

## Data Sheet

# Brooks® 2500 Series Variable Area Flowmeters

Variable Area



2500 Series

## Precision Machined Acrylic Purgemeters

### Description

Series 2500 is a standard precision-machined acrylic flow meter for liquids and gases, with direct reading air or water scales and is available in either English or metric scales. Models 2510/2520/2530 can be configured with a control valve on the inlet or no valve. Fittings and valve can be specified in either brass or stainless steel. O-rings are available in Buna-N, Viton® fluoroelastomer or other optional elastomers. Model 2540 flowmeters have standard 1" FNPT PVC fittings with either an in-line Model 2540-I or panel mount Model 2540-S configuration. The panel mount version is available with an integral valve on the inlet Model 2540-V or no valve.

Typical applications include:

- Air sampling equipment aquaculture
- Gas analyzers
- Photo processing equipment
- Desalinization equipment
- Medical systems
- Water treatment and distribution systems

### Features

- Easy-to-read English or metric scales
- Air ranges from 40 ccm to 4000 LPM
- Easy disassembly/assembly for maintenance
- Durable one-piece clear acrylic construction
- Stable easy-to-read float
- Water ranges from 4 ccm to 20 GPM
- Threaded brass inserts for quick installation
- Superior clarity and strength

### Specifications

Performance	2510	2520	2530	2540
Accuracy	±5% full scale	±3% full scale		±2% full scale
Flow Rates	See Table A	See Table B	See Table C	See Tables D & E
Floats	Black Glass, 316 Stainless Steel, Delrin® Acetal Resins			
Body	Clear Acrylic			
Seals	Buna-N O-rings with Brass fittings; Viton® O-rings with 303 Stainless Steel fittings			Buna-N O-rings w/Brass or PVC fittings Viton O-rings w/Stn Stl fittings
Pressure	100 PSIG Max.			
Temperature	150°F/65°C Max.			
Fittings	Brass, 303 Stainless Steel			PVC FNPT Pipe Connections (Std.)
Valves	Brass or Stainless Steel			Integral Valve on "V" models Inline Gate Valve is available for "S and I" models
Certifications	International Calibration Certificate (ICC); Pressure Equipment Directive (97/23/EC); RoHS			

## Model 2510 Flow Rates - Table A

Range SCFH of Air	Tube Code	Range LPM of Air	Tube Code
.1-1	2A00	0.04-0.5	2A12**
.2-2	2A01	.1-1	2A13**
.4-5	2A02	.2-2.5	2A29**
1-10	2A03	.4-5	2A14**
4-50	2A06	1-10	2A15**
10-100	2A07	2-25	2A16**
20-200	2A08	6-50	2A17
		10-100	2A18
CCM of Water	Tube Code	GPH of Water	Tube Code
10-100	2L10	.2-2	2L28
20-240	2L11	.4-5	2L19
		1-10	2L20**
		2-20	2L21
		4-40	2L22

