

# V

## MEDIUM RANGE BRASS AND STAINLESS FLOW METERS

Incorporating traditional rotameter precision glass technology, these rugged brass and stainless steel flow meters offer accurate and economical solutions to medium flow range measurements. **V meters** are designed with unique rotatable scales of dual air-water direct reading graduations showing SCFM and L/min (air), as well as GPM and LPM (water) markings.

### design features

- ✓ Rigid, compact construction.
- ✓ Dual, rotatable direct reading scales for air and water.
- ✓ Graduations reflect both metric and English systems.
- ✓ Vertical In-line or Panel Mount.
- ✓ Flow ranges from 4 to 20 L/min water and 140 to 900 L/min air.

### SPECIFICATIONS

<b>SCALES</b>	Rotatable, direct reading air, (SCFM-L/min) and water (GPM-LPM).
<b>ACCURACY</b>	±5% of full scale.
<b>MAXIMUM TEMPERATURE</b>	250 °F (121 °C).
<b>MAXIMUM PRESSURE</b>	150 psig (@200 °F).
<b>CONNECTIONS</b>	3/8" NPT female in line or horizontal rear.

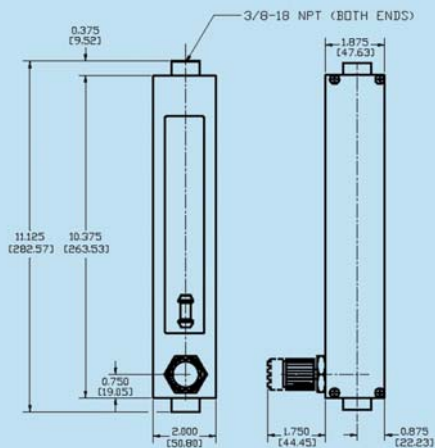
### \*\*MATERIALS OF CONSTRUCTION

<b>TUBE SHIELDS</b>	Polycarbonate
<b>FLOW TUBES</b>	Heavy walled precision formed borosilicate glass.
<b>FLOATS</b>	Type 316 stainless steel.
<b>WETTED PARTS</b>	Brass or type 316 stainless steel.
<b>SEALS</b>	Viton® standard.
<b>OPTIONAL:</b>	Buna-N®, PTFE /Kalrez® and EPR.

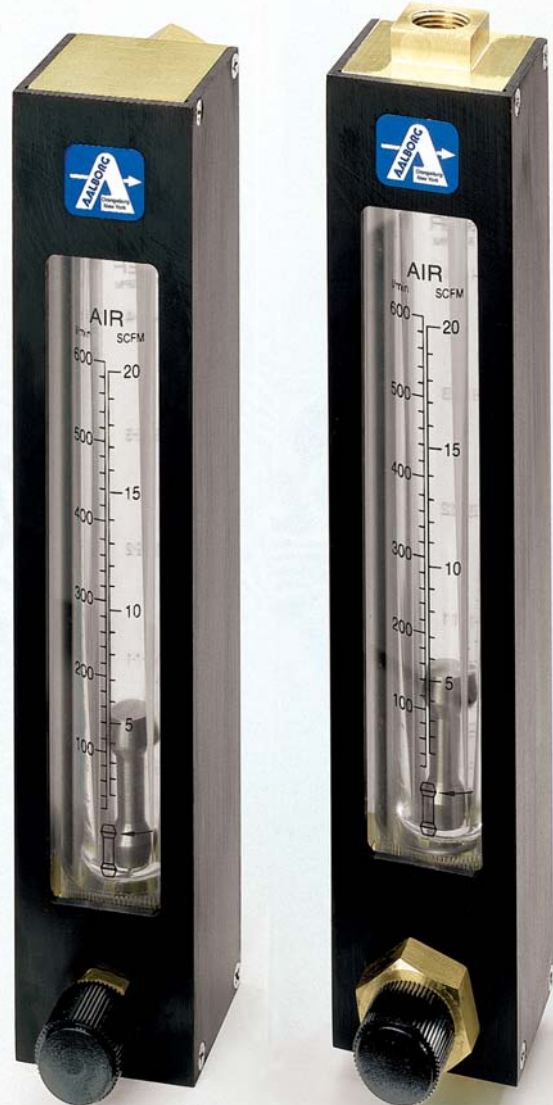
\*\*The selection of materials of construction, is the responsibility of the customer. The company accepts no liability.

