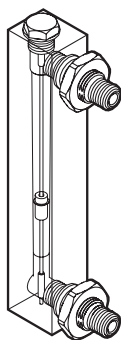


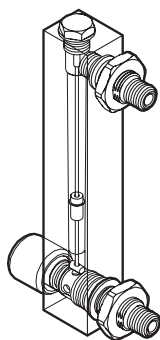
# Installation Instructions 6B71

## Specifications

Meter Body:	Acrylic, clear
Floats:	#316 Stainless Steel
Adapters:	Polypropylene
O-Rings:	Viton
Lock Nut:	Polypropylene
Scale:	Permanent Silkscreen
Max. Pressure:	See Temperature vs. Pressure chart*
Max. Temperature:	See Temperature vs. Pressure chart*



Standard Meter



Adjustable Meter

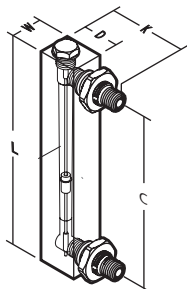
### Your Dakota® 6B71 Series Panel Mount Flow Meter

Your Dakota® flow meter was designed to be easy to install.

Please read the Instruction Guideline on the next page before installing your flow meter.

This flow meter is an instrument, and special care should be taken when installing.

## Dimensional Drawing



### English System

Dimension Meters	W Inches	L Inches	K Inches	D Inches	C Inches	Maximum Panel Thickness T- max (inches)	Recommended Panel Cutout hole (inches)
6B7100-01B 6B7100-15B 6B7101-01B 6B7101-15B	1-1/16	6-7/8	2-1/2	1-1/4	5-5/8	1/2	11/16
6B7100-02C 6B7100-03C 6B7100-16C 6B7100-17C 6B7101-02C 6B7101-03C 6B7101-16C 6B7101-17C	1-11/32	8	2-3/4	1-1/2	6-1/2	1/2	11/16
6B7100-04D 6B7100-18D 6B7101-04D 6B7101-18D	1-11/32	8	2-3/4	1-1/2	6-1/2	1/2	27/32
6B7100-05E 6B7100-19E 6B7101-05E 6B7101-19E	1-1/2	8-5/8	3-3/4	1-3/4	6-1/2	13/16	1-21/64
6B7100-06F 6B7100-07F 6B7100-08F 6B7100-09F 6B7101-07F 6B7101-08F 6B7101-09F	1-3/4	10-1/4	4	2	8	13/16	1-21/64

### Metric System

Dimension Meters	W mm	L mm	K mm	D mm	C mm	Maximum Panel Thickness T- max (mm)	Recommended Panel Cutout hole (mm)
6B7100-01B 6B7100-15B 6B7101-01B 6B7101-15B	27.0	174.5	63.5	32.0	143.0	13.0	18.0
6B7100-02C 6B7100-03C 6B7100-16C 6B7100-17C 6B7101-02C 6B7101-03C 6B7101-16C 6B7101-17C	34.3	203.0	70.0	38.0	165.0	13.0	18.0
6B7100-04D 6B7100-18D 6B7101-04D 6B7101-18D	34.3	203.0	70.0	38.0	165.0	13.0	22.0
6B7100-05E 6B7100-19E 6B7101-05E 6B7101-19E	38.1	219.0	95.0	44.5	165.0	21.0	34.0
6B7100-06F 6B7100-07F 6B7100-08F 6B7100-09F 6B7101-07F 6B7101-08F 6B7101-09F	44.5	260.5	101.5	51.0	203.0	21.0	34.0

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## Installation Guide

Please use the following steps to guide you through the installation.

**Caution:** Follow these tips to avoid failure

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

**STEP 1.** Unpack the flow meter.

Check for damage while unpacking the flow meter.

Be sure the meter is suitable for your application.

The maximum temperature and pressure is shown on the following page.

Although the meter may be suitable for other chemicals, Dakota<sup>®</sup> meters are tested with water and air only. If you are unsure of the meters compatibility with your chemical, consult the factory .

Dakota<sup>®</sup> guarantees the meter is suitable with air and water only.

