

## VTFM400 -High and low temperature electromagnetic flowmeter

- ▶ Compact design saves installation space
- ▶ Corrosion resistance sensor technology
- ▶ All electronic design with no moving parts
- ▶ Automatic viscosity temperature compensation
- ▶ Pulse output/analog output is optional
- ▶ Low pressure loss
- ▶ Strong anti-fouling ability
- ▶ Empty pipe measurement function
- ▶ Temperature resistance -40~100 degrees Celsius



According to Faraday's principle of electromagnetic induction, when a conductor passes vertically through magnetic field B, it will induce a voltage. U In the measurement of the flowmeter, the moving conductor is a flowing conductive medium, the magnetic field B is emitted from the direction perpendicular to the flowing medium, and the induced electromotive force U on the two electrodes E1 and E2 is directly proportional to the flow rate V of the medium.

$$U=K \times B \times V \times D$$

K- Meter constant

D- Internal probe spacing

After further processing, the induced electromotive force U is converted into a standard electrical signal output or display

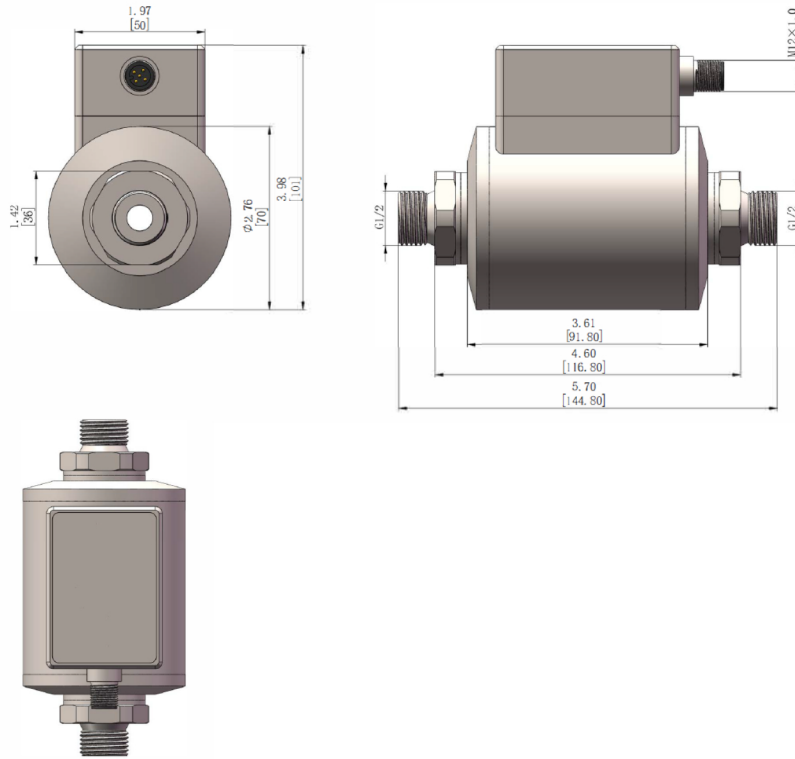
### Specifications

<b>Measuring Range</b>	0.04...120L/Min
<b>Nominal diameter</b>	DN6...DN15
<b>Measuring Medium</b>	Liquid with conductivity > 10us /cm
<b>Accuracy</b>	≤±1% range, 0.5% range (optional)
<b>Repeatability</b>	≤±0.2% range
<b>Proof pressure</b>	16 bar
<b>Operating voltage</b>	24±10%Vdc
<b>Current consumption</b>	≤80mA
<b>Electrical Protection</b>	Reverse polarity protection, short circuit protection
<b>Output</b>	
Pulse output	NPN output, Pull up resistor 2K
Analog output	4... 20mA, current limit 26mA, load resistance < 250Ω
<b>Response Time</b>	<500ms
<b>Ambient Temperature</b>	-25...85℃
<b>Medium Temperature</b>	-40...120℃, -40...150℃ (optional)
<b>Materials</b>	
Electrode	Stainless Steel 316TI
Process Connection	Stainless Steel 316TI
Measuring tube	PEEK
Seal	EPDM
Housing	Stainless Steel 304
<b>Electrical Connection</b>	M12x1 Plug
<b>Process Connection</b>	G External thread, 25.4 chuck, 50.5 chuck

### Applications

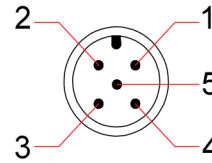
- ▶ Circulating water detection
- ▶ Coolant monitoring
- ▶ Other conducting liquid monitoring

External thread connection



Wiring

Signal	Plug	Cable
U+	1	Brown
U-	3	Blue
Pulse output	4	Black
Analog output (voltage or current)	2	White



## Flow Range L/min

Optional procedure connection			Measuring range l/min	DN
G1/4	1/4" NPT	25.4 Sanitary chuck	0.04-15	DN6
G1/2	1/2" NPT	25.4 Sanitary chuck	0.1-50	DN10
G3/4	3/4" NPT	50.5 Sanitary chuck	0.24-120	DN15

## Model Number

OrderNO.	Type	Process connection G External thread/chuck	Measuring range L/Min	DN
VTFM4006	VTFMI400GM06	G1/4	0.04-15 L/min	6
VTFM4010	VTFMI400GM10	G1/2	0.1-50L/min	10
VTFM4015	VTFMI400GM15	G3/4	0.24-120L/min	15
VTFM4106	VTFMI400TR106	25.4 Sanitary chuck	0.04-15 L/min	6
VTFM4110	VTFMI400TR110	25.4 Sanitary chuck	0.1-50L/min	10
VTFM4115	VTFMI400TR215	50.5 Sanitary chuck	0.24-120L/min	15