


# TK3 SERIES

## MULTI-FUNCTION 316 SS FLOW METER



Truflo provides excellence in flow meter products for many industries. This high level of performance results from decades of experience enhancing paddle wheel flow measurement technologies. The results are flow meter products recognized worldwide for their quality, performance, versatility and ease-of-use. Our flow meters deliver impressive performance – even under the toughest conditions.

316SS



**SERIES : TK3**  
**CONNECTION : NPT | DIN | Sanitary**  
**SEALS : FPM | EPDM | FFKM**



On Paddle Assembly\*



Available with Sanitary Ends



Zirconium Ceramic Rotor Pin & Bearings



### FEATURES

- High Accuracy |  $\pm 1.0\%$  of Full Scale
- Unit of Flow Measurement is Selectable LPM / GPM / KL
- Corrosion Resistant Materials 316 SS | Tefzel® | Zirconium Ceramic
- Low Cost Visual Indication
- Easy Installation | No Mounting Kits
- High Flow Range - 0.3m/s - 10m/s | 0.98 ft/s - 32.8 ft/s
- NPT | G | Sanitary | End Connections
- Compact Design
- Large Bright LED Digital Display
- Horizontal | Vertical Installation
- Size Range ¼ – 2"
- Low Pressure Drop
- 4-20mA | Pulse | Output Signal
- NEMA 4X Enclosure
- Suitable for Corrosive Environments
- Password Protected Security

### SPECIFICATIONS

<b>Fluid</b>	Water or Liquid Chemicals   Viscosity Range: 0.5-20 centistokes
<b>Accuracy</b>	$> \pm 1.0\%$ of F.S. @ 20°C (68°F)   Repeatability $\pm 0.5\%$ of Full Scale
<b>Max Flow Velocity</b>	10 m/s max   32.8 ft/s max
<b>Min Flow</b>	0.3 m/s min   0.98 ft/s min
<b>Operating Pressure</b>	150 psi   Non-Shock
<b>Turndown</b>	33:1
<b>Response time</b>	Real Time
<b>Material of Construction</b>	<b>Paddle:</b> Tefzel® <b>Body:</b> 316 SS <b>Shaft:</b> Zirconium Ceramic <b>Seals:</b> FPM   EPDM
<b>Operating Temperature</b>	316 SST < 120°C   248°F
<b>Electronics</b>	+ 50°C (122°F)
<b>Protection Class</b>	IP66   NEMA 4X
<b>Approval</b>	CE   Rohs
<b>Current Draw</b>	60mA Max
<b>Battery</b>	10-30VDC

\*Consult Factory for Details

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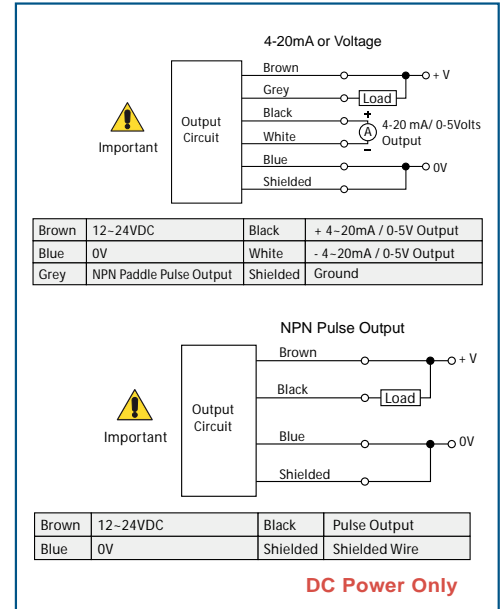
### Standard Pipe Size

Pipe Size O.D.	ANSI ID   Inches		DIN D mm	Flow Rate LPM   USGPM	
	Sch 40	Sch 80		0.3m/s min.	10m/s max.
DN15 (1/2")	0.62	0.55	Ø20	3.5 / 1.0	120 / 32
DN20 (3/4")	0.82	0.74	Ø25	5.0 / 1.5	170 / 45
DN25 (1")	1.00	0.96	Ø32	9.0 / 2.5	300 / 79
DN40 (1 1/2")	1.40	1.50	Ø50	25.0 / 6.5	850 / 225
DN50 (2")	2.00	1.90	Ø63	40.0 / 10.5	1350 / 357
DN 65 (2 1/2")	2.50	2.30	Ø75	60.0 / 16	1850 / 357
DN80 (3")	3.10	2.90	Ø78	90.0 / 24	2800 / 739
DN100 (4")	4.00	3.80	Ø96.50	125.0 / 33	4350 / 1149

### Application Note

**Load resistance:**  
 Current output : (4-20mA) : 120 Ω max.  
 Voltage output : (0-5V) : 10K Ω min.

### Wiring Diagram



### Range of Transmitter

TKW Series	DN08   1/4"	DN10   3/8"	DN15   1/2"	DN20   3/4"	DN25   1"
Range LPM   GPM	0.16 - 3.17 GPM	0-16 GPM	0-90 LPM / 0-24 GPM	0-200 LPM / 0-53 GPM	2.5 - 79.0 GPM
TKW Series	DN40   1 1/2"	DN50   2"	DN15   1/2"	DN20   3/4"	DN50   1"
Range LPM   GPM	6.5 - 225 GPM	10.5 - 357 GPM	0-90 LPM   0-24 GPM	0-200 LPM   0-53 GPM	0-330 LPM   0-87 GPM

### PRODUCT SELECTION

#### EXAMPLE

TK3P ----- 25 ----- E ----- GT ----- T  
 (1) (2) (3) (4) (5)

#### 1. SERIES

- a) TK3B = Battery Operated Paddle Wheel Flow Meter - Flow Rate + Flow Total
- b) TK3S = Paddle Wheel Flow Meter with Relay Output + Flow Rate Pulse Output
- c) TK3P = Paddle Wheel Flow Meter & Flow Totalizer + Flow Rate Pulse + Flow Total Pulse
- d) TK3M = Paddle Wheel Flow Meter with Transmitter 4-20mA + Flow Rate Pulse / Flow Total Pulse
- e) TK3W = Paddle Wheel Flow Meter / 4-20mA or Pulse

#### 2. PIPE SIZE

08 / (1/4") / 10 / (3/8")  
 15 / (1/2") / 20 / (3/4")  
 25 / (1") / 40 / (1 1/2")  
 50 / (2")

#### 3. Seals\*

E - EPDM  
 F - FFKM

\* FPM is Standard

#### 5. END CONNECTIONS

SE - Sanitary Ends  
 T - NPT  
 GT - G Thread

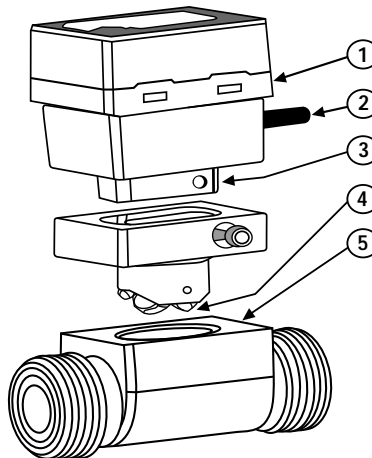
#### 5. COMMUNICATION OR TRANSMITTER

RS = TKP Series with RS-485 MODBUS Selectable

#### 6. CONNECTION METHOD

M = M12 2(M) Connection (Option)  
 \* No Electrical Connection for TK3B Series

### PARTS TK3 SERIES



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

\* Note : CPVC Union Ends Available

### TYPICAL APPLICATION

