

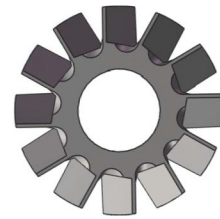
VTFT 400 Turbine Meters With Female Threads

- ▶ High pressure resistance
- ▶ Fast response time
- ▶ High repeatability and accuracy
- ▶ Range specific width is up to 50:1
- ▶ Compact structure

VTFT400 contains a magnetic detector and a magnetic rotor (impeller) that drives the rotor (impeller) when a medium flows in the pipe. The speed of the rotor (impeller) is proportional to the velocity of the medium. The detector detects the rotor speed and converts it into a standard industrial electrical output or display.

VTFT400 can be used for measuring medium and low viscosity medium, light fuel oil, hydraulic oil, lubricating oil, etc. Optional viscosity compensation allows VTFT400 to be used in media where viscosity varies with temperature.

The impeller of VTFT400 has more blades than other series products, up to 12 blades, so it has faster response speed and higher resolution.



Specifications

| | |
|----------------------------|-----------------------------------|
| Measuring range | 6...600L/Min |
| Measuring medium | Medium or lower viscosity liquids |
| Accuracy | Better than +1% of reading |
| Repeatability | ±0.2% of reading |
| Pressure Rating | MAX 420bar |
| Ambient Temperature | -40...85°C |
| Medium Temperature | -40...120°C |
| Materials | |
| Body | 304 stainless steel, Aluminum |
| Rotor Support | 304 stainless steel |
| Turbine | 304 stainless steel |
| Shaft | 304 stainless steel |
| Bearing | Stainless steel ball bearing |
| Process Connection | BSPP female thread |

Electronics

The electronic part includes sensors and amplifiers. Selecting the appropriate sensors and amplifiers for different applications can ensure the measurement accuracy of the flowmeter. Sensors and amplifiers can be made in one piece or separate pieces according to user requirements.

Applications

- ▶ Petrochemical/energy industry
- ▶ Hydraulic /lubrication system
- ▶ Water treatment
- ▶ Oil / gas industry
- ▶ Experimental equipment
- ▶ Test systems

Sensor

The sensor is divided into magnetic induction sensor and non-magnetic sensor. The difference between the two is that magnetic induction sensor adopts the principle of electromagnetic induction. The sensor is magnetic and will cause braking effect on the turbine at low flow rate, while non-magnetic sensor adopts the principle of carrier and the non-magnetic sensor has no influence on the turbine.

Magnetic sensor (V series) :

Can be used for most common applications

Measure ultra-high temperature or ultra-low temperature media (-200... 400°C)

Applications requiring output mv signals

When it is used for small flow, the flow range needs to be reduced (due to the nonlinear braking effect at ultra-low flow rate). When replacing the sensor, the flowmeter needs to be re-calibrated

No magnetic sensor (R series) :

Can be used for most common applications

Extended range applications

Ultra-small flow measurement

No need to re-calibrate flowmeters when changing sensors

Amplifier

The amplifier can be used in conjunction with magnetic or non-magnetic sensors, with V for magnetic sensor, R for non-magnetic sensor, and H for high temperature resistance.

VS, RS series pulse output amplifier - The output is a square wave signal whose frequency is proportional to the instantaneous flow value.

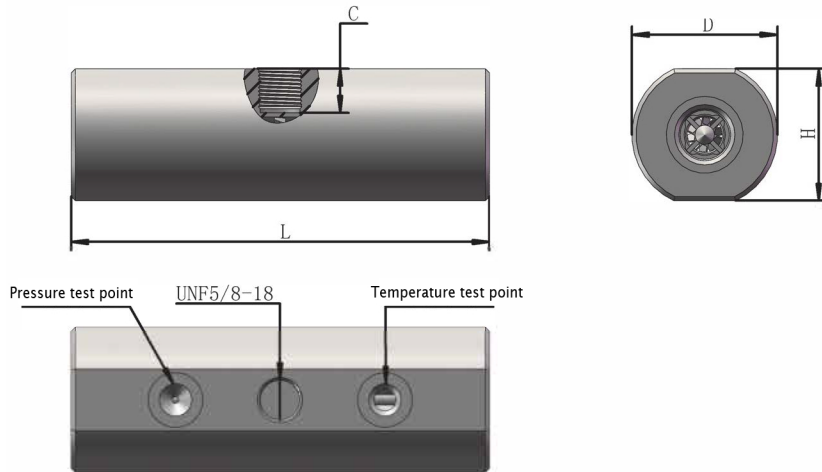
RF series linearized frequency output amplifier - Extended measuring range and multi-point linearization, the output is square wave, optional 24V, 10V, 5V square wave, the frequency is proportional to the instantaneous flow value.

