DATA SHEET

Variable Area Flow Meters



Sho-Rate[™] Model 1358

Sho-rate[™] Series Model 1358

Sho-Rate™ "50", Size 8, Flow Indicator Glass Tube Variable Area Flowmeters

The Sho-Rate "50" Series of low flow indicators provide a cost-effective means of flow indication where the accuracy requirements are not severe. Available options include an integral needle control valve and optional configuration to connect a flow controller to the inlet or outlet of the meter.

- · Ten-to-one rangeability
- Heavy-wall, precision bore borosilicate glass metering tube
- A wide range of scales on the metering tube
- Tube removable without disconnecting the instrument
- Interchangeable tubes and floats
- · Customer rotatable
- Piping connections through 360° at 90° intervals
- Easily panel mounted
- Single tube

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Measuring Range

Standard Accuracy

Repeatability

Rangeability

Pressure/Temperature

Pressure Equipment Directive (PED) 97/23/EC

See Capacity Table

 $\pm 10\%$ of full scale from 100% to 10% of reading

0.5% full scale

Ten to one

200 psig at 33°F to 250°F (1°C to 121°C) Fluid temperatures below 32°F (0°C) will cause frosting of the glass metering tube. Consult factory for applications below this temperature. 100 psig at 33°F to 250°F (1°C to 121°C)(CRN Certification)

Flowmeters mentioned in this document are Sound Engineering Practice (SEP)

View Sho-rate™ Series Model 1358 Product Page



Product Specifications (continued)

Materials of Construction:	
Metering Tube	Borosilicate Glass
Tube Packing	Standard: Neoprene™ (Brass meters); Viton-A* fluoroelastomers (316 Stainless Steel meters); Optional: EPM
O-rings	Standard: Buna-N (Brass meters); Viton-A [®] fluoroelastomers (316 Stainless Steel meters); Optional: EPM
Float	316 Stainless Steel
Float Stops	Stainless Steel
Side Plates	Standard: Black Anodized Aluminum
Window	Scratch resistant, UV stabilized polycarbonate
Back Cover	Milk white polycarbonate
End Fittings	Chrome Plated Brass or 316 Stainless Steel
Connections	Standard: Horizontal female 3/8" NPT threaded adaptors; Optional: Refer to Model Code
Scales	Type (standard): Fused on meter tube

Type (standard): Fused on meter tube Length: 75 mm, nominal

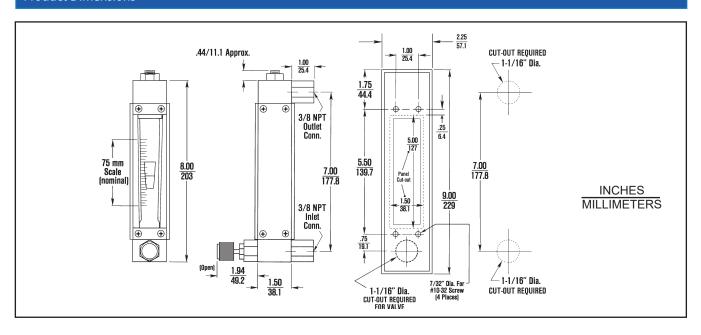
Graduations: Standard: Direct read on tube in gpm water or scfm air Optional: Special direct read decal on tube. Consult factory for available ranges. Direct read on metal scale plate mounted beside tube

Product Capacities

			Pressure Drop Without Valve Inches W.C.	Pressure Drop With Valve Inches W. C.	Float
Maximum Flow Rate		0.8	12.6	13.6	8-RV-8
	Water (gpm)	1.5	22.2	27.0	8-RJ-10
		2.5	61.0	85.2	8-RJ-23
		3.5	88.7	121.0	8-RJ-30
		5.0	172	238.0	8-RJ-39
	Air (scfm)	3.4	14.34	15.5	8-RV-8
		6.0	25.34	30.8	8-RJ-10
		12.0	69.34	97.3	8-RJ-23
		15.0	101.34	138.3	8-RJ-30

NOTE: All air flows are at 14.7 psia and 70°F.

