



INSTALLATION & OPERATION INSTRUCTIONS
FOR FR5000 SERIES FLOWMETERS

The FR5000 acrylic block flowmeters are available in various ranges in both SAE and SI units for air and water (see chart on other side). These direct reading meters are also available for other gases and liquids. If the meter will be used with fluids other than air or water, please consult chemical compatibility data for possible effects on the meter. When properly installed and maintained, these durable acrylic meters will provide years of trouble-free operation.

ACHIEVING ACCURATE FLOWRATES

To obtain an accurate flowrate, the float must be read at the position indicated on the meter. Additionally, the flowmeter should be installed in a manner, which minimizes both external vibrations and internal flow variations. Special care should be taken so that the connections to the meter's inlet and outlet fittings do not overly restrict the liquid or gas flow being metered. This could result in a reduced flow volume, preventing the meter from reaching its maximum flowrate. Furthermore, internal pressures could be affected, which can cause inaccurate flow readings. On start-up, slowly purge any fluid trapped in the meter.

SPECIFICATIONS	
ACCURACY:	± 2% Full Scale
FLOATS:	Stainless Steel
WETTED METAL PARTS:	Stainless Steel
METER BODY:	Clear Acrylic
FITTINGS:	1-11 ½ FNPT PVC Fittings
ELASTOMERS:	Buna-N
MOUNTING INSERTS:	10-32 UNF x 3/8"
MAXIMUM TEMPERATURE:	150°F (65 °C)
MAXIMUM PRESSURE:	100 PSI (690 kPa)

INSTALLATION

These meters are supplied with round 1-11 ½ FNPT inlet and outlet fittings. When installing the meter, securely hold the meter's fittings from rotating while connecting the flow lines. (Use pipe thread sealant or Teflon® tape to achieve a positive seal when connecting the flowmeter.) **Failure to hold the meter fittings or over-tightening may cause damage to the fitting, flowmeter or both; which will result in leaks or meter failure.** The meter is supplied with #10-32 threaded inserts for mounting. When installing, use slotted screws and torque to a maximum of 35 in-lbs. Mounting dimensions are shown in the figure on the reverse side.

UNPACKING

Precautions have been taken to prevent any damage from occurring during shipment. However, if the meter is received damaged, *report it to the carrier immediately.* Before installing, verify that you have the model and flow range required.

CLEANING AND DISASSEMBLY

Occasional cleaning may be required if dirt appears in the flow tube or if float movement becomes restricted. To clean, remove the top plug (standard back) or the outlet fitting (inline) and remove the rod guide assembly. Wash the tapered hole, float stops and top plug with a mild liquid detergent and soft brush.

CAUTION

THIS FLOWMETER IS DESIGNED FOR USE WITH NON-HAZARDOUS FLUIDS AT PRESSURES UP TO 100 PSI (690 kPa) AND TEMPERATURES UP TO 150 °F (65 °C). DO NOT USE HAZARDOUS FLUIDS AND DO NOT EXCEED TEMPERATURE OR PRESSURE LIMITS. USE WITH HAZARDOUS FLUIDS OR EXCEEDING THE PRESSURE AND TEMPERATURE LIMITS MAY CAUSE FAILURE WHICH COULD RESULT IN INJURY.

Rinse all parts with clean water and dry thoroughly with clean air or nitrogen.

