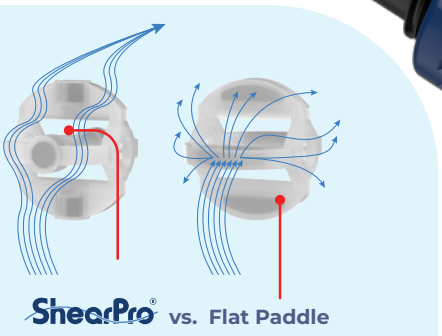
TKB Series — Battery Powered
In-Line Paddle Wheel Flow Meter

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





New ShearPro® Design

- Contoured Flow Profile
- Reduced Turbulence = Increased Longevity
- 78% Less Drag than Old Flat Paddle Design‡

‡Ref: NASA "Shape Effects on Drag"

- Pulse | 4-20mA | Voltage Outputs
- Flow | Total
- LED Flow Indicator
- Low Pressure Drop
- NEMA 4X | IP 66 Protection
- True Union Design ½ - 4"

Engineered for accuracy, ruggedness and longevity

The Truflo® TKB Series digital in-line flow meters are easy to install with exceptional guaranteed long-life performance. They are highly repeatable, extremely rugged sensors that offer outstanding value and require no scheduled maintenance.

The TKB 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.

TKB Series flow meters are offered in a variety of 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 TKB Series flow meter bodies are true-union designed up to 4" just as any true-union ball valve is designed. They come completely pre-programmed with a bright LCD Display that rotates 360°.

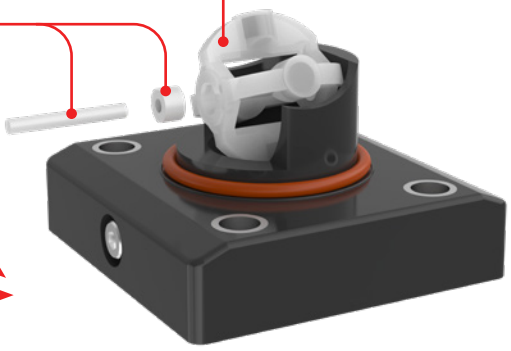
*The Truflo® TKB Series also comes equipped with a lifetime warranty on the paddle wheel assembly.

Tefzel® Paddle Wheel

- Superior Chemical And Wear Resistance vs PVDF

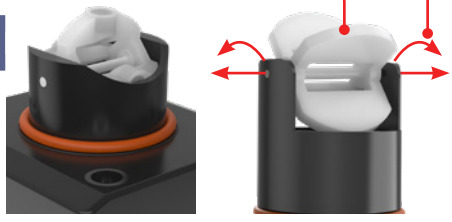
Zirconium Ceramic Rotor | Bushings

- Up to 15x the Wear Resistance vs. Regular Ceramic
- Integral Rotor Bushings Reduce Wear and Fatigue Stress



ShearPro® Through-Pin Design

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



PC PVC PP PVDF RoHS Compliant CE

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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 | ZrO2	
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
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		
TKW Series	NPN Pulse | Voltage | 4-20mA Outputs	
Standards and Approvals		
CE | FCC | RoHS Compliant		

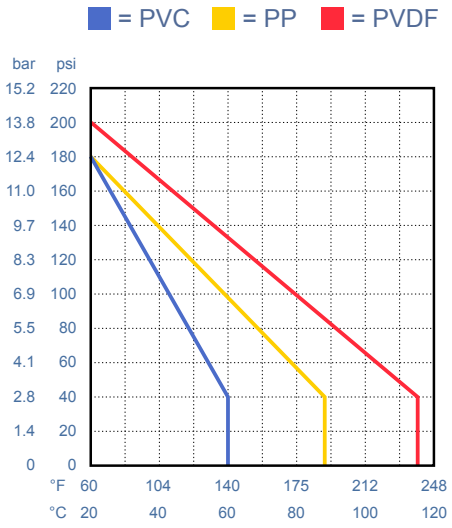
See Temperature and Pressure Graphs for more information

*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.



