

VARIABLE AREA FLOW METER

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.



Specification

Application Range	(1) Gas; (2) Liquid; (3) Steam
Turndown Ratio	10:1
Accuracy (Refer to the accuracy on the	±1.0% ; ±1.5% ; ±2.5%
Temperature	
Max. Process Temperature	T1 level: 150°C
	T2 level: 300°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

VARIABLE AREA FLOW METER

Model	Suffix Code										Description
GIVA-	1	2	3	4	5	6	7	8	9	10	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 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
Reset Function	Y										Yes
	N										None
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										ExibIICT4
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...

GIVA 1 2 3 4 5 6 7 8 9 10
050 N Y 5C L S4 V 1 BT A15

- 1 050: DN50
- 2 N: Mechanical Pointer Display without Output
- 3 Y: Reset function
- 4 5C: 1.6-16m³/h
- 5 L: Liquid measurement
- 6 S4: SS304 body material
- 7 V: Vertical installation
- 8 1: Standard Structure

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DN	Float Number	Fluid: Water (L/h)		Fluid Air (Nm ³ /h)	Pressure Loss (Kpa)
		Normal Type 1CrNiSteel	Corrosion Type PTFE	Normal Type 1CrNiSteel	
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