

Brooks® 1250/55 Sho-Rate™ Series Glass Tube Flowmeters



Description

Series 1250/55 are flowmeters for liquids and gases available in 65 or 150mm scale lengths. These flowmeters can be configured with a standard or precision control valve on either the inlet, outlet or no valve; fittings can be specified in either aluminum or stainless steel; valves can be specified in either brass or stainless steel; O-rings and seals can be provided in Buna-N, Viton® fluoroelastomer or other optional elastomers.

Features

- Standard direct read scales
- Standard millimeter scales with flow curves permit multiple fluid use with a single tube
- Scale length (approximate) 65mm, 150mm
- Flow meter available with:
 - No valve
 - Cartridge valve
 - Precision control valve
- Inlet valve / Outlet valve
- EZ-CHANGE design allows quick interchangeability of tube assemblies
- Glass tube allows compatability with most gases and fluids
- Rotating lens provides a 180° view with magnification

Specifications

- Accuracy:** Model 1250 $\pm 10\%$ full scale
Model 1255 $\pm 5\%$ full scale
- Floats:** Black Glass (G), Sapphire (S), Stainless Steel (ST), Carboly (C), Tantalum (T)
- Frame:** Aluminum
- End Blocks:** Aluminum W/Buna-N, Stainless Steel w/Viton® fluoroelastomer
- Std Seals and Fittings:** Brass w/Buna-N, Stainless Steel w/Viton® fluoroelastomer
- Fittings:** 1/8" FNPT or 1/4" FNPT
- Tube:** Borosilicate Glass
- Valve:** Standard control valve
Precision control valve*
- Pressure:** 200 psi / 13.8 Bar Max.
- Temperature:** 200°F/93°C Max.

*Precision valve not available for the high flow rates, contact factory for more information.

Applications

- 65mm Tubes:** 51 CCM to 65 LPM Air @ STP
21.4 CCM to 2 LPM Water @ STP
- 150mm Tubes:** 50 CCM to 66 LPM Air @ STP
22.2 CCM to 2 LPM Water @ STP

Ordering Information Models 1250/55

Catalog Number Ordering Example: 1250AD6011ACSVV

EXAMPLE:	1250A	D6011	A	C	S	V	V
1250A 1255A							
Model Number							
Gas or Liquid (See Table)							
Unit of Measure (See Table)							
End Blocks Material (Wetted) A = 1/8" FNPT Aluminum, S = 1/8" FNPT Stainless Steel Q = 1/4" FNPT Stainless Steel							
Valve Designation N = No Valve, V = Standard Inlet Valve, P = Precision Inlet Valve O = Standard Outlet Valve, R = Precision Outlet Valve							
O-ring Material Used in Valve B = Buna, V = Viton, S = Special (consult factory)							

Gas or Liquid

A = Air
R = Argon
D = Carbon Dioxide
H = Helium
M = N/A (millimeter)

Y = Hydrogen
N = Nitrogen
O = Oxygen
W = Water

Units of Measure

M = ml/min
L = LPM
C = CCM
P = GPM
R = Millimeter

H = LPH
F = SCFH
G = GPH

Helpful Conversions:

