

VARIABLE AREA ROTAMETERS

With 65 mm and 150 mm Scales

FL-1341-G
\$166



OMEGA® precision variable area rotameters can measure flows of air, water, and gases, with up to $\pm 5\%$ of full scale accuracy and 0.25% of full scale repeatability. These units feature an easy-to-read millimeter scale and are supplied with correlation charts for air and water. Correlation data for other gases are also available. Please consult the OMEGA Flow Engineering Department for details. The scale is fused on the metering tube in 1 mm increments, which enables the user to read the flow rate with the highest accuracy.

SHIELDED FOR PRESSURIZED SYSTEMS

These rotameters, have heavy wall, precision-bored borosilicate glass metering tubes and are fully shielded against breakage, with end fittings of brass or stainless steel and aluminum side plates. In front, a clear plastic shield keeps the scale clean and easy-to-read, while an opaque white rear shield provides a background to aid in discerning the float position for accurate readings.

PANEL MOUNTING DESIGN

These rotameters are equipped with horizontal ports with NPT threads for easy panel mounting. The ports have external threads and are equipped with panel retaining nuts. No additional mounting hardware is required. Simply drill two holes 114.3 mm (4.5") apart (center to center) for 65 mm units or 223.8 mm (8 $\frac{13}{16}$ "") apart (center to center) for 150 mm units. Each hole should be 14.9 mm (0.59") in diameter.

NON-RISING STEM NEEDLE VALVE

The 150 mm size flowmeters are also available with non-rising stem type needle valves for special applications. This 15-turn metering

valve has superior flow rate control and is particularly well suited for use in chromatography applications. The sliding tapered needle mechanism virtually eliminates sticking or buildup due to foreign matter in the fluid stream, without variations or sawtoothing of the flow rate.

COMPACT 65 MM SCALE

These compact units feature $\pm 10\%$ of full scale accuracy and $\pm \frac{1}{2}\%$ of full scale repeatability. They are ideal for applications involving purging, seal oil systems, bearing lubrication, and cooling water flow indication.

EASY-TO-READ 150 MM SCALE

OMEGA's larger units feature 5% accuracy and $\frac{1}{4}\%$ repeatability. The scale has more divisions for higher accuracy, is easier to read, and causes less eye fatigue.

APPLICATIONS

Variable area rotameters can be used in many applications, including industrial and laboratory situations. Some common uses include carrier gas flow and fuel flow in chromatography and coolant flow indication.

FLOW CONTROL

Control the flow rate with the standard built-in control valve. Also available, as an option, is an integral flow controller. In addition, 150 mm scale units are available with the unique non-rising stem type needle valve.

WETTED PARTS

Standard floats are 316 stainless steel, glass, and carbonyl. Other wetted parts include the glass metering tube, PTFE float stops, brass, aluminum or 316 SS end fittings, and Buna (with brass or aluminum construction) or FKM-A (with 316 SS construction) O-rings.

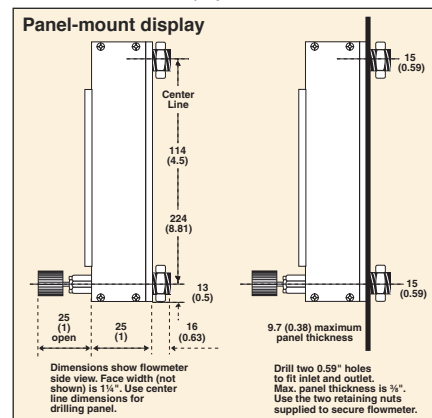
RATINGS AND SPECIFICATIONS

The maximum operating pressure is 13.8 bar (200 psig), at temperatures up to 121°C (250°F). The minimum flow rate at the rated accuracy is 10% of the maximum flow rate. All connections are $\frac{1}{8}$ " female NPT threaded.



FL-1341-S, \$166, shown smaller than actual size.

Dimensions: mm (in)





FL-1441-G, \$240, shown smaller than actual size.

Comes with correlation sheet for water and air.

NOTE: "-G" suffix denotes glass float; "-S" suffix denotes 316 SS float; "-C" suffix denotes carboly float.

1. Low-cost units with PVDF construction also available. See FL-1700/1800 Series on pages B-33 and B-34.
2. Minimum flow rate is 10% of the maximum rate shown.
3. Low-cost, stainless steel construction unit with 65 mm glass tube also available. See model FL-1900 on page B-43.

Rotameters with 65 mm Scale Flowtubes¹
(with 6-turn valve)

MOST POPULAR
MODELS HIGHLIGHTED!

