

# ROTÂMETRO SÉRIE GR

TUBO CÔNICO DE MEDIÇÃO EM VIDRO BOROSILICATO



Rotating  
Magnifying Lens

## DESCRIPTION

**Series GR** are borosilicate glass tube flowmeters for liquids or gases available in either 65 or 150 mm scale lengths with corresponding reference scales. Direct read scales are also available. Series GR flowmeters can be configured with a standard or precision control valve on either the inlet, outlet or no valve at all; fittings can be specified in either aluminum or stainless steel; valves can be specified in either brass or stainless steel; O-rings and seals can be provided in Buna-N, Viton® or other optional elastomers.

## FEATURES

Standard millimeter scales with flow curves permit multiple fluid & gas use with a single tube

Scales: 65 mm, 150 mm

Water ranges from 21 to 2080 CCM

Air ranges from 50 to 66370 CCM

Flowmeter available with:

- No Valve
- Cartridge Valve
- Precision Control Valve

Inlet Valve standard / Outlet Valve available

E-Z CHANGE design allows quick interchangeability of tube assemblies

Glass tube allows compatibility with most gases and fluids

Rotating lens allows 180° view with magnification

Direct reading scales (Series GD) available upon request

## SPECIFICATIONS

<b>Accuracy</b>	65 mm Scale ± 5% Full Scale 150 mm Scale ± 3% Full Scale
<b>Floats</b>	Black Glass, Sapphire, Stainless Steel, Carbonyl or Tantalum
<b>Frame</b>	Aluminum
<b>Wetted Components</b>	Aluminum w/ Buna-N Brass w/ Buna-N Stainless Steel w/ Viton®
<b>Fittings</b>	1/8" FNPT
<b>Tube</b>	Borosilicate Glass
<b>Valves (optional)</b>	Cartridge Valve Precision Control Valve
<b>Pressure</b>	200 psi / 13.7 Bar Max.
<b>Temperature</b>	200° F / 93° C Max.

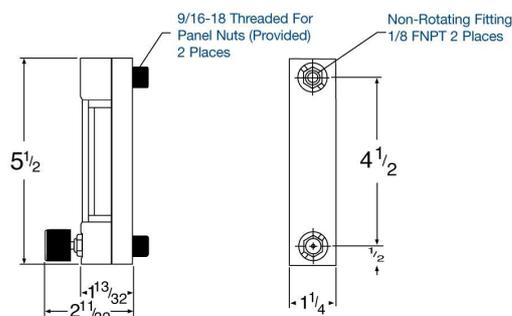
## MAXIMUM RANGES AVAILABLE

Turndown ≥ 10:1 with Single Float or Turndown ≥ 20:1 with Dual Floats

<b>65 MM Tubes</b>	51 CCM to 65 LPM Air @ STP 21.4 CCM to 2 LPM Water @ STP
<b>150 MM Tubes</b>	50 CCM to 66 LPM Air @ STP 22.2 CCM to 2 LPM Water @ STP

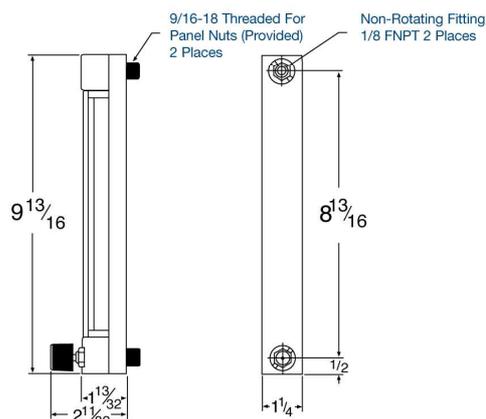
## 65 MM FLOWMETER

<b>Inches</b>	5 1/2	1 13/32	2 1/32	1 1/4	4 1/2	1/2
<b>Millimeters</b>	140	35.7	59.5	31.8	114	12.7



## 150 MM FLOWMETER

<b>Inches</b>	9 13/16	1 13/32	2 1/32	1 1/4	8 13/16	1/2
<b>Millimeters</b>	249	35.7	59.5	31.8	224	12.7



## ORDERING INFORMATION

Catalog Number Ordering Example: **GR60510SVV**

**EXAMPLE:**

GR	60510	S	V	V
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**Glass Flowmeter** ————  
Product Code

**Model Number** ————

**Fittings** ————  
A = Aluminum, B = Brass, S = Stainless Steel

**Valve** ————  
N = No Valve, V = Standard Inlet Valve (Inlet),  
P = Precision Valve (Inlet), O = Standard Valve (Outlet),  
R = Precision Valve (Outlet)

