

7710 Series

This all 316L Stainless Steel meter utilizes a float and tapered tube design which offers longer, more linear scales, better pointer stability and 40% greater accuracy than competitively priced products. A 4-20mA transmitter option adds to its versatility.

Description

Metering Tube

316L Stainless Steel

Internal Components

316L Stainless Steel

Inlet/Outlet Fittings

316L Stainless Steel NPT or Flange, Vertical

Fitting Material

316L Stainless Steel

Elastomers

Standard: Viton®

Optional: Buna N, EPR, Kalrez®

Indicator Housing

304 Stainless Steel

Options

Alarm

Single or Dual, Inductive Slot Sensor
4-20 mA Transmitter

Certified Calibrations

Conform to ISA RP 16.6

Scales

Can be produced in any volumetric unit



Stainless Steel Tube

Performance

Capacities

33 GPH to 450 GPM — Water

4 to 100 SCFM — Air

Scale

120 mm

Direct reading, detachable

Accuracy

± 3% of Full Scale Flow

Turndown

10:1 to 12.5:1, unless otherwise indicated

Repeatability

1 %

Max Temperature

O-ring Material Max Temperature

EPR 225° F (107° C)

Buna-N 275° F (135° C)

Viton® 350° F (177° C)

Kalrez® 400° F (204° C)

Max Pressure

NPT Fittings — 1,500 psi

Stainless Steel Flange Class

Temp F	150#	300#	600#
200	225 psi	600 psi	1,200 psi
300	200 psi	540 psi	1,100 psi
400	180 psi	515 psi	1,000 psi

Ambient Temperature

33° F to 125° F (1° C to 52° C)



Alarm Options:

Inductive Slot Sensor

Like inductive ring sensors, slot sensors are 2-wire, DC, low-current devices and are designed to be used with a remote intrinsic safety barrier/switch isolator. Single or dual slot sensors are available for the 7700 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 +212°F

Output: NAMUR

Repeatability: 0.01 mm

Switching Frequency: 2 kHz

Sensor Approvals*:

UL Listed: General Purpose

FM Approved: Intrinsically Safe*

CSA Certified: Intrinsically Safe*

Cenelec: Intrinsically Safe*

Optional 4-20 mA Transmitter*

Power Supply: 12 to 33 Vdc

Maximum Current Consump.: 40 mA

Temperature Limits: -13° F to 158° F (-25 to 70° C)

Output: 4 to 20 mA dc

Accuracy: <0.5%

Linearity: +0.4%

Influence from bearing play: ±0.1%

Temperature influence (amb): 0.03% per °C

Power supply influence: ±0.1%

Load resistance influence: ±0.1% at R max.

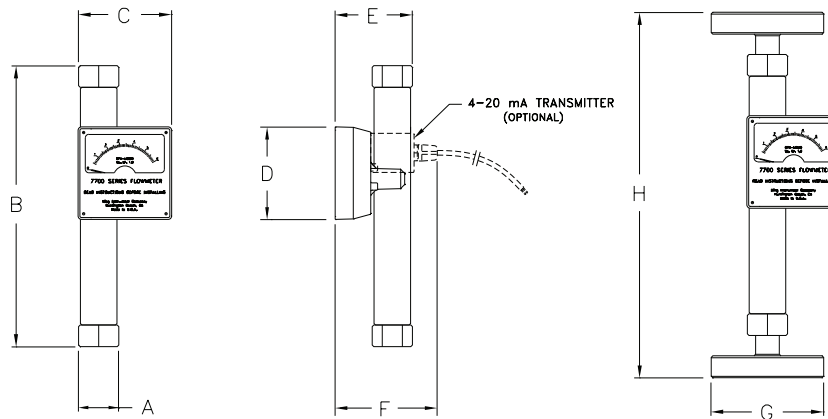
*Specifications shown here are for the transmitter only and should not be confused with the actual performance capabilities of the flowmeter.

