RIF800 THERMAL MASS FLOWMETER FLOW METER

RIF800 | Thermal Gas Mass Flowmeter

Thermal gas mass flow meter is designed on the basis of thermal dispersion, and adopts method of constant differential temperature to measuring gas flow. It has advantages of small size, easy installation, high reliability and high accuracy, etc.

Features

- Measuring the mass flow or volume flow of gas
- Do not need to do temperature and pressure compensation in principle with accurate measurement and easy operation.
- Wide range: 0.5Nm/s÷100Nm/s for gas. The meter also can be used for gas leak detection
- Good vibration resistance and long service life. No moving parts and pressure sensor in transducer, no vibration influence on the measurement accuracy.
- Easy installation and maintenance. If the conditions on site are permissible, the meter can achieve a hot-tapped installation and maintenance. (Special order of custom-made)
- Digital design, high accuracy and stability
- Configuring with RS485 or HART interface to realize factory automation and integration

Specifications

Measuring Medium:	Various gases (Except the acetylene)
Pipe Size:	DN10÷DN4000mm
Velocity:	0.1÷100 Nm/s
Accuracy	±1÷2.5%
Working Temperature:	Sensor: -40°C÷+220°C Transmitter: -20°C÷+45°C
Working Pressure:	Insertion Sensor: medium pressure≤ 1.6MPa Flanged Sensor: medium pressure≤ 1.6MPa
Power Supply:	
Compact type:	24VDC or 220VAC, Power consumption ≤18W
Remote type:	220VAC, Power consumption ≤19W
Response Time:	1 s
Output 1:	4-20mA (optoelectronic isolation, maximum load 500Ω)
Output 2:	Pulse, Relay, Normally Open state, 10A/220V/AC or 5A/30V/DC
Protocol:	RS485 (optoelectronic isolation) and HART
Pipe Material:	Carbon steel, stainless steel, plastic, etc
Display:	4 lines LCD Mass flow, Volume flow in standard condition, Flow totalizer, Date and Time, Working time, and Velocity, etc.
Protection Class:	IP65
Sensor Housing:	Material: Stainless steel AISI316

Upper Range of common gas

(Unit: Nm3/h. The follow table can be extended)

The flow rate in standard condition: The flow rate is in the condition of 20°C temperature and 101.325kPa pressure.
The unit of flow rate is optional: Nm3/h, Nm3/min, L/h, L/min, t/h, t/min, kg/h or kg/min.

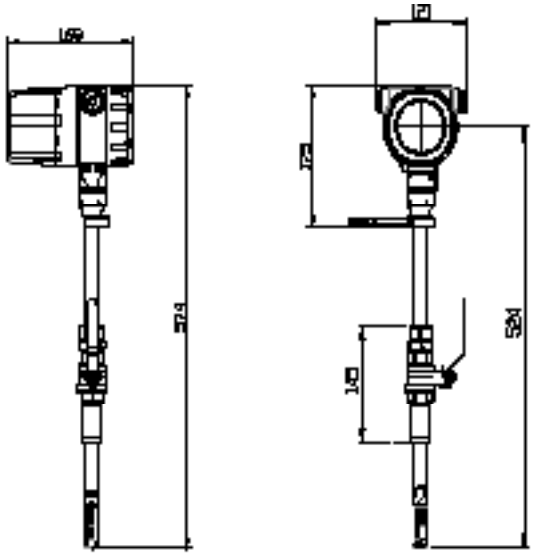
Nominal Diameter (mm)	Air	Nitrogen (N_2)	Oxygen (O_2)	Hydrogen (H_2)
15	65	65	32	10
25	175	175	89	28
32	290	290	144	45
40	450	450	226	70
50	700	700	352	110
65	1200	1200	600	185
80	1800	1800	900	280
100	2800	2800	1420	470
125	4400	4400	2210	700
150	6300	6300	3200	940
200	10000	10000	5650	1880
250	17000	17000	8830	2820
300	25000	25000	12720	4060
400	45000	45000	22608	7200
500	70000	70000	35325	11280
600	100000	100000	50638	16300
700	135000	135000	69240	22100
800	180000	180000	90432	29000
900	220000	220000	114500	77807
1000	280000	280000	141300	81120
1200	400000	400000	203480	91972
1500	600000	600000	318000	101520
2000	700000	700000	565200	180480

Dimension

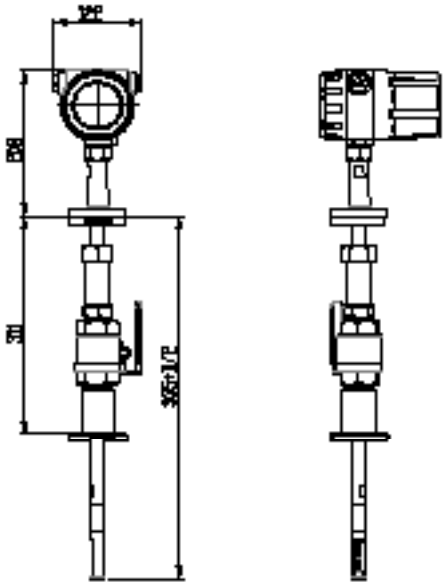
PN16 Plane and surface plate flat welding steel pipe (unit mm)

For DN15-DN80, the meter can be made with threading to connect.
The above table is used for rated pressure of 1.6MPa. If the rated pressure is more than 1.6MPa, please contact us for special order.

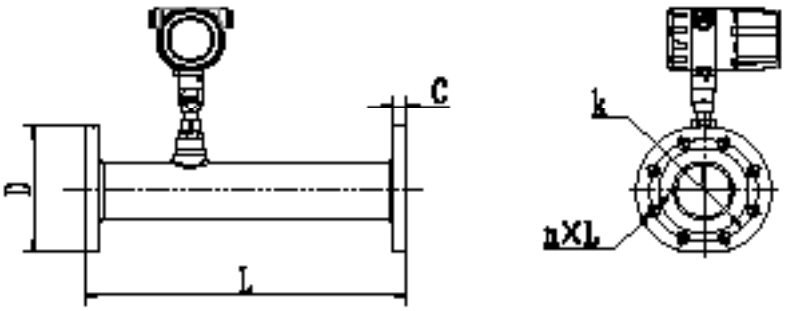
Dimension of standard insertion sensor



Dimension of hot-tapped insertion sensor



Dimension of Flanged insertion sensor



Nominal diameter	Flange Outer diameter	Center hole	Screw Hole	Screw thread	Sealing face		Flange thickness	Pipeline Length
DN	D	k	n x L	M	d	f	C	L
15	95	65	4 x 14	M12	46	2	14	280
20	105	75	4 x 14	M12	56	2	16	280
25	115	85	4 x 14	M12	65	2	16	280
32	140	100	4 x 18	M12	76	2	18	350
40	150	110	4 x 18	M12	84	2	18	350
50	165	125	4 x 18	M12	99	2	20	350
65	185	145	4 x 18	M12	118	2	20	400
80	200	160	8 x 18	M12	132	2	20	400
100	220	180	8 x 18	M12	156	2	22	500