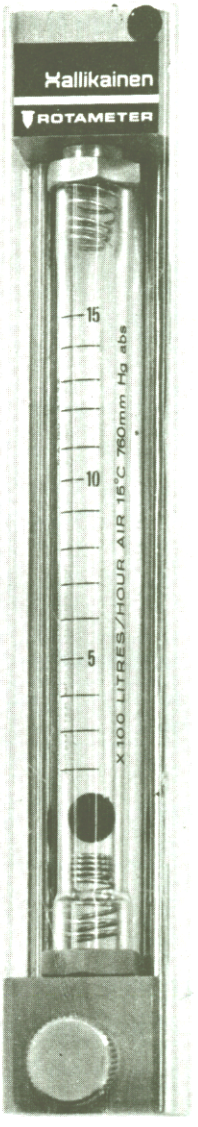
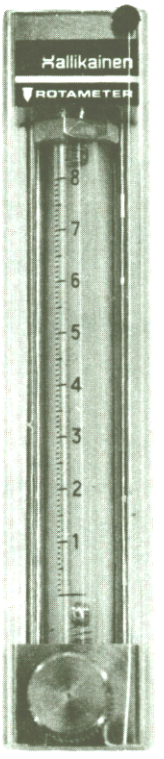
HALLIKAINEN *Instruments*
INDUSTRIAL and SCIENTIFIC
750 NATIONAL COURT, RICHMOND, CALIFORNIA, 94804

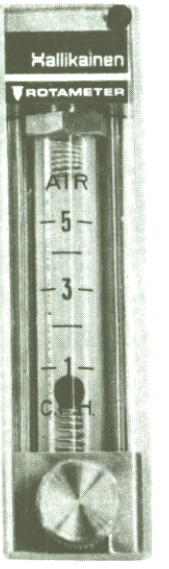
ROTAMETERS



Model 060



Model 040



Model 025

The Hallikainen Rotameters are variable area flowmeters for liquid or gas service. Fluid enters through the botton inlet, flows upwards through the glass tube and out at the top. The rate of flow is indicated by the position of the ball float inside a tapered tube. The ball will rise with increasing flow, drop with decreasing flow. Readings are taken from the centre of the ball. The Rotameter frame can be supplied with a needle valve to control flow. For gas applications it is preferable to have the valve in the top outlet block.

These Rotameters can be provided with regulators which maintain a constant differential pressure across the Rotameter valve. Rate-of-flow can thereby be held constant despite changing supply or discharge pressure.

The Hallikainen Rotameter frames were designed to give excellent all-round visibility, and easy access to the tube. A plastic shield protects the glass tube which can be easily removed from the frame if the compression nut is screwed tight against the connection block. A single frame will accept a range of tubes with varying flow capacities. When the tube is replaced the compression nut is screwed down until the tube cannot be rotated by the fingers.

The borosilicate glass tubes are available in three lengths: 2½", 4" and 6". The 2½" and 4" tubes have plain tapers, the 6" tubes are rib guided for greater accuracy.

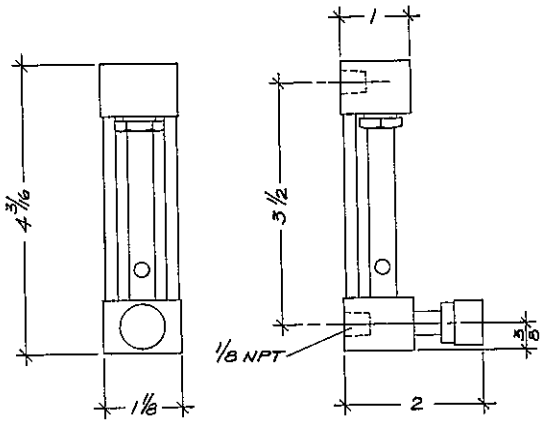
SPECIFICATIONS

Materials of Construction:
Floats - 316 Stainless Steel, Black Glass, Red Ruby
Float Stops - 316 Stainless Steel
Compression Seals - Neoprene standard, Viton optional
End Fittings - Brass or 316 Stainless Steel
Valve Stem - 316 Stainless Steel
Valve Spring - 316 Stainless Steel
O-Rings - Buna N standard, Viton optional
Frame Rods - 316 Stainless Steel
Scales: Linear reference scales standard, direct reading optional
Rangeability: 6" and 4" tubes: 10 to 1 turndown, 2½" tubes: 5 to 1 turndown
Connections: 6" frames, ¼" NPT, 4" and 2½" frames, ⅛" NPT
Maximum temperature: 212°F.
Maximum pressure: 200 P.S.I.G.

