7430 Series

Glass Tube

Both 65 mm and 150 mm scales, borosilicate glass tube models feature all stainless steel frame and horizontal connections at a less expensive price than competitive products. Valve optional.

Description

Metering Tube
Borosilicate Glass

Internal Components
316L Stainless Steel, Black Glass, Sapphire, Carboloy, Tantalum

Inlet/Outlet Fittings
1/8" and 1/4" FNPT, Horizontal
Control Valve optional

Fitting Material
316L Stainless Steel

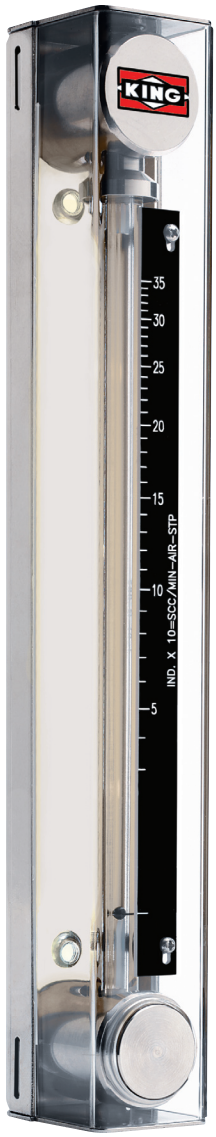
Elastomers
Standard: Viton®
Optional: Buna N, EPR, and Kalrez®

Options

Alarm
Fiber-Optic or Inductive Ring Sensor (See Below)

Certified Calibrations
Conform to ISA RP 16.6

Scales
Can be produced in any volumetric unit



Performance

Capacities
.72 to 1800 cc/mn — Water
66 to 70000 cc/mn — Air

Scale
65 mm, 150 mm
Direct reading, detachable

Accuracy
± 6% of Full Scale Flow, 65 mm
± 4% of Full Scale Flow, 150 mm

Turndown
10:1 to 12.5:1 unless otherwise indicated

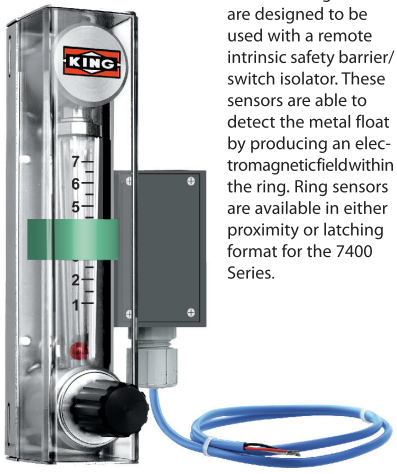
Repeatability
1%

Max Temperature
250° F (121° C) Gases
200° F (93° C) Liquids

Max Pressure
316L SS Fittings - 200 psig
PVC Fittings — 130 psig
PVDF Fittings — 150 psig

Ambient Temperature
33° F to 125° F (1° C to 52° C)

Alarm Options:



Inductive Ring Sensor
Inductive ring sensors are designed to be used with a remote intrinsic safety barrier/switch isolator. These sensors are able to detect the metal float by producing an electromagnetic field within the ring. Ring sensors are available in either proximity or latching format for the 7400 Series.

Sensor Specifications
Power Supply: 5-25 VDC (from Switch Isolator)
Max Current, Target Present: 1 mA
Max Current, Target Absent: 15 mA
Temperature Limits: -14°F to +158°F
Output: NAMUR
Repeatability: 0.01 mm
Switching Frequency: 2 kHz (.125"), 1.5 kHz (.25")
Sensor Approvals:
UL Listed: General Purpose
FM Approved: Intrinsically Safe*
CSA Certified: Intrinsically Safe*
Cenelec: Intrinsically Safe*
*Additional cost, call for pricing

Float/Sensor Compatibility

Type	Tube Size	Float Material
Proximity	.125"	SS, CB
Proximity	.25"	SS, CB
Latching	.125"	SS, CB
Latching	.25"	SS, CB

Fiber Optic Sensor
The fiber optic sensor is housed in a junction box attached to the side of a 7400 Series flowmeter. The sensor uses a pair of fiber optic cables, an emitter and receiver to transmit the light across the metering tube and back to the sensor. If the light beam is blocked by the float, the sensor output will change. The sensor provides a transistor output that switches the common or negative voltage (NPN) or positive voltage (PNP) to the load. The fiber optic sensor is compatible with all 7400 Series float types

