

7459 Series - Glass Tube



Expanding the line of side plate construction rotameters, King introduces its NEW 7459 Series. These models feature a 250mm scale borosilicate glass tube with Aluminum side plates and a polycarbonate shield. Connections are vertical FNPT, 316L Stainless Steel.

Description

Metering Tube Borosilicate Glass

Internal Components

Standard: 316L Stainless Steel

Optional: Hastelloy® 276-C

Inlet/Outlet Fittings NPT, Vercicle

Inlet or Outlet Valve optional

Connection:

Sizes 3 & 4: 1/2" FNPT

Size 5: 3/4" FNPT

Size 6: 1" FNPT

Size 8 & 9: 1 1/2" FNPT

Fitting Material

Standard: 316L Stainless Steel

Elastomers

Standard: Viton

Optional: Buna N, EPR, and Kalrez®

Case and Covers Not applicable

Options

Alarm Not available

Certified Calibrations Conform to ISA RP 16.6

Scales Can be produced in any volumetric unit



Performance

Capacities

.22 to 100 GPM – Water

0.9 to 350 SCFM – Air

Scale 250 mm (10")

Direct reading, detachable

Accuracy

± 2% of Full Scale Flow

Turndown

10:1 to 12.5:1 unless otherwise indicated

Repeatability .50%

Max Temperature

200° F (93° C) Liquid

250° F (121° C) Gases

Max Pressure

Sizes 3 & 4: 350 psig

Size 5: 175 psig

Size 6, 8 & 9: 125 psig

Ambient Temperature

33° F to 125° F (1° C to 52° C)



Liquid Compatible



Gas Compatible

Materials Of Construction

| Part | Standard | Optional |
|---------------|--------------------|-----------------------|
| Metering Tube | Borosilicate Glass | – |
| Side Plates | Anodized Aluminum | 304 SS |
| Shield | Polycarbonate | – |
| Fittings | 316L SS | – |
| Float | 316L SS | Hastelloy® 276-C* |
| O-Rings | Viton® | Buna-N, EPR, Kalrez®* |

*Additional cost, call factory

Specifications

| Order Number | Full Scale Flow GPM-Water | Order Number | Full Scale Flow SCFM-Air ¹ | Float Number | Float Type | Press. Drop In W.C. | Tube Size ² | Tube Number | Connection Size (FNPT) |
|--------------|---------------------------|--------------|---------------------------------------|--------------|------------|---------------------|------------------------|--------------|------------------------|
| 31W | 0.22 | 31A | 0.9 | 3/8-LPG-01 | LP | 2 | 3G (.375") | 3/8-20-G-10 | 1/2" FNPT |
| 32W | 0.32 | 32A | 1.4 | 3/8-SLG-01 | SL | 3 | 3G (.375") | 3/8-20-G-10 | 1/2" FNPT |
| 33W | 0.64 | 33A | 2.7 | 3/8-SLG-02 | SL | 5 | 3G (.375") | 3/8-20-G-10 | 1/2" FNPT |
| 41W | 0.77 | 41A | 3.4 | 1/2-LPG-01 | LP | 4 | 4G (.500") | 1/2-32-G-10 | 1/2" FNPT |
| 42W | 1.02 | 42A | 4.4 | 1/2-LPG-02 | LP | 7 | 4G (.500") | 1/2-32-G-10 | 1/2" FNPT |
| 43W | 1.20 | 43A | 5.0 | 1/2-GVG-01 | GV | 11 | 4G (.500") | 1/2-32-G-10 | 1/2" FNPT |
| 44W | 1.44 | 44A | 6.1 | 1/2-GSG-01 | GS | 12 | 4G (.500") | 1/2-32-G-10 | 1/2" FNPT |
| 45W | 1.92 | 45A | 8.5 | 1/2-SLG-01 | SL | 20 | 4G (.500") | 1/2-32-G-10 | 1/2" FNPT |
| 46W | 2.26 | 46A | 10.2 | 1/2-SLG-02 | SL | 28 | 4G (.500") | 1/2-32-G-10 | 1/2" FNPT |
| 51W | 1.1 | 51A | 4.5 | 3/4-LPG-01 | LP | 2 | 5G (.750") | 3/4-28-G-10 | 3/4" FNPT |
| 52W | 2.4 | 52A | 10.0 | 3/4-GVG-01 | GV | 5 | 5G (.750") | 3/4-28-G-10 | 3/4" FNPT |
| 53W | 3.0 | 53A | 12.0 | 3/4-GSG-01 | GS | 6 | 5G (.750") | 3/4-28-G-10 | 3/4" FNPT |
| 54W | 3.3 | 54A | 13.2 | 3/4-GVG-02 | GV | 7 | 5G (.750") | 3/4-28-G-10 | 3/4" FNPT |
| 55W | 4.0 | 55A | 16.4 | 3/4-GSG-02 | GS | 13 | 5G (.750") | 3/4-28-G-10 | 3/4" FNPT |
| 56W | 5.2 | 56A | 22.0 | 3/4-SLG-01 | SL | 16 | 5G (.750") | 3/4-28-G-10 | 3/4" FNPT |
| 61W | 6.9 | – | – | 1-LPG-02 | LP | 5 | 6G (1") | 1-32-G-10 | 1" FNPT |
| 62W | 9.8 | – | – | 1-SLG-01 | SL | 9 | 6G (1") | 1-32-G-10 | 1" FNPT |
| 63W | 12.6 | – | – | 1-SLG-02 | SL | 15 | 6G (1") | 1-32-G-10 | 1" FNPT |
| 64W | 6.7 | 64A | 27.0 | 1-LPP-01 | LP | 6 | 6P (1") | 1-40-P-10 | 1" FNPT |
| 65W | 7.4 | 65A | 30.0 | 1-GVP-01 | GV | 8 | 6P (1") | 1-40-P-10 | 1" FNPT |
| 66W | 8.5 | 66A | 35.0 | 1-GVP-02 | GV | 11 | 6P (1") | 1-40-P-10 | 1" FNPT |
| 67W | 10.4 | 67A | 42.5 | 1-GSP-01 | GS | 14 | 6P (1") | 1-40-P-10 | 1" FNPT |
| 68W | 11.6 | 68A | 46.5 | 1-GVP-03 | GV | 19 | 6P (1") | 1-40-P-10 | 1" FNPT |
| 69W | 12.0 | 69A | 50.0 | 1-GSP-02 | GS | 20 | 6P (1") | 1-40-P-10 | 1" FNPT |
| 610W | 15.6 | 610A | 63.0 | 1-GSP-03 | GS | 30 | 6P (1") | 1-40-P-10 | 1" FNPT |
| 611W | 21.6 | 611A | 100.0 | 1-SLP-01 | SL | 72 | 6P (1") | 1-40-P-10 | 1" FNPT |
| 612W | 27.5 | – | – | 1-SLP-02 | SL | 96 | 6P (1") | 1-40-P-10 | 1" FNPT |
| 613W | 34.5 | – | – | 1-SLP-03 | SL | 116 | 6P (1") | 1-40-P-10 | 1" FNPT |
| 84W | 17.0 | 84A | 70.0 | 11/2-GVP-01 | GV | 10 | 8P (1.50") | 11/2-32-P-10 | 1 1/2" FNPT |
| 85W | 21.2 | 85A | 87.0 | 11/2-GVP-02 | GV | 15 | 8P (1.50") | 11/2-32-P-10 | 1 1/2" FNPT |
| 86W | 22.2 | – | – | 11/2-GSP-01 | GS | 18 | 8P (1.50") | 11/2-32-P-10 | 1 1/2" FNPT |
| 87W | 24.8 | 87A | 102.0 | 11/2-GVP-03 | GV | 21 | 8P (1.50") | 11/2-32-P-10 | 1 1/2" FNPT |
| 88W | 28.5 | – | – | 11/2-GSP-02 | GS | 25 | 8P (1.50") | 11/2-32-P-10 | 1 1/2" FNPT |
| 89W | 34.0 | – | – | 11/2-GSP-03 | GS | 33 | 8P (1.50") | 11/2-32-P-10 | 1 1/2" FNPT |
| 94W | 41.5 | 94A | 170.0 | 2-GVP-01 | GV | 23 | 9P (2") | 2-30-P-10 | 1 1/2" FNPT |
| 95W | 58.0 | 95A | 240.0 | 2-GSP-01 | GS | 32 | 9P (2") | 2-30-P-10 | 1 1/2" FNPT |
| 96W | 65.0 | 96A3 | 270.0 | 2-GSP-02 | GS | 54 | 9P (2") | 2-30-P-10 | 1 1/2" FNPT |
| 97W | 85.0 | 97A3 | 350.0 | 2-SLP-00 | SL | 61 | 9P (2") | 2-30-P-10 | 1 1/2" FNPT |
| 98W | 100.0 | – | – | 2-SLP-01 | SL | 88 | 9P (2") | 2-30-P-10 | 1 1/2" FNPT |