7710 Series Specifications:

Stainless Steel Tube

Order Number	Full Scale Flow GPM-Water	Dimension (Inches) FNPT Connections						150 # Flange		300 # Flange	
		A	B	C	D	E	F	G	H	G	H
706	33.0 GPM - 1/2" FNPT	1.312	11	5	5	3.375	4.625	3.50	13.125	3.75	13.625
708	1.1 GPM - 1/2" FNPT	1.312	11	5	5	3.375	4.625	3.50	13.125	3.75	13.625
710	2.0 GPM - 1/2" FNPT	1.312	11	5	5	3.375	4.625	3.50	13.125	3.75	13.625
712	4.0 GPM - 1/2" FNPT	1.312	11	5	5	3.375	4.625	3.50	13.125	3.75	13.625
714	6.0 GPM - 1/2" FNPT	1.312	11	5	5	3.375	4.625	3.50	13.125	3.75	13.625
716	5.0 GPM - 1" FNPT	1.875	13.25	5.25	5	4	4.625	4.25	16.75	4.88	17.500
718	10.0 GPM - 1" FNPT	1.875	13.25	5.25	5	4	4.625	4.25	16.75	4.88	17.500
720	16.5 GPM - 1" FNPT	1.875	13.25	5.25	5	4	4.625	4.25	16.75	4.88	17.500
722	25.0 GPM - 1" FNPT	1.875	13.25	5.25	5	4	4.625	4.25	16.75	4.88	17.500
724	35.0 GPM - 1 1/2" FNPT	2.375	13.875	5.625	5	4.50	4.625	5.00	18.625	6.12	19.250
726	60.0 GPM - 1 1/2" FNPT	2.375	13.875	5.625	5	4.50	4.625	5.00	18.625	6.12	19.250
728	76.0 GPM - 2" FNPT	3.5	13.875	6.75	5	5.625	4.625	6.00	17.156	6.50	17.750
730	100.0 GPM - 2" FNPT	3.5	13.875	6.75	5	5.625	4.625	6.00	17.156	6.50	17.750
732	120.0 GPM - 2" FNPT	3.5	13.875	6.75	5	5.625	4.625	6.00	17.156	6.50	17.750
734	152.0 GPM - 2" FNPT	3.5	13.875	6.75	5	5.625	4.625	6.00	17.156	6.50	17.750
736	150.0 GPM - 3" Flange	—	—	—	—	—	—	7.50	17.867	8.25	18.187
738	225.0 GPM - 3" Flange	—	—	—	—	—	—	7.50	17.867	8.25	18.187
740	300.0 GPM - 4" Flange	—	—	—	—	—	—	9.00	18.562	10.00	19.750
742	375.0 GPM - 4" Flange	—	—	—	—	—	—	9.00	18.562	10.00	19.750
744	450.0 GPM - 4" Flange	—	—	—	—	—	—	9.00	18.562	10.00	19.750

Order Number	Full Scale Flow SCFM - AIR	FNPT	Dimension (Inches) FNPT Connections						150 # Flange		300 # Flange	
			A	B	C	D	E	F	G	H	G	H
707	4.0 SCFM	1/2"	1.312	11	5.125	5	3.375	4.625	3.50	13.125	3.75	13.625
709	8.0 SCFM	1/2"	1.312	11	5.125	5	3.375	4.625	3.50	13.125	3.75	13.625
711	16.5 SCFM	1/2"	1.312	11	5.125	5	3.375	4.625	3.50	13.125	3.75	13.625
713	24 SCFM	1/2"	1.312	11	5.125	5	3.375	4.625	3.50	13.125	3.75	13.625
715	20 SCFM	1"	1.875	13.25	5.25	5	4	4.625	4.25	16.75	4.88	17.500
717	42 SCFM	1"	1.875	13.25	5.25	5	4	4.625	4.25	16.75	4.88	17.500
719	76 SCFM	1"	1.875	13.25	5.25	5	4	4.625	4.25	16.75	4.88	17.500
721	100 SCFM	1"	1.875	13.25	5.25	5	4	4.625	4.25	16.75	4.88	17.500



Ordering:

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

Meter Series	Connection Type	Float Material	O-Ring Material	Optional Alarm/Transmitter	Order Number
7 7 1	FNPT Connections - 1 150# R.F. Flanged - 2 300# R.F. Flanged - 3 *600# R.F. Flanged	316L SS - 2	EPR - 1 Buna-N - 2 Viton® - 3 Kalrez® - 4	None - 0 With Transmitter - T One Alarm (Inductive Slot Sensor) - A Two Alarms (Inductive Slot Sensors) - D	Specifications table above

*Call Factory for 600# R.F. Flange availability

Example: 771 - 1 - 2 - 1 - T - 716