

principle and characteristics

SN50A series thermal gas mass flowmeter is the use of the principle of heat conduction flow measurement instrument. The instrument uses the method of constant temperature difference to accurately measure the mass flow of gas. It has the advantages of small size, high degree of digitalization, convenient installation and accurate measurement. The sensor part consists of two benchmark platinum resistance temperature sensors. With a bridge loop, one sensor measures the flow temperature and the other maintains a thermostatic difference above the fluid temperature, allowing flow measurements under high temperature and pressure conditions. Real mass flowmeter, gas flow measurement without temperature and pressure compensation, measurement is convenient and accurate. The mass flow rate or standard volume flow rate of the gas can be obtained. Wide range ratio, can measure the gas flow rate up to 100Nm/s bottom to 0.5nm /s, can be used for gas leak detection. good seismic performance long service life. The sensor has no moving parts and pressure sensing parts and is not affected by vibration to the measurement accuracy. Easy to install and maintain. If site conditions permit, installation and maintenance without stopping production can be realized. (See Safety Precautions) Digital design. The whole digital circuit measurement, accurate measurement, easy maintenance. Adopt RS-485 communication, or HART communication, can realize factory automation, integration.



technical specification

The connection method	flange form DN25~ 150mm screw-type DN25~50mm plug-in DN125~5000mm
Measuring the dielectric	Single component or compartment-stable mixed dry gases (except B block gas and oxygen)
medium temperature	(1) -10° C~ + 100° C (2) -10° C~ +200C
The environment	-20° C~ +45° C
Pipe size	DN25~5000mm
The output signal	(1) 4~20mA (photoelectric isolation, maximum load of 500 Q), pulse, RS485 (photoelectric isolation), HART protocol
Alarm output	(1) 1~2 circuit relay normally open contact, (10A/220V/AC, 5A/30V/DC)
Power supply	(1) DC24V (2) AC220V (3) 18 w w power consumption
Tube	(1) 304 stainless steel (2) 316 stainless steel
pressure rating	P2=1.6MPa (standard)DN125~5000mm insert type P2=1.6MPa (standard)DN25~150mm flange type, DN25~ 50mm thread type P3= 2.5Mpa (special)DN25 ~ 100mm flange type P4= 4.0Mpa (special)DN25 ~ 100mm flange type
Header indicating	Standard volume instantaneous flow, cumulative flow, standard flow rate, current output value, etc
level of protection	IP65
measurement accuracy	± (1.5+0.5FS) %
Medium flow rate	General: 0.56~56Nm/s, the maximum flow rate can be extended to 100 Nm/s (range width can be negotiated for order)
note	Front N20DN and rear N10DN are required for straight pipe segments. For example, 90° C elbow or pipe expansion, please refer to the instructions for details

measuring range

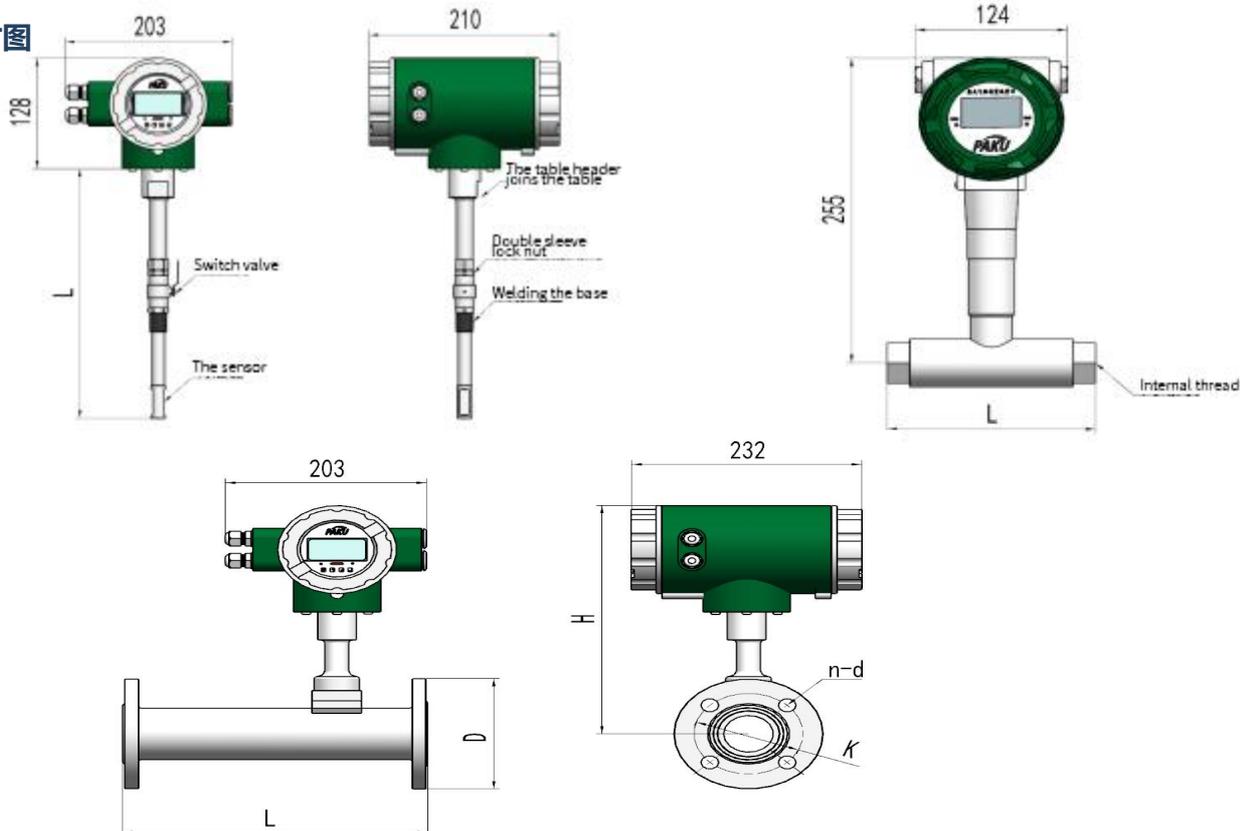
Threaded DN15~25mm range gauge		
DN	minimum discharge (Nm ³ /h)	maximum flow (Nm ³ /h)
15(G 72")	0.3	30
20(G 74")	0.5	50
25(G ")	1	100

