



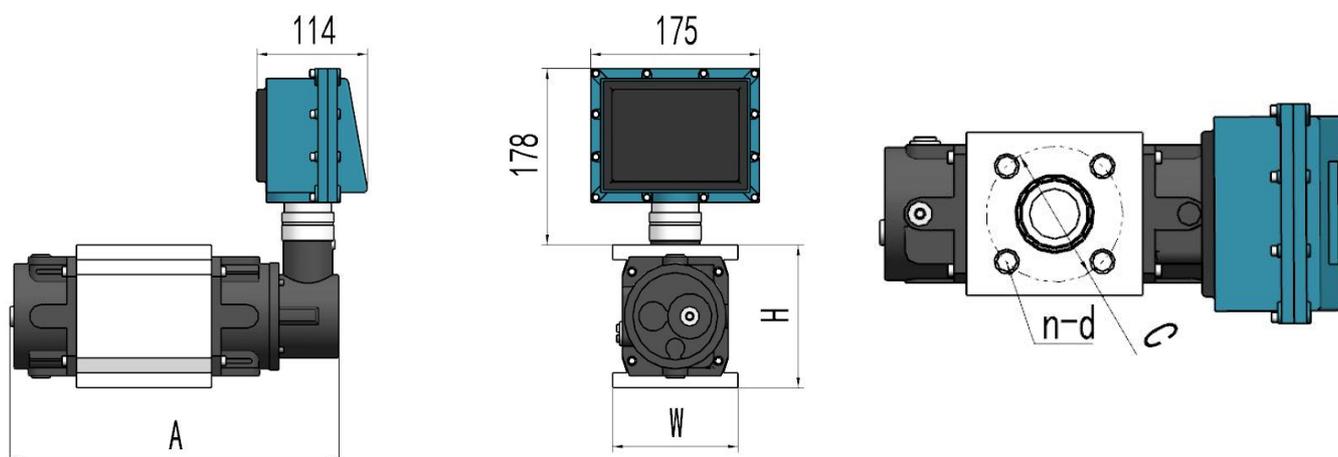
theory

SN56 series gas waist wheel (roots) in the advanced concept of flow sensor using aviation technology combining the theory of fluid mechanics, electromagnetism and developed on its own set of temperature, pressure, flow sensor, and in the integration of intelligent flow totalizer. especially for a new generation of high precision, high reliability gas precision measuring instrument, has a good performance of low and medium voltage measurement, With a variety of signal output modes, the SN56 series gas waist (rotts) flow sensor has become a particularly excellent commercial trade metering instrument capable of accurately measuring gas accumulation.

main feature

- ◆ wide range: according to different specifications, the highest range can reach 1:226.
- ◆ Low starting flow: according to different specifications, the lowest starting flow can reach 0.04m³/h.
- ◆ High precision, high repeatability: ordinary class up to 1.5. High level can reach 1.0, 0.5; Long-term accuracy is not affected by the medium, long-term operation, stable accuracy.
- ◆ Small pressure loss: according to different specifications, the pressure loss is 0.08kpa – 0.58kpa.
- ◆ high integration, low power consumption: the use of advanced computer technology and high performance integrated chip, the machine has powerful functions, superior performance.
- ◆ Compact structure: pressure sensor, temperature sensor, flow sensor are all built in, make the structure more compact.
- ◆ digital pressure and temperature sensor: digital temperature sensor and digital pressure sensor configuration, separate calibration and verification, easy to replace, maintenance and use.
- ◆ Segment correction: according to the flow frequency signal, the instrument coefficient can be automatically divided into six sections for linear correction, improve the wide range accuracy of the instrument.
- ◆ complete data storage function: the use of E2PROM data storage chip, save user parameters, manufacturer parameters, timely data preservation function, can prevent the sudden power loss of data, in the blackout state, the internal parameters can be permanently saved.
- ◆ Basic output complete: intelligent flowmeter with base meter pulse output, working or standard condition pulse signal output, and calibration pulse output. RS485 interface output, can also output 4 ~ 20mA standard analog signal according to user needs.
- ◆ Data traceability management: real-time database, query and analysis through RS-485 communication interface.
- ◆ GPRS real-time management system: in this series, B-type meter with GPRS transmission function, can be online, long timing, fixed point transmission function, monitoring instrument, control valve, pipeline pressure, gas alarm and other data, extremely easy to set up GPRS wireless network system.

