

VAR (Variable Area Flow Meter) are widely used in industrial applications for measuring the flow of liquids and gases, and they are particularly suitable for accurately monitoring and measuring relatively small flow rates. These flow meters find essential roles in industries such as chemical, petroleum, natural gas, energy, pharmaceuticals, food, beverages, and water treatment, making them versatile for various environments and fluid mediums.

Features:

1. **Simple Structure:** It typically has a simple mechanical design, making it easy to install and maintain.
2. **Versatility:** It is suitable for measuring the flow of various liquid and gas mediums.
3. **Small Flow Measurement:** Especially well-suited for measuring flow rates in the range of 1 to 10 liters per hour.
4. **Stability:** Under appropriate operating conditions, the variable area flow meter provides stable flow measurement results.
5. **Visual Monitoring:** Flow information can be intuitively obtained by observing the position of the float or scale inside the flow meter, without the need for an external power supply.
6. **Corrosion Resistance:** It is typically manufactured using corrosion-resistant materials, making it suitable for corrosive media.
7. **Adaptability to Various Processes:** It is applicable to different industrial processes, such as chemical, petroleum, food, pharmaceuticals, and more.
8. **Low Power Consumption:** It can be powered by either a 2-wire 4-20mA signal output or a 3.6V lithium battery.
9. **Fast Response:** It can quickly respond to changes in flow rates, contributing to process control.
10. **High Reliability:** It demonstrates excellent reliability and stability, even in challenging working environments.

Technical parameters

Item	Values
Range Ratio	10:1
Accuracy	1.5 %
Working Pressure	DN15 to DN50 Up to 20MPa, DN80:10MPa, DN100 to DN150:10MPa
Medium Temperature	Normal: -40℃ to +120℃ /High : -40℃ to +350℃
Ambient Temperature	-40℃ to +80℃
Medium Viscosity	DN15: ≤ 5mPa.s /DN25: ≤ 250mPa.s /DN50 to DN150: ≤ 300mPa.s
Output	Standard Signal - Two-wire 4-20mA (powered by 24VDC)
Power Supply	24VDC ±20%, 3.6V Battery, 85 to 250V AC
Process Connection	Flange , Thread , Tri-Clamp
Electrical Interface	M20×1.5 or as per user specifications
Protection Level	IP65/IP67
Explosion-proof	Intrinsically Safe: ExiaIICT6

Flow Range For Water(STP 20°C and 101,325Pa)

DN	CODE	Metal Tube and SS316L Float			PTFE Lining and PTFE Float		
		WATER(LPH) Float SS316L		Pressure loss (KPa)	WATER(LPH) Float PTFE		Pressure loss (KPa)
15	1	1	10	1.5			
	2	1.6	16	1.5			
	3	2.5	25	1.5			
	4	4	40	1.5	2.5	25	1.5
	5	6	60	1.5	4	40	1.5
	6	10	100	1.5	6	60	1.5
	7	16	160	2.0	10	100	1.5
	8	25	250	3.0	16	160	2.0
	9	40	400	3.0	25	250	3.0
	10	60	600	3.5	40	400	3.0
25	1	100	1000	1.5	60	600	1.5
	2	120	1200	1.5	80	800	1.5
	3	160	1600	3.0	100	1000	1.5
	4	200	2000	3.0	120	1200	1.5
	5	250	2500	3.5	160	1600	3.0
	6	300	3000	3.5	200	2000	3.0
	7	400	4000	8.0	250	2500	3.5
	8	500	5000	8.0	300	3000	3.5
	9	600	6000	16.0			
50	1	600	6000	3.0	400	4000	3.0
	2	800	8000	3.0	500	5000	3.0
	3	1000	10000	4.0	600	6000	3.0
	4	1200	12000	4.0	800	8000	3.0
	5	1600	16000	8.0	1000	10000	4.0
	6	2000	20000	8.0	1200	12000	4.0
80	1	2500	25000	14.0	1600	16000	8.0
	2	3000	30000	14.0	2000	20000	9.0
	3	4000	40000	20.0	2500	25000	12.0
	4	5000	50000	20.0	3000	30000	15.0
100	1	6000	60000	28.0	4000	40000	25.0
	2	8000	80000	28.0	5000	50000	27.0
	3	10000	100000	40.0	6000	60000	38.0
125	1	10000	100000	45.0	8000	80000	35.0
	2	12500	125000	48.0	10000	100000	40.0
150	1	12500	125000	48.0	10000	100000	40.0
	2	15000	150000	50.0	12500	125000	42.5
200	1	15000	150000	50.0			
	2	20000	200000	70.0			

Please note that the inlet pressure of the flow meter must be greater than 1.5 times the maximum pressure loss.

Flow Range For Air (STP 20°C and 101,325Pa)

DN	CODE	SS316L Float and Metal Tube		
		Air(m ³ /h) Float SS316L		Pressure loss (KPa)
15	1			1.5
	2	0.05	0.5	1.5
	3	0.07	0.7	1.5
	4	0.12	1.2	1.5
	5	0.18	1.8	1.5
	6	0.28	2.8	1.5
	7	0.45	4.5	2.0
	8	0.75	7.5	3.0
	9	1.2	12	3.0
	10	1.8	18	3.5
25	1	3.0	30	1.5
	2	3.5	35	1.5
	3	4.5	45	3.0
	4	6.0	60	3.0
	5	7.5	75	3.5
	6	9.0	90	3.5
	7	12	120	8.0
	8	15	150	8.0
	9	18	180	16.0
50	1	18	180	3.0
	2	24	240	3.0
	3	30	300	4.0
	4	36	360	4.0
	5	48	480	8.0
	6	60	600	8.0
80	1	75	750	14.0
	2	90	900	14.0
	3	120	1200	20.0
	4	150	1500	20.0
100	1	180	1800	28.0
	2	240	2400	28.0
	3	300	3000	40.0
125	1	300	3000	45.0
	2	400	4000	48.0
150	1	400	4000	48.0
	2	500	5000	50.0
200	1			50.0
	2			70.0

Please note that the inlet pressure of the flow meter must be greater than 2 times the maximum pressure loss.

Selection Table

Model									
RDLZ									
	Output								
	Z:None								
	D:4-20mA								
	D1:Modbus								
	D2:4-20mA+Hart								
	D3:None(Battery Powered)								
		Size							
		15/20/25/32/40/50/65/80/100/125/150/200							
			Body Material						
			A:SS304,						
			B:SS316L						
			Lining						
			0:None						
			1:PTFE						
			Type						
			H: horizontal type						
			V: vertical type						
			Process fitting						
			0: Flange(ANSI Class150)						
			1: Flange (EN1092 PN16)						
			2: Tri-clamp 3: Thread						
			LCD Screen						
			A:With screen						
			B:Without screen						
			Temperature						
			N:120°C						
			H:350°C						
			Pressure rate						
			A:16Bar						
			B:25Bar						
			C:40Bar						
			D:64Bar						
			E:100Bar						
			F:160Bar						
			G:200Bar						
RDLZ	Z	25	A	0	H	0	B	N	A