**STEP 2.** Choose a suitable location for the flow meter.

Never allow the flow meter to support the weight of related pipe or tubing.

Flow meter must be installed in plumbing which is free of vibration.

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

Valves - Avoid a system that will impose a sudden burst of flow (water hammer) to the meter. Such a burst will cause the float to impact the float stop with destructive force. Magnetic, solenoid, ball, or other quick opening valves cannot be used unless the meter is protected against sudden bursts of flow.

Do not exceed maximum working pressure (see Temperature vs. Pressure chart on next page).

**STEP 3.** Connecting the flow meter to the plumbing.

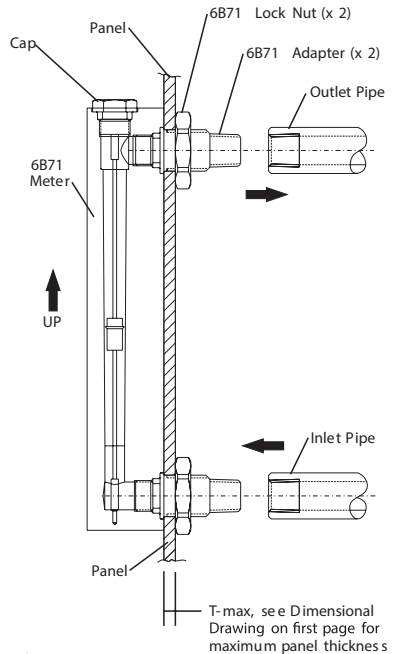
Use an appropriate amount of PTFE (or similar) tape on external pipe threads before making connections.

Acrylic and other exotic plastics cannot tolerate PVC Glue and/or pipe dope. Even fumes can cause crazing. If you are installing your flow meter to a glued pipe configuration, install flow meter after all glued fittings are dried and lines are purged of all fumes.

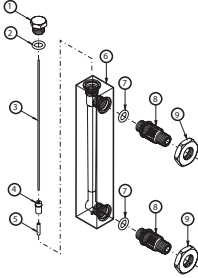
Install the meter to the panel using the panel lock nuts. Do not over-tighten.

The meter adapters are provided with wrench flats. Prevent the meter adapters from rotating while attaching the inlet and outlet plumbing. Be careful not to damage the plastic threads.

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# Exploded View and Parts List



## Standard Meters

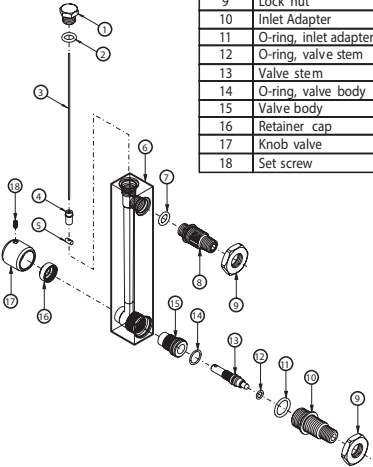
ITEM	DESCRIPTION	687100-01B 687100-15B	687100-02C 687100-03C 687100-16C 687100-17C	687100-04D 687100-18D	687100-05E 687100-19E	687100-06F 687100-07F 687100-08F 687100-09F	QTY
1	Cap	76001-080	91001-032	91001-032	91001-033	91001-160	1
2	O-ring (cap)	90003-072	90003-081	90003-081	90003-082	90003-079	1
3	Guide wire	76000-039	90007-534	90007-534	90007-535	76000-046	1
* 4	Float	76000-129	90007-547 90007-564	90007-522	90007-563	76001-170 90007-565 76000-147	1
5	Float stop bottom	76000-024	76000-024	76000-024	76000-093	76000-517	1
* 6	Body	76100-117	76100-119	76100-119	76100-121	76100-123	1
7	O-ring (adapter)	90003-072	90003-034	90003-034	90003-081	90003-110	2
8	Adapter	76001-079	91001-141	91001-142	91001-143	91001-144	2
9	Lock nut	91001-153	91001-153	91001-154	91001-171	91001-172	2

