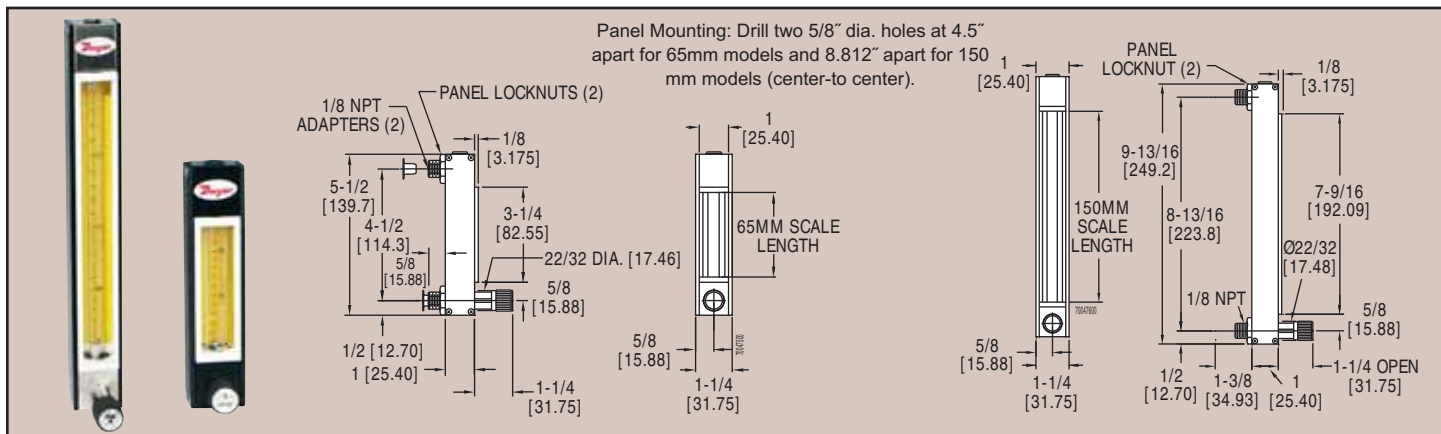




Series  
DR

# Direct Reading Glass Flow meters

65 mm and 150 mm, ± 5% FS Accuracy, Inter changeable Flowtubes



**Use Series DR Glass Flowmeters** to accurately measure flow rates of air or water with the convenience of a direct reading scale. Permanently fused ceramic scale has integral float guides for optimum float performance. Reflective plastic background and 1.5 X magnification lens reduces eye fatigue and allows for more accurate readings. Units include a safety blow-out back panel for additional protection. Flowmeters are shipped completely assembled and include standard panel mounting hardware for quick installation.

### SPECIFICATIONS

**Service:** Compatible gases or liquids.

#### Wetting Materials:

- Flowtube: Borosilicate glass;
- Float: 316 SS (black glass as indicated);
- Float stops: PTFE;
- End fittings: Anodized aluminum or 316 SS;
- O-rings: Buna-N on aluminum models and fluoroelastomer on stainless steel models.

**Temperature Limit:** 250°F (121°C).

**Pressure Limit:** 250 psig (17 bar).

**Accuracy:** ±5% FS @ 70°F (21.1°C) and 14.7 psia (1 atm absolute).

**Repeatability:** ±0.25% of scale reading.

**Scales:** Direct reading 65 mm or 150 mm scales for air or water.

**Turn-down Ratio:** 10:1.

**Connection:** 1/8" female NPT, or 1/4" female NPT or VCR

**Mounting:** Vertical.

**Valve:** 6-turn needle (standard on models with valve).  
Disponibile con valvola di precisione a 16 giri

### APPLICATIONS

Glass flowmeters are suitable for metering gases or liquids for film processing, paper manufacturing, chemical processing, semiconductor industry, water and air pollution analysis equipment, metals processing, industrial fuel and energy conservation, cylinder gas metering, and general laboratory and industrial applications.

Add suffix "M" for metric scale.

\* Denotes glass float.

