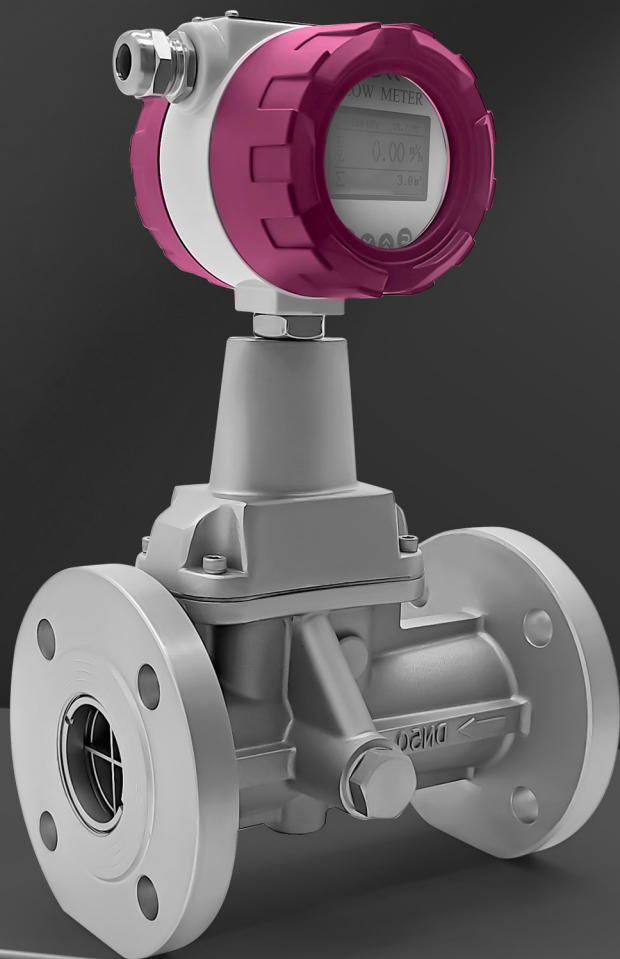


HNF70 PRECESSION VORTEX FLOWMETER



IMPORTANT PARAMETERS

- ① **Medium:** Pure gas with a pressure greater than 10KPa
- ② **Accuracy:** 1.5%, higher grade 1.0%
- ③ **Measurement range:** 1~3600m³/h
- ④ **Display content:** temperature, pressure instantaneous flow, cumulative flow caliber: DN15~DN200
- ⑤ **Connection method:** flange connection
- ⑥ **Power supply:** 24V power supply or 3.6V lithium battery power supply
- ⑦ **Output:** 4~20mA, 485 communication

HNF70 PRODUCT INTRODUCTION

The flow profile of the HNF70 spiral vortex flowmeter is similar to that of a Venturi tube, with a set of spiral guide vanes placed on the inlet side. When the fluid enters the flow sensor, the guide vanes force the fluid to generate intense vortex flow.

When the fluid enters the diffusion section, the vortex flow is subjected to backflow and begins to undergo a second rotation, forming a gyroscopic vortex precession phenomenon. The precession frequency is directly proportional to the flow rate, and is not affected by the physical properties and density of the fluid. The detection element can measure the secondary rotation precession frequency of the fluid and obtain good linearity over a wide range of self flow rates.

The signal is amplified, filtered, shaped, and converted into a pulse signal proportional to the flow rate by a preamplifier, and then sent to the microprocessor for integration processing along with temperature, pressure, and other detection signals. Finally, the measurement results (instantaneous flow rate, cumulative flow rate, temperature, pressure data) are displayed on the LCD screen.

