

- Up to 24" Pipe Size
- Zirconium Ceramic Rotor | Bearings
- Accuracy  $\pm 0.5\%$  of Full Scale
- Retrofits Into Signet® Type Fittings



On Paddle Assembly\*



PVC

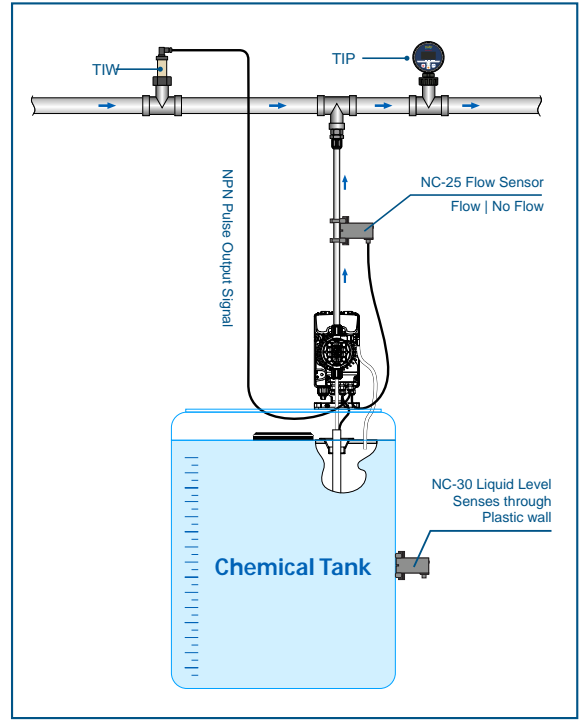
PP

PVDF

RoHS  
Compliant

CE

**SERIES : TIP**  
**CONNECTION : 1 1/4" Thread**



FEATURES	
● Large LED Display from Green to Red   Alarm Status	
● High Accuracy   $\pm 0.5$ of Full Scale	
● Pipe Size 1/2 - 24"	
● Flow Rate + Totalizer   Resettable	
● Flow Velocity Range   0.33 to 33 ft/s   0.1 to 10 m/s	
● Eprom Memory   Totalizer Value Will Not Be Lost	
● NEMA 4X   IP65 Protection	
● Bright Led Display Flow Units   LPM   GPM   M3   Ton	
● Dual Output 7 Amp Relays	
● Pulse Output Standard	
● Heavy Duty Industrial Design	
● Corrosion Resistant All Plastic Wetted Parts   PVDF   PP Body-Zirconium Ceramic Rotor   TEFZEL® Paddle	
● Simple Installation   Retrofits into Signet® Type Fitting	

SPECIFICATIONS	
Operating Voltage	10 ~ 30VDC
Current Consumption	60mA max.
Control Output (LPM)	NPN (150mA max.)
Control Output (FTM)	NPN (150mA max.)
Communication	Modbus
Output	NPN or PNP Pulse Output
Flow Total Meter (FTM)	0 ~ 999999 (6 digits)
Flow Rate Meter (LPM)	0.0 ~ 999.9 LPM (4 digits)
Fluid	Water or Chemical fluid
Accuracy	$\pm 0.5\%$ of F.S. @ 25°C
Response frequency	5K Hz
Flow velocity	10 m   s max.
Low Cut	0.3 m   s min.
Material of Construction	Paddle   ETFE Tefzel® Rotor Pin   Zirconium Ceramic Bushings   Zirconium Ceramic
O-ring Material	FKM   EPDM
Operating Temperature	PVC < 60°C   PP < 80°C   PF < 100°C
Protection Class	IP-65
Approval	CE   RoHS