Sensor Specifications
Supply Voltage: 10-30 Vdc
Current Consumption: 25 mA
Temperature Limits: -14°F to +212°F
Output:
NPN (Sinking), N.O. or N.C.
PNP (Sourcing), N.O. or N.C.
Offstate Leakage Current =1 microamp at 30 Vdc
Output Saturation Voltage = 1 V at 10 mA DC < 1.5 V at 150 mA DC

Note: Sapphire floats are not compatable with Fiber Optic Sensor

7430 Series

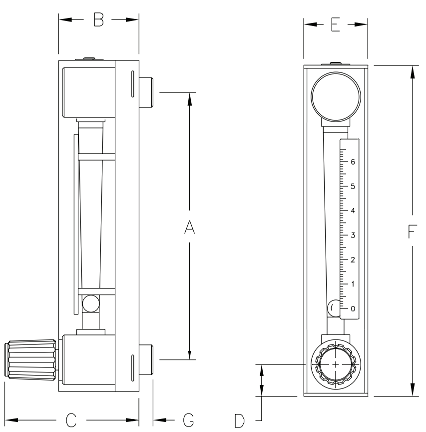
Specifications:

65MM Scale Flow Ranges

Tube Number	Float Material	Air (STP) CC/MIN	Air (STP) SCFH	Air (STP) SLPH	Water (70°F) CC/MIN	Water (70°F) GPH	Water (70°F) LPH
1-02-G-021	Glass	66	.14	4.0	0.72	.011	.042
	Sapphire	105	.22	6.2	1.3	.021	.078
	Stainless Steel	200	.42	12.0	3.3	.052	.190
	Carboloy	340	.70	20.0	7.0	.110	.420
	Tantalum	350	.74	21.0	7.8	.125	.460
1-03-G-041	Glass	76	.16	4.6	1.15	.018	.068
	Sapphire	120	.25	7.2	2.10	.032	.125
	Stainless Steel	230	.50	14.0	4.20	.068	.260
	Carboloy	400	.85	24.0	9.00	.145	.560
	Tantalum	440	.90	26.0	10.00	.165	.620
1-08-G-061	Glass	525	1.1	31	9.0	.14	.54
	Sapphire	700	1.5	42	15.5	.24	.95
	Stainless Steel	1130	2.4	68	29.0	.46	1.70
	Carboloy	1600	3.4	95	46.0	.72	2.80
	Tantalum	1700	3.6	100	50.0	.78	3.00
1-23-G-081	Glass	2000	4.2	120	44	.70	2.6
	Sapphire	2600	5.4	150	68	1.05	4.0
	Stainless Steel	3800	8.2	230	110	1.70	6.6
	Carboloy	5600	12.0	340	170	2.70	10.5
	Tantalum	6000	13.0	360	180	2.90	11.0
2-14-G-021	Glass	6800	14.5	400	160	2.6	9.5
	Sapphire	9200	19.5	540	240	3.8	14.5
	Stainless Steel	13000	28.0	800	400	6.4	24.0
	Carboloy	19000	40.0	1100	600	9.5	36.0
	Tantalum	20000	42.0	1200	640	10.0	38.0
2-34-G-041	Glass	19000	40.0	1150	520	8.25	31.0
	Sapphire	25000	52.0	1500	740	11.50	44.0
	Stainless Steel	42500	90.0	2550	1200	19.00	72.0
	Carboloy	60000	125.0	3600	1700	27.00	105.0
	Tantalum	70000	145.0	4200	1800	29.00	110.0