dimension figure



main technical parameters

Meter diameter	25mm、40mm、50mm、80mm、100mm、150mm
nominal pressure	0.6MPa
compensation way	Double temperature and pressure compensation
output signal	Pulse, 4–20mA, RS485, IC card signal
communication protocol	MODBUS–RTU、HART (customize)
power supply	1、 External 24VDC DC power supply. 2、 Battery powered, 3.6 lithium battery.
service conditions	Medium temperature :–20° C–80° C Ambient temperature: –30x–60x Relative humidity :5%–90% Atmospheric pressure :86kPa–106kPa
Protection grade	IP65、IP67
anti-hazard classification	Ex d IIC T6Gb
applicable medium	Natural gas, compressed air, nitrogen and other low flow rate gas
turn down	1 : 20–1: 50
precision	1.0、1.5
texture	aluminium alloy
product standard	JB_T 7385–2015
installation direction	Vertical installation, up in and down out.

Flowmeter mounting dimensions

nominal diameter DN	A	C	W	H	flange	
	(mm)	(mm)	(mm)	(mm)	C1	n–d
25	235	90	105	145	φ 85	4–M12
40	307	120	105	145	φ 110	4–M16
50	385	140	185	170	φ 125	4–M16
50	420	156	185	170	φ 125	4–M16
80	460	175	185	170	φ 160	8–M16
80	490	190	185	170	φ 160	8–M16
80	485	185	235	250	φ 160	8–M16
100	565	230	235	250	φ 180	8–M16
100	655	275	235	250	φ 180	8–M16
150	640	293	450	460	φ 240	8–M20
150	705	352	450	550	φ 240	8–M20

Flow meter specifications, basic parameters and performance indicators

nominal diameter DN (mm)	turn down	flow-rate range (m ³ /h)	Startup flow rate (m ³ /h)	When Qmax The pressure loss Pa	Maximum working MPa pressure	nominal pressure MPa
25	20:1	1-20	0.07	110	0.4	1.6MPa
40	40:1	1-40	0.06	140		
50	30:1	2-60	0.07	120		
50	40:1	2-80	0.07	160		
80	35:1	3-100	0.06	170		
80	50:1	3-150	0.05	150		
80	50:1	4-200	0.15	180	0.40.6	
100	80:1	4-300	0.12	200		
100	90:1	5-450	0.11	400		
150	80:1	8-650	0.65	560		
150	90:1	11-1000	0.8	600		

Note: the operating pressure should not be greater than 400KPA, otherwise it will cause air leakage. Field flowmeters greater than 400 kA require customization.

Selection table

SN56-	A	A	4	B4	A	D	specification
SN56-							SN56 series gas waist wheel (Roots) flowmeter
	A						SN56 series gas waist wheel (Roots) flowmeter
	B						PD-SO
	C1						Economical stand-alone version: IC card gas control
	C2						Precision stand-alone version: IC card gas control (optional,
	C3						Precision network version: IC card gas control (optional, see
		A					Flow range: 1-20m ³ /h (caliber: DN25)
		B					Flow range: 1-40m ³ /h (caliber: DN40)
		C					Flow range: 2-60m ³ /h (caliber: DN50)
		D					Flow range: 2-80m ³ /h (caliber: DN50)
		E					Flow range: 3-100m ³ /h (caliber: DN80)
		F					Flow range: 3-150m ³ /h (caliber: DN80)
		G					Flow range: 4-200m ³ /h (caliber: DN80)
		H					Flow range: 4-300m ³ /h (caliber: DN100)
		I					Flow range: 5-450m ³ /h (caliber: DN100)
		J					Flow range: 8-650m ³ /h (caliber: DN150)
		K					Flow range: 11-1000m ³ /h (caliber: DN150)
			4				4-20 ma output
			C				pulse output
			R				RS485 output
			CR				Equivalent pulse output +RS485 output
			M				MODBUS-RTU (customization)
			H				HART (customization)
				B4			Pressure resistance: 4bar, selection B4
				B...			Custom compression
					A		Accuracy: grade 1.0
					B		Accuracy: Level 1.5
						D	External 24VDC DC power supply
						C	Battery powered, 3.6 lithium battery

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