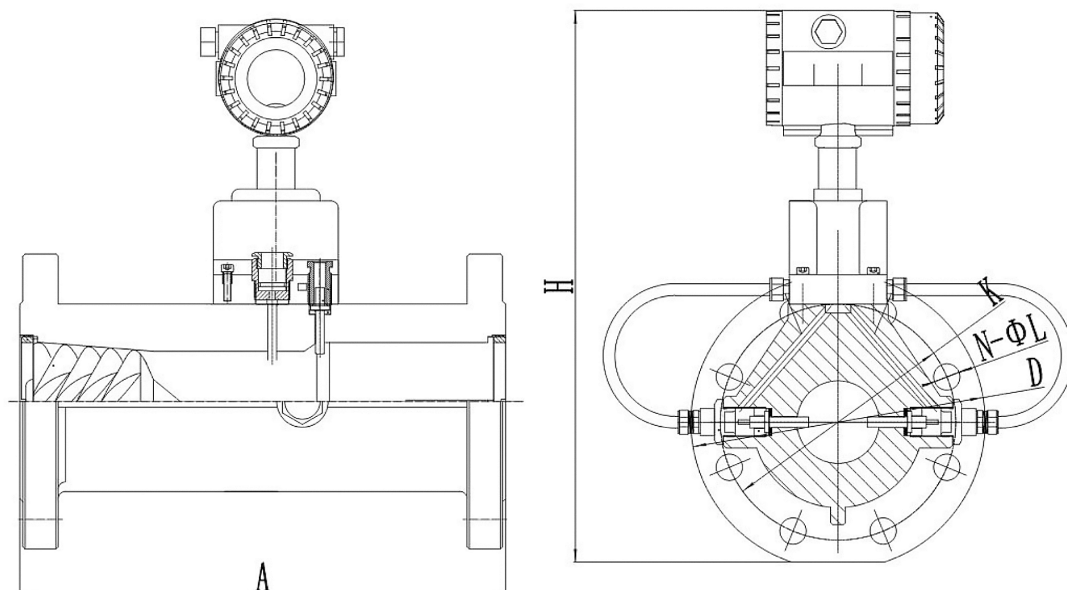
PRODUCT APPLICATION

- 1 No mechanical movable parts, not easily corroded, stable and reliable;
- 2 The use of dual detection technology can effectively improve the strength of detection signals and the interference caused by vibration;
The intelligent flowmeter integrates a flow probe, microprocessor, pressure, and temperature sensors, and adopts a built-in combination to make the structure more compact. It can directly measure the flow rate, pressure, and temperature of fluids, and automatically track compensation and compression factor correction in real time;
- 3 Adopting a Chinese character dot matrix display screen with multiple digits, the reading is intuitive and convenient. It can directly display the volume flow rate under working conditions, the volume flow rate under standard conditions, the total amount, as well as parameters such as medium pressure and temperature;
- 4 Adopting anti vibration technology to deal with interference signals caused by vibration and pressure fluctuations;
- 5 Multiple physical parameter alarm output, which can be selected by the user as one of them;
- 6 The flowmeter head can rotate 360 degrees, making installation and use simple and convenient;

PRODUCT FEATURES

NAME	SPECIFICATION
Execution standards	GBT36241-2018 National Standard for Gas Swirl Vortex Flowmeters
Nominal diameter (mm)	DN15、DN25、DN32、DN40、DN50、DN65、DN80 DN100、DN125、DN150、DN200
Nominal pressure (MPa)	DN15-DN50 4.0MPa (>4.0 agreement supply) DN65-DN200 1.6 (>1.6 agreement supply)
Usage conditions	Medium temperature: -20 °C~+120 °C Environmental temperature: -20 °C~65 °C Relative humidity: 5%~90% Atmospheric pressure: 86~106kPa
Texture of material	Shell Material: Aluminum Alloy/304 Movement Material: Aluminum Alloy 4 or 304
Connection method	Flange connection type
Accuracy	±1.0%R, ±0.5%R;
Range ratio	1:10~1:20
Supply voltage	+6-24VDC, current ≤ 10mA (485 communication current increases by 0.6mA) Battery powered type: 3.6V lithium battery/0.3mA
Output signal	Pulse output; 4-20mA current, control signal, RS485 (Modbus RTU protocol), Hart protocol, control signal, IoT GPRS, etc
Spread distance	The distance from the sensor to the display instrument can reach 1000m
Real time recording	Diary recording and fixed time interval recording
Explosion proof grade	Ex nCtGb
Protection level	IP65
Electrical interface	Internal thread M20 * 1.5
Applicable media	Pure gas with a pressure greater than 10KPa