Accuracy: 2½" and 4" tubes:	± 10% of maximum scale reading
6" tubes Industrial accuracy:	± 5% of maximum scale reading
Selected accuracy:	± 3% of maximum scale reading
Calibrated accuracy:	± 2% of instantaneous flow reading

Table 1 — Capacities for Model 025 Rotameter

Tube Size	Float Number	Flow Range	
		Water at 68°F. (cc/min.)	Air at 14.7 psia and 70°F. scc/min.
HR-⅛-06-P-2.5	BP-8	.5-2.5	30-180
	BR-8	1-4.5	60-300
	BJ-8	2.5-12.5	150-550
HR-⅛-14-P-2.5	BP-8	3-15	90-900
	BR-8	5-25	200-1200
	BJ-8	10-50	350-1800
HR-¼-08-P-2.5	BP-4	5-60	500-2500
	BJ-4	30-160	1000-5000
HR-¼-22-P-2.5	BP-4	30-170	1000-8000
	BJ-4	80-450	2500-15000



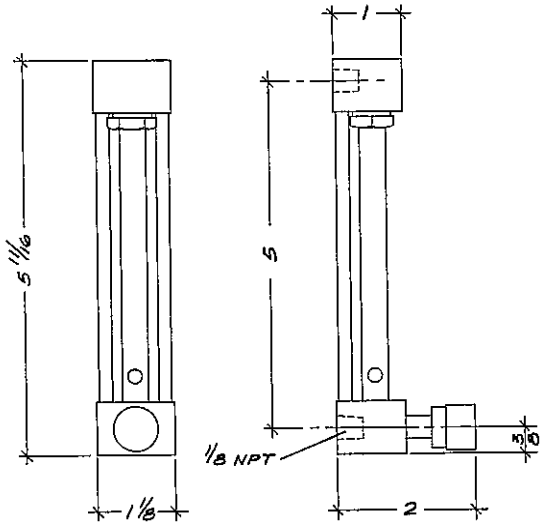


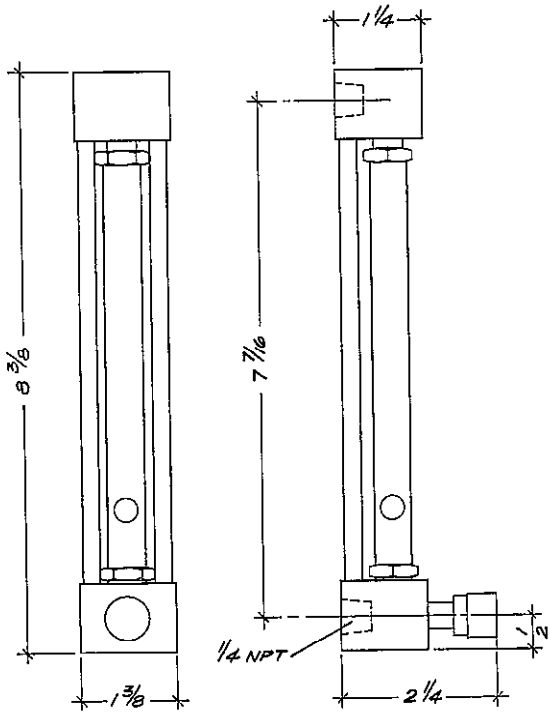
Table 2 — Capacities for Model 040 Rotameter

Tube Size	Float Number	Flow Range	
		Water at 68°F. (cc/min.)	Air at 14.7 psia and 70°F. scc/min.
HR-⅛-09-P-4	BP-8	.5-5.5	40-400
	BR-8	1-12	60-650
	BJ-8	2.5-25	150-1100
HR-⅛-25-P-4	BP-8	3-35	150-1800
	BR-8	5-50	200-2400
	BJ-8	10-100	350-3500
HR-¼-12-P-4	BP-4	5-110	500-5000
	BJ-4	30-300	1000-10000
HR-¼-30-P-4	BP-4	30-360	1500-17000
	BJ-4	80-950	3000-30000

Table 3 — Capacities for Model 060 Rotameter

Tube Size	Float Number	Flow Range	
		Water at 68°F. (cc/min.)	Air at 14.7 psia and 70°F. scc/min.
HR-1/16-16-G-6	BR-16	3	200
	BJ-16	7	300
HR-⅛-08-G-6	BP-8	5	360
	BR-8	10	500
	BJ-8	20	800
HR-⅛-13-G-6	BP-8	16	750
	BR-8	26	1000
	BJ-8	40	1600
HR-⅛-15-G-6	BP-8	24	980
	BR-8	32	1300
	BJ-8	55	2000
HR-⅛-28-G-6	BP-8	52	2300
	BR-8	75	3000
	BJ-8	130	4600
HR-¼-13-G-6	BP-4	120	5000
	BJ-4	280	10000
HR-¼-23-G-6	BP-4	300	12000
	BJ-4	600	22000

BP = Black Glass BR = Red Ruby BJ = 316 SS



ORDERING INFORMATION

When ordering please specify:

Complete Model No:

Tube Size:

Float Number:

Capacity:

Scale: Linear standard will be supplied unless otherwise specified.

Materials of Construction: Brass or 316 Stainless Steel.

Frame Configuration: Without valve, with valve (inlet or outlet).

Accessories: Differential pressure regulator, if required.

Operating Conditions:

Fluid or Gas:

Max. Flow: Min. Flow:

Temperature: (normal and maximum)

Pressure: (normal and maximum)

TYPICAL SPECIFICATIONS

Model No. 025-V with HR-⅛-06-P-2½ tube; BP-8 float, capacity 3 cc/min. water, linear scale, 316 stainless steel construction, with valve at inlet.

When a constant differential regulator is required the Model No. becomes 025-V-DR. Regulator may be supplied in brass or stainless steel.