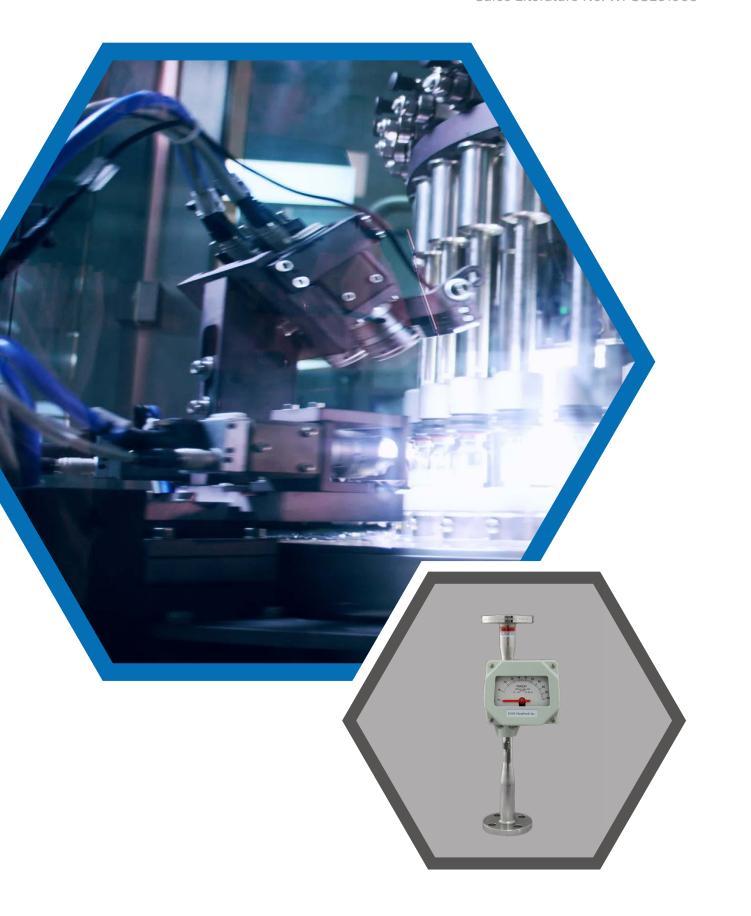


# **Flow Measurement Equipment**

Varea-Meter® Series 520.205 Metal Tube Rotameters

Sales Literature No. WPSSL01903



# **Features**

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.

#### **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.

#### **No Float Extensions**

When the float is at rest, nothing projects beyond the flanges. Spool pieces are not required for installation and a frequent cause of damage when removing meters from a line is gone. In and out piping is vertical.

#### **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 transmitters 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 needswith standard options.



# **Technical Data**

# **Accuracy:**

2% of full scale with standard calibration

#### Range:

10 to 1

#### **Dial Length:**

6 Inches

# **Dial Units:**

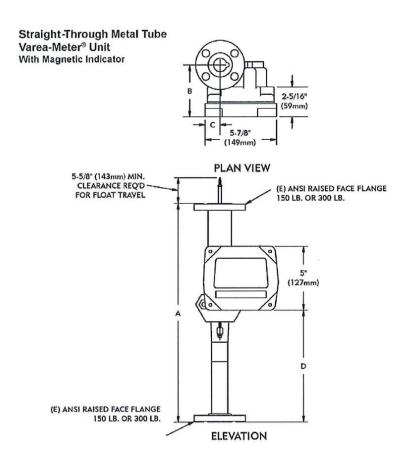
Percent of maximum flow is standard. GPM water, SCFM air, or special graduations are optional.

#### **Tube and Float Matereials:**

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 range of fluids.

#### **Connections:**

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



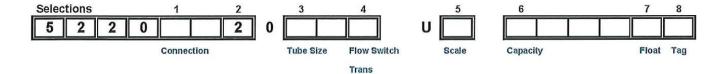
METER SIZE	Α	В	С	D	E
1/2" (13mm)	18" (457mm)	3-3/16" (80mm)	1-9/16" (40mm)	9-3" (233mm)	1" (25mm)
3/4" (19mm)	18" (457mm)	4-1/4" (108mm)	1-5/16" (33mm)	9-7/16" (240mm)	1" (25mm)
1" (25mm)	18" (457mm)	4-1/4" (108mm)	1-5/16" (33mm)	9-7/16" (240mm)	1" (25mm)
1-1/2" (38mm)	20" (508mm)	4-3/4" (121mm)	1-3/16" (30mm)	10-5/16" (261mm)	1-1/2" (38mm)

# **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*

<sup>\*</sup>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	11/2"	1 1/2"

# Selection 4 - EXTERNAL ELECTRONIC TRANSMITTER / FLOW SWITCH

Code	Description	
X	None	
Α	General Purpose 1 Switch	
В	General Purpose 2 Switch	
G	Haz 1 Switch 1 Relay	
Н	Haz 2 Switches 2 Relays	
6	Transmitter Haz Area	

#### Selection 5- SCALE TYPE

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

# Selection 6 - CAPACITY

Float	Tube	Сар	acity
Code	Code	GPM	SCFM
B102	08	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	Tube	Сар	acity
Code	Code	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
х	None
1	Stainless Steel (wire on)

-		
	OPTIONS	
	Certificate of Conformance	

This Data sheet must be complete	ed and accompany each Metal Tube VM order
Name:	
Concentration:	
Metering Temperature:	FAR C
Specific Gravity:	
Viscosity:	CPS CSS
Flow Rate, maximum:	
Flow Rate, normal:	
Metering Pressure:	PSIG
VAREA-METER CALIBRATION	Indicator Scale Units - Select just one
% Direct read GPM	Direct read SCFM
Direct read other th	nan Standard
Viscosity Ceiling Below	Above
Accuracy (Full Scale)	2% Standard is only option



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