Variable Area Flow Meter

VETRIX

Description

The Variable Area Flow meter is an instrument for measuring the flow of liquids or gases in pipelines. It includes a vertical tube through which the fluid flows whose diameter increases from the bottom to the top and a float which can move vertically in the tube. As the flow increases this float moves to a higher position until its resistance to the fluid flow is balanced by the float's buoyed weight in the fluid, a value which is constant and independent of the flow rate. The position of the float is a measure of the flow rate. The flow rate values can be read on a scale.

Feature

- Mechanical display and LCD display
- Robust and universal
- The short-stroke design allows the measurement of high flow rate using a relative short metering tube
- Special application is for hazardous, dangerous 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
- Standard rotameter is mounted in a vertical pipeline with flow direction upwards

Exia II CT4

Technical Data

Application Range	(1)Gas;(2)Liquid;(3)Steam
Turndown Ratio	10:1
Accuracy(Refer to the accuracy on the nameplate)	±1.0% ; ±1.5%
Temperature	
Max.Process Temperature	T1 level:100°C
	T2 level: 250°C
	T3 level: 350°C
Pressure	
Nominal Operating Pressure	DN15...DN50: ≤4.0Mpa
	DN65...DN200:≤1.6Mpa
Max.Pressure Rating	DN15:32Mpa;DN25:25Mpa;DN50:20Mpa
	DN80:10Mpa;DN100:6.4Mpa
	DN125...DN150:4.0Mpa
Connection	Thread; Tri-clamp; Wafer; Flange

Flow Range

DN	Float Number	Fluid:Water(L/h)		Fluid Air (Nm^3/h)	Pressure Loss (Kpa)
		Normal Type SS304	Corrosion Type PTFE	Normal Type SS304	
15	1A	2.5-25	--	0.07-0.7	1.5
	1B	4.0-40	2.5-25	0.11-1.1	1.5
	1C	6.3-63	4.0-40	0.18-1.8	1.5
	1D	10-100	6.3-63	0.28-2.8	3
	1E	16-160	10-100	0.48-4.8	3
	1F	25-250	16-160	0.7-7	3
	1G	40-400	25-250	1.0-10	3.5
	1H	63-630	40-400	1.6-16	3.5
20 & 25	2A	100-1000	63-630	3-30	1.5
	2B	160-1600	100-1000	4.5-45	3
	2C	250-2500	160-1600	7-70	5
	2D	400-4000	250-2500	11-110	8
32	3A	400-4000	400-4000	12-120	3
	3B	500-5000	500-5000	15-150	4
	3C	600-6000	--	18-180	8
40	4A	500-5000	400-4000	12-120	3
	4B	600-6000	500-5000	16-160	5
50	5A	630-6300	600-6000	18-180	3
	5B	1000-10000	630-6300	25-250	4
	5C	1600-16000	1000-10000	40-400	8
65	6A	1200-12000	1200-12000	48-480	8
	6B	1600-16000	1600-16000	60-600	16
	6C	2000-20000	2000-20000	75-750	22
80	8A	2500-25000	1600-16000	60-600	14
	8B	4000-40000	2500-25000	80-800	14
100	10A	6300-63000	4000-40000	--	30
150	15A	20000-100000	--	--	45

Model Selection

Model	Suffix Code										Description
VA	❶	❷	❸	❹	❺	❻	❼	❽	❾	❿	**Variable Area Flowmeter**
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 ; 24V DC
		D									LCD Display; 4-20mA; 24V DC power
		Notice:									***Rs485 and Hart are optional for C, D converter***
Flow Range				XX							Refer to the Range Table
Fluid					L						Liquid
					G						Gas
Material						S4					Body and Float: SS304
						S6					Body and Float: SS316
						SF					Body: SS304; Float: PTFE
						XX					On request
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		ExdIIBT4
									CT		Exia II CT4
Connection										DXX	D16: DIN PN16 Flange; D25: DIN PN25 Flange…
										AXX	A15: ANSI 150# Flange; A30: ANSI 300# Flange…
										JXX	J10: JIS 10K Flange: J20: JIS 20K Flange…
										WAF	Wafer Connection
										THR	Thread Connection (Diameter <=DN50)
										TRC	Tri-clamp Connection(Diameter<=DN50)

Example:

	❶	❷	❸	❹	❺	❻	❼	❽	❾	❿
VA	050	N	Y	5C	L	S4	V	1	BT	A15

❶ 050: DN50
❷ N: Mechanical Pointer Display without Output
❸ Y: Reset function
❹ 5C: 1.6-16m3/h
❺ L: Liquid measurement
❻ S4: SS304 body material
❼ V: Vertical installation
❽ 1: Standard Structure
❾ BT: ExdIIBT4
❿ A15: Flange ANSI 150#