Product Dimensions



Cod	e Description	Code Option	Option Description
l.	Base Model Number	1358F	Sho-Rate "50", Size 8
II.	Tube	1 2 9	R-8M-75-1 (Cut-Off) R-8M-75-1 CRN option No Tube
III.	Float (316 Stainless Steel)	A B C D E Y	8-RV-8 8-RJ-10 8-RJ-23 8-RJ-30 8-RJ-39 No Float
IV.	Scale Type/Side Plate Arrangement	1 2	Scale on tube (Plain Side Plates) Aluminum Detachable Scale Mounted to Right Side Plate
V.	Scale Inscription	A B D E F	No Inscription MM Scale SCFM Air @ 70°F psia, Standard 10% Accuracy GPM Liquid Specific Gravity 1.0, Viscosity 1.0 cP, Standard 10% Accuracy Special Inscription, Standard 10% Accuracy
VI.	Tube Packing & O-ring Materials for Meter/Valve ¹	A C K L M N P	Neoprene Tube Packing, Buna O-ring Viton Tube Packing, Viton O-ring EPM Tube Packing, EPM O-ring No Packing², Buna O-ring No Packing², VitonO-ring No Packing², EPM O-ring No Packing², Kalrez O-ring
VII.	Fitting & Adapter Material ³ / Process Connection Size & Type	1* 2 3* 4	3/8" NPT Connection, Brass Fitting & Adapter 3/8" NPT Connection, 316 Stainless Steel Fitting & Adapter Thd. 3/8" NPT with Locknut Connection, Brass Fitting & Adapter Thd. 3/8" NPT with Locknut Connection, 316 Stainless Steel Fitting & Adapter
VIII.	Valve Configuration	A B C D* E* F ⁴ G ⁴ H ^{4*}	No Valve (Plain End Fitting on Inlet) Standard Stainless Steel Needle Valve on Inlet Standard Stainless Steel Needle Valve on Outlet Standard Brass Needle Valve on Inlet Standard Brass Needle Valve on Outlet To mount 8810 Flow Controller To mount 8910 Flow Controller To mount 8830 Flow Controller Standard Valve Cavity with Stainless Steel Plug
IX.	Connection Orientation	1 3 9	Standard Valve Cavity without Valve or Plug Inlet Port Back, Outlet Port Back Inlet Port Back, Outlet Port Right ⁵ Inlet Port Right, Outlet Port Back ⁶
X.	Accessories (One or Two-digit Field)	A G	None No Brooks Indentification

NOTES: $\,\,^{1}$ If valve is not required, select proper O-ring material for meter only.

⁵For 8912 Controller Only ⁶For 8812/8830 Controller Only

Sample		ll l	III	IV	V	VI	VII	VIII	IX	X
Standard Model	1358F	1	C	2	D	C	2	В	1	Α

²If tube is not required, select proper O-ring material coded L through P.

³If no adapter is required, select proper code for end fitting material only.

⁴Flow Controller must be a second-line item on customer's order.

^{*} Not available with CRN Certification

Service and Support

Brooks is committed to assuring all of our customers receive the ideal flow solution for their application, along with outstanding service and support to back it up. We operate first class repair facilities located around the world to provide rapid response and support. Each location utilizes primary standard calibration equipment to ensure accuracy and reliability for repairs and recalibration and is certified by our local Weights and Measures Authorities and traceable to the relevant International Standards.

Visit www.BrooksInstrument.com to locate the service location nearest to you.

START-UP SERVICE AND IN-SITU CALIBRATION

Brooks Instrument can provide start-up service prior to operation when required. For some process applications, where ISO-9001 Quality Certification is important, it is mandatory to verify and/or (re)calibrate the products periodically. In many cases this service can be provided under in-situ conditions, and the results will be traceable to the relevant international quality standards.

CUSTOMER SEMINARS AND TRAINING

Brooks Instrument can provide customer seminars and dedicated training to engineers, end users, and maintenance persons. Please contact your nearest sales representative for more details. Due to Brooks Instrument's commitment to continuous improvement of our products, all specifications are subject to change without notice.

TRADEMARKS	
Brooks & Sho-Rate	Brooks Instrument, LLC
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