† Metric models use ccm as unit of measure.

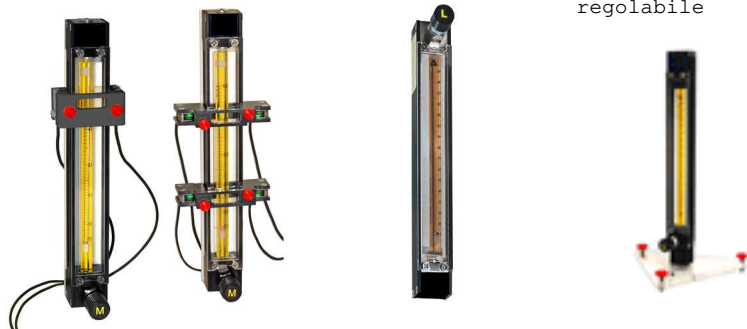
Model (65 mm scale)					
Without Valve		With Valve		Flow Rate (Air) scfh (sccm)	Flow Rate (H2O) gph (sccm)
Aluminum	SS	Aluminum	SS		
DR10010*	DR12010*	DR10410*	DR12410*	0.24 (130†)	—
DR10022	DR12022	DR10422	DR12422	0.65 (300†)	—
DR10030*	DR12030*	DR10430*	DR12430*	1.1 (500†)	—
DR10042	DR12042	DR10442	DR12442	2.2 (1000†)	—
				scfh (LPM)	
DR10062	DR12062	DR10462	DR12462	5.6 (2.1)	—
DR10070*	DR12070*	DR10470*	DR12470*	11 (5)	—
DR10082	DR12082	DR10482	DR12482	20 (9.5)	—
DR10090*	DR12090*	DR10490*	DR12490*	55 (24)	—
DR100102	DR120102	DR104102	DR124102	100 (50)	—
DR100120*	DR120120*	DR104120*	DR124120*	—	0.02 (1.5)
DR100132	DR120132	DR104132	DR124132	—	0.1 (6.5)
DR100140*	DR120140*	DR104140*	DR124140*	—	0.13 (8)
DR100152	DR120152	DR104152	DR124152	—	0.36 (24)
DR100172	DR120172	DR104172	DR124172	—	0.9 (55)
DR100180*	DR120180*	DR104180*	DR124180*	—	2.2 (140)
DR100192	DR120192	DR104192	DR124192	—	4.4 (280)
DR100200*	DR120200*	DR104200*	DR124200*	—	10 (600)
DR100212	DR120212	DR104212	DR124212	—	24 (1500)

Model (150 mm scale)					
Without Valve		With Valve		Flow Rate (Air) scfh (sccm)	Flow Rate (H2O) gph (sccm)
Aluminum	SS	Aluminum	SS		
DR20032	DR22032	DR20432	DR22432	0.33 (160)	—
DR20082	DR22082	DR20482	DR22482	0.54 (270)	—
DR200132	DR220132	DR204132	DR224132	2 (840)	—
				scfh (LPM)	
DR200182	DR220182	DR204182	DR224182	3.8 (1.8)	—
DR200232	DR220232	DR204232	DR224232	10 (4.8)	—
DR200282	DR220282	DR204282	DR224282	16 (7.5)	—
DR200332	DR220332	DR204332	DR224332	35 (16)	—
DR200382	DR220382	DR204382	DR224382	90 (44)	—
DR200432	DR220432	DR204432	DR224432	—	0.05 (3.2)
DR200482	DR220482	DR204482	DR224482	—	0.075 (4.6)
DR200532	DR220532	DR204532	DR224532	—	0.34 (21)
DR200582	DR220582	DR204582	DR224582	—	0.75 (46)
DR200632	DR220632	DR204632	DR224632	—	2.2 (140)
DR200682	DR220682	DR204682	DR224682	—	3.6 (230)
DR200732	DR220732	DR204732	DR224732	—	7.5 (480)
DR200782	DR220782	DR204782	DR224782	—	21 (1300)

