

TN-F Series Flanged Turbine Flow Meter

Common Uses

The TN-F Turbine Flow Meter is a cost effective turbine meter that can withstand the demands of the most rigorous flow measurement applications. It is ideal for light viscosity fluids like water, glycol, or solvents for liquid flow measurement on or off the oilfield. These meters offer many benefits, including:

- **Accuracy & Reliability:** $\pm 1\%$ of reading
- **Electronic Integration:** This meter can accept a variety of existing electronics, including the EDGE sensor.
- **Simplified Maintenance:** Rotor replacement kit enables the rotor to be replaced in just 2-3 minutes.
- **Rugged & Cost Effective:** All stainless steel construction and tight machining tolerances make for excellent durability/long life.
- **Compatible with Current Systems:** Easy to install drop-in replacement of other brands of flow meters.



Technical Specifications

General Meter Data	
8 Flow Ranges	5.0 to 5,500 gpm (across all meter sizes)
Measuring Accuracy	$\pm 1.0\%$ over full range with 1cP fluid $\pm 2.0\%$ for TN-0.5-3 and TN-103
Repeatability	$\pm 0.1\%$ over full range
Max. Operating Pressure	up to 5,000 psi (see chart next page for individual meter specs)
Calibration	Water (NIST traceable)
End Connections	Flange Standard ASME Raised Face (RF)
Turndown	10:1
Operating Temperature Range	-100°F up to 250°F (up to 850°F with special coil)

Meter Materials of Construction

Body	316 stainless steel
Rotor	416 stainless steel (CD4MCu)
Rotor Supports	316 stainless steel
Rotor Shaft	Tungsten carbide
Sleeve Bearings	Tungsten carbide

Compatible Electronics

Standard (included)	Pulse output
EDGE Sensor	Pulse, analog, or Modbus outputs
Digital Display	EX rated, flow rate & total, analog and pulse outputs

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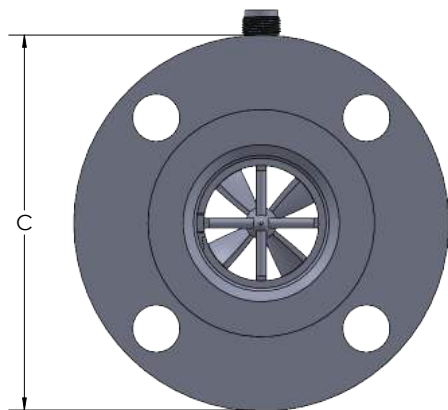
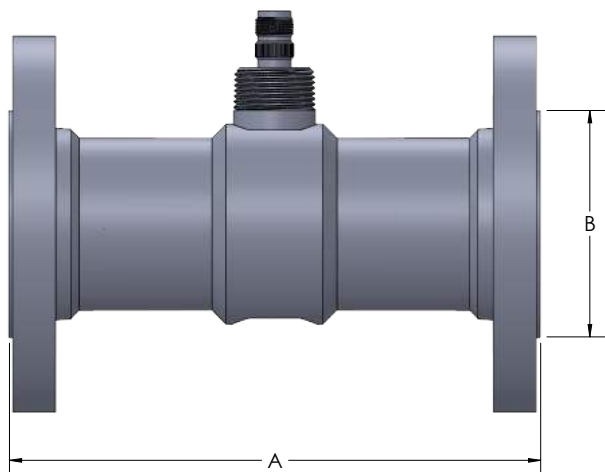
Meter Data - Sizes

