

TKRS / TKRP / TKRM ROTATOR SERIES

MULTI-FUNCTION PADDLE WHEEL FLOW METER



- Flow Rate & Totalizer
- Password Security Protected
- Zirconium Ceramic / Rotor / Bearings
- Display Rotates 360 Degrees
- Bright LED Display

PVC

PP

PVDF

SERIES : TKRS / TKRP / TKRM
CONNECTION : SOC / NPT / Flange / Butt / DIN
SEALS : FPM / EPDM / FFKM



On Paddle Assembly



Zirconium Ceramic Rotor Pin & Bearings



M12 Connection

PVDF



ROTATES 360°

FEATURES	
●	High Accuracy / $\pm 0.5\%$ of Full Scale
●	No K-Factor Programming
●	Unit of Flow Measurement is Selectable LPM / GPM / KL
●	Corrosion Resistant / PVC / PP / PVDF*
●	Display Rotates 360 Degrees
●	Easy Installation / No Mounting Kits Required
●	High Flow Range 0.3m/s - 10m/s / 0.98 ft/s - 32.8 ft/s
●	Easy to Program Relay Output
●	Compact Design
●	Large Bright LED Digital Display
●	Horizontal / Vertical Installation
●	Size Range 1/2" - 4"
●	Low Pressure Drop
●	NEMA 4X Enclosure
●	Suitable for Corrosive Environments
●	Password Protected Security
●	True-Union Design 1/2" - 2" / Flanged 3" - 4"
●	M12 Quick Disconnect

* Note : CPVC Union Ends Available

SPECIFICATIONS	
Fluid	Water or Liquid Chemicals / Viscosity Range: 0.5-20 centistokes
Accuracy	> $\pm 0.5\%$ of F.S. @ 20°C (68°F) / Repeatability $\pm 0.5\%$ of F.S.
Max Flow Velocity	10 m/s max / 32.8 ft/s max
Min Flow	0.3 m/s min. / 0.98 ft/s min
Operating Pressure	150 psi (Non-Shock)
Turndown	33:1
Response time	Real Time
Material of Construction	Paddle : Tefzel® Body : PVC / PP / PVDF Shaft : Zirconium Ceramic Seals : FPM (Std) / EPDM / FFKM
Operating Temperature	PVC < 60°C (140°F) / PP < 80°C (176°F) / PVDF < 110°C (230°F)
Electronics	+ 50°C / (122F)
Protection Class	IP66 / NEMA 4X
Approval	CE / Rohs
Current Draw	60mA Max
Power Supply	10-30VDC

*Consult Factory for Details

K-Factors for TK Series Plastic Flow Meters

Size	LPM	GPM
½"	124	471
¾"	72	274
1"	54	171
1½"	19	72
2"	10.3	39
3"	4.7	18
4"	2.1	8

Standard Pipe Size

Flow Rate Min/Max

Pipe Size (O.D.)	ANSI (ID) (Inches)		DIN (ID) (mm)	Flow Rate LPM / USGPM	
	Sch (40)	Sch (80)		0.3m/s min.	10m/s max.
DN15 (½")	0.62	0.55	Ø20	3.5 / 1.0	120 / 32
DN20 (¾")	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 (1½")	1.40	1.50	Ø50	25.0 / 6.5	850 / 225
DN50 (2")	2.00	1.90	Ø63	40.0 / 10.5	1350 / 357
DN65 (2½")	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

Pressure vs. Temperature (psi / Water / Non-Shock)

NOMINAL SIZE		PVC				PP				PVDF				
		30° F 70° F	71° F 105° F	106° F 120° F	121° F 140° F	- 5° F 85° F	86° F 120° F	121° F 140° F	141° F 175° F	- 5° F 70° F	71° F 105° F	106° F 140° F	141° F 175° F	176° F 210° F
INCHES	mm													
½ - 2	15-50	150	120	100	30	150	110	90	55	150	125	100	85	55
2 - ½	65	150	120	100	NA	150	95	70	40	150	125	100	85	55
3	80	150	120	100	NA	150	95	70	40	150	125	100	85	60
4	100	150	120	100	NA	150	95	70	40	150	125	100	85	60

TKRS / TKRP / TKRM SERIES

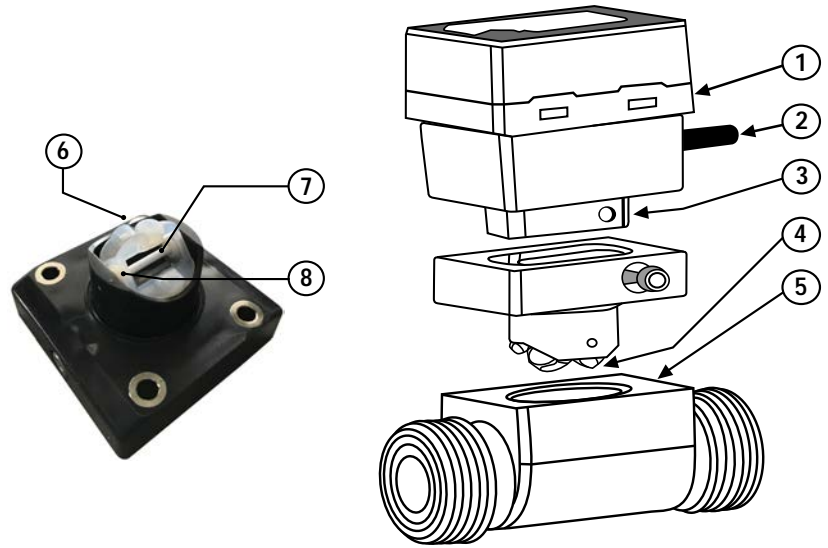
MULTI-FUNCTION PADDLE WHEEL FLOW METER



PARTS TK SERIES

1. Flow Controller
2. Power Supply |10-30VDC
3. Hall Sensor Technology
4. Paddle Wheel
5. Body | PVC | PP | PVDF*
6. Tefzel® Paddle
7. Zirconium Ceramic Rotor Pin
8. Zirconium Ceramic Bearings

* Note : CPVC Union Ends Available



PRODUCT SELECTION

EXAMPLE

TKRP --- 25 --- P --- E --- T --- RS --- M
 (1) (2) (3) (4) (5) (6) (7)

1. SERIES

1. **TKRS** = Paddle Wheel Flow Meter with Relay + Pulse
2. **TKRP** = Paddle Wheel Flow Meter - (Flow Rate + Flow Total) Pulse Output
3. **TKRM** = Paddle Wheel Flow Meter - 4-20mA + (Flow Rate + Flow Total) Pulse Output

2. PIPE SIZE

15 / (½") / 20 / (¾")
 25 / (1") / 40 / (1 ½")
 50 / (2") / 80 / (3") / 100 / (4")

3. BODY MATERIAL

P = PVC
 PP = Polypropylene
 PF = PVDF
 * CPVC Socket Unions Available

4. SEALS*

E - EPDM
 F - FFKM
 * FPM is Standard Seal Material

5. END CONNECTIONS

S - Sch 80 Soc
 T - NPT
 B - SDR11 Butt
 D - DIN
 F - ANSI 150 lb

6. RS = TKP Series (Only) with RS-485 MODBUS
7. M = M12 - 2 Meters - Quick Disconnect (Option)

TYPICAL APPLICATION

