

## LFC™ Low Flow Indicators

- Ten-to-one rangeability
- All wetted parts 316 stainless steel
- Heavy-wall, precision bore, borosilicate glass metering tubes
- A wide range of scales on the metering tube with contrasting background for easy readability
- Tube sealed on compression gasket by threaded 316 stainless steel seal spindle
- Tube removable without disconnecting instrument
- Integral Teflon® float stops prevent loss of float during tube removal
- Interchangeable tubes and floats
- 316 stainless steel check valve in outlet fitting

### DESCRIPTION

The Brooks® LFC series of low flow indicators provides a most cost-effective means of flow indication where the accuracy requirements are not severe. Available options include the Brooks-Line IV™ integral needle control valve.

### SPECIFICATIONS

Capacities  
Refer to Tables 1 and 2

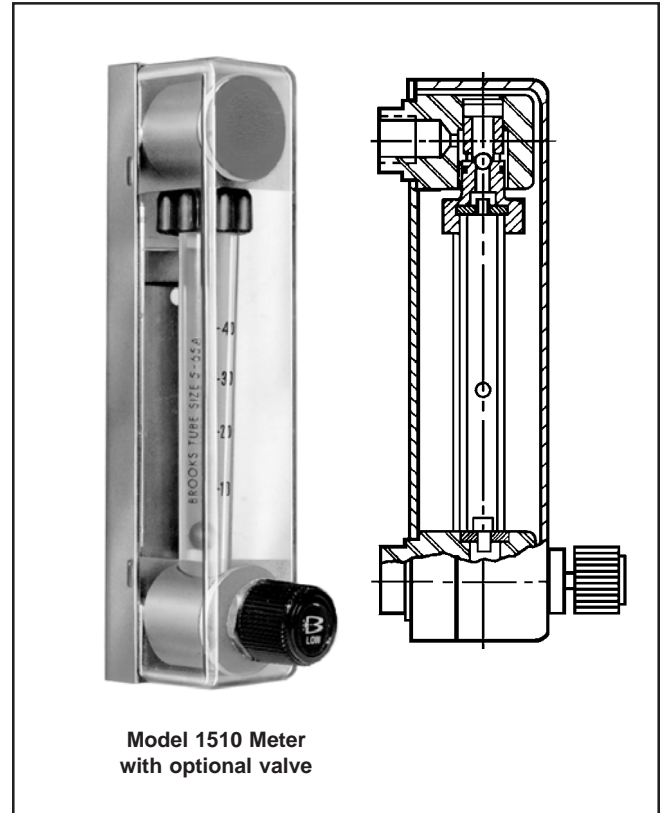
**Accuracy**  
± 10% F.S. from 100% to 10% of scale  
(Conforms to ISA R P 16.1 and 2 Spec 10-S-10)

**Repeatability**  
1/2% F.S.

**Rangeability**  
10 to 1

**Pressure**  
200 psig up to 250°F max.

**Temperature**  
Maximum 250°F (120°C); Temperatures below 32°F will cause frosting of glass metering tube. Consult factory for applications below this temperature.



### Scales

Length - 65mm, nominal  
Graduations - Standard: 0-65mm, or 0-100 linear reference scale with air or water calibration table.  
Optional: Direct read decal on tube - consult factory for available ranges  
Type - Fused on meter tube with contrasting yellow background

### Materials of Construction

Metering Tubes: Borosilicate glass  
Floats: Glass, 316 stainless steel, sapphire, carboly, tantalum  
Structural Members, End Fittings: 316 stainless steel, stainless steel channel; Check valve (not available with optional needle valve on outlet), Sealspindle: 316 stainless steel; Window - Clear, high impact polycarbonate  
Float Stops: Teflon  
Tube Packing, O-rings: Viton®, Buna-N

**Connections**

Rear horizontal female 1/4" NPT threaded adaptors

**Dimensions**

Refer to Figure 1

**Ordering Information and Model Code**

Refer to Table 3

**OPTIONAL EQUIPMENT**

Brooks-Line IV integral flow control valve on inlet or outlet  
(See DS-BLIV)

**ORDERING INFORMATION**

To order, please specify:

1. Model number
2. Materials of construction
3. Scale data
4. Complete metering data
5. Type of fluid
  - a. Max., Min, and normal flows
  - b. Operating temperature
  - c. Operating back pressure
  - d. Specific gravity
6. Options, if desired
7. For range other than above, consult factory

