

Model 5700

Thermal Mass Flow

Electronic Flowmeter Model 5700



Model 5700

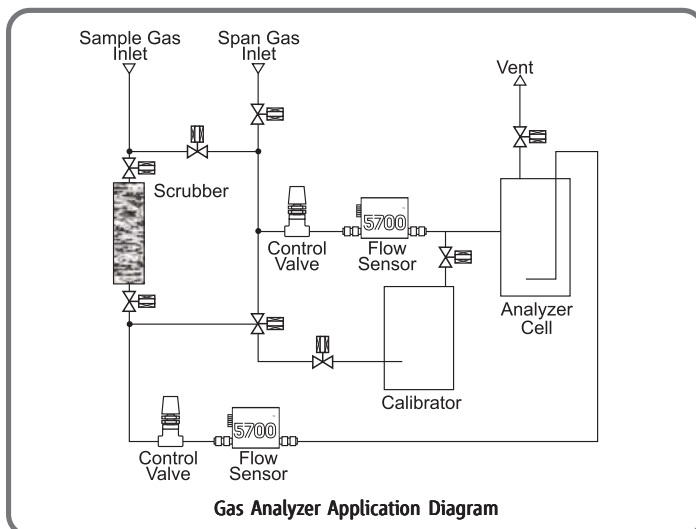
Overview

The Brooks® Model 5700 is a gas flow meter specially designed to satisfy the needs of purge gas, process analysis and analytical flow measurement applications. The Model 5700 utilizes a proven thermal mass flow sensor which provides excellent repeatability, wide turndown and an electrical output signal. It has a rugged all stainless steel construction and no moving parts providing superior corrosion resistance and long-term reliability. The Model 5700 is an economical meter with an electrical output signal making it ideal for replacing turbine meters, variable area meters and other volumetric devices.

Product Features

- **Mass flow measurement** - *No temperature or pressure correction required*
- **Wide range of flow rates** - *Satisfies most applications*
- **Excellent repeatability** - *Delivers consistent process/test results*
- **No moving parts** - *Ensures long-term reliability*
- **Stainless Steel wetted materials** - *Compatible with most process/test gases*
- **Single sided power input** - *Simplifies and reduces cost of installation*
- **0-5 Volt output signal** - *Allows flow indication, trending and totalizing*
- **European Community CE Certified** - *Ensures electrical integrity for every application*

Product Applications



Gas Analyzer Application Diagram

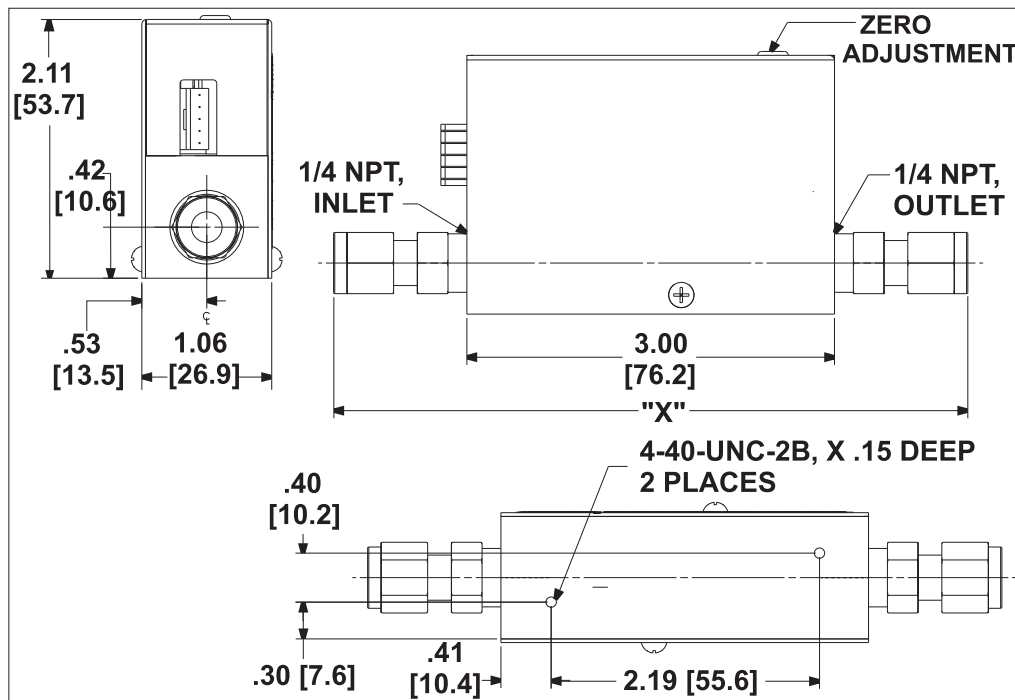
- Purge gas measurement
- Gas analyzers
- Particle monitors
- Moisture analyzer
- Air/oxygen gauging equipment
- Medical anesthesia/oxygen systems
- Gas blanketing
- Exhaust flow measurement
- Aeration/Foaming
- Hydrogen and oxygen gas measurement to burner feed
- Bubbler system monitor
- Fermentation gas feed