Part Number	Port Size & Type	Flow Range		K-Factor	Pressure Rating (PSI)	Filtration (Mesh)	Weight (Lbs)
		(GPM)	(LPM)				
TN-1-3-F150	1" 150# RF 304 S.S. Flanges	0.3-3	1.14 - 11.36	20,000	275	60X60	8
TN-1-3-F300	1" 300# RF 304 S.S. Flanges	0.3-3	1.14 - 11.36	20,000	600	60X60	10
TN-1-7.5-F150	1" 150# RF 304 S.S. Flanges	0.75-7.5	2.84-28.39	11,500	275	60X60	8
TN-1-7.5-F300	1" 300# RF 304 S.S. Flanges	0.75-7.5	2.84-28.39	11,500	600	60X60	10
TN-1-7.5-F600	1" 600# RF 304 S.S. Flanges	0.75-7.5	2.84-28.39	11,500	1440	60X60	12
TN-1-15-F150	1" 150# RF 304 S.S. Flanges	2.0-15	7.57 - 56.78	3300	275	60X60	8
TN-1-15-F300	1" 300# RF 304 S.S. Flanges	2.0-15	7.57 - 56.78	3300	600	60X60	10
TN-1-15-F600	1" 600# RF 304 S.S. Flanges	2.0-15	7.57 - 56.78	3300	1440	60X60	12
TN-1-30-F150	1" 150# RF 304 S.S. Flanges	3.0-30	11.36 - 113.6	3000	275	60X60	7
TN-1-30-F300	1" 300# RF 304 S.S. Flanges	3.0-30	11.36 - 113.6	3000	600	60X60	9
TN-1-30-F600	1" 600# RF 304 S.S. Flanges	3.0-30	11.36 - 113.6	3000	1440	60X60	11
TN-1-50-F150	1" 150# RF 304 S.S. Flanges	5-50	18.93-189.93	950	275	60X60	7
TN-1-50-F300	1" 300# RF 304 S.S. Flanges	5-50	18.93-189.93	950	720	60X60	9
TN-1-50-F600	1" 600# RF 304 S.S. Flanges	5-50	18.93-189.93	950	1440	60X60	11
TN-1.5-180-F150	1-1/2" 150# RF 304 S.S. Flanges	15-180	56.8-681.35	325	275	20X20	11
TN-1.5-180-F300	1-1/2" 300# RF 304 S.S. Flanges	15-180	56.8-681.35	325	720	20X20	18
TN-1.5-180-F600	1 1/2" 600# RF 304 S.S. Flanges	15-180	56.8-681.35	325	1440	20X20	22
TL-2-180-F150	2" 150# RF 304 S.S. Flanges	15-180	56.8-681.35	325	275	20X20	18
TL-2-180-F300	2" 300# RF 304 S.S. Flanges	15-180	56.8-681.35	325	720	20X20	21
TL-2-180-F600	2" 600# RF 304 S.S. Flanges	15-180	56.8-681.35	325	1440	20X20	25
TN-2-400-F150	2" 150# RF 304 S.S. Flanges	40-400	151-1514	46	275	10X10	20
TN-2-400-F300	2" 300# RF 304 S.S. Flanges	40-400	151-1514	46	720	10X10	23
TN-2-400-F600	2" 600# RF 304 S.S. Flanges	40-400	151-1514	46	1440	10X10	27
TN-2-400-F900	2" 900# RF 304 S.S. Flanges	40-400	151-1514	46	2160	10X10	53
TN-3-600-F150	3" 150# RF 304 S.S. Flanges	60-600	227-2270	50	275	8X8	32
TN-3-600-F300	3" 300# RF 304 S.S. Flanges	60-600	227-2270	50	720	8X8	40
TN-3-600-F1500	3" 1500# RFSO 304 S.S. Flanges	60-600	227-2270	50	2000	8X8	110
TN-4-1200-F150	4" 150# RF 304 S.S. Flanges	120-1200	454-4542	29	275	8X8	45
TN-4-1200-F300	4" 300# RF 304 S.S. Flanges	120-1200	454-4542	29	720	8X8	64
TN-4-1200-F600	4" 600# RF 304 S.S. Flanges	120-1200	454-4542	29	1440	8X8	120
TN-4-1200-F900	4" 900# RF 304 S.S. Flanges	120-1200	454-4542	29	1540	8X8	130
TN-6-2500-F150	6" 150# RF 304 S.S. Flanges	250-2500	946-9463	6.3	275	8X8	95
TN-6-2500-F300	6" 300# RF 304 S.S. Flanges	250-2500	946-9463	6.3	720	8X8	120
TN-6-2500-F600	6" 600# RF 304 S.S. Flanges	250-2500	946-9463	6.3	1440	8X8	202
TN-8-3500-F150	8" 150# RF 304 S.S. Flanges	350-3500	1324-13248	2.75	275	8X8	115
TN-8-3500-F300	8" 300# RF 304 S.S. Flanges	350-3500	1324-13248	2.75	720	8X8	166
TN-8-3500-F600	8" 600# RF 304 S.S. Flanges	350-3500	1324-13248	2.75	1200	8X8	280
TN-10-5500-F150	10" 150# RF 304 S.S. Flanges	550-5500	2081-20819	1.95	275	4X4	145
TN-10-5500-F300	10" 300# RF 304L S.S. Flanges	550-5500	2081-20819	1.95	720	4X4	221
TN-10-5500-F600	10" 600# RF S.S. Flanges	550-5500	2081-20819	1.95	950	4X4	413

Products may be subject to change without notice. Contact factory for the most up-to-date product information.

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Meter / Sensor Dimensions



Part Number	A (AOL)	B (Face Dia.)	C (Flange Dia.)
TN-1-3-F150	6	2	4.25
TN-1-3-F300	6	2	4.88
TN-1-7.5-F150	6	2	4.25
TN-1-7.5-F300	6	2	4.88
TN-1-7.5-F600	6	2	4.88
TN-1-15-F150	6	2	4.25
TN-1-15-F300	6	2	4.88

Part Number	A (AOL)	B (Face Dia.)	C (Flange Dia.)
TN-1-15-F600	6	2	4.88
TN-1-30-F150	6	2	4.25
TN-1-30-F300	6	2	4.88
TN-1-30-F600	6	2	4.88
TN-1-50-F150	6	2	4.25
TN-1-50-F300	6	2	4.88
TN-1-50-F600	6	2	4.88
TN-1.5-180-F150	7	2.88	5
TN-1.5-180-F300	7	2.88	6.12
TN-1.5-180-F600	7	2.88	6.12
TL-2-180-F150	7	3.62	6
TL-2-180-F300	7	3.62	6.5
TL-2-180-F600	7	3.62	6.5
TN-2-400-F150	8.5	3.62	6
TN-2-400-F300	8.5	3.62	6.5
TN-2-400-F600	8.5	3.62	6.5
TN-2-400-F900	8.5	3.63	8.5
TN-3-600-F150	10	5	7.5
TN-3-600-F300	10	5	8.25
TN-3-600-F600	10	5	8.25
TN-3-600-F900	10	5	9.5
TN-3-600-F1500	10	5	10.5
TN-4-1200-F150	12	6.19	9
TN-4-1200-F300	12	6.19	10
TN-4-1200-F600	12	6.19	10.75
TN-4-1200-F900	12	6.19	11.5
TN-6-2500-F150	12	8.5	11
TN-6-2500-F300	12	8.5	12.5
TN-6-2500-F600	12	8.5	14
TN-8-3500-F150	12	10.63	13.5
TN-8-3500-F300	12	10.63	15
TN-8-3500-F600	12	10.63	16.5
TN-10-	12	12.75	16
TN-10-	12	12.75	17.5
TN-10-	12	12.75	20