

“Sensing the pulse of industry”

tekRotor TR Series Intelligent Turbine Flow Sensors

The **tekRotor TR** Series is part of Tekflo’s family of flow Sensors, each Model turbine flow sensor adopt new sensor technology with lower pressure loss, better flow turn down ratio, anti-corrosion construction and highly durable. It also provide high performance measurements against anti-seismic and volatile pulsating flow conditions.

Production is strictly adhered and certified to ISO 9001 conditions. This assures consistent quality and guarantees to operate correctly to customized conditions straight from the packing crate.

The **tekRotor TR** is a general purpose turbine flow sensor with a high accuracy 0.5% as standard and special calibrated models at 0.2% as option.

It feature high repeatability 0.05% - 0.2% within a short-time, this is achievable with micro-power technology, and low power consumption. Internal battery powered versions are available.

Sizes range from 4mm to 200mm (0.15” – 8”).

All **tekRotor** are supplied with Calibration Certificates traceable to the USA National Institute of Standards and Technology (NIST) and other Internationally recognized standards.



tekRotor TR Intelligent Turbine Flow Sensors

Specifications:

Sensor Type	Rotary Six Vanes
Threaded Version	4, 6, 10, 15, 20, 25, 32, 40, 50, 65, 80mm or 0.15", 0.23", 0.39", 0.59", 0.78", 1", 1.25", 1.5", 2", 2.5, 3" NPT / BSP
Flanged Version	DN2263 PN10, 16, JIS 10k, 16k or ANSI 150rf , ANSI 300rf
Accuracy	+/- 0.5% R, +/-0.2%R (Customised)
Flow Measurement Ratio	1:10 , 1:15, 1:20
Sensor Material	Stainless Steel 304, Stainless Steel 316L
Working Conditions	Media Temperature : -20°C to +120°C
	Ambient Temperature : -20°C to +60°C
	Relative Humidity : 5% - 90%
	Atmospheric Pressure : 86Kpa – 106Kpa
Signal Output	Pulse, 4 – 20mA
Communication Protocol	RS845, HART
Power Supply	External Power Supply : 24Vdc +/-15% ripple
	Internal Power Supply : 3.0v 10AH Lithium Battery (Options)
Cable Entries	M20
Ex-Certification	ExiallCT4 or ExDIIBT6
Ingress Protection	IP65

Measurement Range and Working Pressure :

Diameter mm	Nominal Range m3/hr	Extended Range m3/hr	Connections & Allowable Press Mpa	Optional Connections & Allowable Press Mpa	Designed Pressure Mpa
DN4	0.04 - 0.25	0.04 – 0.4	Threaded – 6.3	Flanged – 2.5	12, 16, 25
DN6	0.1 – 0.6	0.06 – 0.6	Threaded – 6.3	Flanged – 2.5	12, 16, 25
DN10	0.2 – 1.2	0.15 – 1.5	Threaded – 6.3	Flanged – 2.5	4.0,6.3,12,16, 25
DN15	0.6 - 6	0.4 - 8	Threaded – 6.3	Flanged – 2.5	4.0,6.3,12,16, 25
DN20	0.8 - 8	0.45 - 9	Threaded – 6.3	Flanged – 2.5	4.0,6.3,12,16, 25
DN25	1 - 10	0.5 - 10	Threaded – 6.3	Flanged – 2.5	4.0,6.3,12,16, 25
DN32	1.5 - 15	0.8 - 15	Threaded – 6.3	Flanged – 2.5	4.0,6.3,12,16, 25
DN40	2 - 20	1 - 20	Threaded – 6.3	Flanged – 2.5	4.0,6.3,12,16, 25
DN50	4 - 40	2 - 20	Flanged – 2.5	Threaded – 6.3	4.0,6.3,12,16, 25
DN65	7 - 70	4 - 70	Flanged – 1.6	Threaded – 6.3	4.0,6.3,12,16, 25
DN80	10 - 100	5 - 100	Flanged – 1.6	Threaded – 6.3	4.0,6.3,12,16, 25
DN100	20 - 200	10 - 200	Flanged – 1.6		4.0,6.3,12,16, 25
DN125	25 - 250	13 - 250	Flanged – 1.6		2.5,4.0,6.3,12,16
DN150	30 - 300	15 - 300	Flanged – 1.6		2.5,4.0,6.3,12,16
DN200	80 - 800	40 - 800	Flanged – 1.6		2.5,4.0,6.3,12,16



Technical Data Sheet & General Specifications

tekRotor TR Enquiry Form

Customer's Name, Project Name, & Location:						
Detail	Sensor 1	Sensor 2	Sensor 3	Sensor 4	Sensor 5	Sensor 6
Quantity						
Media Type ADD any special notes, such as Dirty (D), Clean (C), Deionised Water(DW) Note: For energy measurement, solutions of ethylene glycol, propylene glycol, glycol substitutes, or brine, a special flow configuration is necessary. Please provide % solution by weight.....						
Typical Flow Rate With Units						
Min & Max Flow Rate With Units						
Cable Length (8m / 26 feet standard)						
Bi-directional (B)/ Uni-directional (U)						
Pressure Range and Units						
Temperature Range and Units						
Liquid Viscosity and Units						
Explosive Atmosphere and Type Required						
Nominal Pipe Size (N) or ID (I) Specify mm or inches						
Pipe Schedule or Wall Thickness Specify mm or inches						
Straight Pipe Runs Available						
Pipe Material Is Pipe Electrically Isolated (Yes/No)						
Is the flow sensor to be used in an area of magnetic fields ? Yes or No						
Electronics Weatherproof (WP), Local (L), or Remote (R)						
Analog and Pulse Frequency						
Is Communication Network Required? If yes, specify which						
Complete Energy System (Yes/No) Requires 2 temperature sensors						
Mass (M) or Volumetric (V) Flow.						
Sensor Submersible (Yes/No) If yes, to how many metres w.g. Not available with temperature sensors						

Note: For energy flow applications a separate Energy Flow Computer is necessary, with an integral temperature sensor and remote temperature sensor for supply and return pipes. Both temperature sensors are matched and require 4-20mA outputs and are provided with identical tekprobe protection.



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