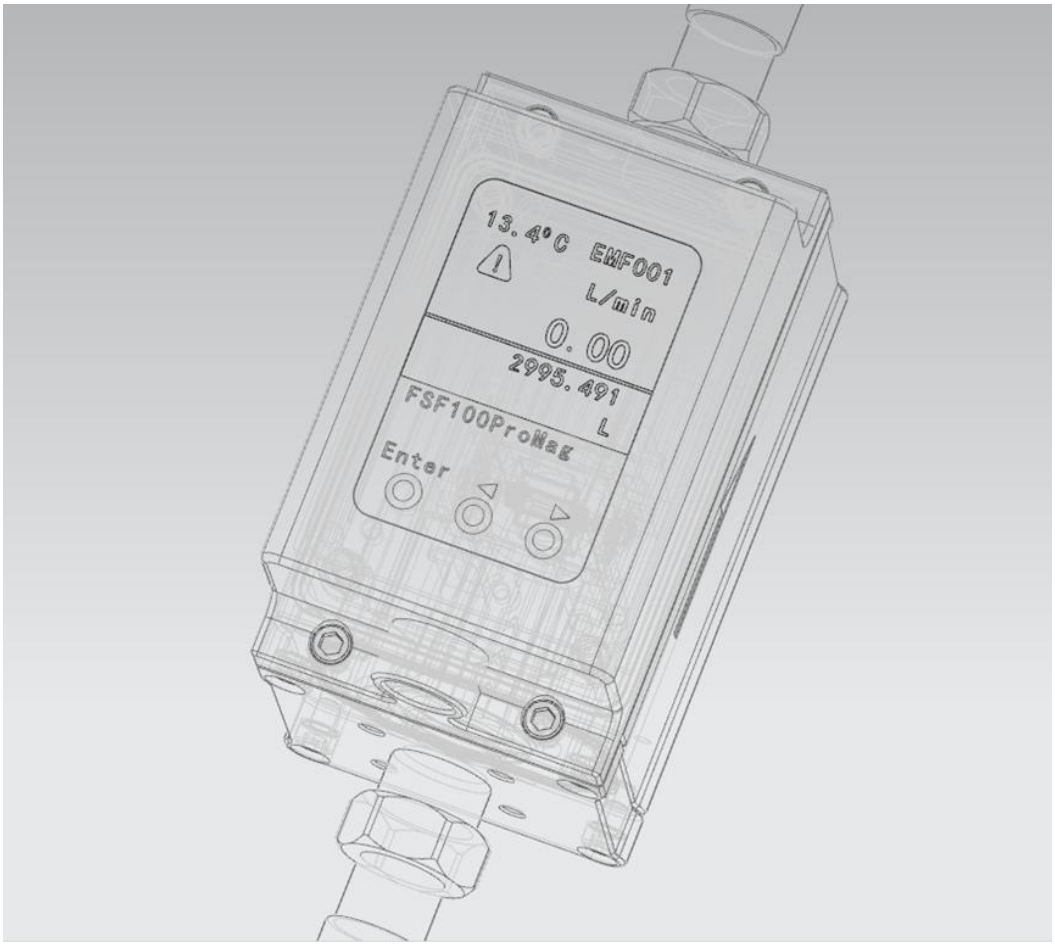
ABZAR TAMIN ARSHIA CO.
MEASURING INSTRUMENT

Micro Magnetic Flowmeter



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Ⅰ. Features

1. No straight pipe section required, the flow measurement lower limit is as low as 0.005m/s (5mm per second)
2. The electrode and PEEK lining material are formed in one step, with good stability and reliability.
3. Full digital processing, strong anti-interference ability, reliable measurement, high accuracy, and wide flow measurement range. ARM Cortex-M4 32-bit processor and 24-bit ADC
4. High-definition OLED display, the screen can rotate 360°
5 All parameters can be viewed and set through MODBUS host computer software
6. Can be connected and operated through Bluetooth APP, and program upgrades can be performed through Bluetooth
7. With empty pipe alarm and excitation alarm, output 2 mA when empty pipe alarm, output 21 mA when over-scale range 110%, easy to process control
8. With fluid temperature measurement function

Ⅱ.Application areas

- Quantitative canning industry
- Steel plant cooling water control
- Biopharmaceutical industry
- Semiconductor industry
- Tap water industry
- Sewage measurement and water treatment industry
- Building automation
- Chemical industry, etc.

