

P710 Series

Metal Tube Variable Area Flow Meter

Parker P Series metal tube variable area flow meters (armored rotameters) feature a robust design particularly suited for severe duty applications where safety is a concern.

P710 Series flow meters utilize a float and tapered tube design which offers longer, more linear scales, better pointer stability and greater accuracy than competitively priced products.

Available 4-20mA transmitter adds versatility.



Contact Information: Product Features and Options:

Parker Hannifin Corporation
Porter Instrument Division
245 Township Line Road
Hatfield, PA 19440

phone 215 723 4000
fax 215 723 2199
Industrial@parker.com

www.parker.com/porter

- 316L metering tube and internal components
- 304 stainless steel housing
- Max. Pressure: 1500 PSIG
- Inductive slot sensor alarm is available as an option
- FPM, NBR, EPR and Kalrez® elastomers available

- Certified calibrations conforming to ISA RP 16.6 available
- Scales can be produced in any volumetric unit
- Vertical NPT process connections

Kalrez® is a registered trademark of DuPont Performance Elastomers L.L.C.



ENGINEERING YOUR SUCCESS.

Specifications

Materials

Metering Tube	316L Stainless Steel
Internal Components	316L Stainless Steel
Inlet/Outlet Fittings	316L Stainless Steel NPT
Fitting Material	316L Stainless Steel
Elastomers	Standard Viton® Optional Buna, EPR, and Kalrez®

Options

Alarm	Single or Dual Inductive Slot Sensor, 4-20mA Transmitter
Certified Calibrations	Conform to ISA RP 16.6
Scales	Can be produced in any volumetric unit

Performance

Capacities	Water 33 GPH to 450 GPM Air 4 to 100 SCFM
Scale	120mm Direct reading, detachable
Accuracy	±3% of Full Scale Flow
Turndown	10:1 to 12.5:1, unless otherwise indicated
Repeatability	1%
Maximum Temperature	O-Ring Material Max Temp EPR 225°F (107°C) Buna 275°F (135°C) Viton® 350°F (177°C) Kalrez® 400°F (204°C)
Maximum Pressures	NPT Fittings 1,500psi
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 P710 Series.

Sensor Specifications

Power Supply	5-25 VDC (from Switch Isolator)	
Maximum Current	Target Present	1 mA
	Target Absent	15 mA
Temperature Limits	-14°F to +212°F (-26°C to +100°C)	
Output	NAMUR	
Repeatability	0.01mm	
Switching Frequency	2 kHz	
Sensor Approvals	UL Listed	General Purpose
	FM Approved	Intrinsically Safe*
	CSA Certified	Intrinsically Safe*
	Cenelec	Intrinsically Safe*

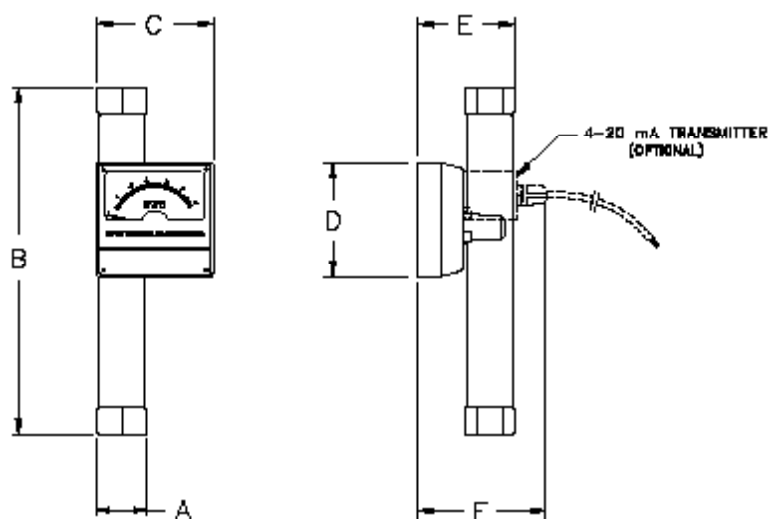
*Additional cost, call for pricing

4-20mA Transmitter*

Power Supply	12 to 33 VDC
Maximum Current Consumption	40 mA
Temperature Limits	-13°F to +158°F (-25°C to +70°C)
Output	4 to 20 mAdc
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 transmitter only and should not be confused with the performance capabilities of the flow meter.

