

VARIABLE AREA FLOWMETERS – GLASS TUBE

Description

The IE high accuracy glass tube variable area flow meter is intended for use where the accuracy required is higher than that obtainable with the standard 250 mm scale length flow meter. Each high accuracy flow meter is individually calibrated to a guaranteed accuracy. High accuracy glass tube variable area flow meters are furnished with the same rigid case construction and other features of the standard glass tube variable area flow meters.



IE HIGH ACCURACY GLASS TUBE VARIABLE AREA FLOW METERS

Design Features

- Dowel-pin side plate construction
- Detachable direct reading scales
- Heavy wall precision bore ribbed borosilicate glass metering tubes
- Externally adjustable packing glands
- Ten to one range
- Connections rotatable through 360° in 90° intervals
- One quarter inch thick laminated safety glass
- Nominal scale length 600 mm
- Choice of float types and capacity ranges

Materials Of Construction

METERING TUBES – ribbed borosilicate glass

Floats

– Standard: 316 SS Optional: Aluminum, Hastelloy C, Teflon
END FITTINGS – 316 SS, steel, Hastelloy C & Brass. For other materials contact factory. PACKING MATERIALS – Standard: Neoprene Optional: Teflon
SIDE PLATE – Standard: Steel Optional: 316 SS
GLAND RINGS – Standard: Steel Optional: 316 SS
GLAND FOLLOWERS – Standard: Steel Optional: 316 SS
SAFETY GLASS SHIELD – Aluminum
BOLTS – 304 SS
OPTIONAL COATING – Epoxy

Specifications

WARNING: Do not operate this instrument in excess of the specifications listed below. Failure to heed warning may result in serious personal injury or damage to equipment.

Scales

Nominal length – 600 mm, engraved direct reading aluminum detachable scales
PRESSURE DROP – Refer capacity table

Performance

Industrial accuracy: +1% of reading from 100% to 10% of full scale
Calibrated accuracy: +0.5% of reading from 100% to 20% of full scale
Repeatability: +0.25% of instantaneous reading



REPRESENTATIVE CONFIGURATIONS

Meter Size	Maximum Pressure (PSIG) at 121.1°C	Maximum Temperature Degrees C
6	450	121.1
7	350	121.1
8	300	121.1
9	175	93.3
10	100	93.3
12	75	93.3
13	60	93.3

- Pressure ratings are based on static pressure applicable at 93.3°C

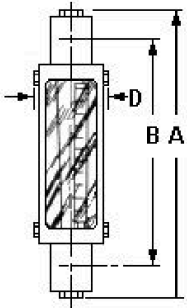
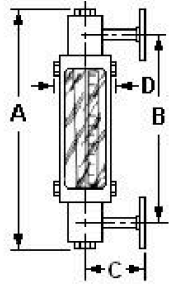
CONNECTIONS

Meter Size	Model 1110	Model 1140
	Inlet & Outlet Horizontal Screwed	Inlet & Outlet Horizontal Flanged
6 to 8	1/2"	1/2"
9	3/4"	3/4"
10	1"	1"
12	1-1/2"	1-1/2"
13	2"	2"

Optional Equipment

ALARM – Optical alarm for high or low flow signal

Dimensions – MM (For certified prints, write to factory)

Meter	Model 1110 & 1140					
	A	B	C	D		
6	863.6	765.2	88.9	82.6	Model 1110	Model 1140
7 & 8	863.6	765.2	88.9	82.6		
9	904.9	790.6	101.6	95.3		
10	927.1	790.6	101.6	112.7		
12	908.1	790.6	127.0	112.7		
13	998.5	852.5	127.0	123.8		

Capacities

Meter Size	Tube Number	Float	Water (LPM)			Air (SLPM)	
			Maximum Flow Rates				
			Lowest	Highest		Lowest	Highest
6	R-6L-600-G1	RV	0.189	0.567		5.663	16.990
		RS	0.378	0.757		11.326	22.653
7	R-7L-600-G1	RV	0.605	1.211		19.821	33.980
		RS	0.908	1.514		28.317	45.307
			Water (LPM)	Pressure Drop IWC	Viscosity Immunity	Air (SLPM)	Pressure Drop IWC
8	R-8M-600-2	8-RV-3	2.16	2	2.0	65.99	3
		8-RV-8	3.10	5	3.3	95.72	6
		8-RV-14	4.13	8	4.6	127.44	9
		8-RV-31*	5.94	17	6.0	181.81	19
		8-RS-8	3.97	6	1.7	124.61	7
		8-RS-14	5.22	11	1.8	162.84	12
		8-RS-31*	7.49	22	2.6	230.24	25
9	R-9M-600-1	9-RV-33	7.68	5	10.0	240.72	6
		9-RV-87*	12.49	12	15.0	380.90	14
		9-RS-33	10.22	6	2.3	317.18	7
		9-RS-87*	16.35	14	3.4	509.76	16
10	R-10M-600-1	10-RV-64	21.35	10	3.0	669.77	12
		10-RV-138*	24.30	17	22.0	753.31	19
		10-RS-64	21.35	10	3.0	669.77	12
		10-RS-138*	30.36	21	5.0	979.87	23
12	R-12M-600-4	12-RV-221	35.31	8	28.0	1070.78	9
		12-RV-343*	44.32	12	35.0	1334.44	14
		12-RS-221	47.16	9	4.0	1434.41	10
		12-RS-343*	58.40	13	4.3	1777.08	15
13	R-13M-600-3	13-RV-510	120.55	17	42.0	3707.09	19
		13-RV-760*	142.32	24	52.0	4395.26	27
		13-RS-510	160.94	23	7.6	5001.31	26
		13-RS-760*	187.55	32	9.3	6165.26	36