Ⅲ. Sensor technical parameters

Accuracy	±0.5%　±0.2%
Flow rate	0.005m/s to 6.5m/s
Range ratio	> 1000:1
Pressure loss	Extremely low pressure loss
Repeatability	< 0.05 %
Electrical conductivity	≥5us/cm
Temperature measurement sensor	PT1000
Temperature measurement accuracy	≤0.5℃
Temperature measurement range	The temperature range of the same medium
Temperature response time	＜1S
Ambient temperature	-25~+70℃

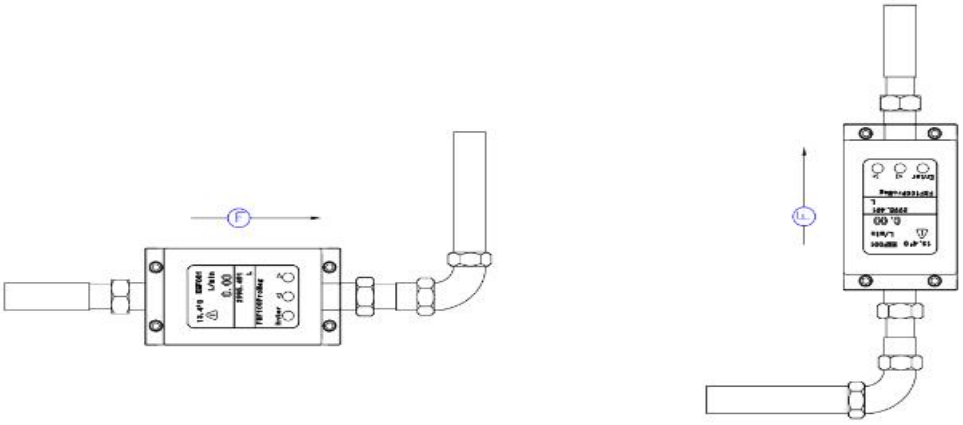
Note : Under reference conditions

Specifications

Caliber	6mm-50mm
Inner lining of the deflector pipe	304,PEEK
Electrode material	316 L(STD)
Sealing ring material	EPDM
Connection	Wafer type, G thread, NPT thread, flange, Tri-clamp
Pressure	PN1.0Mpa,
Temperature	120℃
Protection level	IP65/IP67

Ⅳ. Installation process requirements

The sensor is directly installed on the measuring pipeline. It can be installed horizontally, vertically and at an Angle. Please note that the pipe should be kept full during measurement. The recommended installation position is as shown in the following figure. This product has been specially designed and does not require straight pipe sections at the front and back during installation.



Ⅴ. Electrical parameters

Display:

- 5-line display, 1.5' OLED, black background and white text
- Display instantaneous flow, cumulative total, temperature, alarm information
- The screen can be rotated 360 degrees to display

Configuration:

accuracy, and wide flow measurement range. ARM Cortex-M4 32-bit processor and 24-bit ADC

- Excitation system: Provides 50mA to 100mA excitation current, with unique excitation circuit and sensor design, the lower limit flow is as low as 5mm/s
- Power isolation technology, the power supply system of the signal circuit and the output circuit are not on the same reference ground, and the ground of the two systems is isolated to prevent interference
- Empty and full pipe detection uses analog circuit detection technology to monitor sensor signals in real time with high sensitivity.

Output:

- Pulse output
- Frequency output
- 4-20 mA current output.

(Maximum load resistance 750ohms)

- RS485/HART (other optional)

Power supply:

- 24VDC.

