

Flow Measurement Equipment Varea-Meter® Series 520.205 Metal Tube Rotameters

The Straight-Through Metal Tube Varea-Meter® units are available in a variety of tube sizes, flange faces, and ratings. These are suitable for harsh process conditions and are designed for the measurement of high-volume flows of aggressive liquids and gases. They have high pressure and temperature limits and give reliable flow measurements over a 10:1 range. As a standard feature, a rugged, magnetically coupled flow indicator is provided. An optional flow transmitter is available to provide local indication as well as a mA output.

Features

Anti-Magnetic-Particle Float

The extra long float magnet has a reduced flux density and is located above the metering disk. This discourages accumulation of magnetic particles, especially on the disk edge where they can cause errors in indication. Meter design directs the flow into a pattern, which scrubs the float and guides clean. The Varea-Meter® unit is ideal for suspensions and slurries.

Reliable Magnetic Coupling

For reliable indication a powerful magnetic linkage exists between the float magnet and the indicator or transmitter magnets. Transmission and indication are reliable even under sudden flow surges.

Easy Conversion From Flow Indication Only To Flow Transmission

The indication unit and the transmitter are independent. A mounting clamp attaches each to the meter tube. The same clamp attaches the transmitter or optional flow switch 180 degrees from the indicator unit. Clearance between any of these units and the tube leaves room for steam or electric tracing.

Key Benefits

- *Simple to install, calibrate and configure*
- *Reliable long term performance in gas or liquid service*
- *Highly accurate and stable readings for precise measurement and control*
- *Stands up to extreme conditions with rugged construction*
- *Easily adaptable to fit your exact needs with standard options*



Metal Tube Varea-Meter® Unit

Technical Data

Accuracy:

2% of full scale with standard calibration.

Range:

10 to 1

Dial Length:

6 inches

Dial Units:

Percent of maximum flow is standard. GPM water, SCFM air, or special graduations are optional.

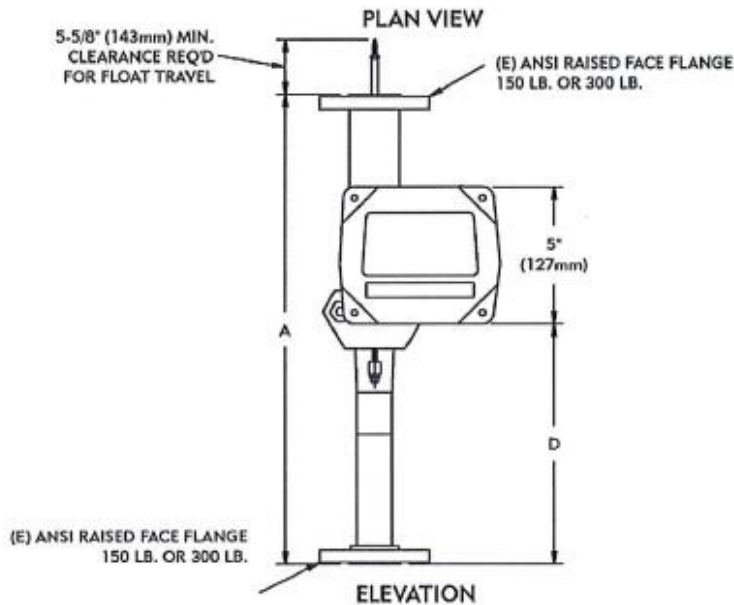
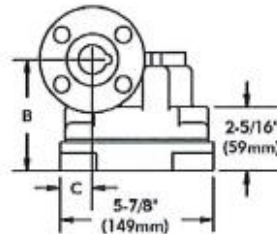
Tube and Float Materials:

Tube material 316 stainless steel. Float 316 stainless steel or Hast "C". Write for CF.500.001.000.UA.CG, which is a detailed listing of meter compatibility with a wide range of fluids.

Connections:

ANSI raised face 150 lb. and 300 lb. (special order) 316 stainless steel.