\* item not sold separately

## Adjustable Meters

ITEM	DESCRIPTION	687101-01B 687101-15B	687101-02C 687101-03C 687101-16C 687101-17C	687101-04D 687101-18D	687101-05E 687101-19E	687101-07F 687101-08F 687101-09F	QTY
1	Cap	76001-080	91001-032	91001-032	91001-033	91001-160	1
2	O-ring cap	90003-072	90003-081	90003-081	90003-082	90003-079	1
3	Guide wire	76001-108	76001-109	76001-109	76001-110	76000-111	1
* 4	Float	76000-129	90007-547 90007-564	90007-522	90007-563	76001-170 90007-656 76000-147	1
5	Float stop bottom	76001-085	76001-091	76001-091	76001-096	76001-107	1
* 6	Body	76100-118	76100-120	76100-120	76100-122	76100-124	1
7	O-ring adapter	90003-072	90003-034	90003-034	90003-081	90003-110	1
8	Adapter	76001-079	91001-141	91001-142	91001-143	91001-144	1
9	Lock nut	91001-153	91001-153	91001-154	91001-171	91001-172	2
10	Inlet Adapter	76001-153	91001-173	91001-174	91001-175	91001-176	1
11	O-ring, inlet adapter	90003-034	90003-081	90003-081	90003-110	90003-082	1
12	O-ring, valve stem	90003-004	90003-010	90003-010	90003-072	90003-113	1
13	Valve stem	76001-082	76001-088	76001-088	76001-094	76001-104	1
14	O-ring, valve body	90003-114	90003-081	90003-081	90003-017	90003-021	1
15	Valve body	76001-081	76001-086	76001-086	76001-093	76001-103	1
16	Retainer cap	76001-084	76001-090	76001-090	76001-095	76001-106	1
17	Knob valve	76001-083	76001-089	76001-089	76001-097	76001-105	1
18	Set screw	90011-056	90011-116	90011-116	90011-116	90011-116	1

\* item not sold separately



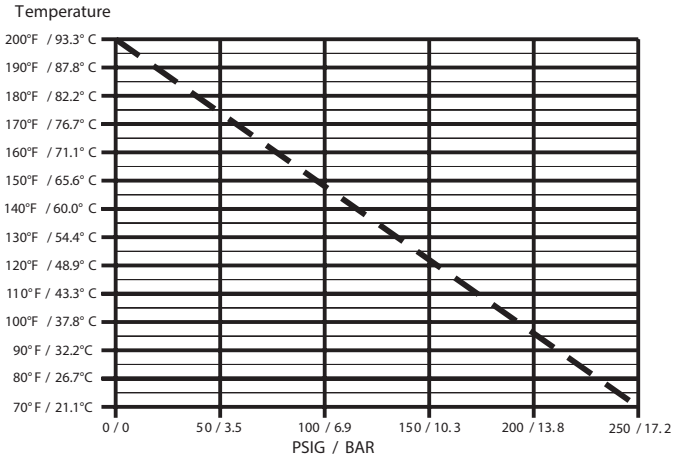
**Dakota Instruments**  
20 Corporate Drive  
Orangeburg NY 10962 USA

<http://dakotainstruments.com>  
E-mail: [info@dakotainstruments.com](mailto:info@dakotainstruments.com)  
Toll Free USA and Canada: 1(800) 879-7713  
Tel. 1+(845) 770-3200 Fax. 1+(845) 770-3210

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Cleaning: The flow meter body and all other parts can be cleaned by washing in a mild soap and water solution. A soft bristle bottle brush will simplify cleaning inside the meter body. Note the float's up position for re-assembly.

### Temperature vs. Pressure



### 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.

Flow meters are tested and calibrated for water or air only. Although meters may be suitable for other chemicals, Dakota cannot guarantee their suitability.

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**Dakota Instruments**  
20 Corporate Drive  
Orangeburg NY 10962 USA

<http://dakotainstruments.com>  
E-mail: [info@dakotainstruments.com](mailto:info@dakotainstruments.com)  
Toll Free USA and Canada: 1(800) 879-7713  
Tel. 1+(845) 770-3200 Fax. 1+(845) 770-3210

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