Turbine type flowmeter RIZUR-DOT

Intended use and application area

Turbine type flowmeter is a highly-accurate, safe and reliable device used for flow measurement of clean liquids with low viscosity. The RIZUR-DOT design version made from stainless steel with tungsten carbide bearings ensures long service life for operation with a wide range of aggressive and non-lubricating fluids in the petrochemical industry and general purpose industrial grade usage.

Design description and functions

Turbine type flowmeter RIZUR-DOT consists of a spiroid turbine rotor, mounted on two tungsten carbide bearings, with the rotor itself, manufactured from hard ferritic stainless steel with a grade compatible with the measured liquid, positioned fully inside the housing made of non-magnetic stainless steel. The housing has an inductive coil with a magnetic core located in close proximity to the end of the rotor's blades which together with the blades make a magnetic circuit.

Rotor's movement changes the magnetic circuit resistance and the changes in the magnetic flow create small voltage in the reel with it's frequency directly proportional to the rotor speed and, thus, proportional to the rate of volume flow (flow rate) of the measured liquid.

Standard version of the device has a frequency output (mV sinusoidal waves) or a preamplifier output of the square waves (4...20 mA impulses). Turbine type flowmeter has a MS terminal for the impulse signal output. It can also be equipped with the integral devices for the operating in adverse conditions that can amplify the signals' transmission range or connect to the accessory instruments that require a corresponding input signal.

The devices can be, for example, summator Z1, flow integrator Z3/Z5 or a batch meter B1.

Technical specifications

Measuring range	0,11 - 1,1 m³/h ... 13,5 - 135 m³/h for water (other on request)
Viscosity range	Low
Linearity	±0,15 % ... ±0,5 % of the readings
Max. pressure	250 bar;
Max. temperature	240 °C
Connection	G ½...G 2 male thread, ½' NP T...2" NPT male thread, DIN-flanges with sizes DN 15...DN 150 (bigger - on request), ANSI flanges with sizes ½'... 6" (big ger - on request)
Material	Stainless steel, carbon steel
Output signal	• Impulse signals; • LCD display; • 4...20 mA; • Batch meter; • Summator

OOO «NPO RIZUR» www.rizur.ru +7 (4912) 20-20-80

INQUIRY FORM №_____

Oval gear flow meter RIZUR-DOM, Impeller flowmeter RIZUR-DOR, Turbine type flowmeter RIZUR-DOT

Technical regulations
TU 26.51.52-001-12189681-2018

Company name	
Contact person, position	
Contact details, tel., e-mail	
Number of flow meters, pcs.	
Process information	
Medium	
Operating pressure, MPa	
Medium density, kg/m^3	
Medium viscosity, mPa·s	
Operating temperature, °C	
Ambient temperature, °C	
Flow (minimal, nominal, maximal), kg/h	
DN of the pipeline, mm	
Explosion protection: yes (specify the marking)/no	
Flow meter information	
Design version (compact or separable)	
Cable length (for the separable version), m	
Connection type, flange (DN, mm/NP, MPa) or other	
Constriction devices (DN 1, mm /DN 2, mm)	
Measuring pipe material (titanium, stainless steel, Hastelloy)	
Electric output	
Power supply (=,~), V	
Accuracy, %	
Acceptable pressure difference, bar	
Mating flanges (2 pcs.); yes/no	
Additional requirements	

+7 (4912) 20-20-80 marketing@rizur.ru