

**Key Instruments® Models 2510, 2520, 2530 & 2540**

Acrylic block flowmeters are available in various sizes and ranges, with direct reading scales in both SAE and SI units for air and water. For other gases or liquids, special scales can be provided. If you use this meter with fluids other than air or water, please consult chemical compatibility data for possible effects on the meter. These meters are manufactured of durable acrylic and if properly installed and maintained, will provide long-term trouble-free operation.

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.

INSTALLATION

The Model 2510, 2520 & 2530 meters are supplied with 5/8" or 7/8" hex's on the inlet and outlet fittings. When installing 1/8-27 MNPT or 1/4-18 MNPT fittings into the meter, place the appropriate size wrench on the hex to prevent the inlet/ outlet fitting from rotating. Torque only to 60 in-lbs. Failure to do so will cause the fitting to rotate, and may damage the meter body, causing leaks and/or meter failure.

The Model 2540 meters are supplied with round 1-11 1/2 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 ease installation and provide a better seal.

These meters are 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 Figures 1 & 2.

ACHIEVING ACCURATE FLOWRATES

To obtain an accurate flowrate, the float must be read at the position indicated on the meter. If the meter uses a ball float, the flowrate is determined by reading the center of the ball. 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.

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 and remove the float. Wash the tapered hole and top plug 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.

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.

If applicable, 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.) To allow proper use of the valve, do not tighten the valve tip completely on the valve stem. Reinstall the top plug or the outlet fitting, making sure that the rod guide is properly aligned. Tighten top plug until it's flush with top of acrylic body. Exceeding this may damage the meter body.

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.

Key Instruments 2500 Series Flowmeters

Table 1 Specifications - 2500 Series

	2510	2520	2530	2540
Accuracy	±5% full scale	±3% full scale		±2% full scale
Floats	Black Glass, 316 Stainless Steel		Stainless Steel	
Body	Clear Acrylic			
Seals	Buna-N O-rings with Brass fittings; Viton® O-rings with 303 Stainless Steel fittings			Buna-N O-rings w/Brass or PVC fittings Viton O-rings w/Stn Stl fittings
Pressure	100 PSIG Max.			
Temperature	150°F/65°C Max.			
Fittings	Brass, 303 Stainless Steel			PVC FNPT Pipe Connections (Std.)
Valves	Brass or Stainless Steel			Integral Valve on "V" models Inline Gate Valve is available for "S and I" models
Certifications	International Calibration Certificate (ICC); Pressure Equipment Directive (97/23/EC); RoHS			

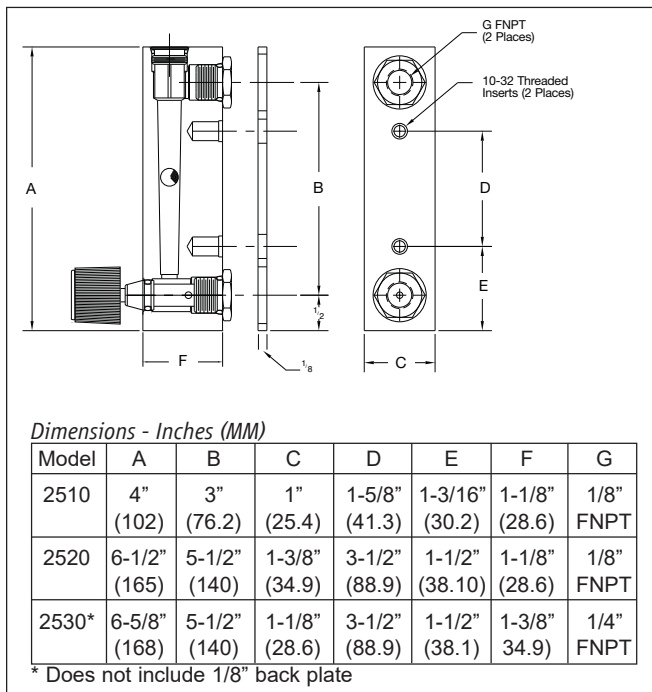


Figure 1 Dimensions - Model 2510, 2520 & 2530

TRADEMARKS

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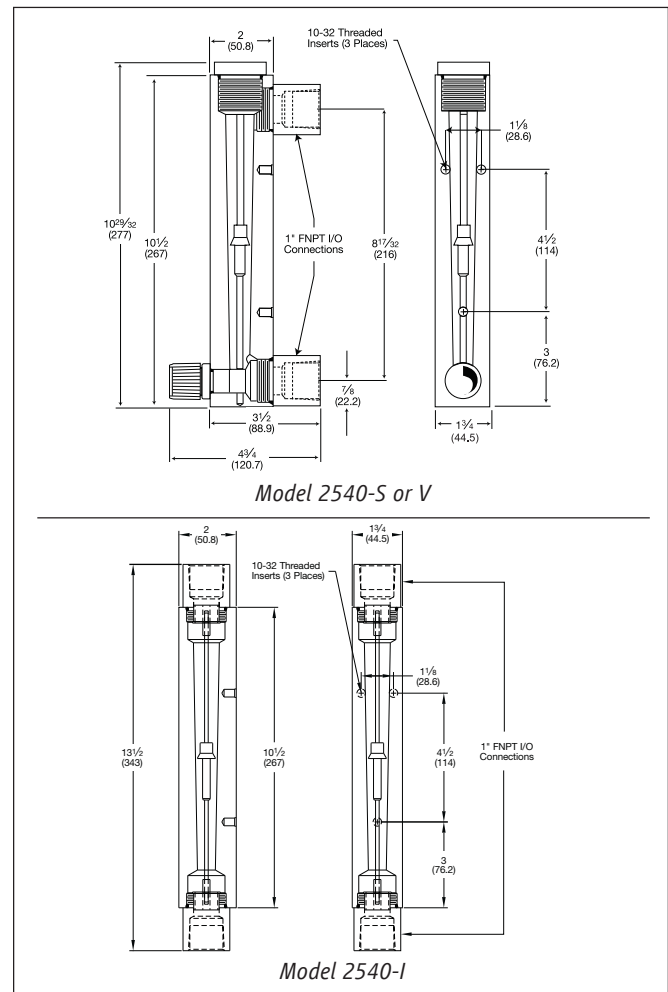


Figure 2 Dimensions - Model 2540