150 MM Scale Flow Ranges

Tube Number	Float Material	Air (STP) CC/MIN	Air (STP) SCFH	Air (STP) SLPH	Water (70°F) CC/MIN	Water (70°F) GPH	Water (70°F) LPH
1-03-G-022	Glass	54	.114	3.2	.56	.0088	.033
	Sapphire	82	.175	4.9	1.04	.0160	.062
	Stainless Steel	160	.340	9.8	2.25	.0350	.135
	Carboloy	280	.580	16.5	5.00	.0780	.300
	Tantalum	300	.620	17.5	5.20	.0840	.320
1-04-G-042	Glass	106	.225	6.4	1.24	.0195	.074
	Sapphire	165	.35	10.0	2.35	.0380	.145
	Stainless Steel	320	.68	19.0	5.60	.0900	.340
	Carboloy	540	1.14	32.0	12.4	.1950	.740
	Tantalum	580	1.24	35.0	13.5	.2100	.820
1-07-G-062	Glass	350	.74	21.0	4.7	.074	.28
	Sapphire	500	1.06	30.0	10.0	.160	.60
	Stainless Steel	820	1.75	50.0	20.5	.330	1.25
	Carboloy	1250	2.60	76.0	34.0	.540	2.05
	Tantalum	1350	2.90	80.0	36.0	.560	2.15
1-11-G-082	Glass	850	1.8	50.0	16.5	.26	1.0
	Sapphire	1100	2.3	66.0	27.0	.42	1.6
	Stainless Steel	1600	3.4	100.0	46.0	.72	2.7
	Carboloy	2300	4.9	140.0	72.0	1.15	4.4
	Tantalum	2450	5.2	155.0	80.0	1.25	4.8
1-27-G-102	Glass	2150	4.6	130.0	52	.84	3.1
	Sapphire	2800	6.0	170.0	78	1.24	4.7
	Stainless Steel	4400	9.2	260.0	130	2.05	7.8
	Carboloy	6200	13.5	380.0	205	3.20	12.5
	Tantalum	6750	14.0	400.0	210	3.30	12.5
2-09-G-002	Glass	3800	8.2	230.0	86	1.35	5.2
	Sapphire	5000	10.6	300.0	130	2.05	7.8
	Stainless Steel	7500	16.0	450.0	220	3.40	13.0
	Carboloy	10600	22.5	640.0	330	5.20	20.0
	Tantalum	11500	24.0	680.0	360	5.60	21.5
2-17-G-022	Glass	9000	19.0	540.0	215	3.40	13.0
	Sapphire	11400	24.5	700.0	320	5.00	19.0
	Stainless Steel	17000	36.0	1000.0	520	8.20	31.0
	Carboloy	24000	50.0	1450.0	760	12.2	46.0
	Tantalum	25000	54.0	1500.0	820	13.0	49.0
2-32-G-042	Glass	20500	43.0	1220.0	470	7.5	28.0
	Sapphire	26000	56.0	1550.0	700	11.0	42.0
	Stainless Steel	38000	82.0	2300.0	1120	18.0	68.0
	Carboloy	54000	116.0	3300.0	1650	26.0	100.0
	Tantalum	60000	125.0	3500.0	1750	28.0	106.0



Dimensions (Inches)

Detail Letter	Scale length 65mm	Scale length 150mm
*A	4.53	8.826
B	1.56	1.56
C	2.90	2.90
D	0.73	0.73
E	1.50	1.50
F	6.05	10.25
G	0.50	.050

*The FNPT fittings have a 3/4 - 16 O.D. thread with mounting nuts installed.

Ordering:

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

7 4 C [ ][ ][ ][ ][ ][ ][ ] [ ] [ ] [ ] [ ] [ ] [ ]

Meter Series

Tube Number
See Specifications Table

Float Material
- Glass - 1
- Sapphire - 2
- 316 SS - 3
- Carboloy - 4
- Tantalum - 5

Fitting Material
- 316L SS - 1/8" F NPT - 1
- 316L SS - 1/4" FNPT - 2
- PVC - 1/4" FNPT - 3
- PVC - 1/8" FNPT - 4
- PVDF - 1/4" FNPT - 5
- PVDF - 1/8" FNPT - 6
- Hastelloy® C -1/4" FNPT - 7
- Hastelloy® C -1/8" FNPT - 8

O-ring Material
- EPR - 1
- Buna-N - 2
- Viton® - 3
- Kalrez® With No Valve - 4
- Kalrez® With Valve - 5

Scale
- Millimeter - 1
- GPH Water@70°F - 2
- LPH Water@70°F - 3
- CC/MIN Water@STP - 4
- SCFH Air@STP - 5
- SLPH Air@STP - 6
- SCC/MIN Air@STP - 7
- Non standard - 8

Valve Option
- 316L SS - Inlet - 1
- 316L SS - Outlet - 2
- No Valve - 3
- PVC - Inlet - 4
- PVC - Outlet - 5
- PVDF - Inlet - 6
- PVDF - Outlet - 7
- Hastelloy® C - Inlet - 8
- Hastelloy® C - Outlet - 9

Optional Alarm Switch
- Without Alarm - 0
- Fiber-Optic NPN (Proximity) - 1
- Fiber-Optic PNP (Proximity) - 2
- Inductive Ring Sensor (Proximity) - 3
- Inductive Ring Sensor (Latching) - 4

Example: 74C - 102G021 - 1 - 2 - 3 -1 -1- 0