**Ordering information see page 27.**

### DIMENSIONS (IN LINE MODEL)

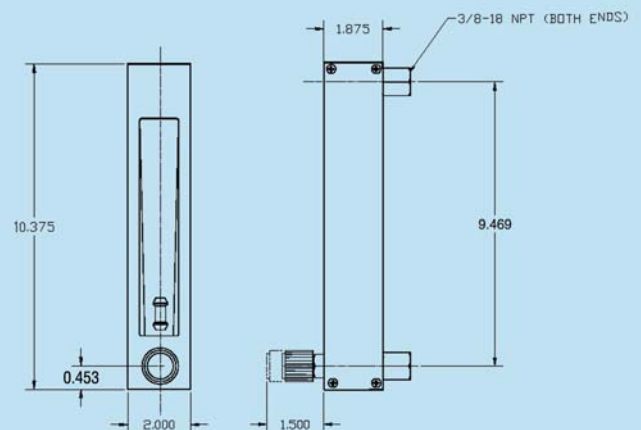


### Panel Mount Meter with Valve



In-line Meter with Valve

### DIMENSIONS (PANEL MOUNT MODEL)





Incorporating traditional variable area precision glass technology, these rugged PTFE flow meters offer accurate and economical solutions to medium flow range measurements. **V meters** are designed with unique rotatable scales of dual air-water direct reading graduations showing SCFM and L/min (air), as well as GPM and LPM (water) markings.

### LEAK INTEGRITY

Flow meters are individually tested on a Mass Spectrometer Leak Detector and certified to a leak integrity rating of  $1 \times 10^{-7}$  sccs Helium or better.

### SPECIFICATIONS

<b>SCALES</b>	Rotatable, direct reading air, (SCFM-L/min) and water (GPM-LPM). Scale length is 127mm (nominal).
<b>ACCURACY</b>	$\pm 5\%$ of full scale.
<b>MAXIMUM TEMPERATURE</b>	150 °F (65 °C.)
<b>MAXIMUM PRESSURE</b>	100 psig (6.7) bars.
<b>CONNECTIONS</b>	3/8" NPT female in line or horizontal rear.
<b>LEAK INTEGRITY</b>	Individually leak tested and certified.

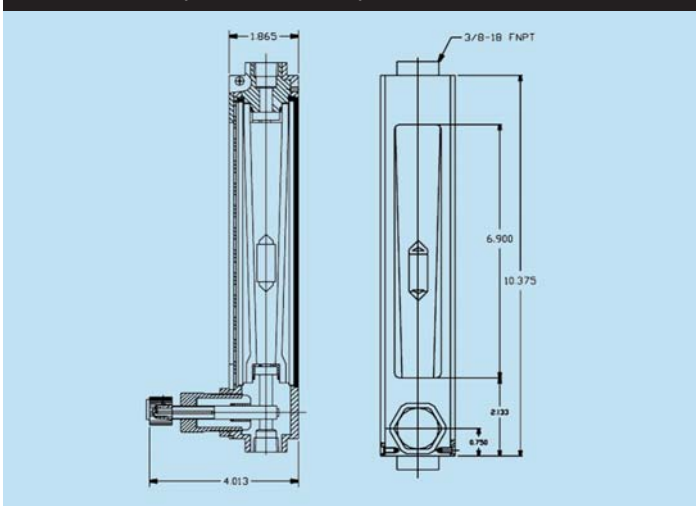
### \*\*MATERIALS OF CONSTRUCTION

<b>TUBE SHIELDS</b>	Polycarbonate.
<b>FLOW TUBES</b>	Heavy walled precision formed borosilicate glass.
<b>FLOATS</b>	PTFE.
<b>WETTED PARTS</b>	PTFE, PCTFE.
<b>SEALS</b>	PTFE.