Product Specifications

Specifications	5700
Standard Flow Ranges*	0-10, 0-20, 0-50, 0-100, 0-200, 0-500 ml/min 0-1, 0-2, 0-5, 0-10, 0-20, 0-50 liters/min
Rangeability	20:1
Repeatability	0.5% full scale
Accuracy	5% full scale including linearity
Temperature Sensitivity	Zero: less than $\pm 0.075\%$ full scale per degree C Span: less than $\pm 0.075\%$ full scale per degree C
Pressure Sensitivity	Less than 0.05% per psi (0.0073% per KPa)
Mounting Attitude Sensitivity	Less than 0.5% full scale shift after rezeroing
Working Pressure	Up to 150 psig (1034 KPa)
Temperature Limits	Operating: 5 to 65°C Non-operating: -25 to 100°C
Materials of Construction	304 and 316 Stainless Steel
Connections	Mechanical: 1/4" FNPT Electrical: 5-Pin post header horizontal mount AMP 171826-5. The mating connector is AMP 172053-5
Power	11.5 to 15.5 Vdc, 50 mA
Output Signal	0-5 Vdc into 1000 ohms or greater
Dimensions	See Dimensions figure
Weight	1lb/0.5Kg

*Nitrogen, 760 torr Reference Pressure, Reference Temperature defined by User

Product Dimensions



Fitting Size/Type	"X" Dim.
1/8 Compression	5.12 \pm .125 [130.0]
1/4 Compression	5.20 \pm .125 [132.1]
3/8 Compression	5.30 \pm .125 [134.6]

INCHES [MILLIMETERS]

Ordering Information

To order, please specify complete model number and process gas to be measured.

Model Code

Code Description	Code Option	Option Description
I. Base Model Number	5700A	Model 5700 Mass Flow Meter
II. Flow Range (*)	A	0-10 ml/min
	B	0-20 ml/min
	C	0-50 ml/min
	D	0-100 ml/min
	E	0-200 ml/min
	F	0-500 ml/min
	G	0-1 liters/min
	H	0-2 liters/min
	J	0-5 liters/min
	K	0-10 liters/min
	L	0-20 liters/min
M	0-50 liters/min	
III. Reference Temperature	1	70° F (Standard)
	2	0°C (Normal)
IV. Process Connection	A	Integral 1/4" (f)NPT
	B	1/8" Compression
	C	1/4" Compression
	D	3/8" Compression
V. Material of Construction	1	Stainless Steel
VI. Options	A	None
	B	10 ft (3 meter) cable assembly
	C	Clean for oxygen service
	D	Options B and C above
VII. User/OEM Code	A	Standard

*Nitrogen, 760 torr Reference Pressure, Reference Temperature defined by User

Sample Standard Model Code

I	II	III	IV	V	VI	VII
5700A	H	1	A	1	A	A

Example:

Specify:

Model Code - 5700AH1A1AA

Process Gas - Carbon Dioxide

To Receive:

Model 5700

Flow 2 slpm N₂ (1.56 slpm CO₂)

Reference Temperature: 70°F

Connection: 1/4" FNPT

Brooks Service and Support

Brooks is committed to assuring all of our customers receive the ideal flow solution for their application, along with outstanding service and support to back it up. We operate first class repair facilities located around the world to provide rapid response and support. Each location utilizes primary standard calibration equipment to ensure accuracy and reliability for repairs and recalibration and is certified by our local Weights and Measures Authorities and traceable to the relevant International Standards.

Visit www.BrooksInstrument.com to locate the service location nearest to you.

START-UP SERVICE AND IN-SITU CALIBRATION

Brooks Instrument can provide start-up service prior to operation when required. For some process applications, where ISO-9001 Quality Certification is important, it is mandatory to verify and/or (re)calibrate the products periodically. In many cases this service can be provided under in-situ conditions, and the results will be traceable to the relevant international quality standards.

SEMINARS AND TRAINING

Brooks Instrument can provide seminars and dedicated training to engineers, end users, and maintenance persons.

Please contact your nearest sales representative for more details.

Due to Brooks Instrument's commitment to continuous improvement of our products, all specifications are subject to change without notice.

TRADEMARKS

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