Truflo® — TKB Series

In-Line Paddle Wheel Flow Meter Sensor

ICON PROCESS CONTROLS™ Corrosion-Free Instrumentation Equipment

Battery Powered | Flow | Total

GUARANTEE LIFETIME WARRANTY

truflo®

Industry's Longest Lasting Paddle Wheel Flow Meter

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

- Battery Powered
- Flow | Total
- Revolutionary ShearPro® Paddle Wheel Design
- Low Pressure Drop
- NEMA 4X | IP 66 Protection
- Password Protected Security
- True Union Design ½ - 2"
- Flange Connection 3" - 4"

Engineered for accuracy, ruggedness, longevity, and battery powered convenience

The Truflo® TKB Series digital in-line flow meter sensors 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 ¼" - 4" pipe sizes. The many material choices, including PVC, PP, PVDF and 316 SS make this model highly adaptable and chemically resistant to many corrosive liquid process applications.

The TKB Series flow meter bodies (PVC, PP, PVDF) are true-union designed up to 2" just as any true-union ball valve is designed. 3" - 4" versions are flanged. 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.

316SS | PC | PVC | PP | PVDF | RoHS Compliant | CE

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New ShearPro® Design

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

‡Ref: NASA "Shape Effects on Drag"

Tefzel® Paddle Wheel

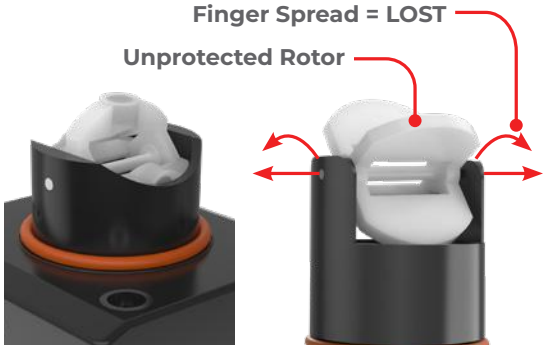
- Superior Chemical And Wear Resistance vs PVDF

Zirconium Ceramic Rotor | Bushings

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

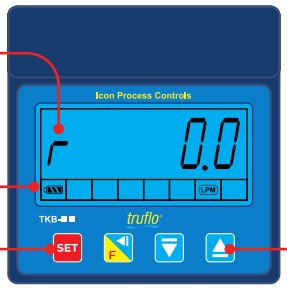
ShearPro® Through-Pin Design

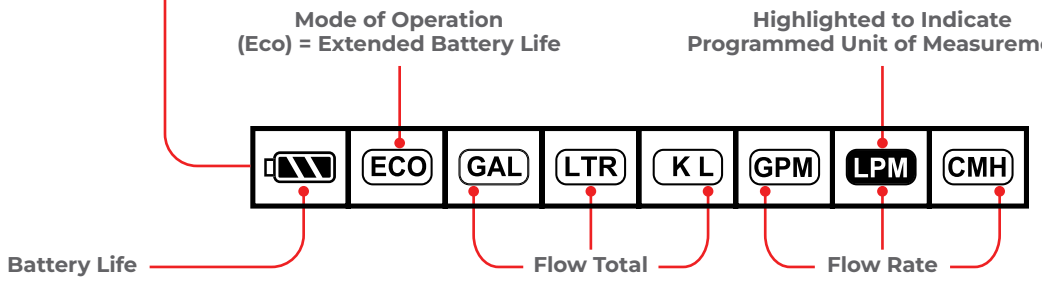
- Eliminates Finger Spread
- No Lost Paddles
- Increased Temp. Rating
- 360° Housing Protects Rotor



ShearPro® vs. Competitor 'A'

Displaying Flow Rate | Flow Totalizer





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Specifications

General		
Operating Range	0.3 to 33 ft/s	0.1 to 10 m/s
Pipe Size Range	¼" to 4"	DN08 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) | 316SS	
O-Rings	FKM | EPDM* | FFKM*	
Rotor Pin | Bushings	Zirconium Ceramic | ZrO_2	
Paddle | Rotor	ETFE Tefzel®	
Electrical		
Operating Voltage Battery	3.0 VDC	
Battery	Lithium Battery (CR2477T)	
Life of Battery	> 1 Year Normal, > 2 Years Eco Mode	
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
316 SS	Consult Factory	
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
316 SS	-40°F to 300°F	-40°C to 149°C
Standards and Approvals		
CE | FCC | RoHS Compliant		

See Temperature and Pressure Graphs for more information

*Optional

K-Factors for TK Series

Size	LPM	GPM
¼"	547	2079
⅜"	300	1140
½"	127.6	484.9
¾"	81.8	310.8
1"	55.1	209.4
1½"	18.8	71.4
2"	10.2	38.8
3"	4.7	18
4"	2.1	8
⚠ K-Factor is Pre-Programmed		

Min/Max Flow Rates

Pipe Size (O.D.)	LPM | GPM 0.3m/s min.	LPM | GPM 10m/s max.	
DN08 (¼")	0.04 | 0.16	12 | 3	◂ SS Only
DN10 (⅜")	1.0 | 3.8	50 | 13	◂ SS Only
DN15 (½")	3.5 | 1.0	120 | 32	
DN20 (¾")	5.0 | 1.5	170 | 45	
DN25 (1")	9.0 | 2.5	300 | 79	
DN40 (1½")	25.0 | 6.5	850 | 225	
DN50 (2")	40.0 | 10.5	1350 | 357	
DN65 (2½")	60.0 | 16.0	1850 | 357	
DN80 (3")	90.0 | 24.0	2800 | 739	
DN100 (4")	125.0 | 33.0	4350 | 1149	

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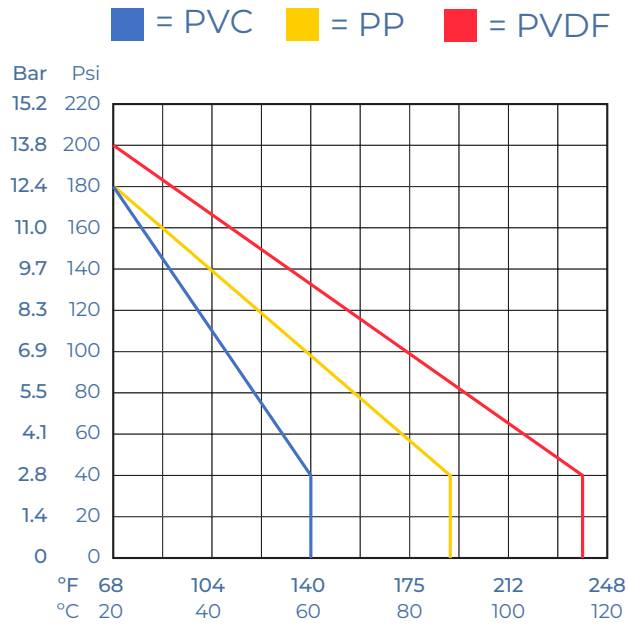
Temperature | Pressure Graphs | Non-Shock

Note: The Pressure/Temperature graphs are specifically for the Truflo® Flow Meter Sensors.

During system design the specifications of all components must be considered.



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®

TK3B - [20] - SS - [SE] - [ ] NOTE: Leave blank for standard options

Pipe Size	Material	End Connections	Seals
08: ¼" **10 :** ⅜" **15 :** ½" **20 :** ¾" **25 :** 1" **40 :** 1½" **50 :** 2" **80 :** 3" **100:** 4"	**S:** SS	**T :** NPT (Standard) **SE:** Sanitary	FKM (std) **E:** EPDM **K:** FFKM | Kalrez®

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