Disponibile anche con allarmi

Disponibile anche con valvola in uscita

Disponibile anche con base treppiede regolabile



### Disponibili altre scale

Disponibili anche in ottone  
Disponibili anche con raccordi a calzamento, raccordi 1/4", raccordi VCR

FLOW  
Flowmeters, Variable Area

# ULTERIORI SCALE

TABLE 11 - FLOW TUBES FOR AIR

65mm				150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE	FLOW TUBE	QMAX	[UNITS]	PRESSURE
042-10-GL	7.00	mL/min	14.70 psia	042-12-SA	25.00	mL/min	14.70 psia
032-01-ST	50.00	mL/min	14.70 psia	032-06-SA	52.00	mL/min	14.70 psia
062-04-ST	75.00	mL/min	14.70 psia	042-06-CA	75.00	mL/min	14.70 psia
022-14-GL	100.00	mL/min	14.70 psia	032-10-ST	100.00	mL/min	14.70 psia
032-11-ST	130.00	mL/min	14.70 psia	042-75-CA	100.00	mL/min	14.70 psia
032-03-CA	250.00	mL/min	14.70 psia	032-21-ST	150.00	mL/min	14.70 psia
022-05-CA	500.00	mL/min	14.70 psia	062-03-ST	200.00	mL/min	14.70 psia
052-12-GL	1000.00	mL/min	14.70 psia	112-10-GL	300.00	mL/min	14.70 psia
052-04-GL	1.00	L/min	14.70 psia	112-08-SA	500.00	mL/min	14.70 psia
023-03-GL	1.15	L/min	14.70 psia	082-02-GL	800.00	mL/min	14.70 psia
052-07-ST	2.00	L/min	14.70 psia	112-19-CA	1.25	L/min	14.70 psia
013-89-ST	4.00	L/min	14.70 psia	082-12-ST	1.80	L/min	14.70 psia
014-03-GL	5.00	L/min	14.70 psia	092-25-GL	2.50	L/min	14.70 psia
014-02-ST	10.00	L/min	14.70 psia	102-07-GL	4.00	L/min	14.70 psia
044-11-ST	16.00	L/min	14.70 psia	102-03-SA	4.50	L/min	14.70 psia
054-01-ST	25.00	L/min	14.70 psia	092-14-ST	4.80	L/min	14.70 psia
064-03-ST	40.00	L/min	14.70 psia	102-01-SA	5.00	L/min	14.70 psia
052-05-GL	2.20	scfh	14.70 psia	102-16-CA	10.00	L/min	14.70 psia
365-18-GL	6.00	scfh	14.70 psia	034-13-ST	17.00	L/min	14.70 psia
365-19-ST	10.00	scfh	14.70 psia	044-14-GL	23.00	L/min	14.70 psia
034-61-ST	18.00	scfh	14.70 psia	044-41-ST	42.00	L/min	14.70 psia
014-17-ST	25.00	scfh	14.70 psia	044-16-CA	60.00	L/min	14.70 psia
054-02-ST	50.00	scfh	14.70 psia	112-01-CA	2.50	scfh	14.70 psia
064-62-ST	90.00	scfh	14.70 psia	092-09-GL	5.00	scfh	14.70 psia
074-02-CA	150.00	scfh	14.70 psia	102-06-GL	8.25	scfh	14.70 psia
014-01-CA	0.60	scfm	14.70 psia	092-10-ST	10.00	scfh	14.70 psia
				102-08-ST	16.50	scfh	14.70 psia
				102-09-CA	23.00	scfh	14.70 psia
				044-05-GL	55.00	scfh	14.70 psia
				044-18-ST	90.00	scfh	14.70 psia
				044-07-ST	94.00	scfh	14.70 psia
				044-23-SA	1.00	scfm	14.70 psia
				044-43-ST	1.50	scfm	14.70 psia

