Model V and xV medium-range flow meters



Glass-tube flow meters in brass, stainless steel or PTFE for air, water and five gases

Model V and xV are compact variable area flow meters for medium flow rates. Model V carries rotatable scales for air and for water in metric and English units. Model xV reads argon, CO_2, helium, nitrogen and oxygen directly. PTFE versions of Model V serve corrosive media.

900 L/min	20 L/min	±5 % FS	150 psig	121 °C
Largest air range, Model V	Largest water range, Model V	Accuracy, FS = full scale	Maximum pressure, metal versions, at 200 °F	Maximum temperature, metal versions

Performance

Air and gas ranges	Standard flows at 21.11 °C, 1013.25 mbar
Accuracy	±5 % of full scale
Scales	Model V: rotatable air scale (L/min, scfm) and water scale (L/min, gpm) Model V PTFE: same scales; scale length 127 mm (nominal) Model xV: rotatable scales for argon, CO_2, helium, N_2 and O_2, in L/min or in scfm
Maximum flow	Model V: 140–900 L/min air, 4–20 L/min water Model V PTFE: 100–625 L/min air, 3–16 L/min water Model xV: see the gas tables
Versions	Vertical in-line or panel mount, with or without built-in valve

Operating conditions

Maximum temperature	Model V, xV: 121 °C (250 °F) Model V PTFE: 65 °C (150 °F)
Maximum pressure	Model V, xV: 150 psig at 200 °F Model V PTFE: 100 psig
Media	Model V: air and water Model xV: argon, CO_2, helium, nitrogen, oxygen

Mechanical

Flow tube	Heavy-walled, precision-formed borosilicate glass
Tube shield	Polycarbonate
Float	Model V, xV: 316 stainless steel Model V PTFE: PTFE
Wetted parts	Model V, xV: brass or 316 stainless steel Model V PTFE: PCTFE and borosilicate glass
Seals	Model V, xV: FKM; optional NBR (Buna), PTFE/FFKM or EPR Model V PTFE: PTFE
Connections	3/8" NPT female, in-line or horizontal rear
Leak integrity	Model V PTFE: each meter tested, 1 × 10⁻⁷ sccs helium or better
Choice of materials	Your responsibility; Analyt-MTC will advise before you order

Model V; air at 21.11 °C, 1013.25 mbar

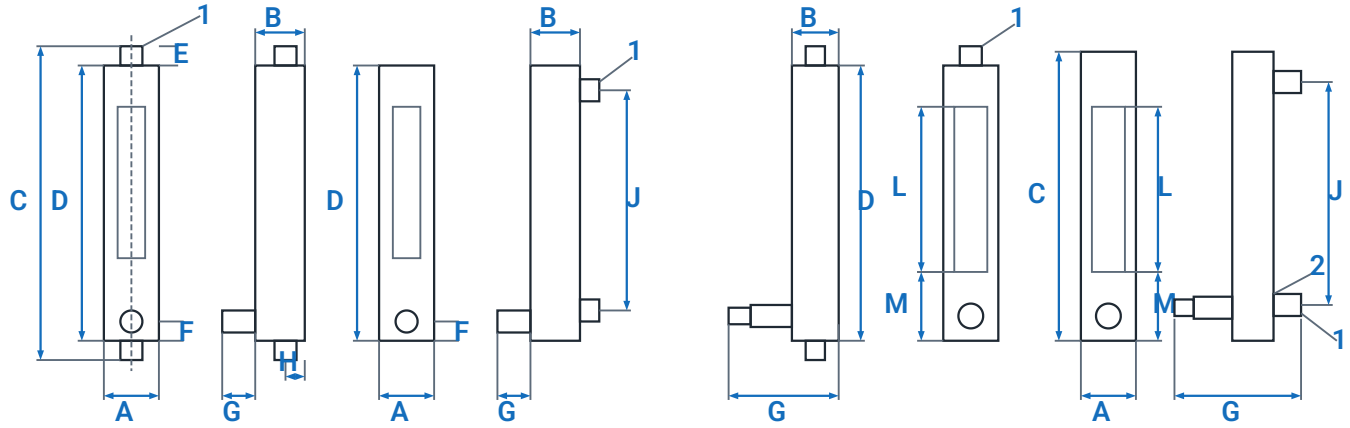
Size	Air, L/min	Air, scfm	Water, L/min	Water, gpm
V01	140	5	4	1.2
V02	280	10	8	2
V03	425	15	11.5	3
V04	575 (in-line), 600 (panel)	20	15	4
V05	900	30	20	5
V06 PTFE	100	3.5	3	0.8
V07 PTFE	200	7	5.75	1.5
V08 PTFE	300	10.5	8.25	2.2
V09 PTFE	400	14	11	2.9
V10 PTFE	500	17.5	13.25	3.5
V11 PTFE	625	22	16	4.1

V01 to V05: brass or 316 stainless steel; V06 to V11: PTFE. Air and water scales are on the same meter.

