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### Flow Measurement & Control Rotameters

## Model FM-1100 Series and Model FM-1127 Series High Flow Capacity Flowmeters (70mm, 127mm)



#### Description

The FM-1100 and FM-1127 Series Flowmeters are offered as a simplified solution to the problem of fluid flow indication at higher flow capacity levels than the FM-1050 and FM-1000 Series Flowmeters. These meters are designed to withstand the physical abuse and environmental corrosion of industrial applications.

The FM-1100 is available in several ranges of 70mm direct reading scales, and the FM-1127 in 127mm direct reading scales. Choose between English or Metric units.

A one-piece aluminum channel frame encloses the end blocks, fittings and glass metering element for maximum meter protection and safety. Eight standard connection variations are made possible by three off-the-shelf end block configurations.

The precision tapered metering tube has integral float guides to ensure float fidelity. The scale is permanently screened on an acrylic window inset in the meter case which makes it interchangeable for economical alteration of meter applications. A float/scale correlation symbol is marked on the window to eliminate error during application changes. The reading edge of the machined float provides precision read-out delineation. Reading edge instructions are also screened on the scale window.

#### **Design Features**

- Precision tapered, fluted metering tube
- Fully protected assembly using aluminum meter case
- Unobstructed flow path area for low pressure drop increases available flow rates at low feed pressures
- Precision machined float
- Spring float stops absorb line shock
- Float/Scale correlation symbol and float reading edge instructions permanently screened on meter window
- Corrosion resistant option: all wetted parts of 316 stainless steel with Viton or EPR seals
- Custom scales and flow curves available

#### **Specifications** Р

Pressure Rating:	200 psig maximum operating
Ũ	pressure @ 200°F
Temperature Rating:	250°F maximum operating
	temperature
Accuracy:	$\pm 10\%$ of full scale flow rate
Range:	10 to 1, i.e., 100% to 10% of full scale
Scale Reading:	Direct reading air (special other
-	scales available)
Shipping Weight:	2 lbs

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Shipping Weight:

### Materials of Construction

Wetted End Blocks, Fittings	
and Internal Parts:	Brass or 316 stainless steel
Seal Materials:	Buna-N or Viton – standard;
	Teflon, Kalrez or EPR – optional
Meter Case:	Black painted or anodized
	aluminum with acrylic window
Metering Tube:	Borosilicate glass
Piping Connections:	Brass or 316 stainless steel 3/8"
1 0	NPT Female (see Accessories for
	optional connections)
Float Material:	316 stainless steel
Scale:	Permanently screened on inside of
	meter window, length FM-1100 –
	70mm or FM-1127 –127mm.

#### **Dimensions FM-1100 and FM-1127 Flowmeters**

See pages 370 for engineering drawing.

- See pages 351 for additional general information.
- See page 355 for Tube-Cube® information.
- See page 364 for Replacement Seal Kits and Parts.

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## Model FM-1100 Series and Model FM-1127 Series High Capacity Flowmeters (70mm, 127mm)

### Flow Tube Capacities For FM-1100 And FM-1127 Series Flowmeters, Direct Reading Scales

FM-1100	) Series						
Tube No.	Air (SCFM)*	Tube No.	Air (SLPM)*	Tube No.	Water (GPM)	Tube No.	Water (LPM)
A121	0.5-4	A125	10-120	A111	0.1-1	A116	0.5-3.5
A122	1-9	A126	20-260	A112	0.2-2	A117	0.5-8
A123	1-12	A127	20-340	A113	0.2-3	A118	1-10
A124	1-15	A128	50-500	A114	0.5-4	A119	1-15
				A115	0.5-5	A120	2-20

\*All air flow rates are at 70°F and 14.7 psia

#### FM-1127 Series

Tube No.	Air (SCFM)*	Tube No.	Air (SLPM)*	Tub	be No.	Water (GPM)	Tube	e No.	Water (LPM)
B121	0.2-4	B125	5-120	B	8111	0.05-1	B1	16	0.2-3.5
B122	0.5-9	B126	20-260	В	3112	0.1-2	B1	17	0.5-8
B123	0.5-11	B127	20-320	В	8113	0.2-3	B1	18	0.5-12
B124	1-16	B128	20-500	В	3114	0.2-4	B1	19	1-16
				В	8115	0.5-5	B1	20	1-22

\*All air flow rates are at 70°F and 14.7 psia

#### Ordering Information

Model Series	Number of Metering Tubes	End Blocks/ Seal Material	Valve Types	Connections	Accessories	Connection Orientation	Flow Tube (Capacities)
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#### Model Number Generator For FM-1100 Series & FM-1127 Series Glass Tube Flowmeters

#### **MODEL SERIES**

- A = Model FM-1100 Glass Tube Flowmeter with 70mm tube
- B = Model FM-1127 Glass Tube Flowmeter with 127mm tube

#### NUMBER OF METERING TUBES

1 = Single Tube Unit

#### END BLOCKS/SEAL MATERIAL

- 4 = 316 Stainless Steel with Viton Seals
- 8 = Brass with Buna-N Seals

### VALVE TYPES

- J = Valve on Inlet
- L = Valve on OutletY = No Valve/No Plug
- a = 1 No Valve/ No Plu

#### CONNECTIONS

- 2 = 1/4" NPT Female 7 = 3/8" NPT Female (std)
- 8 = 1/2" NPT Female

# **ACCESSORIES** 0 = None

 8 = Externally Threaded Connections for Panel Mounting

### CONNECTION ORIENTATION

1 = Back In and Back Out

#### FLOW TUBE (CAPACITIES)

AXXX = See Capacity Table For FM-1100 Series Flowmeters BXXX = See Capacity Table For FM-1127

Series Flowmeters

#### ADDITIONAL OPTIONS

- +/- 1% Accuracy, Full Scale, With Certification, Reference Scales
- +/- 10% Accuracy, Full Scale, With Certification, Direct Read Scales
- Clean for O<sub>2</sub> Service

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