TABLE 12 - FLOW TUBES FOR WATER

65mm				150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE	FLOW TUBE	QMAX	[UNITS]	PRESSURE
032-04-GL	0.50	mL/min	14.70 psia	032-05-SA	1.00	mL/min	14.70 psia
022-08-ST	6.00	mL/min	14.70 psia	112-12-SA	10.00	mL/min	14.70 psia
052-09-GL	25.00	mL/min	14.70 psia	112-05-ST	20.00	mL/min	14.70 psia
052-08-ST	60.00	mL/min	14.70 psia	092-02-GL	50.00	mL/min	14.70 psia
013-02-ST	115.00	mL/min	14.70 psia	092-08-GL	60.00	mL/min	14.70 psia
365-01-ST	150.00	mL/min	14.70 psia	102-11-GL	100.00	mL/min	14.70 psia
044-09-GL	250.00	mL/min	14.70 psia	092-06-CA	200.00	mL/min	14.70 psia
064-05-GL	500.00	mL/min	14.70 psia	044-15-ST	1.20	L/min	14.70 psia
054-03-ST	750.00	mL/min	14.70 psia	044-01-TA	2.00	L/min	14.70 psia
064-04-SA	1.00	L/min	14.70 psia	044-12-SA	0.22	gpm	14.70 psia
064-06-ST	1.20	L/min	14.70 psia	044-42-CA	0.45	gpm	14.70 psia
052-16-ST	3.00	L/hr	14.70 psia	044-10-CA	29.00	gph	14.70 psia
034-74-ST	2.7	gph	14.70 psia				
064-12-GL	10.00	gph	14.70 psia				
064-09-CA	24.00	gph	14.70 psia				
064-11-TA	32.00	gph	14.70 psia				

**TABLE 13 - FLOW TUBES FOR ARGON**

65mm				150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE	FLOW TUBE	QMAX	[UNITS]	PRESSURE
052-15-SA	1000.00	mL/min	14.70 psia	062-10-CA	325.00	mL/min	14.70 psia
013-09-CA	4.5	L/min	14.70 psia	032-18-GL	33.00	mL/min	14.70 psia
064-14-SA	26.00	L/min	14.70 psia	082-11-CA	2.00	L/min	14.70 psia
023-05-GL	2.50	scfh	14.70 psia	034-07-ST	15.00	L/min	14.70 psia
365-17-ST	10.00	scfh	14.70 psia	044-22-SA	25.00	L/min	14.70 psia
014-14-ST	22.00	scfh	14.70 psia				
064-01-GL	50.00	scfh	14.70 psia				

**TABLE 14 - FLOW TUBES FOR CARBON DIOXIDE**

65mm				150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE	FLOW TUBE	QMAX	[UNITS]	PRESSURE
042-20-SA	10.00	mL/min	14.70 psia	062-09-GL	100.00	mL/min	14.70 psia
042-09-ST	20.00	mL/min	14.70 psia	032-32-ST	150.00	mL/min	14.70 psia
032-20-GL	55.00	mL/min	14.70 psia	062-14-ST	300.00	mL/min	14.70 psia
022-24-SA	220.00	mL/min	14.70 psia	092-18-SA	2.5	L/min	14.70 psia
052-14-GL	1.00	L/min	14.70 psia	034-18-SA	10.00	L/min	14.70 psia
023-07-ST	2.00	L/min	14.70 psia				
014-18-GL	6.00	L/min	14.70 psia				

**TABLE 15 - DIRECT READING FLOW TUBES FOR FUEL OIL**

150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE
034-60-GL	3.00	gph	14.70 psia

**TABLE 16 - DIRECT READING FLOW TUBES FOR HELIUM**

65mm				150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE	FLOW TUBE	QMAX	[UNITS]	PRESSURE
032-07-SA	65.00	mL/min	14.70 psia	062-13-GL	100.00	mL/min	14.70 psia
022-02-GL	120.00	mL/min	14.70 psia	062-07-CA	500.00	mL/min	14.70 psia
014-04-GL	30.00	scfh	14.70 psia	082-05-GL	1500.00	mL/min	14.70 psia
				082-07-CA	5.00	L/min	14.70 psia
				034-09-ST	40.00	L/min	14.70 psia
				112-03-SA	1.25	scfh	14.70 psia

