

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.

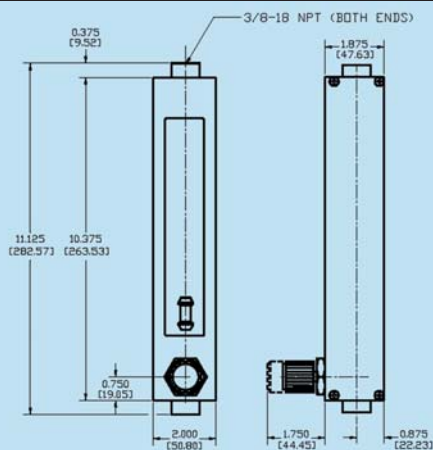
## \*\*MATERIALS OF CONSTRUCTION

<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.

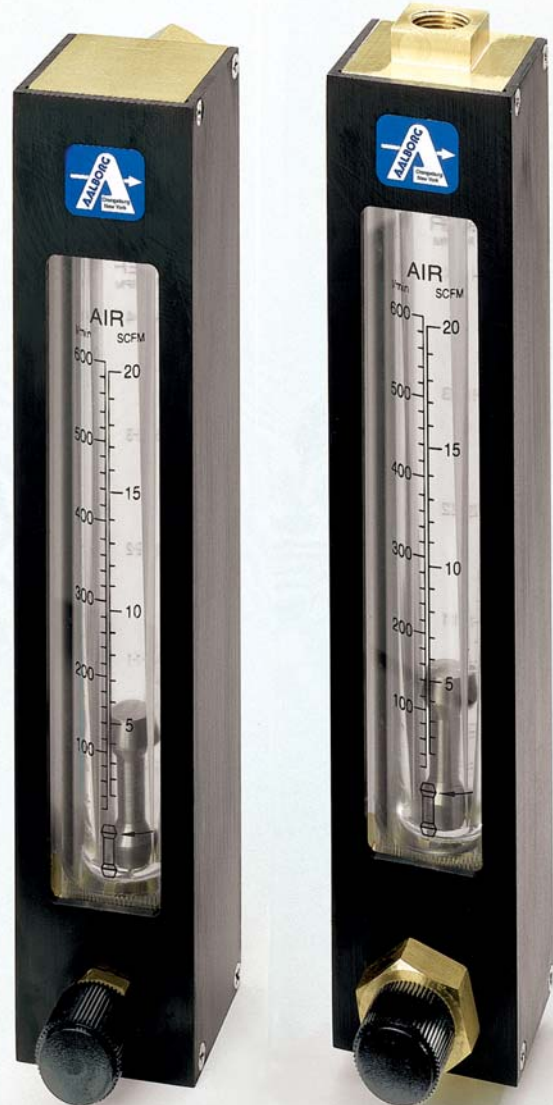
*\*\*The selection of materials of construction, is the responsibility of the customer. The company accepts no liability.*

**Ordering information see page 36.**

## DIMENSIONS (IN LINE MODEL)

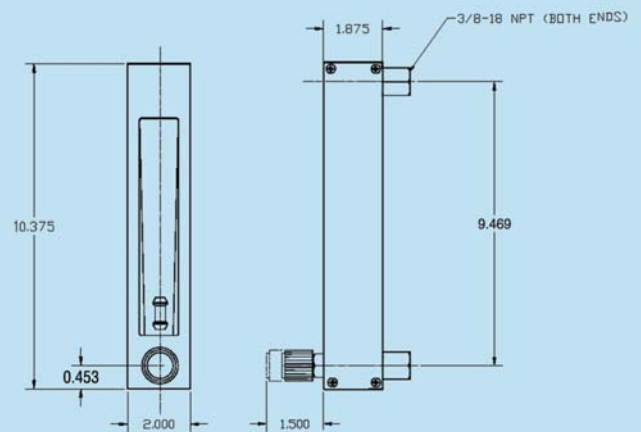


## Panel Mount Meter with Valve



In-line Meter with Valve

## DIMENSIONS (PANEL MOUNT MODEL)



# V

## MEDIUM RANGE PTFE FLOW METERS

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.