For Gas:
LPM x 1000 = CCM
CFH x 472 = CCM
CFM x 28230 = CCM

For Liquid:
LPM x 1000 = CCM
GPH x 63.09 = CCM
GPH x 3785 = CCM

For Pressure:
ATM x 14.696 = PSI
ATM x 101.325 = KPA
ATM x 29.92 = IN of Hg

For Temperature:
°C = (°F - 32) x 0.555
°F = (1.8 x °C) + 32
°K = °C + 273.15

Data Sheet

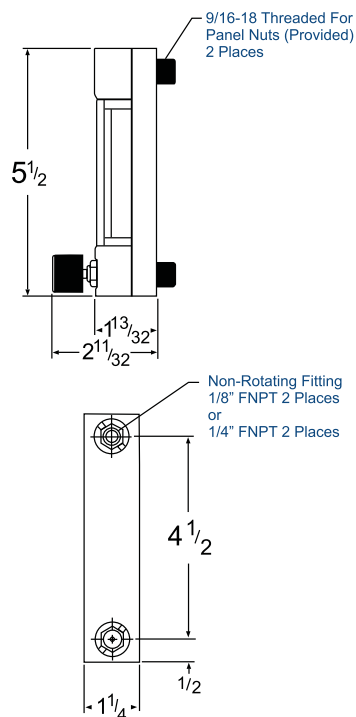
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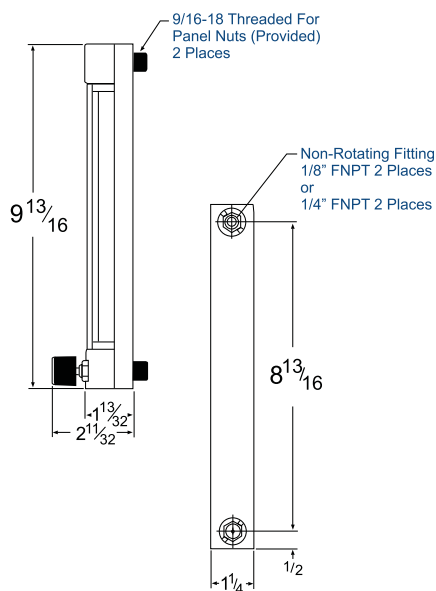
Model 1250 65mm Flowmeter

Inches	5 1/2	1 13/32	2 11/32	1 1/4	4 1/2	1/2
MM	140	35.7	59.5	31.8	114	12.7



Model 1255 150mm Flowmeter

Inches	9 13/16	1 13/32	2 11/32	1 1/4	8 13/16	1/2
MM	249	35.7	59.5	31.8	224	12.7



1250 Flowmeters - Air

Model No.	Float	Float Dia.	ml/min	LPM	LPH	CCM	SCFH
D6011	G	1/8"				2-50	.004-.1
D6013	ST	1/8"				1-150	
D6021	G	1/8"				5-100	
D6023	ST	1/8"				10-300	
D6031	G	1/8"				20-400	
D6032	S	1/8"	25-550	.05-.5		25-550	.1-1.2
D6041	G	1/8"				20-900	.05-1.9
D6042	S	1/8"		.1-1		50-1200	
D6043	ST	1/8"				50-1800	
D6051	G	3/16"		.1-2.5		250-2500	.25-5.5
D6054	C	3/16"				350-7250	
D6071	G	1/4"				200-6000	
D6073	ST	1/4"		.2-11.4			
D6082	S	1/4" B					2-25
D6083	ST	1/4"					4-40
D6092	S	1/4" B		1-20			
D6093	ST	1/4"		1-30			4-60
D6104	C	1/4" B		2-60			5-130

1255 Flowmeters - Air

Model No.	Float	Float Dia.	ml/min	LPM	LPH	CCM	SCFH
D1011	G	1/8"				2-50	
D1021	G	1/8"	2-100			2-100	
D1022	S	1/8"	4-160			4-160	
D1023	ST	1/8"		.01-.25		5-300	
D1031	G	1/8"				20-400	
D1032	S	1/8"				20-550	
D1033	ST	1/8"				30-850	.06-1.3
D1042	S	1/8"		.1-1		50-1100	.05-2.4
D1043	ST	1/8"		.25-1.7			
D1052	S	3/16" A		.05-3		50-3000	.1-6
D1053	ST	3/16"				100-4500	
D1063	ST	3/16"		.1-6.6			
D1072	S	1/4" B		.2-12			
D1082	S	1/4" B		1-30			
D1083	ST	1/4"		1-40			
D1084	C	1/4" B		1-50			
D1085	T	1/4" C				2000-66,000	

1250 Flowmeters - Oxygen

Model No.	Float	Float Dia.	ml/min	CCM	LPM
D6023	ST	1/8"	10-260		

1255 Flowmeters - Oxygen

Model No.	Float	Float Dia.	ml/min	CCM	LPM
D1011	G	1/8"		2-45	
D1023	ST	1/8"			0.01-0.25
D1042	S	1/8"			.02-1
D1054	C	3/16"			0.5-5
D1081	G	1/4"			0.5-22
D1082	S	1/4" B			1-30
D1083	ST	1/4"			1-40
D1084	C	1/4" B			1-50

1250 Flowmeters - Argon

Model No.	Float	Float Dia.	CCM	LPM	SCFH
D6042	S	1/8"		0.05-1	
D6051	G	3/16"		0.2-2	
D6073	ST	1/4"			05-20
D6101	G	1/4"		1-20	
D6104	C	1/4" B			5-110