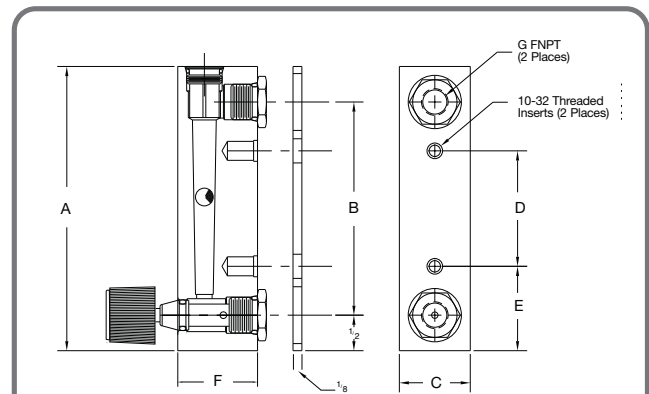
## Model 2520 Flow Rates - Table B

Range SCFH of Air	Tube Code	Range CCM of Water	Tube Code
.4-5	4A30	4-50	4L38
1-10	4A31	10-120	4L56
4-40	4A33	25-225	4L51
10-100	4A34**	40-400	4L50
20-200	4A36	40-660	4L52
		100-1500	4L53**
CCM of Air	Tube Code	200-3000	4L54
100-1000	4A39*	300-3700	4L55
LPM of Air	Tube Code	GPH of Water	Tube Code
.4-5	4A40**	1-10	4L45**
1-10	4A41**	2-25	4L48**
2-20	4A42**	6-60	4L46**
3-30	4A43		
4-50	4A44	SCFM of Air	Tube Code
10-100	4A47**	.3-3	4A37**

\* Uses Delrin® float.

\*\* Available for **QuickShip**

## Dimensions: Models 2510, 2520 & 2530



Dimensions - Inches (MM)

Model	A	B	C	D	E	F	G
2510	4" (102)	3" (76.2)	1" (25.4)	1-5/8" (41.3)	1-3/16" (30.2)	1-1/8" (28.6)	1/8" FNPT
2520	6-1/2" (165)	5-1/2" (140)	1-3/8" (34.9)	3-1/2" (88.9)	1-1/2" (38.1)	1-1/8" (28.6)	1/8" FNPT
2530*	6-5/8" (168)	5-1/2" (140)	1-1/8" (28.6)	3-1/2" (88.9)	1-1/2" (38.1)	1-3/8" (34.9)	1/4" FNPT

\* Does not include 1/8" back plate

## Model 2530 Flow Rates - Table C

Range SCFM of Air	Tube Code	Range GPM of Water	Tube Code
.5-5	4A67	.25-2.5	4L64
1-10	4A65	.5-5	4L66
4-20	4A68	LPM of Water	Tube Code
LPM of Air	Tube Code	1-10	4L69
14-140	4A72	2-20	4L71
30-300	4A70	Dual Scales: SCFM/SCFH, GPM/GPH and LPM/LPH	
100-560	4A73		

## Ordering Information / Typical Model Code for Models 2510, 2520 & 2530

Code Description	Code Option	Option Description
I. Base Model Number	2510	Acrylic Flowmeter: ±5% Full Scale
	2520	Acrylic Flowmeter: ±3% Full Scale
	2530	Acrylic Flowmeter: ±3% Full Scale
II. Revision	A	Revision Level
III. Tube Code	XXXX	From Table A, B or C
IV. Fittings	B	Brass
	S	Stainless Steel
V. Valves	N	No Valve
	V	Standard Inlet Valve
	O	Outlet Valve (Vacuum service 2510 & 2520 only)
VI. Seals	BN	Buna N (Standard with brass fittings)
	VT	Viton® fluoroelastomer (Std. with Stainless Steel)
VII. Options	-NL	No Logo

### Additional Options

- Certificate of Conformance
- ICC
- Paper Tag
- Stainless Steel Tag
- Degrease for O<sub>2</sub> Cleaning