Flanged DN25~150mm range gauge		
DN (mm)	minimum discharge (Nm ³ /h)	maximum flow (Nm ³ /h)
25	1	100
32	1.5	150
40	2	250
50	4	400
65	6.5	650
80	10	1000
100	15	1500
125	25	2500
150	35	3500

Insert range gauge

DN (mm)	minimum discharge (Nm ³ /h)	maximum flow (Nm ³ /h)	DN (mm)	minimum discharge (Nm ³ /h)	maximum flow (Nm ³ /h)
50	4	400	800	1000	100000
65	6.5	650	900	1300	130000
80	10	1000	1000	1600	160000
100	15	1500	1100	1950	195000
125	25	2500	1200	2280	228000
150	35	3500	1300	2680	268000
125	25	2500	1400	3100	310000
150	35	3500	1500	3560	356000
200	65	6500	1600	4050	405000
250	100	10000	1700	4560	456000
300	150	15000	1800	5150	515000
350	200	20000	1900	5750	575000
400	250	25000	2000	6350	635000
450	320	32000	2500	9500	950000
500	400	40000	3000	14000	1400000
550	480	48000	3500	19000	1900000
600	560	56000	4000	24000	2400000
650	680	68000	4500	30000	3000000
700	780	78000	5000	38000	3800000

尺寸图



Flange size drawing

nominal diameter DN	pressure rating MPa	contour length L	height of contour H	center	flange outer diameter D	tap n-d	thread specification	Flange thickness B
25	1.6	305	320	85	115	4x 014	M12	16
32	1.6	310	324	100	140	4 x 018	M16	18
40	1.6	320	327	110	150	4 x 018	M16	18
50	1.6	396	332	125	165	4 x 018	M16	20
65	1.6	410	340	145	185	4x 018	M16	20
80	1.6	420	348	160	200	8x 018	M16	20
100	1.6	457	360	180	220	8x 018	M16	22
125	1.6	500	372	210	250	8 x(P18)	M16	22
150	1.6	500	387	240	285	8x 022	M20	24

Selection table

SN50A	A	DN	A	2	4	D	A	detailed
SN50A-								SN50A series thermal gas mass flowmeter
	A							Thread-forming screw
	B							flange form
	C							plug-in
		DN						Size, e.g. DN25, Type 25 (Refer to Range)
			A					Normal temperature: -10... 100 °C
			B					High temperature style: 0... 200 °C
				2				Two-way switching quantity (relay)
					4			4-20 ma output
					C			Pulse output
					R			RS485 communication
					H			HART protocol
						D		Power supply: 24V DC
						A		Power supply: 220V AC
							A	Pressure withstand: 1.6MPa (standard)
							B	Pressure withstand: 2.5MPa (special)
							C	Pressure withstand: 4.0MPa (special)

* The selection table is only available for parameter selection, and the corresponding code is delivered.