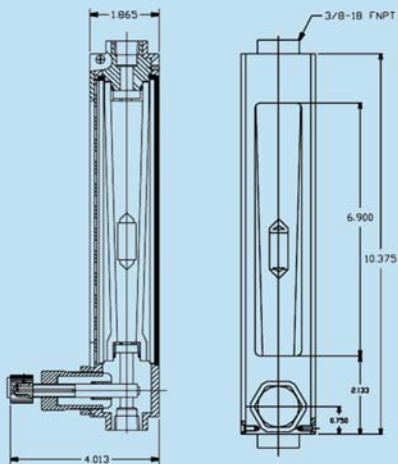
### \*\*MATERIALS OF CONSTRUCTION

<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.

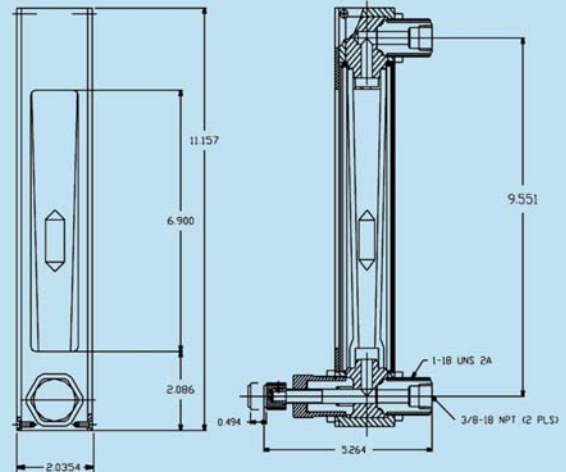
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**Ordering information see page 36.**

### 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	



# DIRECT READING MULTI-GAS 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.

**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

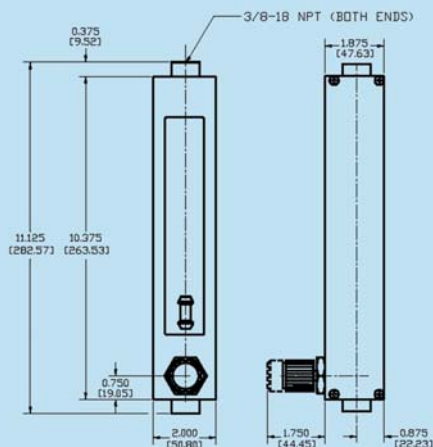
<b>SCALES</b>	Rotatable, direct reading Argon, CO <sub>2</sub> , He, N <sub>2</sub> , & O <sub>2</sub> .
<b>ACCURACY</b>	±5% of full scale.
<b>MAXIMUM TEMPERATURE</b>	250 °F (121 °C).
<b>MAXIMUM PRESSURE</b>	150 psig (@ 200 °F).
<b>CONNECTIONS</b>	3/8" NPT female in line or horizontal rear.

### \*\*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.

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

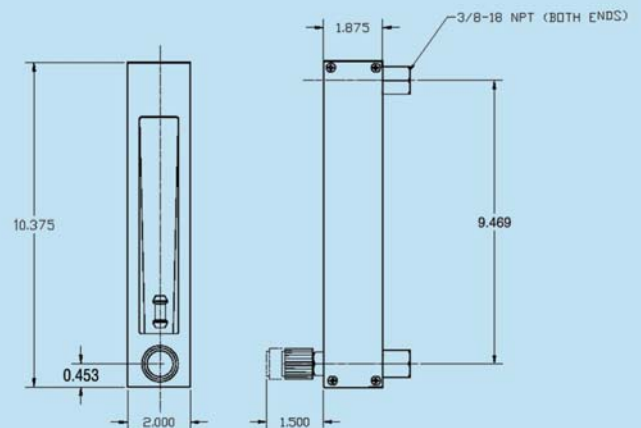
### DIMENSIONS (IN LINE MODEL)



Typical meter shown with rotatable "scale drum"



### DIMENSIONS (PANEL MOUNT MODEL)







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	