



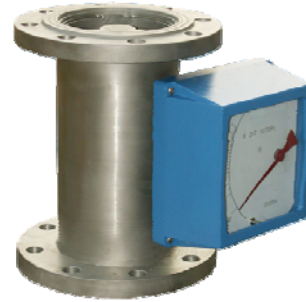
# ALVAMT

## VA METAL TUBE Flowmeter

### ALVAMT Series

## GENERAL

**ALVAMT** rugged metal tube variable area meters (rotameters) are ideal for high pressure, high temperature and other demanding flow applications where safety is a concern. Features include: globally-recognized approvals for use in hazardous environments; analog and digital LCD local display options, multiple process connection options; several available materials of construction for metering of aggressive fluids and corrosion resistance; HART enabled 4-20mA output to provide for remote monitoring and control. The ALVAMT's excellent repeatability makes it a good choice for batching applications. For versions without electronic output, no power supply is required. The ALVAMT's low-pressure drop provides additional value by allowing for economical pump selection.



## FEATURES

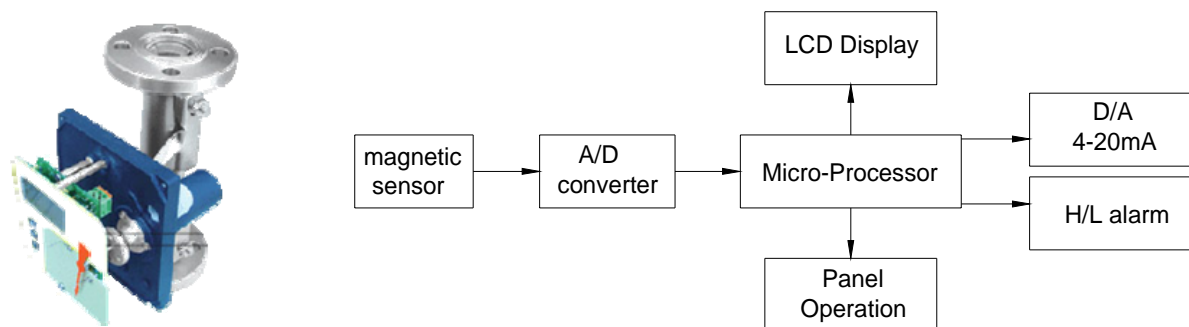
- Excellent low-flow performance
- Versatile design may be used for gas, steam, and liquids
- Low pressure loss for gas and steam applications
- Suitable for high pressure and high temperature applications
- Turn-down ratio of 10:1
- Local indication and intelligent remote LCD display
- Easy-to-read analog pointer style indicator
- Intrinsically safe & explosion proof for hazardous area applications

## SPECIFICATION

● Size	: 15 ~ 200mm	● Signal Output	4-20mA (2-wire)
● Measuring Range	Water (20°C) 1.6 ~ 150,000 l/h Air (20°C, 0.1013MPa) 0.05 ~ 4,000 m3/h	● Local Display	: Mechanical Indicator (standard)
● Temperature	Standard (E) -80 ~ +200°C, PTFE: 0 ~ 85°C High temperature (H): +200 ~ +300°C	● Digital Display	: Rate 0 ~ 50000 Total: 0 ~ 99999999 (with decimal)
● Pressure Loss	6.5 ~ 15.6 KPa	● Power Supply	: 85~264V <sub>AC</sub> 50-60 Hz : 24V <sub>DC</sub> 3.6V <sub>DC</sub> @ 5.2 AmpHours Lithium
● Pressure	Standard: 1.6MPa (DN65 - DN150) 4.0MPa (DN15 - DN50) High: 2.5MPa (DN65 - DN150) 6.4MPa (DN15 - DN50)	● Approvals	Isolation: Exd II CT5 Intrinsic Safety: Exia II C
● Viscosity	15m ~ 20 mm - < 30 CP 25mm ~ 40 mm - < 250 CP 50mm ~ 200mm - < 300 CP Top enter、Top exit	● Alarms	High / Low limit alarm maximum 1A @ 24V <sub>DC</sub>
● Wetted parts	SS #304 standard, SS #316 optional Tantalum (flow tube) PTEE (flow tube) PTFE lining	● Data Storage	EEPROM (up to 10 years)
● Flanges	ANSI and DIN-type available	● Flow Orientation	Bottom enter/Top exit, Standard Bottom enter/Top exit horizontal Right enter/Left exit Left enter/Right exit
● Accuracy	±1.5%(Standard) ±2.5%(PTFE liner)	● Protection	IP 65
● Repeatability	: ±0.5% of reading	● Housing Material	: Aluminum
		● Cable Connector:	M20x1.5 or ½" NPT