**Straight-Through Metal Tube
Varea-Meter® Unit
With Magnetic Indicator**



METER SIZE	A	B	C	D	E	F	G
1/2" (13mm)	18" (457mm)	3-1/2" (90mm)	3-1/2" (90mm)	9-3/4" (248mm)	1" (25mm)	12" (305mm)	3-1/2" (89mm)
3/4" (19mm)	18" (457mm)	4-1/2" (115mm)	4-1/2" (115mm)	9-3/4" (248mm)	1" (25mm)	12" (305mm)	3-1/2" (89mm)
1" (25mm)	18" (457mm)	4-1/2" (115mm)	4-1/2" (115mm)	9-3/4" (248mm)	1" (25mm)	12" (305mm)	3-1/2" (89mm)
1-1/2" (38mm)	20" (508mm)	4-1/2" (115mm)	4-1/2" (115mm)	10-1/2" (267mm)	1-1/2" (38mm)	15" (381mm)	4" (102mm)

CF.520.205.100.CN.1115

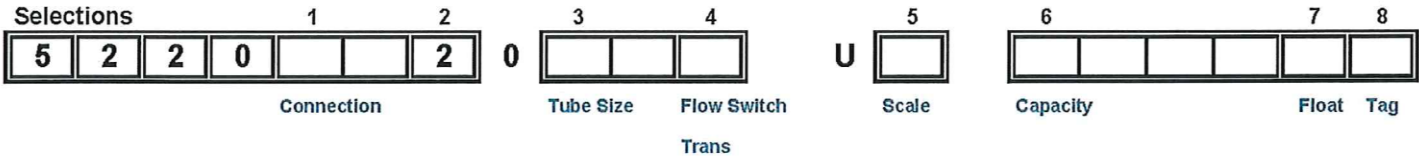
Ordering Procedure

Example

To order a 1/2" Metal Tube Meter with indicator only with plastic window, 316SS 150 lb. flanges and float having a maximum capacity of 7.2 GPM water, specify: 5220M22008XUIB410SX

METAL-TUBE VAREA-METER

PRODUCT SHEET CF.520.205.100.CN.0714



Selection 1 - CONNECTIONS

CODE	Description
M2	RF - 150 LB
M4*	RF - 300 LB*

*Made to order, 6-8 week delivery

Selection 2 - FLANGE MATERIAL

CODE	Description
2	316 Stainless Steel

Selection 3 - TUBE SIZE

CODE	Size	Connection
08	1/2"	1"
12	3/4"	1"
16	1"	1"
24	1 1/2"	1 1/2"

Selection 4 - EXTERNAL ELECTRONIC TRANSMITTER / FLOW SWITCH

Code	Description
X	None
A	General Purpose 1 Switch
B	General Purpose 2 Switch
G	Haz 1 Switch 1 Relay
H	Haz 2 Switches 2 Relays
6	Transmitter Haz Area

Selection 5 - SCALE TYPE

CODE	Description
B	Gas Direct
I	Liquid Direct
D	Gas Percent
P	Liquid Percent

Selection 6 - CAPACITY

Float Code	Tube Code	Capacity	
		GPM	SCFM
B102	O8	1	4.5
B106	O8	1.5	6.5
B302	O8	2.1	9
B126	O8	2.3	
B306	O8	3.2	13.5
B402	O8	3.9	16.7
B406	O8	6.6	26.8
B410	O8	7.2	
C402	12	7.4	30.4
C406	12	9.2	39.4
D402	16	11.2	49
C410	12	11.6	49

Float Code	Tube Code	Capacity	
		GPM	SCFM
B426	8	13	
C426	12	14.5	61
D406	16	15.6	64.5
C432	12	19	79
D410	16	23.9	102.9
E402	24	20.9	89.5
E406	24	30.4	129.8
E422	24	32.9	139.3
D430	16	37.9	161.5
E410	24	48.4	205.8
E430	24	88.9	350

Selection 7 - FLOAT MATERIAL

Code	Description
S	316 Stainless Steel
H*	Hastelloy C 08 size*
	Hastelloy C 12 size*
	Hastelloy C 16 size*
	Hastelloy C 24 size*

*Made to order 6-8 week delivery

Selection 8 - TAG

Code	Description
X	None
1	Stainless Steel (wire on)

OPTIONS	
<input type="checkbox"/>	Certificate of Conformance

This Data sheet must be completed and accompany each Metal Tube VM order			
Name:	_____		
Concentration:	_____		
Metering Temperature:	_____ FAR	_____ C	
Specific Gravity:	_____		
Viscosity:	_____ GPS	_____ CSS	
Flow Rate, maximum:	_____		
Flow Rate, normal:	_____		
Metering Pressure:	_____ PSIG		
VAREA-METER CALIBRATION		Indicator Scale Units - Select just one	
<input type="checkbox"/> %	<input type="checkbox"/> Direct read GPM	<input type="checkbox"/> Direct read SCFM	<input type="checkbox"/>
	<input type="checkbox"/> Direct read other than Standard		<input type="checkbox"/>
Viscosity Ceiling	<input type="checkbox"/> Below	<input type="checkbox"/> Above	
Accuracy (Full Scale)	2% Standard is only option		



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