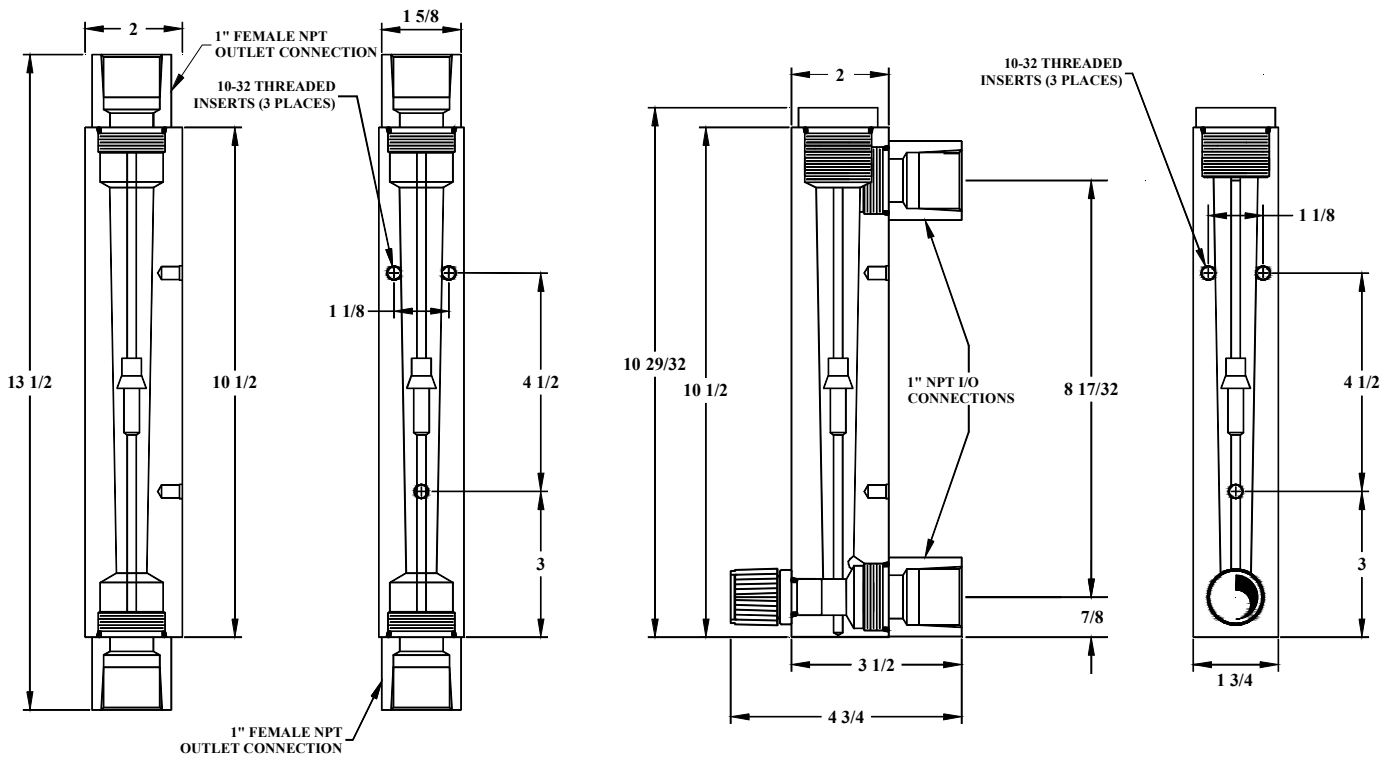
Do not use solvents to clean this meter as they will attack the acrylic and destroy the meter.

REASSEMBLY

Check to make sure that all parts are clean and dry. To lubricate the o-rings, apply a small amount of halocarbon grease prior to reassembly. Replace the float on the rod guide and reinstall the float stops. Reinstall the rod guide assembly into the flowmeter

body. Make sure the rod guide is seated firmly in the body of the meter for a Standard Back meter or in the inlet fitting of the Inline meter. (For meters with valves, it will be necessary for the rod guide to pass through the slot in the valve tip.) Reinstall the top plug or the outlet fitting, making sure that the rod guide is properly aligned.

If you have any questions regarding the installation, maintenance or use of this flowmeter, please call the Customer Service Department at 1-800-356-7483.



INLINE (PI) METER			
SCFM OF AIR		GPM OF WATER	
RANGE	MODEL	RANGE	MODEL
3-25	5A50	0.4-5	5L56
4-50	5A51	1-10	5L57
10-100	5A52	2-20	5L58
LPM AIR		LPM WATER	
RANGE	MODEL	RANGE	MODEL
100-700	5A53	1-19	5L59
100-1400	5A54	4-36	5L60
400-4000	5A55	5-75	5L61

PANEL MOUNT (PS/PV) METER			
SCFM OF AIR		GPM OF WATER	
RANGE	MODEL	RANGE	MODEL
3-25	5A50	0.4-5	5L56
4-50	5A51	1-10	5L57
10-100	5A52	2-20	5L58
LPM AIR		LPM WATER	
RANGE	MODEL	RANGE	MODEL
100-700	5A53	1-19	5L59
100-1400	5A54	4-36	5L60
400-3400	5A55	5-75	5L61

CONTINUED PRODUCT IMPROVEMENT MAY RESULT IN SPECIFICATION REVISIONS

WHEN ORDERING PARTS PLEASE INCLUDE PART DESCRIPTION, ITEM NUMBER AND TYPE OF MATERIAL REQUIRED.