



INSTALLATION & OPERATION INSTRUCTIONS
FOR FR4400 SERIES FLOWMETERS

The FR4400 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.

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:	± 5% Full Scale
FLOATS:	St. Steel & Aluminum
WETTED METAL PARTS:	St. Steel & Aluminum
METER BODY:	Clear Acrylic
FITTINGS:	1/4-18 MNPT PVC Fittings
ELASTOMERS:	Buna-N
MOUNTING INSERTS:	10-32 UNF x 3/8"
MAXIMUM TEMPERATURE:	150°F (65 °C)
MAXIMUM PRESSURE:	100 PSIG (690 kPa)

INSTALLATION

These meters are supplied with 1/4-18 MNPT 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 outlet fitting and remove the rod guide assembly. Wash the tapered hole and float stops with a mild liquid detergent and soft brush. 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.

ACHIEVING ACCURATE FLOWRATES

To obtain an accurate flowrate, the float must be read at the position indicated on the meter. Additionally,

CAUTION

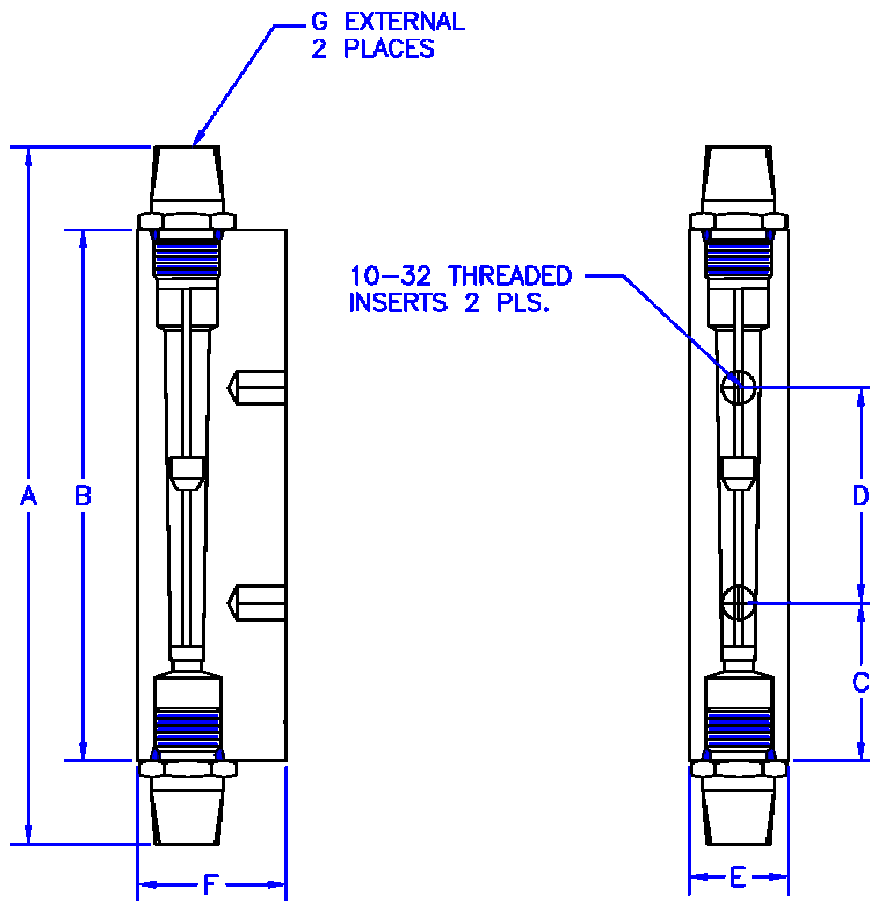
THIS FLOWMETER IS DESIGNED FOR USE WITH NON-HAZARDOUS FLUIDS AT PRESSURES UP TO 100 PSI (690 kPa) AND TEMPERATURES UP TO 150 °F (65 °C). DO NOT USE HAZARDOUS FLUIDS AND DO NOT EXCEED TEMPERATURE OR PRESSURE LIMITS. USE WITH HAZARDOUS FLUIDS OR EXCEEDING THE PRESSURE AND TEMPERATURE LIMITS MAY CAUSE FAILURE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

INLINE (PI) METER			
SCFH OF AIR		GPH OF WATER	
RANGE	MODEL	RANGE	MODEL
6-60	44A01I	1-12	44L00I
15-100	44A03I	4-25	44L02I
25-300	44A07I	6-60	44L06I
LPH AIR		LPH WATER	
RANGE	MODEL	RANGE	MODEL
200-1700	44A09I	4-50	44L08I
500-3000	44A11I	15-100	44L10I
1000-8500	44A13I	30-230	44L12I

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 assembly. Reinstall the rod guide assembly into the flowmeter body. Make sure the rod guide is seated firmly in the body of the meter. Reinstall 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.



INCHES	5"	4"	1-3/16"	1-5/8"	1"	1-1/8"	1/4-18 MNPT
MILLIMETERS	127	101.6	30.2	41.3	25.4	28.6	

CONTINUED PRODUCT IMPROVEMENT MAY RESULT IN SPECIFICATION REVISIONS

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

250 Andrews Rd. • Treose, PA 19053-3491

IDT200 REV. 1