**Seals** ————  
B = Buna-N (std with brass and aluminum fittings),  
V = Viton® (std with stainless steel)

### 65 MM FLOW RANGES

Model No.	Float	Float Diameter	Air (CCM)	Water (CCM)
GR60110	G	1/8"	51	
GR60120	S	1/8"	82	
GR60130	ST	1/8"	153	
GR60140	C	1/8"	284	
GR60150	T	1/8" A	310	
GR60210	G	1/8"	103	
GR60220	S	1/8"	160	
GR60230	ST	1/8"	298	
GR60240	C	1/8"	498	
GR60250	T	1/8" A	546	
GR60310	G	1/8"	400	
GR60320	S	1/8"	550	
GR60330	ST	1/8"	855	21.4
GR60340	C	1/8"	1275	35.4
GR60350	T	1/8" A	1360	38.4
GR60410	G	1/8"	900	18.2
GR60420	S	1/8"	1200	29.6
GR60430	ST	1/8"	1800	50.1
GR60440	C	1/8"	2620	76.1
GR60450	T	1/8" A	2790	82.4
GR60510	G	3/16"	2580	55
GR60520	S	3/16" A	3350	85
GR60530	ST	3/16"	5030	140
GR60540	C	3/16"	7270	215
GR60550	T	3/16" B	7710	230
GR60610	G	3/16"	3930	90
GR60620	S	3/16" A	5080	130
GR60630	ST	3/16"	7510	220
GR60640	C	3/16"	10700	325
GR60650	T	3/16" B	11315	345
GR60710	G	1/4"	6000	130
GR60720	S	1/4" B	7800	200
GR60730	ST	1/4"	11450	335
GR60740	C	1/4" B	16340	500
GR60750	T	1/4" C	17250	535
GR60810	G	1/4"	10100	235
GR60820	S	1/4" B	12980	350
GR60830	ST	1/4"	18960	560
GR60840	C	1/4" B	26525	830
GR60850	T	1/4" C	28115	885
GR60910	G	1/4"	15750	375
GR60920	S	1/4" B	20170	545
GR60930	ST	1/4"	29400	880
GR60940	C	1/4" B	41175	1305
GR60950	T	1/4" C	43410	1385
GR61010	G	1/4"	23640	570
GR61020	S	1/4" B	30090	825
GR61030	ST	1/4"	43340	1305
GR61040	C	1/4" B	61120	1920
GR61050	T	1/4" C	65850	2055

### 150 MM FLOW RANGES

Model No.	Float	Float Diameter	Air (CCM)	Water (CCM)
GR10110	G	1/8"	50	
GR10120	S	1/8"	78	
GR10130	ST	1/8"	152	
GR10140	C	1/8"	281	
GR10150	T	1/8" A	315	
GR10210	G	1/8"	106	
GR10220	S	1/8"	167	
GR10230	ST	1/8"	308	
GR10240	C	1/8"	497	
GR10250	T	1/8" A	540	
GR10310	G	1/8"	400	
GR10320	S	1/8"	555	
GR10330	ST	1/8"	870	22.2
GR10340	C	1/8"	1300	36.2
GR10350	T	1/8" A	1400	39.5
GR10410	G	1/8"	855	18
GR10420	S	1/8"	1135	27.6
GR10430	ST	1/8"	1710	47.5
GR10440	C	1/8"	2465	73.2
GR10450	T	1/8" A	2640	78.8
GR10510	G	3/16"	2290	50
GR10520	S	3/16" A	2980	75
GR10530	ST	3/16"	4480	125
GR10540	C	3/16"	6475	190
GR10550	T	3/16" B	6805	205
GR10610	G	3/16"	3425	75
GR10620	S	3/16" A	4465	115
GR10630	ST	3/16"	6600	190
GR10640	C	3/16"	9475	285
GR10650	T	3/16" B	9990	305
GR10710	G	1/4"	9180	215
GR10720	S	1/4" B	11990	315
GR10730	ST	1/4"	17810	515
GR10740	C	1/4" B	24970	765
GR10750	T	1/4" C	26170	825
GR10810	G	1/4"	23740	565
GR10820	S	1/4" B	30270	830
GR10830	ST	1/4"	44050	1335
GR10840	C	1/4" B	61410	1950
GR10850	T	1/4" C	66370	2080

**\*NOTE:** A, B & C indicate float price adders. Please consult price list for details. Periodically, product revisions occur. Please consult the factory for the latest specifications.

### FLOAT MATERIAL CODES

0 = No Float	2 = Sapphire (S)	4 = Carboly (C)
1 = Black Glass (G)	3 = Stainless Steel (ST)	5 = Tantalum (T)

## GS Series



## GS-M Series



## GS-L Series



## OptAlarm®



## GD Series

### Measure Flow Rates In:

Air  
Argon  
Carbon Dioxide  
Helium  
Hydrogen  
Nitrogen  
Oxygen  
Water



## NIST Calibration Services

Key Instruments employs expert lab technicians to perform calibrations for flowmeters to ensure that we account for and eliminate the variables that could lead to inaccuracies in measurement.

### Key Features of our in-house Flowmeter Calibration services:

- Measurement accuracy up to  $\pm 0.25\%$  of reading
- Liquid calibration range up to 38 LPM / 10 GPM
- Gas calibration range up to 4000 LPM / 7200 SCFH
- Calibrations performed using primary standards directly traceable to NIST (National Institute of Standards and Technology)