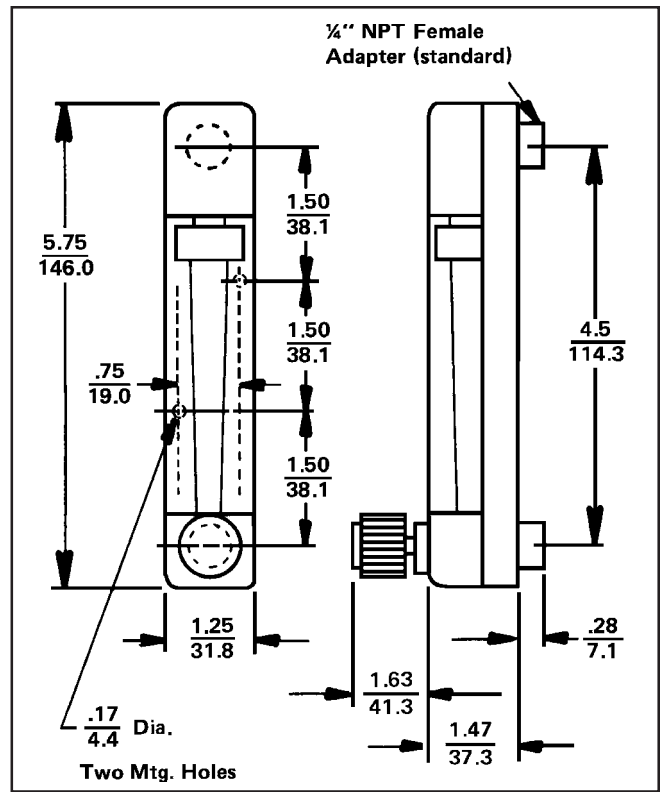


Figure 1 Dimensions

**Table 1 Rib Guided Tubes, Spherical Floats**

RIBBED TUBES, SPHERICAL FLOATS											
METER SIZE	TUBE NO.	FLOAT MATERIAL	MAXIMUM FLOW RATE								
			WATER				AIR*				
			GPH	CODE	LPH	CODE	SCFH	CODE	NLPH	CODE	
2	R-2-65-A	GLASS	0.011	JB6	0.042	JB9	0.13	JB7	3.4	JB8	
		SAPPHIRE	0.022	JC4	0.085	JC2	0.18	JC3	5.0	JC1	
		STN. STL.	0.046	JC8	0.18	JC5	0.34	JC7	9.0	JC6	
		CARBOLOY	0.10	JB4	0.38	JB5	0.65	JB2	17.0	JB3	
		TANTALUM	0.11	JD2	0.42	JC9	0.70	JD1	19.0	JD3	
	R-2-65-B	GLASS	0.013	KB8	0.048	KB2	0.15	KB7	4.0	KB9	
		SAPPHIRE	0.026	KC1	0.10	KD3	0.22	KC2	5.5	KC3	
		STN. STL.	0.06	KC5	0.22	KC6	0.42	KC7	11.0	KC8	
		CARBOLOY	0.12	KB4	0.48	KB5	0.80	KB3	22.0	KB6	
		TANTALUM	0.13	KD2	0.50	KD5	0.85	KD4	22.0	KD1	
	R-2-65-C	GLASS	0.11	LB9	0.42	LB7	0.95	LB6	24.0	LB8	
		SAPPHIRE	0.15	LC1	0.6	LC2	1.3	LC3	34.0	LC4	
		STN. STL.	0.38	LC7	1.4	LC8	2.0	LC9	50.0	LC6	
		CARBOLOY	0.65	LB3	2.4	LB2	3.0	LB4	80.0	LB5	
		TANTALUM	0.65	LD1	2.6	LD2	3.2	LD3	85.0	LD4	
	R-2-65-D	GLASS	0.65	MB9	2.4	MB7	3.8	MB8	100	MC1	
		SAPPHIRE	0.95	MC2	3.6	MC3	5.0	MC4	130	MC5	
		STN. STL.	1.60	MC7	6.0	MD1	7.5	MC6	200	MC8	
		CARBOLOY	2.40	MB5	9.0	MB2	11.0	MB3	280	MB4	
		TANTALUM	2.60	MD5	10.0	MD6	12.0	MD2	300	MD4	
6	R-6-65-A	GLASS	2.40	NB8	8.5	NB7	13.0	NC1	340	NB9	
		SAPPHIRE	3.40	NC4	13.0	NC3	17.0	NC6	460	NC5	
		STN. STL.	5.50	ND1	20.0	ND3	26.0	NC9	650	ND2	
		CARBOLOY	8.50	NB2	32.0	NB3	36.0	NB5	950	NB6	
		TANTALUM	9.0	ND6	34.0	ND5	38.0	ND7	1000	ND4	
	R-6-65-B	GLASS	8.0	PB9	30.0	PB8	44.0	PC1	1100	PB7	
		SAPPHIRE	12.0	PC5	44.0	PC3	60.0	PC4	1500	PC2	
		STN. STL.	19.0	PD1	70.0	PC9	85.0	PC8	2200	PC6	
		CARBOLOY	28.0	PB3	100	PB2	130	PB6	3400	PB4	
		TANTALUM	30.0	PD7	110	PD6	140	PD5	3600	PD4	

\* FLOW RATES GIVEN ARE MAXIMUM VALUES. AIR FLOWS ARE AT 14.7 PSIA AND 70 DEGREES F.