Flow Ranges and Dimensions



Order Number	Full Scale Flow Water	Dimensions (Inches) FNPT Connections					
		A	B	C	D	E	F
706	33.0 GPH – 1/2" FNPT	1.312	11.00	5.00	5	3.375	4.625
708	1.1 GPM – 1/2" FNPT	1.312	11.00	5.00	5	3.375	4.625
710	2.0 GPM – 1/2" FNPT	1.312	11.00	5.00	5	3.375	4.625
712	4.0 GPM – 1/2" FNPT	1.312	11.00	5.00	5	3.375	4.625
714	6.0 GPM – 1/2" FNPT	1.312	11.00	5.00	5	3.375	4.625
716	5.0 GPM – 1" FNPT	1.875	13.25	5.25	5	4.000	4.625
718	10.0 GPM – 1" FNPT	1.875	13.25	5.25	5	4.000	4.625
720	16.5 GPM – 1" FNPT	1.875	13.25	5.25	5	4.000	4.625
722	25.0 GPM – 1" FNPT	1.875	13.25	5.25	5	4.000	4.625
724	35.0 GPM – 1-1/2" FNPT	2.375	13.875	5.625	5	4.500	4.625
726	60.0 GPM – 1-1/2" FNPT	2.375	13.875	5.625	5	4.500	4.625
728	76.0 GPM – 2" FNPT	3.500	13.875	6.75	5	5.625	4.625
730	100.0 GPM – 2" FNPT	3.500	13.875	6.75	5	5.625	4.625
732	120.0 GPM – 2" FNPT	3.500	13.875	6.75	5	5.625	4.625
734	152.0 GPM – 2" FNPT	3.500	13.875	6.75	5	5.625	4.625

Order Number	Full Scale Flow Air	FNPT	Dimensions (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	11.00	5.125	5	3.375	4.625	3.50	13.125	3.75	13.625
709	8.0 SCFM	1/2"	1.312	11.00	5.125	5	3.375	4.625	3.50	13.125	3.75	13.625
711	16.5 SCFM	1/2"	1.312	11.00	5.125	5	3.375	4.625	3.50	13.125	3.75	13.625
713	24.0 SCFM	1/2"	1.312	11.00	5.125	5	3.375	4.625	3.50	13.125	3.75	13.625
715	20.0 SCFM	1"	1.875	13.25	5.250	5	4.000	4.625	4.25	16.75	3.75	13.625
717	42.0 SCFM	1"	1.875	13.25	5.250	5	4.000	4.625	4.25	16.75	3.75	17.500
719	76.0 SCFM	1"	1.875	13.25	5.250	5	4.000	4.625	4.25	16.75	4.88	17.500
721	100.0 SCFM	1"	1.875	13.25	5.250	5	4.000	4.625	4.25	16.75	4.88	17.500

Ordering Information

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

The following example describes a P710 flow meter with 1/2" FNPT connection, 316L stainless steel float, EPR O-ring and 4-20 mA transmitter.

Example: P710121T7126

Model Number, Example and Options						Description
P710	1	2	1	T	712	
Connection Type	1					FNPT Connection Size 1/2"
						FNPT Connection Size 1"
						FNPT Connection Size 1-1/2"
						FNPT Connection Size 2"
						FNPT Connection Size 2" *
Float Material		2				316L SS
O-Ring Material			1			Ethylene Propylene Rubber (EPR)
			2			Nitrile Rubber (NBR)
			3			Fluorinated Propylene Monomer (FPM/FKM)
			4			Kalrez®
Optional Alarm / Transmitter				0		None
				T		4-20 mA Transmitter
				A		Single Alarm (Inductive Slot Sensor)
				D		Double Alarm (Inductive Slot Sensor)
Order Number					712	See Flow Capacities table on previous pages

*Order Number 732 - 734 Only

Gases equivalent to Air @ 21.1°C 1 atmos (Standard)

Liquid equivalent to water density 1.0 g/cm³, viscosity 1.0cp

Kalrez® is a registered trademark of DuPont Performance Elastomers L.L.C.

⚠ WARNING – USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

Offer of Sale

The items described in this document are hereby offered for sale by Parker-Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the detailed "Offer of Sale" elsewhere in this document or available at www.parker.com/offersale.