

# VARIABLE AREA FLOW METER



## DESCRIPTION

The most common design of variable area meter is the cone-and-float type, which is also known as a rotameter.

## APPLICATIONS

- Gas supply equipment
- Electric power
- Petroleum
- Chemical
- Metallurgy
- Pharmaceutical industry

## FEATURES

- Mechanical display and LCD display
- The short-stroke design allows the measurement of high flow rate using a relative short metering tube
- Special application is for hazardous or aggressive fluid, for high temperature and high pressure rates
- All stainless steel design provides a safe measurement of a variety of liquids, gases and steam. The measuring section can be equipped with a heating jacket
- Support vertical installation

## TECHNICAL DATA

<b>Measuring Range</b>	0.03m <sup>3</sup> /h- 3000m <sup>3</sup> /h
<b>Accuracy</b>	±1.5% of rate; ±1.0% of rate
<b>Pressure Rating</b>	DN15- DN50< 4.0 Mpa; DN 80- DN 200< 1.6 Mpa (common)
	DN15- DN 50< 32 Mpa; DN 80 - DN 200< 16 Mpa (special)
<b>Pressure Loss</b>	7kpa - 70kPa
<b>Medium Temp.</b>	SS304: -40°C...+100°C; PTFE:0°C...+100°C; High temp.: +110°C...+450°C
<b>Viscosity</b>	DN15: <5mPa.s; <30mPa.s
	DN25: <250mPa.s
	DN50- DN150: <300mPa.s
<b>Ambient Temp.</b>	Pointer type: -40°C...+100°C
	Remote Type: -40°C...+85°C (liquid crystal is not damage); -30°C...+80°C (liquid crystal is able to operate)
<b>Electrical Interface</b>	Cable pling: 1/2 NPT; M2×1.5
<b>Power Supply</b>	4-20mA, 24V DC(12V DC- 32V DC) 2 wires system
	Alarm Type: 4- 20mA, 24V DC(18V DC- 28V DC) 4 wires system
	85- 265V AC 50Hz
	Battery:3.6V@7.5AH
<b>Protection</b>	IP65
<b>Explosion Proof</b>	ExiaIICT1-6; ExdIIBT1-6



Digital Type

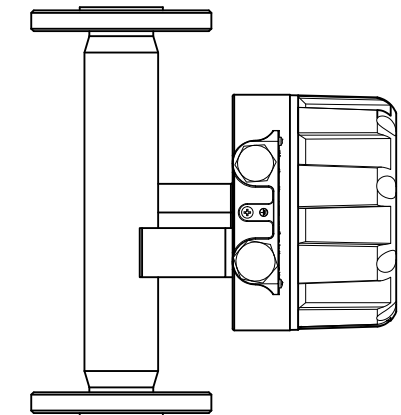
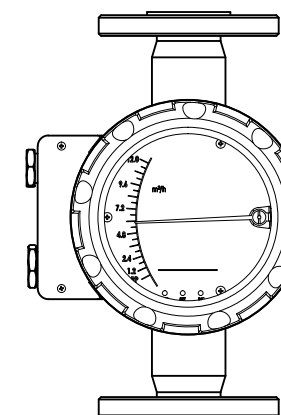


Mechanical Type



Stainless Steel Type

## TECHNICAL DRAWINGS



# VARIABLE AREA FLOW METER

## FLOW RANGE

Diameter	Flow Segment	Water (L/h)		Air (m³/h)	Pressure Loss (kPa)
		Material (SS304; SS316; SS316L)	Material (PTFE)	20°C @ 1 atm (Standard)	60/66
DN15	1A	1.0- 10	*	0.03- 0.3	6.8
	1B	1.6- 16	*	0.05- 0.5	6.8
	1C	2.5- 25	1.6- 16	0.07- 0.7	6.8
	1D	4.0- 40	2.5- 25	0.12- 1.2	6.8
	1E	6.3- 63	4.0- 40	0.18- 1.8	7
	1F	10- 100	6.0- 60	0.3- 3	7.2
	1G	16- 160	10- 100	0.48-4.8	7.8
	1H	25- 250	16- 160	0.7-7	9
	1I	40- 400	25- 250	1.2- 12	12
	1J	63- 630	40- 400	1.8- 18	13
	1K	100- 1000	*	3- 30	16
DN25	2A	30- 300	*	1.4- 14	3.8
	2B	63- 630	400	2.1- 21	3.8
	2C	100- 1000	630	3- 30	4.2
	2D	160- 1600	1000	4.8- 48	5.7
	2E	250- 2500	1600	7- 70	6
	2F	320- 3200	*	10- 100	6.6
	2G	400- 4000	2000	13- 130	7.8
	2H	500- 5000	2500	15- 150	8.8
	2I	630- 6300	3200	18- 180	10.3
	2J	1000- 10000	*	*	16
	DN50	3A	400- 4000	*	13- 130
3B		630- 6300	400- 4000	18- 180	4.7
3C		1000- 10000	630- 6300	30- 300	6
3D		1600- 16000	1000- 10000	50- 500	6
3E		2000- 20000	1600- 16000	60- 600	6.5
3F		2500- 25000	*	70- 700	7
DN80	4A	1000- 10000	*	*	6
	4B	1600- 16000	*	50- 500	6.8
	4C	2500- 25000	1600- 16000	70- 700	7
	4D	4000- 40000	2500- 25000	120- 1200	13
	4E	6300- 63000	4000- 40000	180- 1800	15
DN100	5A	4000- 40000	*	120- 1200	6.5
	5B	6300- 63000	4000- 40000	180- 1800	6.5
	5C	8000- 80000	6000- 60000	250- 2500	20
	5D	10000- 100000	*	300- 3000	22
	DN150	6A	8000- 80000	*	250- 2500
6B		10000- 100000	*	300- 3000	50
6C		15000- 150000	*	*	60
DN200	7A	15000- 150000	* Contact for customization		50
	7B	20000- 200000			70

## MODEL SELECTION

Model	Suffix Code									Description
SH250-	①	②	③	④	⑤	⑥	⑦	⑧	⑨	Variable Area Flow Meter
Diameter	XXX									015: DN15 100: DN100 200: DN200
Converter Type	N									Mechanical Display; No Output
	A1									Mechanical Display; 0-1000Hz Output
	A2									Mechanical Display; 4-20mA Output; 24V DC
	B									LCD Display; No Output; Battery
	C									LCD Display; Pulse Output; 24V DC
	D									LCD Display; 4-20mA+Pulse Output; 24V DC power supply
	Notice:									RS485 and Hart are optional for C and D converter
Flow Range			XX							Refer to the Flow Range Table
Fluid				L						Liquid
				G						Gas
Material					S4					Body and Float: SS304
					S6					Body and Float: SS316
					SF					Body: SS304; Float: PTFE
					SL					Body: 316L; Float: 316L
					XX					
Installation						H				Horizontal Installation
						V				Vertical Installation
Structure								1		Standard Structure
								2		Heat Insulation
								3		Damper for gas measurement
								4		High Temperature
								5		High Pressure
Explosion Proof								NA		Safety Field without Ex-proof
								BT		ExdIIBT1-6
								CT		ExialICT1-6
Connection								DX		D16: DIN PN16 Flange; D25: DIN PN25 Flange...
								AX		A15: ANSI 150# Flange; A30: ANSI 300# Flange...
								JXX		J10: JIS 10K Flange; J20: JIS 20K Flange...
								WAF		Wafer
								THR		Thread (Diameter <= DN 250)
								TRC		Tri - clamp (Diameter <= DN 50)



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