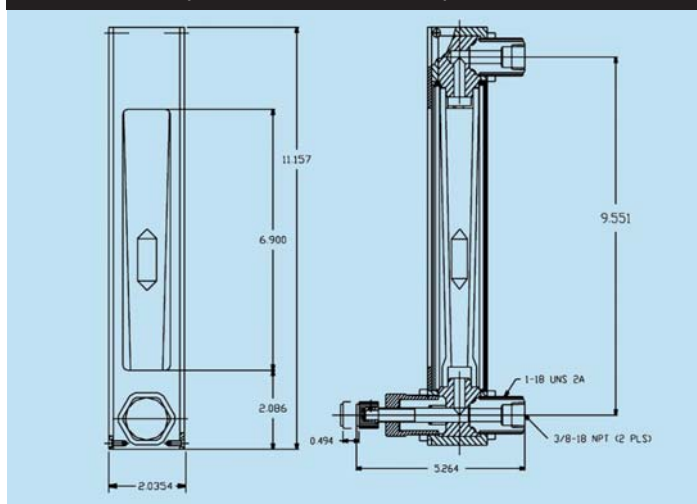
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**Ordering information see page 27.**

### DIMENSIONS (IN LINE MODEL)



### DIMENSIONS (PANEL MOUNT MODEL)



VERTICAL IN LINE							
MODEL NUMBER		END FITTING MATERIAL	MAXIMUM FLOW				
BUILT IN VALVE	NO VALVE		Air		Water		
			SCFM	L/min	GPM	LPM	
VIB4-VA-V01-01-ST	VIB3-VA-V01-01-ST	Brass	5	140	1.2	4	
VIB4-VA-V02-01-ST	VIB3-VA-V02-01-ST	Brass	10	280	2	8	
VIB4-VA-V03-01-ST	VIB3-VA-V03-01-ST	Brass	15	425	3	11.5	
VIB4-VA-V04-01-ST	VIB3-VA-V04-01-ST	Brass	20	575	4	15	
VIB4-VA-V05-01-ST	VIB3-VA-V05-01-ST	Brass	30	900	5	20	
VIS4-VA-V01-01-ST	VIS3-VA-V01-01-ST	316 s.s	5	140	1.2	4	
VIS4-VA-V02-01-ST	VIS3-VA-V02-01-ST	316 s.s	10	280	2	8	
VIS4-VA-V03-01-ST	VIS3-VA-V03-01-ST	316 s.s	15	425	3	11.5	
VIS4-VA-V04-01-ST	VIS3-VA-V04-01-ST	316 s.s	20	575	4	15	
VIS4-VA-V05-01-ST	VIS3-VA-V05-01-ST	316 s.s	30	900	5	20	

PANEL MOUNT METERS							
MODEL NUMBER		END FITTING MATERIAL	MAXIMUM FLOW				
BUILT IN VALVE	NO VALVE		Air		Water		
			SCFM	L/min	GPM	LPM	
VPB4-VA-V01-02-ST	VPB3-VA-V01-02-ST	Brass	5	140	1.2	4	
VPB4-VA-V02-02-ST	VPB3-VA-V02-02-ST	Brass	10	280	2	8	
VPB4-VA-V03-02-ST	VPB3-VA-V03-02-ST	Brass	15	425	3	11.5	
VPB4-VA-V04-02-ST	VPB3-VA-V04-02-ST	Brass	20	575	4	15	
VPB4-VA-V05-02-ST	VPB3-VA-V05-02-ST	Brass	30	900	5	20	
VPS4-VA-V01-02-ST	VPS3-VA-V01-02-ST	316 s.s	5	140	1.2	4	
VPS4-VA-V02-02-ST	VPS3-VA-V02-02-ST	316 s.s	10	280	2	8	
VPS4-VA-V03-02-ST	VPS3-VA-V03-02-ST	316 s.s	15	425	3	11.5	
VPS4-VA-V04-02-ST	VPS3-VA-V04-02-ST	316 s.s	20	575	4	15	
VPS4-VA-V05-02-ST	VPS3-VA-V05-02-ST	316 s.s	30	900	5	20	