PRODUCT SIZE(MM)



Unit: mm

Nominal diameter (DN)	Pressure level (MPa)	A		H	D	K	N-ΦL
		Aluminum alloy	Stainless steel				
15	1.6, 2.5, 4.0, 6.3	160	180	315	95	75	4-Φ14
20	1.6, 2.5, 4.0, 6.3	160	180	315	105	75	4-Φ14
25	1.6, 2.5, 4.0, 6.3	180	180	315	115	85	4-Φ14
32	1.6, 2.5, 4.0, 6.3	200	200	350	140	100	4-Φ18
40	1.6, 2.5, 4.0, 6.3	232	235	355	150	110	4-Φ18
50	1.6, 2.5, 4.0, 6.3	232	235	365	165	125	4-Φ18
				375	180	135	
65	1.6, 2.5, 4.0, 6.3	302	300	370	185	145	4-Φ18
				380	205	160	8-Φ22
80	1.6	328	330	385	200	160	6-Φ18
	2.5			395	215	170	8-Φ22
	4			395	215	170	
100	1.6	410	410	408	220	180	8-Φ18
	2.5			420	235	190	8-Φ22
	4			420	235	190	
125	1.6	515	410	440	250	210	8-Φ18
	2.5			455	270	220	8-Φ26
	4			465	270	220	8-Φ26
150	1.6	580	580	470	285	240	8-Φ22
	2.5			490	300	250	8-Φ26
	4			490	300	250	8-Φ26
200	1.6	700	600	525	340	295	12-Φ22
	2.5			540	360	310	12-Φ26
	4			550	375	320	12-Φ30
250	1.6	-	800	595	405	355	12-Φ26
250	1.6		800	595	405	355	12-Φ26
300	1.6		1000	650	460	410	12-Φ26
350	1.6		1100	710	520	470	16-Φ26
400	1.6		1270	770	580	525	16-Φ30

MEASURING RANGE

Model specifications	Nominal diameter (mm)	Flow range (m3/h)	Working pressure (MPa)	Installation form
HNF70-015	DN15	0.04-0.25	1.6/4.0	Flange
HNF70-020	DN20	0.1-0.6	1.6/4.0	Flange
HNF70-025	DN25	0.2-1.2	1.6/4.0	Flange
HNF70-032	DN32	0.2-2	1.6/4.0	Flange
HNF70-040	DN40	0.6-6	1.6/4.0	Flange
HNF70-050	DN50	0.7-7	1.6/4.0	Flange
HNF70-065	DN65	1-10	1.6	Flange
HNF70-080	DN80	1.5-15	1.6	Flange
HNF70-100	DN100	2-20	1.6	Flange
HNF70-125	DN125	4-40	1.6	Flange
HNF70-150	DN150	7-70	1.6	Flange
HNF70-200	DN200	10-100	1.6	Flange

HNF70 VORTEX FLOW SENSOR SELECTION CHART

NAME	CODE	CODE DESCRIPTION
Nominal Diameter	004	DN4
	006	DN6
	010	DN10
		
	250	DN250
	300	DN300
Meter functions and outputs	YA	Dual power supply, pulse output
	YM	Dual power supply, two-wire 4-20mA output
	YR	Dual power supply, RS485 communication output
	YMR	Dual power supply, 4-20mA output+485 communication+one click reset
Usage environment	P	Ordinary type
	B	Explosion proof type
Accuracy class	1	Level 0.5
	2	Level 1.0
Body Material	A	304
	B	316
Impeller material	F	Stainless iron
	C	2cr13
	G	Duplex steel
Voltage resistance level	1	1.6Mpa
	2	2.5Mpa
	4	4.0Mpa
	6	6.3Mpa
	10	10.0Mpa
	16	16Mpa
	SL	Other special customization
Turbine type	T	Wide range turbine
	B	Ordinary turbine