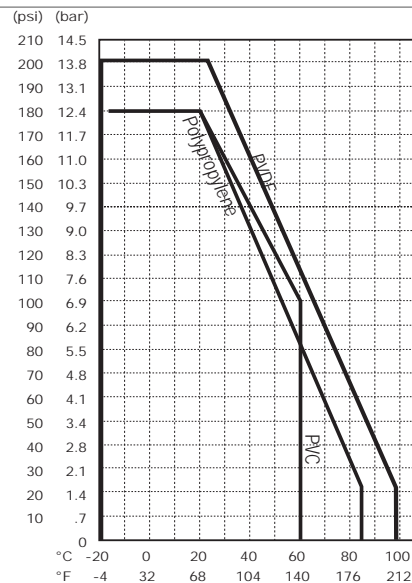
## Specifications

General		
Operating Range	0.1 - 10 m/s	0.3 - 33.3 ft/s
Pipe Size Range	DN15 - DN600	½ - 24 in.
PVC	DN15 - DN600	½ - 24 in.
Linearity	±0.5% of max. range @ 68°F   20°C	
Repeatability	±0.5% of max. range @ 68°F   20°C	
Min. Reynolds Number Required	4500	
Wetted Materials		
Sensor Body	PVC   Dark Gray   PP   Natural   PVDF   Natural	
O-rings	FKM   EPDM	
Rotor Pin   Bushings	Zirconium Ceramic   Ceramic	
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		
PVC	13.7 bar @ 20 °C	200 psi @ 68 °F
	2.0 bar @ 60 °C	30 psi @ 185°F
PP	13.7 bar @ 20 °C	200 psi @ 68 °F
	2.0 bar @ 85 °C	30 psi @ 185 °F
PVDF	13.7 bar @ 20 °C	200 psi @ 68 °F
	7.5 bar @ 60 °C	108 psi @ 140 °F
Operating Temperature		
PVC	0°C - 60°C	32°F - 140°F
PP	-20°C - 100°C	-5°F - 185°F
PVDF	-40°C - 100°C	-40°F - 212°F
Shipping Weight		
TIP-S-X	0.46 kg	1.00 lb
TIP-L-1	0.48 kg	1.05 lb

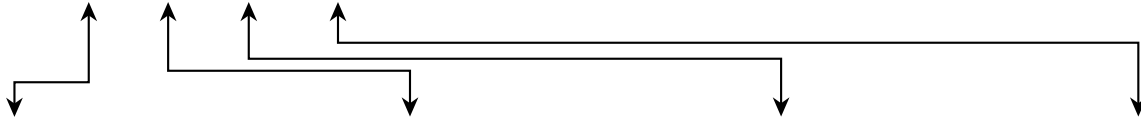
## Temperature | Pressure Graphs

**Note:**

The pressure/temperature graphs are specifically for the Truflo Paddle Wheel Flow Meter. Please ensure the flow sensor meets or exceeds this design considerations. In addition please ensure that materials of construction of the flow meter are suitable for the chemical process.

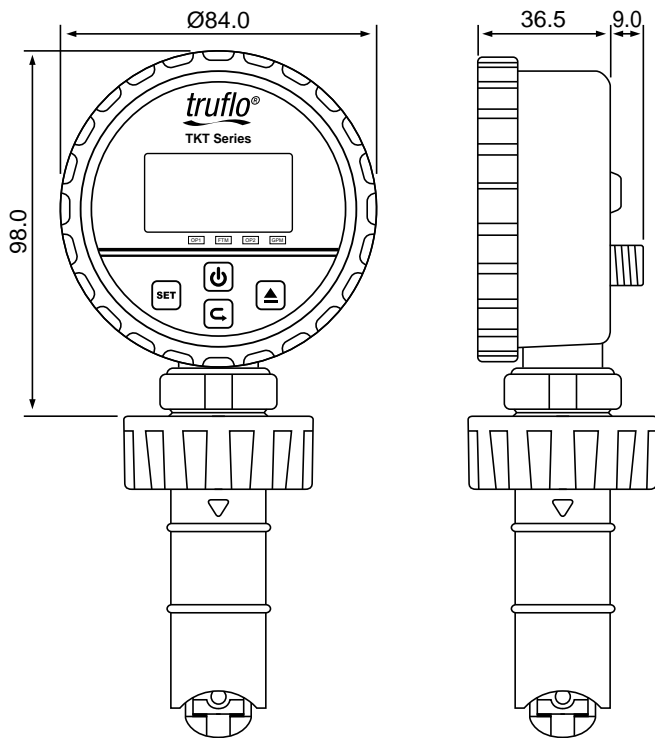


TIP - PF - S - RS - 2m



Material of Inserting Tube	Length of Inserting Tube	Function Option	Connection Method
PVC = PVC PP = PP PF = PVDF	S = for (1"~ 4") L = for (6"~ 24")	RS = with MODBUS RTU Pulse Output (STD)	2m = Lead wire 2m M12 Quick Disconnect (STD)

### Dimension (unit : mm)



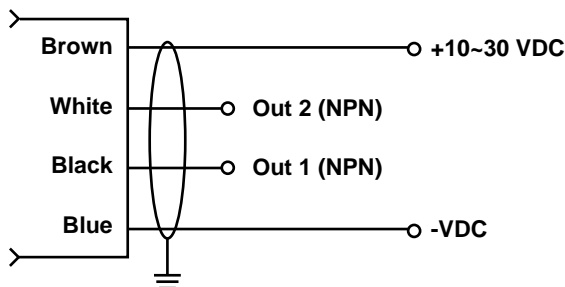
### Wiring

Standard	Relay output
1> Brown : +10~30 VDC	1> Brown : +10~30 VDC
2> White : Out 2 (NPN)	2> White : Out 2 (NPN)
3> Blue : -0V	3> Blue : -0V
4> Black : Out 1 (NPN)	4> Black : Out 1 (NPN)
	5> Orange : RS+
	6> Grey : RS-



### Wiring Diagram

• Standard Output



• PNP or NPN output with RS-485

