

### Inspection of the Flow Meter and Compatibility

- Check for damage while unpacking the flow meter.
- Remove any instruction sheets and shipping materials that may have been inserted into the meter body for shipping reasons.
- Remove the box containing the float. Note the up position of the float before removing the float from the meter body (tube). The float must be installed in the same direction when re-assembling the flow meter.
- Remove the pipe fitting adapters with o-rings and the union nuts. Note the proper location of the o-ring in the groove. Be sure the o-ring is properly seated during installation.
- Be sure the meter and the materials of construction are suitable for your application.
- The maximum temperature and pressure is shown on the following pages.
- Although the meter may be suitable for use with other fluids, Dakota<sup>®</sup> meters are tested with water and air only. If you are not sure that the meter is compatible with your fluid, consult the factory.
- The meter can be damaged by UV light. Do not install the meter in direct sunlight.
- Dakota<sup>®</sup> guarantees the meter is suitable with air and water only.

#### DAKOTA INSTRUMENTS®

20 Corporate Drive Orangeburg, NY 10962 USA

### Installation Guideline

# Caution: Follow these instructions to avoid failure.

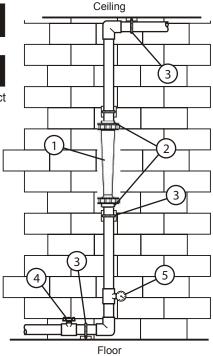
## Danger: Wear eye protection when installing or removing flow meter.

1. Flow meter must be installed in an exact vertical plane to ensure accuracy.

Be certain of proper plumbing alignments. The meterbody material can be damaged by UV rays. Do not install in direct sunlight.

2. Pipe dope and glue will damage the meter!

Use only PTFE tape on the threaded adapters. Polysulfone meter body and fittings cannot tolerate PVC Glue and/or pipe dope. Even fumes can cause severe damage. If you are installing your flow meter to a glued pipe configuration, install the flow meter after all glued fittings are dried and lines are purged of all fumes. Never hold the meter body with pliers or like tools. Union nuts should be hand tightened only. DO NOT OVER-TIGHTEN!



3. Wall, floor and ceiling mounts and supports are to be carefully aligned and sturdy. Wall, floor and ceiling supports are recommended as needed. This is to maintain pipe alignment and to prevent vibration.

4. Solenoid valves will damage the meter!

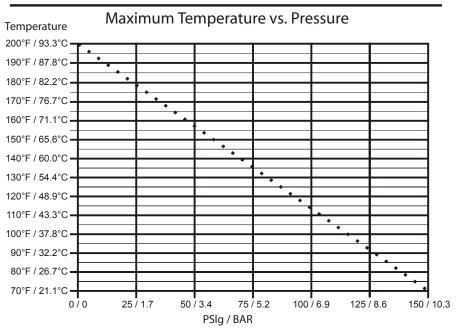
Avoid a system that will impose a sudden burst of flow to the meter. Such a burst will cause the float to impact the float stop with destructive force. Solenoid valves, or other quick opening valves cannot be used unless meter is protected against sudden bursts of flow.

5. High pressures and temperatures will damage the meter!

The maximum acceptable temperature and pressure is interdependent. The maximum acceptable working pressure is dependent on the actual fluid temperature. The maximum acceptable fluid temperature is dependent on the actual working pressure. (see Temperature Vs. Pressure chart).

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Pressure and Temperature

Pressure and temperature limits are inversely proportional. At the maximum suggested pressure the temperature should approach 70°F / 21.1°C; at the maximum suggested temperature the pressure should approach zero psi. We cannot guarantee our flow meters will not be damaged either at or below the suggested limits simply because of many factors which influence meter integrity; stress resulting from meter misalignment, damage due to excessive vibration and/or deterioration caused by contact with certain chemicals as well as direct sunlight. These situations and others tend to reduce the strength of the materials from which the meters are manufactured.

#### **Application Note**

Flow meters are tested and calibrated for water or air only. Although meters may be suitable for other chemicals, Dakota® cannot guarantee their suitability. It is the responsibility of the user to determine the suitability of the flow meter in their application.

#### Maintenance

The "Exploded View" drawing illustrates assembly of the 6B04 series meter. If your flow meter needs to be cleaned refer to this drawing when reassembling the unit. The tapered tube may be cleaned with a soft bottle brush. Use a MILD soap and water solution for cleaning purposes. Hard water deposits can be removed with a 5% acetic acid solution (vinegar). Note the floats "up" position.

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Item	Catalog Number	Description	Amount
1	D-452004N	Union Nut, Nylon	2
2	D-452330N	Adapter, 2" FNPT, Polysulfone	2
3	D-452002	Wireholder, Polysulfone	2
4	D-452043N	O-ring, Viton®	2
5	Float	2 - 20 GPM, PTFE 4 - 40 SCFM, PTFE 40 - 240 SCFM, Stainless Steel 6 - 60 GPM, Stainless Steel 8 - 80 GPM, Stainless Steel 20 - 130 GPM, Stainless Steel 20 - 130 GPM, Stainless Steel 25 - 175 GPM, Stainless Steel 6 - 60 GPM, Hastelloy 8 - 80 GPM, Hastelloy 6 - 100 GPM, Hastelloy	1
6	Meterbody	Polysulfone	1
7	D-452287N D-452333N	Guide Wire, Stainless Steel Guide Wire, Hastelloy	1
8	D-452332	Float Stop, Polyethylene	1

#### 6B04 Exploded View and Parts List

#### DAKOTA® INSTRUMENTS LIMITED WARRANTY

FLOW METERS are warranted to be free of defects in material and workmanship for up to 12 months from the date of factory shipment. Warranty coverage is limited to repair or replacement of the defective flow meter only. Dakota<sup>®</sup> Instruments does not assume responsibility for any other damage that may occur.

This warranty does not cover damage to the flow meter that results from misuse or alterations, nor damage that occurs as a result of: meter misalignment, improper installation, over tightening, use of non-recommended chemicals, use of non-reccomended adhesives or pipe dopes, excessive heat or pressure, or allowing the meter to support the weight of related piping. Flow meters are tested and calibrated with water and air only. Although meters may be suitable for other chemicals, Dakota<sup>®</sup> cannot guarantee their suitability.

Flow meters are repaired at the factory only. Call or write the factory to receive a Return Authorization Number, carefully pack the flow meter to be returned, including a brief description of the problem. Note the RAN number on the outside of the carton.

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