Model xV; gases at 21.11 °C, 1013.25 mbar

Size	Argon, L/min	Argon, scfm	CO_2, L/min	CO_2, scfm	Helium, L/min	Helium, scfm	N_2, L/min	N_2, scfm	O_2, L/min	O_2, scfm
V01	120	4.2	105	3.8	350	12.0	130	4.5	130	4.5
V02	230	8.0	220	8.0	650	23.0	270	9.5	260	9.0
V03	360	12.5	360	12.5	1000	35.0	400[1]	14.0	400	14.0
V04	440	15.5	440	15.5	1250	42.5	550	19.0	525	18.0
V05	750	26.0	700	24.0	1800	60.0	850	30.0	800	28.0

L/min scales or scfm scales, one per meter. [1] Brass meters: 450 L/min.



1 Ports, 3/8-18 NPT

2 PTFE panel mount: thread 1-18 UNS 2A

Left: brass and stainless steel meters, in-line (front, side) and panel mount (front, side). Right: PTFE meters, in-line (side, front) and panel mount (front, side). Schematic.

Brass and stainless steel, inches [mm]

Letter	Dimension	In-line	Panel mount
A	Width	2.000 [50.80]	2.000
B	Depth	1.875 [47.63]	1.875
C	Overall height	11.125 [282.57]	–
D	Body height	10.375 [263.53]	10.375
E	Port fitting above the body	0.375 [9.52]	–
F	Valve axis above the body base	0.750 [19.05]	0.453
G	Valve knob in front of the body	1.750 [44.45]	1.500
H	Port axis from the back face	0.875 [22.23]	–
J	Rear port spacing	–	9.469

PTFE, inches

Letter	Dimension	In-line	Panel mount
A	Width	–	2.0354
B	Depth	1.865	–
C	Overall height	–	11.157
D	Body height	10.375	–
G	Overall depth, valve knob included	4.013	5.264
J	Rear port spacing	–	9.551
L	Scale window	6.900	6.900
M	Window above the body base	2.130	2.086

Designs and dimensions can change without notice; ask Analyt-MTC for certified drawings.

Model V, order codes

Size	In-line, with valve	In-line, without valve	Panel, with valve	Panel, without valve
V01, brass	VIB4-VA-V01-01-ST	–	VPB4-VA-V01-02-ST	VPB3-VA-V01-02-ST
V02, brass	VIB4-VA-V02-01-ST	VIB3-VA-V02-01-ST	VPB4-VA-V02-02-ST	VPB3-VA-V02-02-ST
V03, brass	VIB4-VA-V03-01-ST	VIB3-VA-V03-01-ST	VPB4-VA-V03-02-ST	VPB3-VA-V03-02-ST
V04, brass	VIB4-VA-V04-01-ST	VIB3-VA-V04-01-ST	VPB4-VA-V04-02-ST	VPB3-VA-V04-02-ST
V05, brass	VIB4-VA-V05-01-ST	VIB3-VA-V05-01-ST	VPB4-VA-V05-02-ST	VPB3-VA-V05-02-ST
V01, stainless steel	VIS4-VA-V01-01-ST	VIS3-VA-V01-01-ST	VPS4-VA-V01-02-ST	VPS3-VA-V01-02-ST
V02, stainless steel	VIS4-VA-V02-01-ST	VIS3-VA-V02-01-ST	VPS4-VA-V02-02-ST	VPS3-VA-V02-02-ST
V03, stainless steel	VIS4-VA-V03-01-ST	VIS3-VA-V03-01-ST	VPS4-VA-V03-02-ST	VPS3-VA-V03-02-ST
V04, stainless steel	VIS4-VA-V04-01-ST	VIS3-VA-V04-01-ST	VPS4-VA-V04-02-ST	VPS3-VA-V04-02-ST
V05, stainless steel	VIS4-VA-V05-01-ST	VIS3-VA-V05-01-ST	VPS4-VA-V05-02-ST	VPS3-VA-V05-02-ST
V06, PTFE	VIT4-TA-V06-01-TF	VIT3-TA-V06-01-TF	VPT4-TA-V06-02-TF	VPT3-TA-V06-02-TF
V07, PTFE	VIT4-TA-V07-01-TF	VIT3-TA-V07-01-TF	VPT4-TA-V07-02-TF	VPT3-TA-V07-02-TF
V08, PTFE	VIT4-TA-V08-01-TF	VIT3-TA-V08-01-TF	VPT4-TA-V08-02-TF	VPT3-TA-V08-02-TF
V09, PTFE	VIT4-TA-V09-01-TF	VIT3-TA-V09-01-TF	VPT4-TA-V09-02-TF	VPT3-TA-V09-02-TF
V10, PTFE	VIT4-TA-V10-01-TF	VIT3-TA-V10-01-TF	VPT4-TA-V10-02-TF	VPT3-TA-V10-02-TF
V11, PTFE	VIT4-TA-V11-01-TF	VIT3-TA-V11-01-TF	VPT4-TA-V11-02-TF	VPT3-TA-V11-02-TF

V01 in brass, in-line without valve: contact Analyt-MTC.

