

VORTEX compact flow meter

Product Description

The AFD2 series is a water flow sensor based on the von Karman vortex street principle. When a fluid with a certain volume flow rate bypasses the spoiler column under certain conditions, double-row line vortices with opposite rotation directions and regular arrangement will be periodically formed on both sides of the spoiler column. After nonlinear action, a Karman vortex street is formed. The frequency of vortex formation is proportional to the flow rate. The sensor detects these vortices to measure the flow rate of the fluid in the pipeline.

The sensor has no moving parts inside, and has the characteristics of long service life, pollution resistance, high precision and no drift, which can ensure long-term use by users. It is an ideal choice for OEM applications with high requirements for product performance and strict cost control.



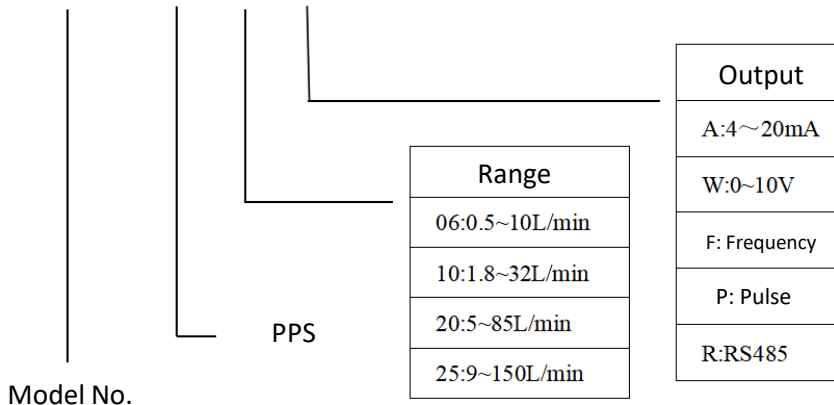
Features

- Small temperature impact
- Small pressure loss
- Measuring element is not sensitive to impurities
- 0~10V voltage, 4~20mA current, frequency, pulse or RS485

Applications

The AFD2 series is designed for home appliances and the medical industry and has been widely used in water heaters, HVAC flow detection, heat recovery systems, medical liquid flow detection systems and other scenarios

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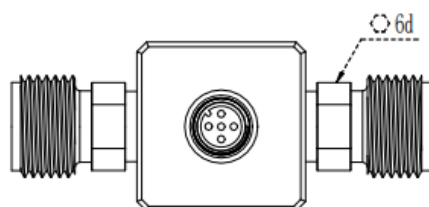
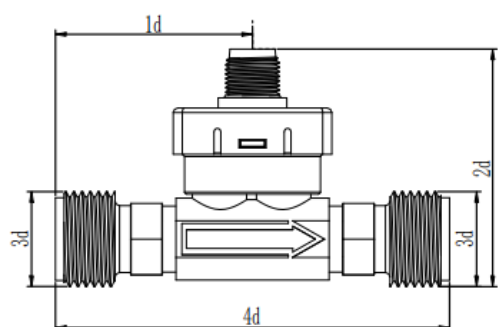
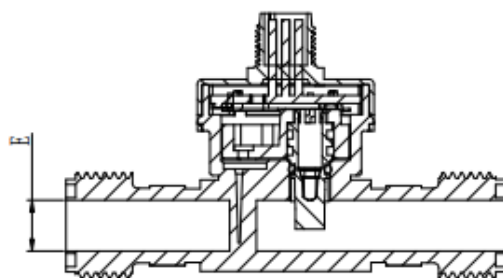
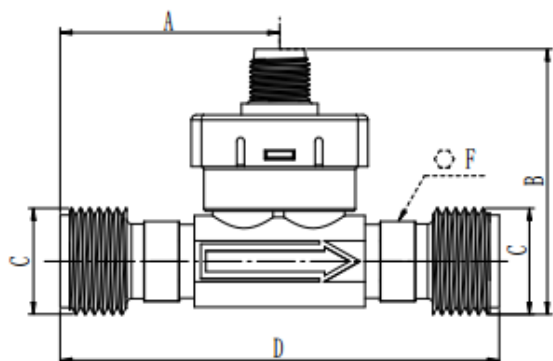


Specification

Pipe diameter	DN6	DN10	DN20	DN25
Measure range	0.5 ~ 10 L/min	1.8 ~ 32 L/min	5.0 ~ 85 L/min	9.0 ~ 150 L/min
Duct material	PA6T	PA6T	PPS+GF	PA6T
Accuracy below 50% of range*	Full scale × ±1%			
50% range and above accuracy*	reading × ±2%			
Measuring medium	Water and aqueous solutions			
Maximum withstand voltage	1MPa			
Protection level	IP65			
Temperature performance parameters				
Fluid temperature range	-20 ~ 90°C(no frost)			
Operating temperature	-30 ~ 65°C			
Storage temperature	-30 ~ 85°C			
Electrical parameters				
Output signal	Analog voltage 0~10V	Analog current 4~20mA	Frequency and pulse	RS485
Supply voltage	11.5~33V	10~33V	4.75~33V	4.75~33V
Current consumption (no load)	< 10mA	-	< 5mA	< 10mA
Electrical Connections	5-pin plug M12x1			

Wiring Diagram

Pin	1	2	3	4	5
Voltage output	Power supply +	Voltage output	Power supply -	Empty	Empty
Current output	Power supply +	power supply -	Empty	Empty	Empty
Frequency/pulse output	Power supply +	Frequency/pulse output	Power supply -	Empty	Empty
RS485 output	Power supply +	Empty	Power supply -	485B	485A



Model	DN6	DN10	DN20	DN25
A	42	43.5	52.5	60
B	51.6	52.5	59.3	66.7
C	G ½	G ½	G 1	G 1¼
D	77	87	105	120
E	11.5	11.5	20	26
F	12	19	27	34