PTFE VERTICAL IN LINE METERS							
MODEL NUMBER		END FITTING MATERIAL	MAXIMUM FLOW				
BUILT IN VALVE	NO VALVE		Air		Water		
			SCFM	L/min	GPM	LPM	
VIT4-TA-V06-01-TF	VIT3-TA-V06-01-TF	PTFE	3.5	100	0.8	3	
VIT4-TA-V07-01-TF	VIT3-TA-V07-01-TF	PTFE	7	200	1.5	5.75	
VIT4-TA-V08-01-TF	VIT3-TA-V08-01-TF	PTFE	10.5	300	2.2	8.25	
VIT4-TA-V09-01-TF	VIT3-TA-V09-01-TF	PTFE	14	400	2.9	11	
VIT4-TA-V10-01-TF	VIT3-TA-V10-01-TF	PTFE	17.5	500	3.5	13.25	
VIT4-TA-V11-01-TF	VIT3-TA-V11-01-TF	PTFE	22	625	4.1	16	

PTFE PANEL MOUNT METERS							
MODEL NUMBER		END FITTING MATERIAL	MAXIMUM FLOW				
BUILT IN VALVE	NO VALVE		Air		Water		
			SCFM	L/min	GPM	LPM	
VPT4-TA-V06-02-TF	VPT3-TA-V06-02-TF	PTFE	3.5	100	0.8	3	
VPT4-TA-V07-02-TF	VPT3-TA-V07-02-TF	PTFE	7	200	1.5	5.75	
VPT4-TA-V08-02-TF	VPT3-TA-V08-02-TF	PTFE	10.5	300	2.2	8.25	
VPT4-TA-V09-02-TF	VPT3-TA-V09-02-TF	PTFE	14	400	2.9	11	
VPT4-TA-V10-02-TF	VPT3-TA-V10-02-TF	PTFE	17.5	500	3.5	13.25	
VPT4-TA-V11-02-TF	VPT3-TA-V11-02-TF	PTFE	22	625	4.1	16	

Incorporating traditional rotameter precision glass technology, these rugged brass and stainless steel flow meters offer accurate and economical solutions to medium flow range measurements.

**xV meters** are designed with unique rotatable scales in either SCFM or L/min. Each features direct reading scales for 5 gases. (Argon, CO<sub>2</sub>, He, N<sub>2</sub>, & O<sub>2</sub>).

## design features

- ✓ Rigid, compact construction.
- ✓ Multi-gas, rotatable direct reading scales for 5 gases.
- ✓ Graduations reflect both metric or English systems.
- ✓ Vertical In-line or Panel Mount.

### SPECIFICATIONS

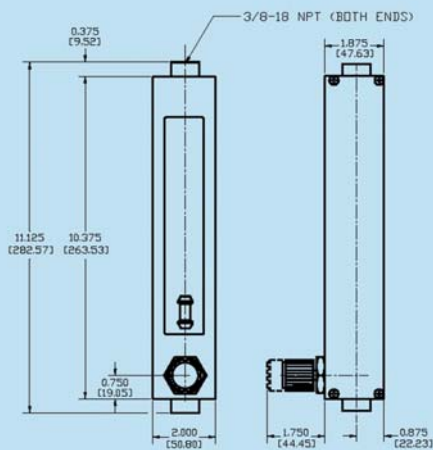
<b>SCALES</b>	Rotatable, direct reading Argon, CO <sub>2</sub> , He, N <sub>2</sub> , & O <sub>2</sub> .
<b>ACCURACY</b>	±5% of full scale.
<b>MAXIMUM TEMPERATURE</b>	250 °F (121 °C).
<b>MAXIMUM PRESSURE</b>	150 psig (@200 °F).
<b>CONNECTIONS</b>	3/8" NPT female in line or horizontal rear.