## Principle

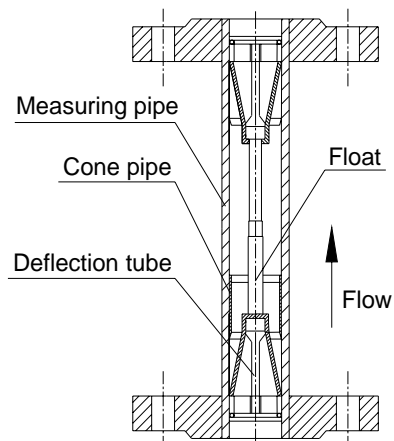


## Flow range for various fluids

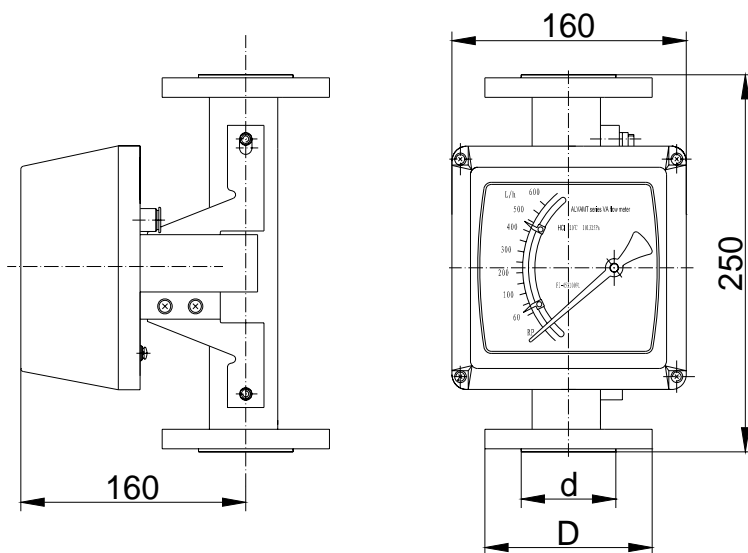
Meter	Float	Water (LPH)		Air in SCM/H
		Material of measuring tube Metal	Material of measuring tube Metal w/ PTFE liner	
DN15	KV15.0	2.5~25		0.07~0.7
	KV15.1	4.0~40	2.5~25	0.11~1.1
	KV15.2	6.0~60	4.0~40	0.18~1.8
	KV15.3	10~100	6.0~60	0.28~2.8
	KV15.4	16~160	10~100	0.4~4.0
	KV15.5	25~250	16~160	0.7~7.0
	KV15.6	40~400	25~250	1.0~10
DN25	KV15.7	60~600	40~400	1.6~16
	KV25.0	100~1,000	60~600	3~30
	KV25.1	160~1,600	100~1,000	4.5~45
	KV25.2	250~2,500	160~1,600	7~70
DN50	KV25.3	400~4,000	250~2,500	11~110
	KV50.0	600~6,000	400~4,000	18~180
	KV50.1	1,000~10,000	600~6,000	25~250
DN80	KV50.2	1,600~16,000	1,000~10,000	40~400
	KV80.0	2,500~25,000	1,600~16,000	75~750
DN100	KV80.1	4,000~40,000	2,500~25,000	100~1,000
	KV100.0	6,000~60,000	4,000~40,000	150~1,500
DN125	KV100.1		6,000~60,000	
	KV125.0	8,000~80,000		
DN150	KV125.1	10,000~100,000		
	KV150.0	15,000~150,000	8,000~80,000	
DN200	KV150.1			
	KV200.0	15,000~150,000		

## ➤ Bottom enter and top exist (FA type)

### • Principle



### • Dimension



Meter	FA series		
Size	d (mm)	D (mm)	Weight (kg)
DN15	46	95	3.7
DN25	65	115	5.2
DN50	99	165	8.7
DN80	132	200	14.2
DN100	156	220	15.2
DN125	184	250	33.7
DN150	211	285	48.7

**\*\* Please contact your local SMC application engineer**

**You also need to provide the following information:**

Type of Fluid	Please provide the name of your fluid, including operating density and viscosity
Full Scale Flow	Maximum and minimum flow rates, units must be m <sup>3</sup> /hr, LPM or GPM
Line Size	Please indicate the pipe size as well as connection type (flange, threaded, etc..)
Pressure and Temperature	We will calibrate your flowmeter as close to your operating conditions as possible

**➤ Model Selection Guide**

ALVAMT Series															
Example: ALVAMT-100-FA-R0-T-KV100.2-N-E-M1-111-S0															
ALVAMT-	**	**	**	**	**	**	**	**	**	**	**	**	**	**	Description
code ** = DN**															Size
Bottom entry, top exit		FA													Meter Structure
Bottom entry, top exit horizontal		FB T													
Bottom entry horizontal, top exit horizontal		FC Z													
Right entry, left exit		FDR													
Left entry, right exit		FD													
0Cr <sub>18</sub> Ni <sub>9</sub> (304)		R0													Material of wetted Tube
SS #316		RL													
PTFE		RP													
Titanium		Ti													
Non		O													Special Type
Jacket		T													
Damping		Z													
Float Number				KV*.*											Float Number
Standard pressure rating				N											Pressure
High pressure				H											
-80 ~ +150 °C				E											Temperature
-80 ~ +300 °C				H											
Local indicator, square housing				M1											Indicator
Intelligent indicator, square housing				M2											
Intelligent indicator, circular housing (Exid)				M3											
None				0											Signal Output
4-20mA				1											
Without				0											Matching Flange
CS				1											
SS				2											
220V <sub>AC</sub>				0											Power Supply
24V <sub>DC</sub>				1											
3.6V Battery				2											
ANSI 150#				S											Flange Standard
ANSI 300#				S3											
PN flange				1											
None				0											Extra Device
With lining				1											
With PTFE lining				2											