### Sample Standard Model Code

I	II	III	IV	V	VI	VII
2510	A	2A03	B	V	BN	-NL

## Model 2540 - S or V Flow Rates - Table D

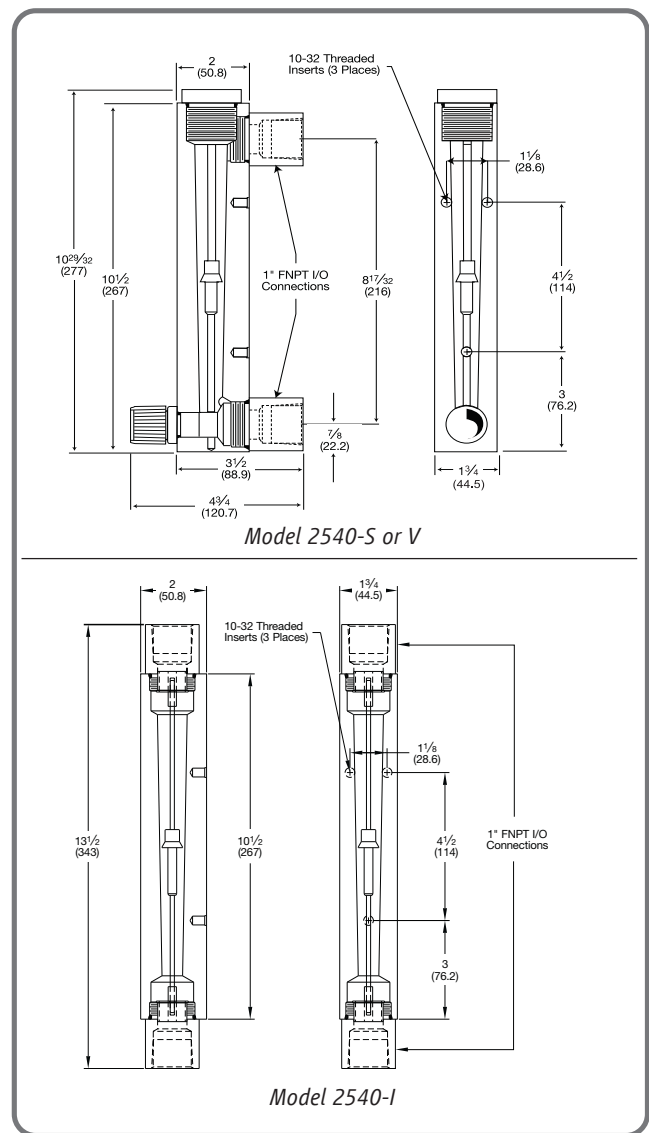
Range SCFM of Air	Tube Code	Range GPM of Water	Tube Code
3-25	5A50	.4-5	5L56
4-50	5A51	1-10	5L57
10-100	5A52	2-20	5L58
LPM of Air	Tube Code	LPM of Water	Tube Code
100-700	5A53	1-19	5L59
100-1400	5A54	4-36	5L60
400-3000	5A55	5-75	5L61

## Model 2540 - I Flow Rates - Table E

Range SCFM of Air	Tube Code	Range GPM of Water	Tube Code
3-25	5A50	.4-5	5L56
4-50	5A51	1-10	5L57
10-100	5A52	2-20	5L58
LPM of Air	Tube Code	LPM of Water	Tube Code
100-700	5A53	1-19	5L59
100-1400	5A54	4-36	5L60
400-4000	5A55	5-75	5L61

Periodically product revisions occur. Please consult the factory for the latest specifications.

## Dimensions: Model 2540 S, V & I



## Ordering information / Typical Model Code for Models 2540 S, V or I

Code Description	Code Option	Option Description
I. Base Model Number	2540	Acrylic Flowmeter: $\pm 2\%$ Full Scale
II. Revision	A	Revision Level
III. Tube Code	XXXX	From Table D or E
IV. Fitting Material	P	PVC (Standard)
	S	Stainless Steel
V. Fitting / Valve	S	Back Connections (Standard)
	I	End Connection
	V	Valve (Back connection only)
VII. Options	-NL	No Logo

### Additional Options

- Certificate of Conformance
- ICC
- Paper Tag
- Stainless Steel Tag
- Degrease for O<sub>2</sub> Cleaning

### Sample Standard Model Code

I	II	III	IV	V	VI
2540	A	5A53	P	V	-NL

## 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](http://www.BrooksInstrument.com) to locate the service location nearest to you.

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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.

### CUSTOMER SEMINARS AND TRAINING

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

*Please contact your nearest sales representative for more details.*

### HELP DESK

In case you need technical assistance:

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Europe ☎ +31 (0) 318 549 290

Asia ☎ +81 3 (0) 5633 7100

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