**Table 2 Plain Tapered Tubes, Spherical Floats**

PLAIN TAPER TUBES, SPHERICAL FLOATS								
TUBE AND FLOAT	SCFH AIR*	Press. Drop ** Inches W.C.	CODE	TUBE AND FLOAT	GPH WATER	Press. Drop ** Inches W.C.	CODE	
1-65A GLASS	1.2	1.0	AB4	1-65C GLASS	0.14	1.8	AB5	
2-65A GLASS	2.0	2.2	BA7	2-65C STN. STL.	0.5	4.0	DA5	
2-65B STN. STL.	5.0	10.8	CA4	2-65D STN. STL.	1.0	19.5	CA8	
3-65A GLASS	6.0	12.4	EB4	3-65C GLASS	0.7	22.3	EB9	
3-65B STN. STL.	10	10.1	EB8	3-65D STN. STL.	1.6	18.3	EC1	
4-65A GLASS	12	10.4	FC3	4-65C GLASS	2.0	18.7	FD3	
4-65B STN. STL.	18	25	FC8	4-65D STN. STL.	4.0	45	FD6	
5-65A GLASS	45	60	GB6	5-65C GLASS	9.0	109	GC4	
5-65B STN. STL.	80	214	GC1	5-65D STN. STL.	17	385	GC5	
6-65A GLASS	55	73	HB8	6-65C GLASS	11	132	HC7	
6-65B STN. STL.	90	292	HC5	6-65D STN. STL.	20	525	HD1	
6-65E CARBOLOY	120	400	HD3	6-65F CARBOLOY	30	890	HD4	

\* FLOW RATES ARE MAXIMUM VALUES. AIR FLOWS ARE AT 14.7 PSIA AND 70 DEGREES F

\*\* PRESSURE DROPS ARE APPROXIMATE

**Table 3 Ordering Information and Model Code**

BASE MODEL NU	DESCRIPTION
1510D	65 MM SCALE WITH HORIZONTAL CONNECTIONS
<b>CODE</b>	
<b>TUBE, SCALE AND FLOAT</b>	
xxx	SEE TABLE 1 SEE TABLE 2
<b>CODE</b>	
<b>TUBE PACKING AND O-RING MATERIAL</b>	
A	VITON AND VITON
B	BUNA-N AND BUNA-N
C	NO PACKING AND VITON O-RINGS
D	NO PACKING AND BUNA-N O-RINGS
E	EPR AND EPR
<b>CODE</b>	
<b>CONNECTION SIZE</b>	
1	1/4" NPT - BROOKS LOGO - STANDARD CONNECTION LENGTH
3	1/4" NPT - BROOKS LOGO - DOWNPORT (4.59" CONNECTION LENGTH)
A	1/4" NPT - NO LOGO - STANDARD CONNECTION LENGTH
C	1/4" NPT - NO LOGO - DOWNPORT (4.59" CONNECTION LENGTH)
<b>CODE</b>	
<b>VALVE CONFIGURATION</b>	
A	NO VALVE, PLUG ON INLET
B	LOW FLOW VALVE ON INLET
C	LOW FLOW VALVE ON OUTLET
D	MEDIUM FLOW VALVE ON INLET
E	MEDIUM FLOW VALVE ON OUTLET
F	HIGH FLOW VALVE ON INLET
G	HIGH FLOW VALVE ON OUTLET
H	TO STAINLESS STEEL FLOW CONTROLLER (SEE NOTE)
J	TO BRASS FLOW CONTROLLER (SEE NOTE)
K	STANDARD VALVE CAVITY - NO VALVE ASSY OR PLUG
<b>Example: 1510DAB4A1A</b>	

FLOW CONTROLLER MUST BE A SECOND LINE ITEM ON CUSTOMER ORDER.

**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



**TRADEMARKS**

- Brooks ..... Brooks Instrument, LLC
- Brooks-Line IV ..... Brooks Instrument, LLC
- LFC ..... Brooks Instrument, LLC
- Teflon ..... E.I. DuPont de Nemours & Co.
- Viton ..... DuPont Performance Elastomers

Specifications Subject to Change Without Notice

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