Totalizer Pulse Output    RS-485 Opt
RoHS Compliant

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### Model Selection



Model	Output	Pipe Size	End Connections	Seals	
P - Frequency Pulse Output RS-485 Modbus*	P - Frequency Pulse R - RS-485 Modbus	15 - ½"	50 - 2"	S - Sanitary	FKM   Std E - EPDM K - FFKM   Kalrez®
		20 - ¾"	80 - 3"	T - MNPT	
		25 - 1"	100 - 4"	F - FNPT	
		40 - 1 ½"		F - ANSI 150lb Flange	

\* Optional