### \*\*MATERIALS OF CONSTRUCTION

<b>TUBE SHIELDS</b>	Polycarbonate.
<b>FLOW TUBES</b>	Heavy walled precision formed borosilicate glass.
<b>FLOATS</b>	Type 316 stainless steel.
<b>WETTED PARTS</b>	Brass or type 316 stainless steel.
<b>SEALS</b>	Viton® standard.
<b>OPTIONAL:</b>	Buna-N®, PTFE /Kalrez® and EPR.

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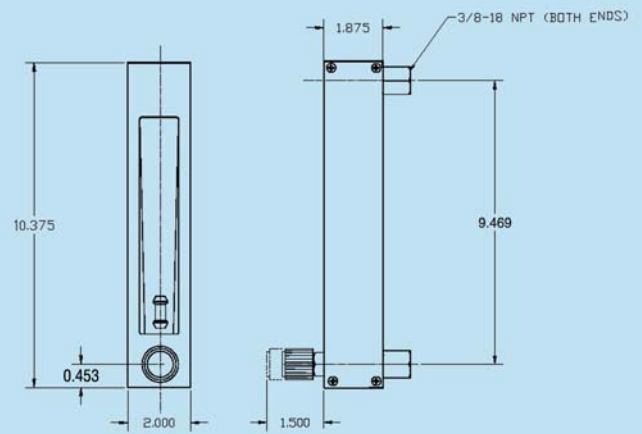
### DIMENSIONS (IN LINE MODEL)



Typical meter shown with rotatable "scale drum"



### DIMENSIONS (PANEL MOUNT MODEL)





# DIRECT READING MULTI-GAS FLOW METERS

VERTICAL IN LINE								
MODEL NUMBER		END FITTING MATERIAL	MAXIMUM FLOW					
BUILT IN VALVE	NO VALVE		SCFM					
			Argon	CO <sub>2</sub>	Helium	Nitrogen	Oxygen	
VIB4-VA-V01-03-ST	VIB3-VA-V01-03-ST	Brass	4.2	3.8	12.0	4.5	4.5	
VIB4-VA-V02-03-ST	VIB3-VA-V02-03-ST	Brass	8.0	8.0	23.0	9.5	9.0	
VIB4-VA-V03-03-ST	VIB3-VA-V03-03-ST	Brass	12.5	12.5	35.0	14.0	14.0	
VIB4-VA-V04-03-ST	VIB3-VA-V04-03-ST	Brass	15.5	15.5	42.5	19.0	18.0	
VIB4-VA-V05-03-ST	VIB3-VA-V05-03-ST	Brass	26.0	24.0	60.0	30.0	28.0	
VIS4-VA-V01-03-ST	VIS3-VA-V01-03-ST	316 s.s	4.2	3.8	12.0	4.5	4.5	
VIS4-VA-V02-03-ST	VIS3-VA-V02-03-ST	316 s.s	8.0	8.0	23.0	9.5	9.0	
VIS4-VA-V03-03-ST	VIS3-VA-V03-03-ST	316 s.s	12.5	12.5	35.0	14.0	14.0	
VIS4-VA-V04-03-ST	VIS3-VA-V04-03-ST	316 s.s	15.5	15.5	42.5	19.0	18.0	
VIS4-VA-V05-03-ST	VIS3-VA-V05-03-ST	316 s.s	26.0	24.0	60.0	30.0	28.0	