RA Series linearized analog output amplifiers - Output voltage or current models such as 0-10V, 0-5V, 0-20mA, 4-20mA, and the output value is proportional to the instantaneous flow value.

DW series intelligent amplifier - with digital display, optional analog output, alarm output, linearization correction with the help of the operation menu, optional no magnetic or magnetic probe.

BT series explosion-proof intelligent amplifier - explosion-proof shell with digital display, optional analog output, communication output, alarm output, with the help of the operation menu for linearization correction, optional no magnetic or magnetic probe

Dimensions in inch[mm]



Dimensions in inch[mm]

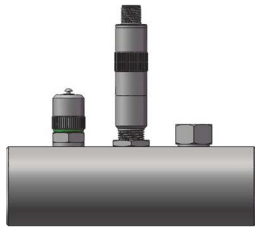
| DN | L | | H | | D | | C | |
|------|------|-----|------|----|------|----|------|-------|
| | inch | mm | inch | mm | inch | mm | inch | mm |
| DN06 | 5.43 | 138 | 1.7 | 43 | 1.92 | 49 | 0.6 | 15.2 |
| DN13 | 5.98 | 152 | 1.89 | 48 | 2.08 | 53 | 0.63 | 16 |
| DN20 | 6.3 | 160 | 2.17 | 55 | 2.36 | 60 | 0.65 | 16.5 |
| DN25 | 7.04 | 179 | 2.44 | 62 | 2.6 | 66 | 0.63 | 16.05 |

Model Number

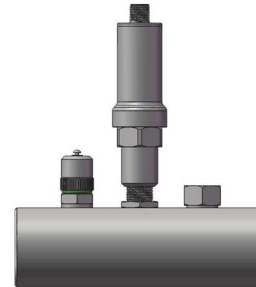
| OrderNO. | Type | Housing Material | DN | Measuring range L/Min | Connection | Max. Filter Diameter (micron) |
|----------|-----------------------|-------------------------|----|-----------------------|------------|-------------------------------|
| VTFT4013 | VTFTB400GF12ABBC75L | High strength Aluminium | 13 | 6-75 | G1/2 | 30 |
| VTFT4020 | VTFTB400GF01ABBC300L | | 20 | 25-300 | G1 | 50 |
| VTFT4025 | VTFTB400GF114ABBC600L | | 25 | 50-600 | G1-1/4 | 50 |
| VTFT4113 | VTFTB400GF12SBBC75L | 304 stainless steel | 13 | 6-75 | G1/2 | 30 |
| VTFT4120 | VTFTB400GF01LSBBC300L | | 20 | 25-300 | G1 | 50 |
| VTFT4125 | VTFTB400GF114SBBC600L | | 25 | 50-600 | G1-1/4 | 50 |

Optional sensor type

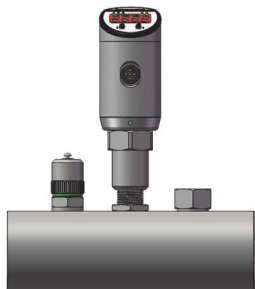
FLOW



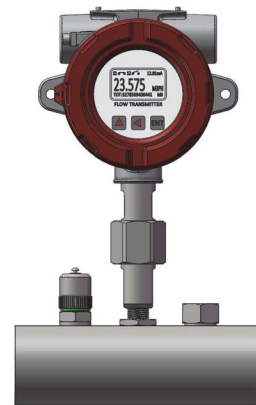
Pulse output
VS1000
RS1000



Analog output VA1000、RA1000、KA1000
Frequency output VF1000、RF1000、KF1000



DWE Digital display
DW1001
DW1002
DW1003



BT Explosion-proof digital display
BT1001
BT1002