Model xV, L/min scales, order codes

Size	In-line, with valve	In-line, without valve	Panel, with valve	Panel, without valve
V01, brass	VIB4-VA-V01-05-ST	VIB3-VA-V01-05-ST	VPB4-VA-V01-06-ST	VPB3-VA-V01-06-ST
V02, brass	VIB4-VA-V02-05-ST	VIB3-VA-V02-05-ST	VPB4-VA-V02-06-ST	VPB3-VA-V02-06-ST
V03, brass	VIB4-VA-V03-05-ST	VIB3-VA-V03-05-ST	VPB4-VA-V03-06-ST	VPB3-VA-V03-06-ST
V04, brass	VIB4-VA-V04-05-ST	VIB3-VA-V04-05-ST	VPB4-VA-V04-06-ST	VPB3-VA-V04-06-ST
V05, brass	VIB4-VA-V05-05-ST	VIB3-VA-V05-05-ST	VPB4-VA-V05-06-ST	VPB3-VA-V05-06-ST
V01, stainless steel	VIS4-VA-V01-05-ST	VIS3-VA-V01-05-ST	VPS4-VA-V01-06-ST	VPS3-VA-V01-06-ST
V02, stainless steel	VIS4-VA-V02-05-ST	VIS3-VA-V02-05-ST	VPS4-VA-V02-06-ST	VPS3-VA-V02-06-ST
V03, stainless steel	VIS4-VA-V03-05-ST	VIS3-VA-V03-05-ST	VPS4-VA-V03-06-ST	VPS3-VA-V03-06-ST
V04, stainless steel	VIS4-VA-V04-05-ST	VIS3-VA-V04-05-ST	VPS4-VA-V04-06-ST	VPS3-VA-V04-06-ST
V05, stainless steel	VIS4-VA-V05-05-ST	VIS3-VA-V05-05-ST	VPS4-VA-V05-06-ST	VPS3-VA-V05-06-ST

Model xV, scfm scales, order codes

Size	In-line, with valve	In-line, without valve	Panel, with valve	Panel, without valve
V01, brass	VIB4-VA-V01-03-ST	VIB3-VA-V01-03-ST	VPB4-VA-V01-04-ST	VPB3-VA-V01-04-ST
V02, brass	VIB4-VA-V02-03-ST	VIB3-VA-V02-03-ST	VPB4-VA-V02-04-ST	VPB3-VA-V02-04-ST
V03, brass	VIB4-VA-V03-03-ST	VIB3-VA-V03-03-ST	VPB4-VA-V03-04-ST	VPB3-VA-V03-04-ST
V04, brass	VIB4-VA-V04-03-ST	VIB3-VA-V04-03-ST	VPB4-VA-V04-04-ST	VPB3-VA-V04-04-ST
V05, brass	VIB4-VA-V05-03-ST	VIB3-VA-V05-03-ST	VPB4-VA-V05-04-ST	VPB3-VA-V05-04-ST
V01, stainless steel	VIS4-VA-V01-03-ST	VIS3-VA-V01-03-ST	VPS4-VA-V01-04-ST	VPS3-VA-V01-04-ST
V02, stainless steel	VIS4-VA-V02-03-ST	VIS3-VA-V02-03-ST	VPS4-VA-V02-04-ST	VPS3-VA-V02-04-ST
V03, stainless steel	VIS4-VA-V03-03-ST	VIS3-VA-V03-03-ST	VPS4-VA-V03-04-ST	VPS3-VA-V03-04-ST
V04, stainless steel	VIS4-VA-V04-03-ST	VIS3-VA-V04-03-ST	VPS4-VA-V04-04-ST	VPS3-VA-V04-04-ST
V05, stainless steel	VIS4-VA-V05-03-ST	VIS3-VA-V05-03-ST	VPS4-VA-V05-04-ST	VPS3-VA-V05-04-ST

Order from Analyt-MTC with the order codes. For seals other than FKM and for any other version, contact Analyt-MTC.

Options

Model V, xV: brass or 316 stainless steel end fittings
Model V, xV: NBR (Buna), PTFE/FFKM or EPR seals instead of FKM

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