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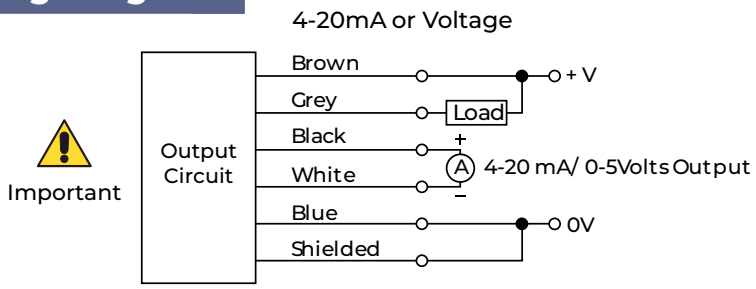
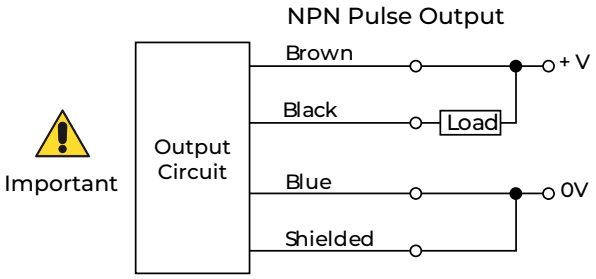
Wiring Diagram





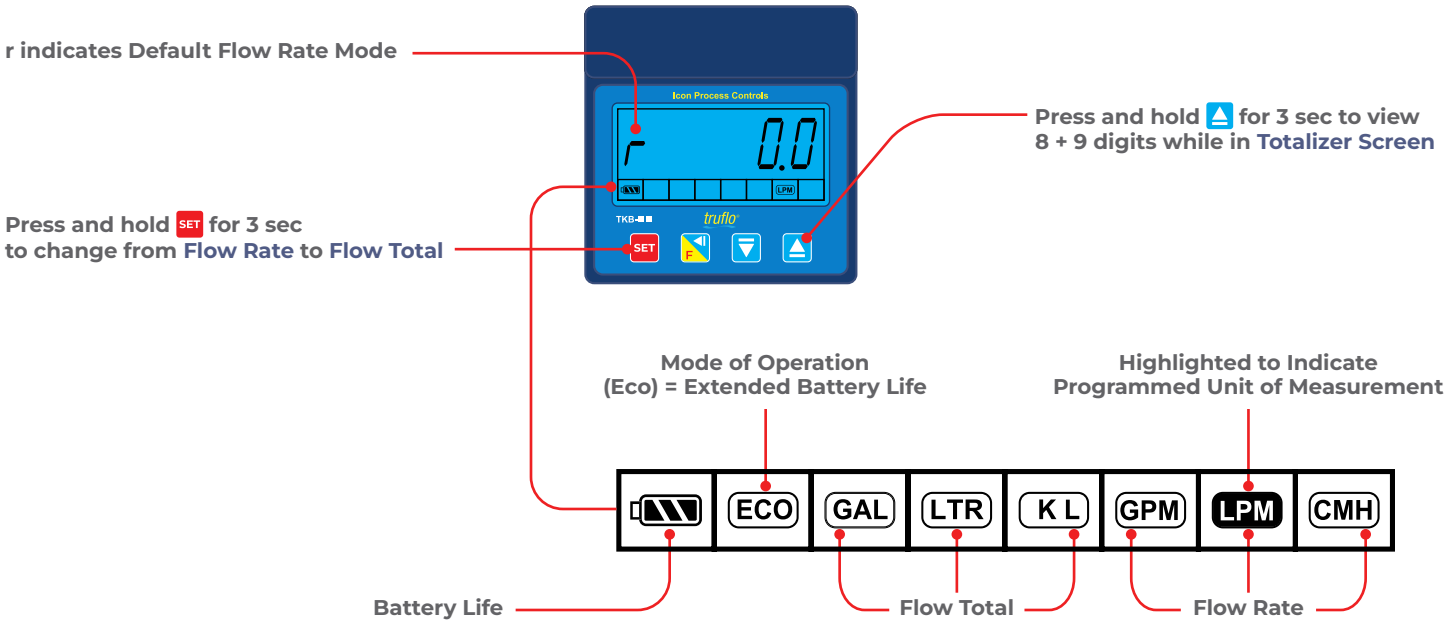
Model Selection

TKB - 20 - P - T - [ ] — **NOTE:** Leave blank for standard options

Pipe Size	Material	End Connections	Seals
15: ½" **20:** ¾" **25:** 1" **40:** 1½" **50:** 2" **80:** 3" **100:** 4"	**P:** PVC **PP:** PP **PF:** PVDF	Sch 80 Soc (Standard on PVC) **T:** NPT (Standard on PP/PVDF, available on PVC) **F:** ANSI 150lb Flange **B:** Butt Fusion	FKM (std) **E:** EPDM **K:** FFKM | Kalrez®



Displaying Flow Rate | Flow Totalizer



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