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

Pressure Rating: 200 psig maximum operating

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

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"

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



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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)*	Tube No.	Water (GPM)	Tube No.	Water (LPM)
B121	0.2-4	B125	5-120	B111	0.05-1	B116	0.2-3.5
B122	0.5-9	B126	20-260	B112	0.1-2	B117	0.5-8
B123	0.5-11	B127	20-320	B113	0.2-3	B118	0.5-12
B124	1-16	B128	20-500	B114	0.2-4	B119	1-16
				B115	0.5-5	B120	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 Outlet
- Y = No Valve/No Plug

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

- +/- 5% Accuracy, Full Scale, With Certification
- +/- 10% Accuracy, Full Scale, With Certification
- Clean for O2 Service

These are Direct Reading Scale Flowmeters. Inquire for other tube scales available.