1255 Flowmeters - Argon

Model No.	Float	Float Dia.	CCM	LPM	SCFH
D1011	G	1/8"	1-40		
D1054	ST	3/16"		0.5-5	
D1062	S	3/16" A			0.1-8
D1072	S	1/4" B		1-10	
D1082	S	1/4" B			1-55

1250 Flowmeters - Carbon Dioxide

Model No.	Float	Float Dia.	ml/min	CCM	LPM
D6022	S	1/8"	6-180		
D6042	S	1/8"		10-1000	
D6083	ST	1/4"			0.5-16

1255 Flowmeters - Carbon Dioxide

Model No.	Float	Float Dia.	ml/min	CCM	LPM
D1071	G	1/4"			0.1-8
D1081	G	1/4"			0.25-20
D1083	ST	1/4"			1-35
D1084	C	1/4" B			1-50

1250 Flowmeters - Water

Model No.	Float	Float Dia.	ml/min	LPH	CCM	GPM	GPH
D6033	ST	1/8"	1-20				.03-0.3
D6044	C	1/8"			2-50		
D6053	ST	3/16"	4-140		4-140		
D6061	G	3/16"	1-90				
D6062	S	3/16"			500-5200		
D6063	ST	3/16"			10-220		
D6073	ST	1/4"			10-340		0.2-5
D6093	ST	1/4"			25-875		0.5-14
D6101	G	1/4"			25-575		
D6103	ST	1/4"			10-1300		
D6104	C	1/4" B			5-115		
D6105	T	1/4" C			50-2000	.2-5	

1255 Flowmeters - Water

Model No.	Float	Float Dia.	ml/min	LPM	CCM	GPM	LPH
D1043	ST	1/8"			2-48		
D1053	ST	3/16"			2-130		
D1061	G	3/16"			1-75		
D1062	S	3/16"					0.5-7
D1063	ST	3/16"					1-11
D1064	C	3/16"			3-290		
D1073	ST	1/4"			10-520		
D1083	ST	1/4"		0.1-1.3			
D1085	T	1/4" C			20-2080		

1250 Flowmeters - Nitrogen

Model No.	Float	Float Dia.	ml/min	CCM	LPM	SCFH
D6013	ST	1/8"			15-150	
D6021	G	1/8"	4-100			
D6032	S	1/8"			20-560	0.1-1.2
D6043	ST	1/8"	100-1800			
D6051	G	3/16"				0.5-5
D6053	ST	3/16"				0.4-10
D6063	ST	3/16"				0.5-16
D6073	ST	1/4"		0.1-1.3		3-25
D6104	C	1/4" B				13-130

1255 Flowmeters - Nitrogen

Model No.	Float	Float Dia.	ml/min	CCM	LPM	SCFH
D1011	G	1/8"		2-50		
D1021	G	1/8"		2-100		
D1022	S	1/8"		1-160		
D1023	ST	1/8"		5-300		
D1033	ST	1/8"		30-900		
D1041	G	1/8"	20-900			
D1043	ST	1/8"		50-1750		
D1053	ST	3/16"			0.4-4.5	
D1071	G	1/4"			0.1-9	0.5-20
D1081	G	1/4"				1-50
D1084	C	1/4" B			2-60	

1250 Flowmeters - Hydrogen

Model No.	Float	Float Dia.	CCM	LPM	SCFH
D6023	ST	1/8"	25-600		
D6024	C	1/8"		0.2-1	
D6051	G	3/16"			1-10
D6052	S	3/16"		1-10	

1255 Flowmeters - Hydrogen

Model No.	Float	Float Dia.	CCM	LPM
D1024	C	1/8"	20-1000	0.2-1
D1073	ST	1/4"		1-62

1250 Flowmeters - Helium

Model No.	Float	Float Dia.	ml/min	CCM
D6013	ST	1/8"		2-155

1255 Flowmeters - Helium

Model No.	Float	Float Dia.	ml/min	CCM
D1021	G	1/8"	2-100	2-100
D1023	ST	1/8"		5-300
D1024	C	1/8"		40-560

Data Sheet

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1250 Flow Ranges - Millimeter