To Order (Specify Model Number)

Aluminum Frame		Brass Frame		316 SS Frame		Max Flowrate ²		
Model No.	Price	Model No.	Price	Model No.	Price	Air cc/min	Water cc/min	Float Material
FL-1341-G	\$166	FL-1351-G	\$164	FL-1361-G	\$295	56.6	0.70	Glass
FL-1341-S	166	FL-1351-S	164	FL-1361-S	295	150	3.00	316SS
FL-1342-G	166	FL-1352-G	164	FL-1362-G	295	66.6	0.80	Glass
FL-1342-S	166	FL-1352-S	164	FL-1362-S	295	183.3	3.67	316SS
FL-1343-G	166	FL-1353-G	164	FL-1363-G	295	400	7.00	Glass
FL-1343-S	166	FL-1353-S	164	FL-1363-S	295	833.3	23.3	316SS
FL-1344-G	166	FL-1354-G	164	FL-1364-G	295	1666	40.0	Glass
FL-1344-S	166	FL-1354-S	164	FL-1364-S	295	3333	100	316SS
FL-1345-G	166	FL-1355-G	164	FL-1365-G	295	5666	142	Glass
FL-1345-S	166	FL-1355-S	164	FL-1365-S	295	10,833	333	316SS
FL-1346-G	166	FL-1356-G	164	FL-1366-G	295	18,333	500	Glass
FL-1346-S	166	FL-1356-S	164	FL-1366-S	295	183.3	1166	316SS
FL-1347-C	166	FL-1357-C	164	FL-1367-C	295	56,666	1666	Carboly

Rotameters with 150 mm Scale Flowtubes^{1,3} (with 6-turn valve)

Aluminum Frame		Brass Frame		316 SS Frame		Max Flowrate ²		
Model No.	Price	Model No.	Price	Model No.	Price	Air cc/min	Water cc/min	Float Material
FL-1441-G	\$240	FL-1451-G	\$235	FL-1461-G	\$365	49	0.537	Glass
FL-1441-S	240	FL-1451-S	235	FL-1461-S	365	146	2.49	316SS
FL-1442-G	240	FL-1452-G	235	FL-1462-G	365	96	1.11	Glass
FL-1442-S	240	FL-1452-S	235	FL-1462-S	365	265	4.93	316SS
FL-1443-G	240	FL-1453-G	235	FL-1463-G	365	370	5.75	Glass
FL-1443-S	240	FL-1453-S	235	FL-1463-S	365	820	20.6	316SS
FL-1444-G	240	FL-1454-G	235	FL-1464-G	365	820	16.6	Glass
FL-1444-S	240	FL-1454-S	235	FL-1464-S	365	1680	46.2	316SS
FL-1445-G	240	FL-1455-G	235	FL-1465-G	365	2350	52.8	Glass
FL-1445-S	240	FL-1455-S	235	FL-1465-S	365	4600	133	316SS
FL-1446-G	240	FL-1456-G	235	FL-1466-G	365	3800	84.6	Glass
FL-1446-S	240	FL-1456-S	235	FL-1466-S	365	7600	218	316SS
FL-1447-G	240	FL-1457-G	235	FL-1467-G	365	8600	200	Glass
FL-1447-S	240	FL-1457-S	235	FL-1467-S	365	16,400	493	316SS
FL-1448-G	240	FL-1458-G	235	FL-1468-G	365	23,500	573	Glass
FL-1448-S	240	FL-1458-S	235	FL-1468-S	365	43,000	1350	316SS
FL-1448-C	240	FL-1458-C	235	FL-1468-C	365	60,000	2120	Carboly

Rotameters with 150 mm Scale Flowtubes¹ (with 15-turn valve)

Aluminum Frame		Brass Frame		316 SS Frame		Max Flowrate ²		
Model No.	Price	Model No.	Price	Model No.	Price	Air cc/min	Water cc/min	Float Material
FL-1471-G	\$305	FL-1481-G	\$305	FL-1491-G	\$480	49	0.537	Glass
FL-1471-S	305	FL-1481-S	305	FL-1491-S	480	146	2.49	316SS
FL-1472-G	305	FL-1482-G	305	FL-1492-G	480	96	1.11	Glass
FL-1472-S	305	FL-1482-S	305	FL-1492-S	480	265	4.93	316SS
FL-1473-G	305	FL-1483-G	305	FL-1493-G	480	370	5.75	Glass
FL-1473-S	305	FL-1483-S	305	FL-1493-S	480	820	20.6	316SS
FL-1474-G	305	FL-1484-G	305	FL-1494-G	480	820	16.6	Glass
FL-1474-S	305	FL-1484-S	305	FL-1494-S	480	1680	46.2	316SS
FL-1475-G	305	FL-1485-G	305	FL-1495-G	480	2350	52.8	Glass
FL-1475-S	305	FL-1485-S	305	FL-1495-S	480	4600	133	316SS
FL-1476-G	305	FL-1486-G	305	FL-1496-G	480	3800	84.6	Glass
FL-1476-S	305	FL-1486-S	305	FL-1496-S	480	7600	218	316SS
FL-1477-G	305	FL-1487-G	305	FL-1497-G	480	8600	200	Glass
FL-1477-S	305	FL-1487-S	305	FL-1497-S	480	16,400	493	316SS
FL-1478-G	305	FL-1488-G	305	FL-1498-G	480	23,500	573	Glass
FL-1478-S	305	FL-1488-S	305	FL-1498-S	480	43,000	1350	316SS
FL-1478-C	305	FL-1488-C	305	FL-1498-C	480	60,000	2120	Carboly



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