1. Because of the compressible nature of gas, meters used in this service may be subject to float bounce if:

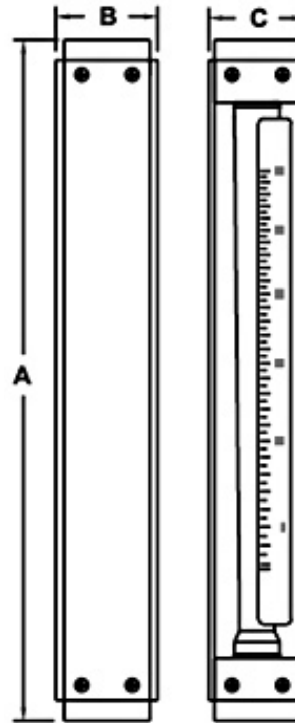
- The meter is used in very low pressure applications.
- There is more than two pipe diameters between the meter and a control valve.
- The gas being metered is a low Specific Gravity.
- The meter is operating below 20% of full scale flow.
- Back pressure is insufficient to stabilize the float.

2. Tubes with the designation "G" (e.g. 3G) have rib guided floats. Tubes designated "P" (e.g. 6P) have pole guided floats.

3. USE CAUTION: These floats must have sufficient outlet pressure to keep from becoming unstable in gas service. 30 psi minimum is recommended.

Dimensions (Inches)

| Tube Size | Scale length | | |
|-----------|--------------|-----|-------|
| | A | B | C |
| 3-6 | 17 | 2.5 | 2.375 |
| 8-9 | 19 | 4.5 | 4.5 |



Ordering:

Use the following guide to determine the specific product number you require.

| Meter Series | Order Number | Fitting Material | O-Ring Material | Scale Type |
|--------------|--------------------------|------------------|--|--|
| | See Specifications Table | 316L SS - 2 | EPR - 1 Buna-N - 2 Viton® - 3 Kalrez® - 4 | Millimeter - 1 GPM Water@70°F - 2 LPM Water@70°F - 3 SCFM Air@STP - 4 SLPM Air@STP - 5 Non standard - 6 |

Example: 745 - 54W - 2 - 3 - 6

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