**TABLE 17 - DIRECT READING FLOW TUBES FOR HYDROGEN**

65mm				150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE	FLOW TUBE	QMAX	[UNITS]	PRESSURE
032-13-GL	35.00	mL/min	14.70 psia	032-12-GL	100.00	mL/min	14.70 psia
042-01-CA	100.00	mL/min	14.70 psia	092-15-SA	20.00	scfh	14.70 psia
032-02-SA	150.00	mL/min	14.70 psia	044-20-SA	225.00	scfh	14.70 psia
012-01-GL	600.00	mL/min	14.70 psia				
022-01-CA	1.50	L/min	14.70 psia				
023-01-GL	3.50	L/min	14.70 psia				
013-01-GL	6.00	L/min	14.70 psia				
014-15-ST	42.00	L/min	14.70 psia				
013-08-ST	30.00	scfh	14.70 psia				

TABLE 18- DIRECT READING FLOW TUBES FOR METHANE			
150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE
042-03-ST	40.00	mL/min	14.70 psia

TABLE 19- DIRECT READING FLOW TUBES FOR NITROUS OXIDE			
150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE
112-11-SA	500.00	mL/min	14.70 psia

TABLE 20 - DIRECT READING FLOW TUBES FOR NITROGEN							
65mm				150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE	FLOW TUBE	QMAX	[UNITS]	PRESSURE
042-08-GL	6.00	mL/min	14.70 psia	062-12-GL	100.00	mL/min	14.70 psia
032-16-ST	50.00	mL/min	14.70 psia	032-22-CA	200.00	mL/min	14.70 psia
032-08-SA	60.00	mL/min	14.70 psia	062-30-CA	300.00	mL/min	14.70 psia
022-15-GL	120.00	mL/min	14.70 psia	112-06-SA	500.00	mL/min	14.70 psia
022-06-SA	200.00	mL/min	14.70 psia	032-31-GL	50.00	mL/min	14.70 psia
014-16-ST	12.00	L/min	14.70 psia	092-05-GL	2.00	L/min	14.70 psia
064-13-GL	20.00	L/min	14.70 psia	102-21-ST	7.00	L/min	14.70 psia
				034-24-ST	14.00	L/min	14.70 psia
				044-25-CA	50.00	L/min	14.70 psia
				044-24-TA	66.00	L/min	14.70 psia
				044-06-ST	1.60	scfm	14.70 psia

TABLE 21 - DIRECT READING FLOW TUBES FOR OXYGEN							
65mm				150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE	FLOW TUBE	QMAX	[UNITS]	PRESSURE
042-21-ST	10.00	mL/min	14.70 psia	032-33-ST	150.00	mL/min	14.70 psia
032-09-GL	35.00	mL/min	14.70 psia	062-02-ST	250.00	mL/min	14.70 psia
032-19-GL	50.00	mL/min	14.70 psia	112-04-SA	400.00	mL/min	14.70 psia
022-07-ST	300.00	mL/min	14.70 psia	062-16-CA	600.00	mL/min	14.70 psia
012-02-ST	500.00	mL/min	14.70 psia	082-08-SA	1.00	L/min	14.70 psia
052-02-GL	1.00	L/min	14.70 psia	102-12-SA	5.00	L/min	14.70 psia
013-25-ST	4.00	L/min	14.70 psia	102-17-CA	10.00	L/min	14.70 psia
034-08-ST	8.00	L/min	14.70 psia	034-15-ST	16.50	L/min	14.70 psia
044-04-ST	15.00	L/min	14.70 psia	044-19-CA	58.00	L/min	14.70 psia

TABLE 22 - DIRECT READING FLOW TUBES FOR PROPANE			
150mm			
FLOW TUBE	QMAX	[UNITS]	PRESSURE
092-01-ST	4.20	L/min	14.70 psia
102-02-CA	10.00	L/min	14.70 psia
044-02-ST	38.00	L/min	14.70 psia