



# 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.

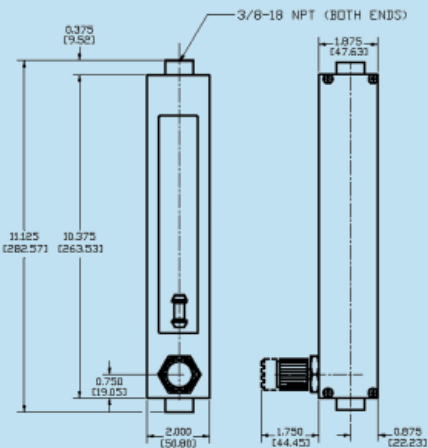
### \*\*MATERIALS OF CONSTRUCTION

<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>	Viton®, PTFE/Kalrez®/EPR.

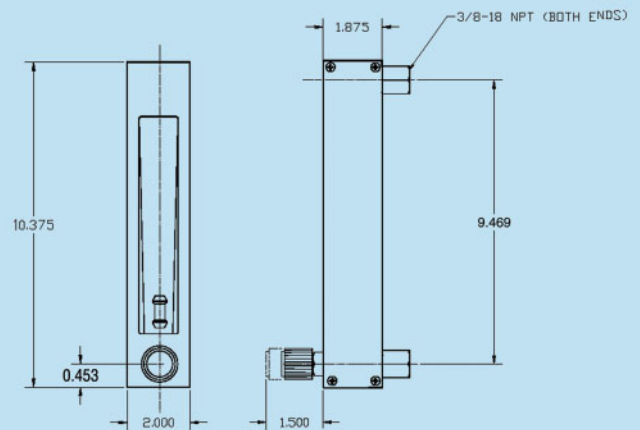
\*\*The selection of materials of construction, is the responsibility of the customer. The company accepts no liability.

**Ordering information see page 42.**

### DIMENSIONS (IN LINE MODEL)



### 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>	±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.

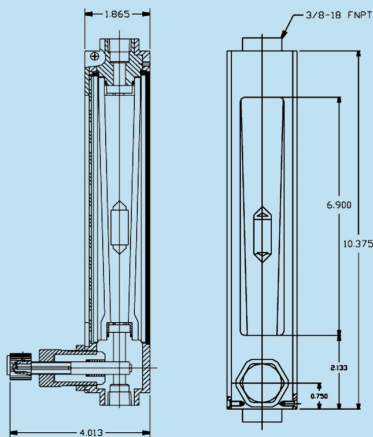
### \*\*MATERIALS OF CONSTRUCTION

<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.

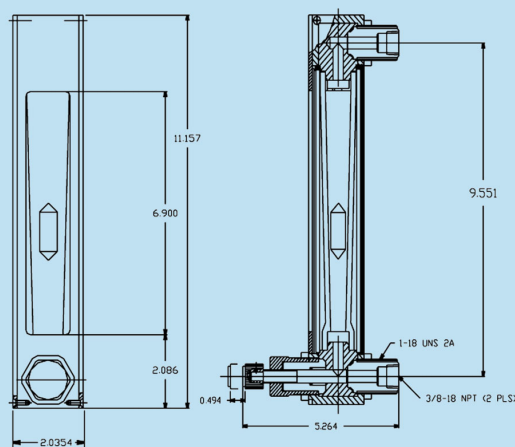
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**Ordering information see page 42.**

### DIMENSIONS (IN LINE MODEL)



### DIMENSIONS (PANEL MOUNT MODEL)





# ORDERING INFORMATION MEDIUM RANGE FLOW METERS

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	VPB3-VA-V01-02-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 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.

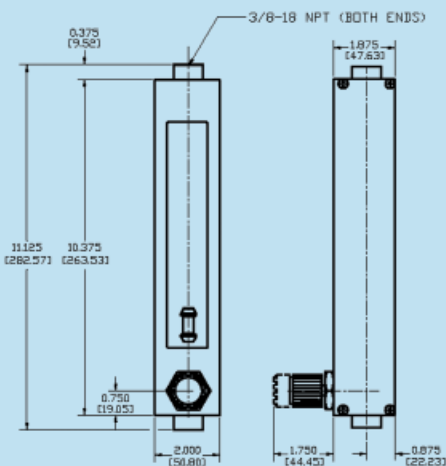
### \*\*MATERIALS OF CONSTRUCTION

<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.

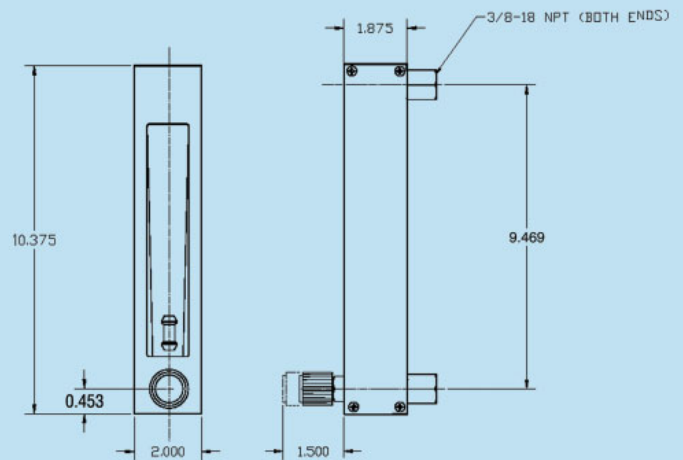
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### DIMENSIONS (IN LINE MODEL)



### DIMENSIONS (PANEL MOUNT MODEL)





# ORDERING INFORMATION MEDIUM RANGE 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