Model No.	Float	Float Dia.	Air (CCM)	Water (CCM)
R6011	G	1/8"	50	
R6012	S	1/8"	75	
R6013	ST	1/8"	153	
R6014	C	1/8"	278	
R6015	T	1/8" A	310	
R6021	G	1/8"	103	
R6022	S	1/8"	160	
R6023	ST	1/8"	298	
R6024	C	1/8"	498	
R6025	T	1/8" A	546	
R6031	G	1/8"	400	
R6032	S	1/8"	550	
R6033	ST	1/8"	855	21.4
R6034	C	1/8"	1275	35.4
R6035	T	1/8" A	1360	38.4
R6041	G	1/8"	900	18.2
R6042	S	1/8"	1200	29.6
R6043	ST	1/8"	1800	50.1
R6044	C	1/8"	2620	76.1
R6045	T	1/8" A	2790	82.4
R6051	G	3/16"	2580	55
R6052	S	3/16" A	3350	85
R6053	ST	3/16"	5030	140
R6054	C	3/16"	7270	215
R6055	T	3/16" B	7710	230
R6061	G	3/16"	3840	90
R6062	S	3/16" A	5080	130
R6063	ST	3/16"	7510	220
R6064	C	3/16"	10700	325
R6065	T	3/16" B	11315	345
R6071	G	1/4"	6000	130
R6072	S	1/4" B	7790	200
R6073	ST	1/4"	11450	335
R6074	C	1/4" B	16340	500
R6075	T	1/4" C	17250	535
R6081	G	1/4"	10100	235
R6082	S	1/4" B	12980	350
R6083	ST	1/4"	18960	560
R6084	C	1/4" B	26525	830
R6085	T	1/4" C	28115	885
R6091	G	1/4"	15750	375
R6092	S	1/4" B	20170	545
R6093	ST	1/4"	29400	880
R6094	C	1/4" B	41175	1305
R6095	T	1/4" C	43410	1385
R6101	G	1/4"	23640	570
R6102	S	1/4" B	30090	825
R6103	ST	1/4"	43340	1330
R6104	C	1/4" B	61120	1920
R6105	T	1/4" C	65850	2055

1255 Flow Ranges - Millimeter

Model No.	Float	Float Dia.	Air (CCM)	Water (CCM)
R1011	G	1/8"	50	
R1012	S	1/8"	80	
R1013	ST	1/8"	152	
R1014	C	1/8"	275	
R1015	T	1/8" A	315	
R1021	G	1/8"	103	
R1022	S	1/8"	160	
R1023	ST	1/8"	293	
R1024	C	1/8"	497	
R1025	T	1/8" A	540	
R1031	G	1/8"	400	
R1032	S	1/8"	555	
R1033	ST	1/8"	870	22.2
R1034	C	1/8"	1300	36.2
R1035	T	1/8" A	1400	39.5
R1041	G	1/8"	855	18
R1042	S	1/8"	1135	27.6
R1043	ST	1/8"	1710	47.5
R1044	C	1/8"	2465	73.2
R1045	T	1/8" A	2640	78.8
R1051	G	3/16"	2290	50
R1052	S	3/16" A	2980	75
R1053	ST	3/16"	4480	125
R1054	C	3/16"	6475	190
R1055	T	3/16" B	6805	205
R1061	G	3/16"	3425	75
R1062	S	3/16" A	4465	115
R1063	ST	3/16"	6600	190
R1064	C	3/16"	9470	285
R1065	T	3/16" B	9990	305
R1071	G	1/4"	9180	215
R1072	S	1/4" B	11990	315
R1073	ST	1/4"	17810	515
R1074	C	1/4" B	24970	765
R1075	T	1/4" C	26170	825
R1081	G	1/4"	23740	565
R1082	S	1/4" B	30270	830
R1083	ST	1/4"	44050	1335
R1084	C	1/4" B	61410	1950
R1085	T	1/4" C	66370	2080

Note: A, B and C indicate float price adders. Please consult price list for details. Periodically, product revisions occur. Please consult the factory for the latest specifications.

Float Material Codes

0 = No Float	2 = Sapphire (S)	4 = Carboloy (C)
1 = Black Glass (G)	3 = Stainless Steel (ST)	5 = Tantalum (T)

BROOKS 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. The primary standard calibration equipment to calibrate our flow products 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.

HELP DESK

In case you need technical assistance:

Americas	☎ 1-888-554-FLOW	
Europe	☎ +(31) 318 549 290	Within Netherlands ☎ 0318 549 290
Asia	☎ +011-81-3-5633-7100	

Due to Brooks Instrument's commitment to continuous improvement of our products, all specifications are subject to change without notice.

TRADEMARKS

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