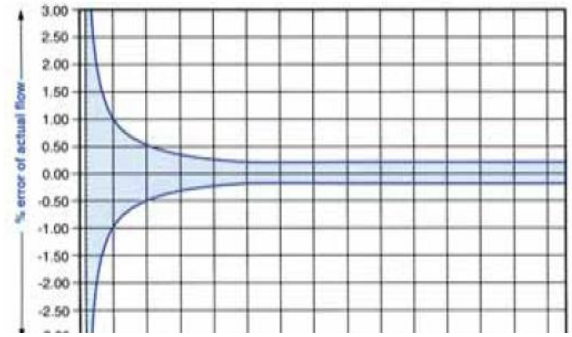
Converter protection level:

- IP67

Accuracy:

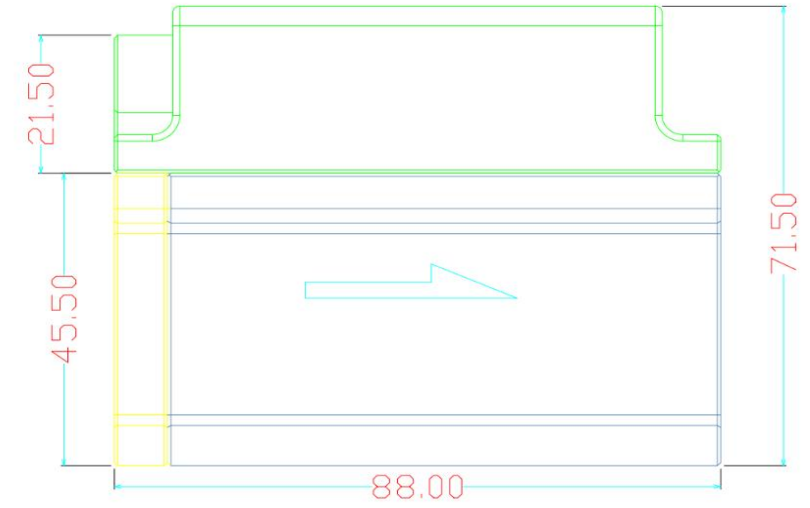
- 0.2% of rate
- 0.5% of rate

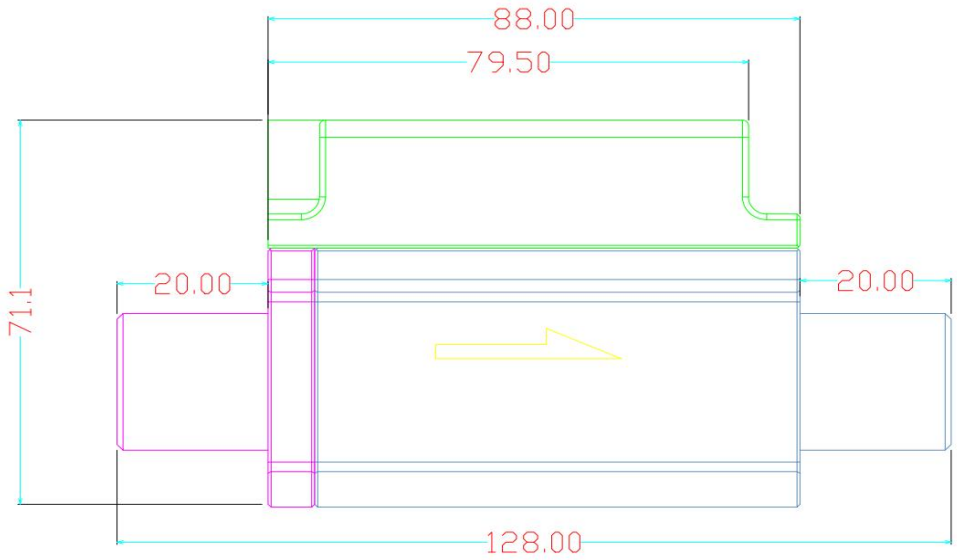
Velocity/Accuracy Graph



Resolution	18 bit.
Linearity	< 0.05%
Repeatability	< 0.05%
Temp, stability	< 0.05% range, minus 10-55°C (14-131°F)
Voltage effects	Negligible
Turndown from FS	> 1000:1
Separation	100 metres (328 feet).
Conductivity	5µS/cm.