VERTICAL IN LINE								
MODEL NUMBER		END FITTING MATERIAL	MAXIMUM FLOW					
BUILT IN VALVE	NO VALVE		L/min					
			Argon	CO <sub>2</sub>	Helium	Nitrogen	Oxygen	
VIB4-VA-V01-05-ST	VIB3-VA-V01-05-ST	Brass	120	105	350	130	130	
VIB4-VA-V02-05-ST	VIB3-VA-V02-05-ST	Brass	230	220	650	270	260	
VIB4-VA-V03-05-ST	VIB3-VA-V03-05-ST	Brass	360	360	1000	400	400	
VIB4-VA-V04-05-ST	VIB3-VA-V04-05-ST	Brass	440	440	1250	550	525	
VIB4-VA-V05-05-ST	VIB3-VA-V05-05-ST	Brass	750	700	1800	850	800	
VIS4-VA-V01-05-ST	VIS3-VA-V01-05-ST	316 s.s	120	105	350	130	130	
VIS4-VA-V02-05-ST	VIS3-VA-V02-05-ST	316 s.s	230	220	650	270	260	
VIS4-VA-V03-05-ST	VIS3-VA-V03-05-ST	316 s.s	360	360	1000	400	400	
VIS4-VA-V04-05-ST	VIS3-VA-V04-05-ST	316 s.s	440	440	1250	550	525	
VIS4-VA-V05-05-ST	VIS3-VA-V05-05-ST	316 s.s	750	700	1800	850	800	

PANEL MOUNT METERS								
MODEL NUMBER		END FITTING MATERIAL	MAXIMUM FLOW					
BUILT IN VALVE	NO VALVE		SCFM					
			Argon	CO <sub>2</sub>	Helium	Nitrogen	Oxygen	
VPB4-VA-V01-04-ST	VPB3-VA-V01-04-ST	Brass	4.2	3.8	12.0	4.5	4.5	
VPB4-VA-V02-04-ST	VPB3-VA-V02-04-ST	Brass	8.0	8.0	23.0	9.5	9.0	
VPB4-VA-V03-04-ST	VPB3-VA-V03-04-ST	Brass	12.5	12.5	35.0	14.0	14.0	
VPB4-VA-V04-04-ST	VPB3-VA-V04-04-ST	Brass	15.5	15.5	42.5	19.0	18.0	
VPB4-VA-V05-04-ST	VPB3-VA-V05-04-ST	Brass	26.0	24.0	60.0	30.0	28.0	
VPS4-VA-V01-04-ST	VPS3-VA-V01-04-ST	316 s.s	4.2	3.8	12.0	4.5	4.5	
VPS4-VA-V02-04-ST	VPS3-VA-V02-04-ST	316 s.s	8.0	8.0	23.0	9.5	9.0	
VPS4-VA-V03-04-ST	VPS3-VA-V03-04-ST	316 s.s	12.5	12.5	35.0	14.0	14.0	
VPS4-VA-V04-04-ST	VPS3-VA-V04-04-ST	316 s.s	15.5	15.5	42.5	19.0	18.0	
VPS4-VA-V05-04-ST	VPS3-VA-V05-04-ST	316 s.s	26.0	24.0	60.0	30.0	28.0	

PANEL MOUNT METERS								
MODEL NUMBER		END FITTING MATERIAL	MAXIMUM FLOW					
BUILT IN VALVE	NO VALVE		L/min					
			Argon	CO <sub>2</sub>	Helium	Nitrogen	Oxygen	
VPB4-VA-V01-06-ST	VPB3-VA-V01-06-ST	Brass	120	105	350	130	130	
VPB4-VA-V02-06-ST	VPB3-VA-V02-06-ST	Brass	230	220	650	270	260	
VPB4-VA-V03-06-ST	VPB3-VA-V03-06-ST	Brass	360	360	1000	400	400	
VPB4-VA-V04-06-ST	VPB3-VA-V04-06-ST	Brass	440	440	1250	550	525	
VPB4-VA-V05-06-ST	VPB3-VA-V05-06-ST	Brass	750	700	1800	850	800	
VPS4-VA-V01-06-ST	VPS3-VA-V01-06-ST	316 s.s	120	105	350	130	130	
VPS4-VA-V02-06-ST	VPS3-VA-V02-06-ST	316 s.s	230	220	650	270	260	
VPS4-VA-V03-06-ST	VPS3-VA-V03-06-ST	316 s.s	360	360	1000	400	400	
VPS4-VA-V04-06-ST	VPS3-VA-V04-06-ST	316 s.s	440	440	1250	550	525	
VPS4-VA-V05-06-ST	VPS3-VA-V05-06-ST	316 s.s	750	700	1800	850	800	