

MICROFLOW-TMF300E

Thermal Gas Mass Flowmeter



PRODUCT DESCRIPTION

MICROFLOW-TMF300E Series is the top selling meter in our Product Line. The MICROFLOW-TMF300E Series thermal gas mass flowmeter features a bright, high contrast display of flow rate and temperature. It is powered by 24VDC or 220VAC.

The MICROFLOW-TMF300E Series thermal gas mass flowmeter is offered in Integral or Remote style. Specify any standard probe length of flow body size. It has a 4-20mA output as well as a pulse output of totalized flow. In addition, MICROFLOW-TMF300E supports full Modbus compliant RS485 RTU communication.

FEATURES

Direct Mass Flow –No need for separate temperature or pressure transmitters

High Accuracy and Repeatability –Precision measurement and extraordinary repeatability

Negligible Pressure Drop –Will not impede the flow or waste energy

No Moving Parts –Eliminates costly bearing replacements, and prevents undetected accuracy shifts

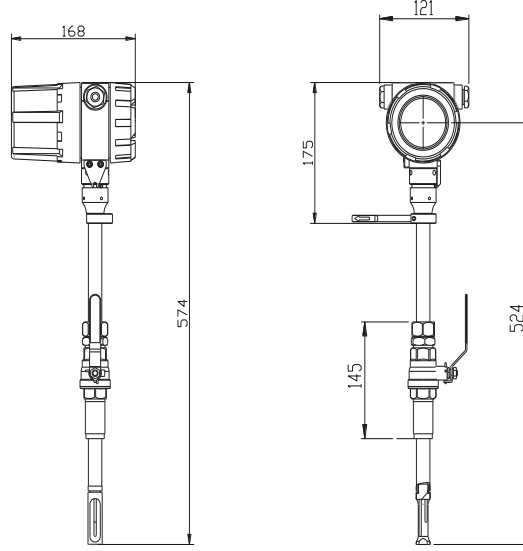
Ease of installation and convenient mounting hardware

TECHNICAL SPECIFICATION

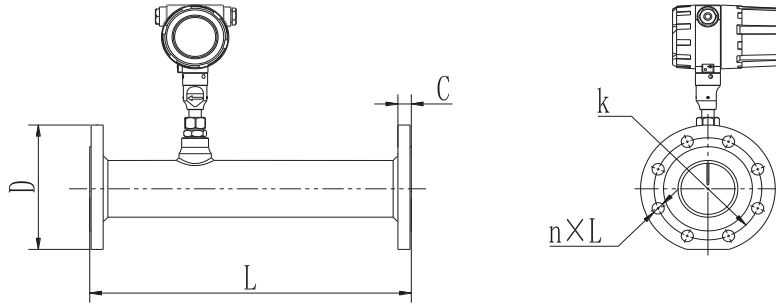
Line size	Inline type: DN15~DN2000, Insertion type: DN65~DN4000
Velocity range	0.1~120Nm/s
Accuracy	±1.5%
Working Temperature	Standard: -20~+150C, Option: -25~+250C
Working Pressure	1.6MPa (standard), 2.5MPa, 4.0MPa, high pressure can be customized
Power supply	24VDC or 220VAC (power consumption is less than 18W)
Response speed	1s
Signal output	4~20mA (optical isolation, max load 500Ω) Pulse
Alarm	1-way or 2-way relay normally open contact, 10A/220V/AC, 5A/30V/DC
Sensor material	Standard: SS316L, Option: Hastelloy
Communication	Modbus compliant RS485 RTU, HART
Display	Mass flow rate, Volume flow rate under standard condition, Cumulative flow rate, running time etc.
Measuring unit	Instantaneous flow unit: Nm ³ /h, Nm ³ /min, NL/h, NL/min, t/h, t/min, kg/h, kg/min Cumulative flow unit: Nm ³ , NL, t, kg
Protection	IP65

STRUCTURE DRAWING

Dimensions of standard insertion sensor
(Total length will be changed based on the meter size)



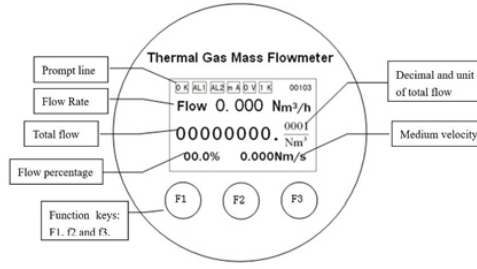
The dimensions of flanged sensor



DIN Flange PN16

Nominal Diameter	Flange Outer diameter	Diameter of hole circle	Screw Hole	Screw spec.	Sealing Face		Flange Thickness	Installation Length
					d	f		
DN	D	k	n×L				C	L
15	95	65	4×14	M12	46	2	14	250
20	105	75	4×14	M12	56	2	16	250
25	115	85	4×14	M12	65	2	16	250
32	140	100	4×18	M16	76	2	18	250
40	150	110	4×18	M16	84	2	18	250
50	165	125	4×18	M16	99	2	20	250
65	185	145	4×18	M16	118	2	20	250
80	200	160	8×18	M16	132	2	20	250
100	220	180	8×18	M16	156	2	22	300
DN125	250	210	8×18	M16	184	2	22	300
DN150	285	240	8×22	M20	211	2	24	300
DN200	340	295	12×22	M20	268	2	26	350
DN250	405	355	12×26	M24	320	2	29	400
DN300	460	410	12×26	M24	378	2	32	450

DISPLAY



FLOW RANGE

Max flow rate for the normal gas measurement (Unit: Nm³/h), range ratio: 1:100

Standard condition: temperature 20d°, pressure 101.325KPa

Nominal Diameter (mm)	Air	Nitrogen ¹ (N ₂ ²)	Oxygen ¹ (O ₂ 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