VI. Size specifications and measurement range





Caliber	Flow range L/min Lower limit	Flow range L/H Lower limit	Flow range L/min Upper limit	Flow range L/H Upper limit
DN6	0.0085	0.51	11.0214	661.284
DN8	0.0151	0.906	19.5936	1175.616
DN10	0.0236	1.416	30.615	1836.9

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MEASURING INSTRUMENT

Ordering Instructions: BTFSF10xProMag-R-010D11STB

BTFSF100ProMag	R	010	D1	1	S	T	B	Description
Specific indicator parameters								
Power supply								DC24-36V
Standard output								4-20mA Current and pulse/frequency output
Communication	N H R							No communication HART RS-485 (MODBUS)
Caliber		06 08 10 12 15 20 25 32 40 50 ...						6mm 8mm 10mm 12mm 15mm 20mm 25mm 32mm 40mm 50mm ...
Connection			D1 A2 J3 T4 X5					Wafer Thread Tri-clamp Flange Others
Pressure				1 2 3 4 5 6				1.0Mpa 1.6Mpa 2.5Mpa 4.0Mpa 6.3Mpa Others
Electrode material					S H T A U C M			316L (STD) HC' Ti Ta tungsten Tungsten carbide Monel alloy
Temperature						T D		With temp. (PT1000) Without temp.
Accuracy							A B	±0.2% ±0.5%

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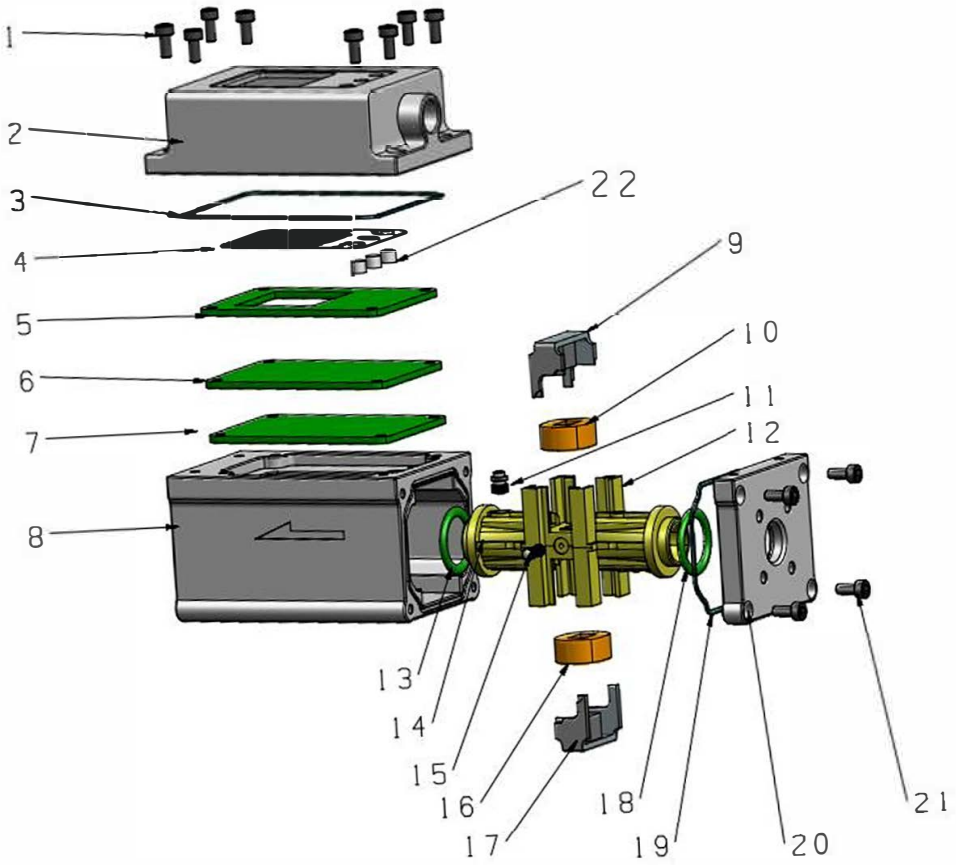
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