



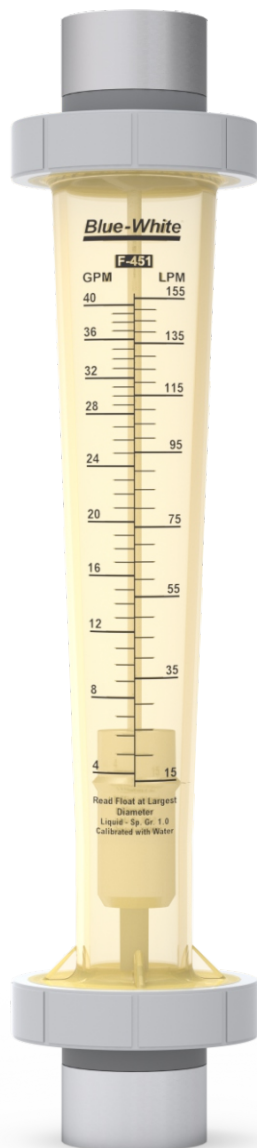
F-451 Flowmeter Instruction Manual

Your Blue-White® F-451 Series In-Line Flowmeter

This flowmeter was designed to be easily installed. Please read this Instruction guideline before installing your flowmeter.

Do not install the meter in direct sunlight.
The meter can be damaged by UV light.

Note: Plastic tubing inserted into flowmeter is used to prevent damage during shipping. Remove before installing.

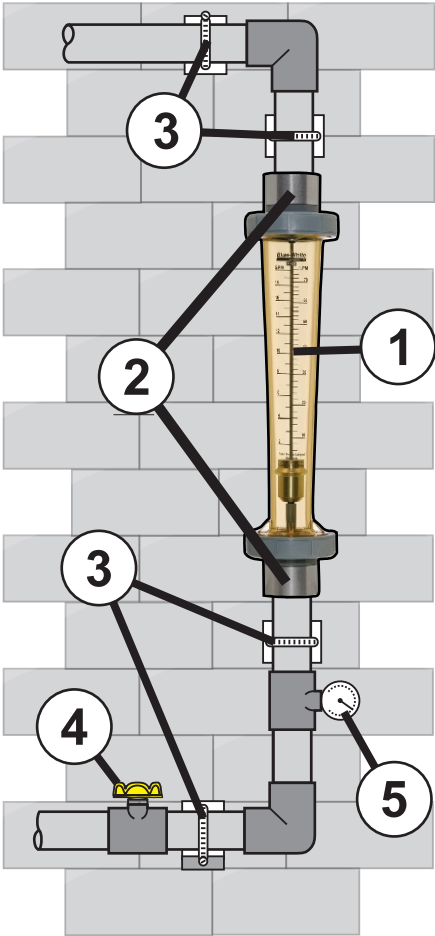


**MADE IN THE
USA**

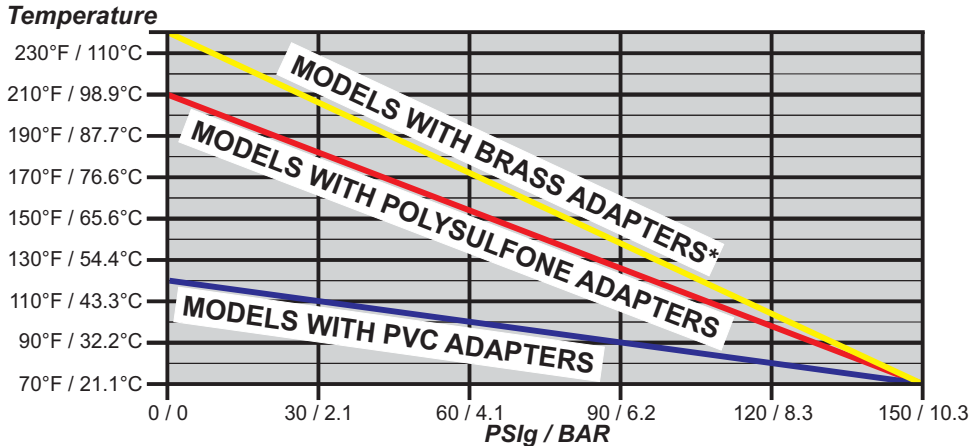
**ISO 9001:2015
CERTIFIED**

INSTALLATION GUIDE

- 1 The flowmeter must be installed in a vertical plane to ensure accuracy. Misalignment may damage the flowmeter and also may cause the o-ring seals to leak.
- 2 Use only PTFE tape on the threaded adapters. Pipe dope and glue will damage the polysulfone meter body and fittings. Or install the flowmeter after all glued fittings have dried and fumes have been purged from the system.
- 3 Mounts and supports must be sturdy enough to support the plumbing and prevent vibration. Vibration and heavy loads will damage the meter.
- 4 Avoid imposing a sudden burst of flow to the meter. Solenoid valves will damage the meter. Such a burst will cause the float to impact the top float stop with destructive force.
- 5 The Maximum fluid temperature is dependant on the working pressure. High pressure and temperature with damage the meter. (see temperature VS pressure chart)



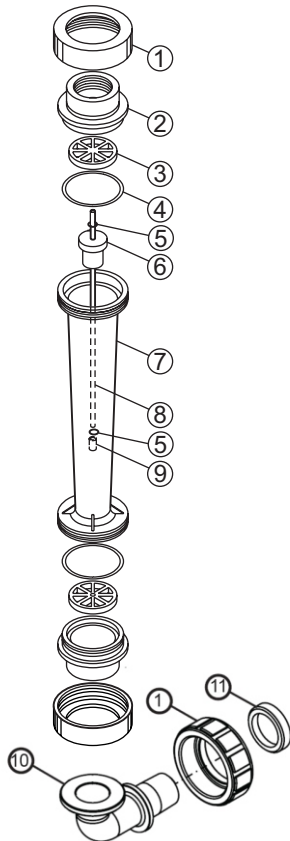
TEMPERATURE vs PRESSURE



* Brass Adapters no longer available. Shown for reference only.

EXPLODED VIEW, PARTS LIST AND SPECS

EXPLODED VIEW



Panel Mount Elbow Option

PARTS LIST

Item	Catalog	Description	Qty
1	F-45038N	Union Nut	2
2	F-45030N F-45036	Adapter, vertical, 1" F/NPT (PSF) Adapter, vertical, 1-1/2" M/NPT (PVC)	2 2
3	F-45025 F-45025-2	Wireholder 1-10, 2-20 (PSF) LG Wireholder 3-30, 4-40 (PSF)	2
4	2-136V	O-Ring 2-136 (Viton)**	1
5	2-006A 2-008V	Float Stop .5-6, 1-10, 2-20 (Aflas) Large Float Stop, 3-30, 4-40 (Aflas)	1
6	-	Float (SS)	1
7	-	Meterbody (PSF)	1
8	F-45028 F-450028-2	Guide Wire, .5-6, 1-10, 2-20, (SS) Guide Wire, 3-30, 4-40 (SS)	1
9	F-45046 F-45054	Wireholder, .5-6, 1-10, 2-20 (PSF) Wireholder, 3-30, 4-40 (PSF)	1
10	F-45031	1" Male NPT 90 degree Elbow, PSF	2
11	F-45032	Panel Mount Lock Nut, PVC	2

Shading indicates item not sold separately

**EP Option Available

PSF= polysulfone

SS = # 316 Stainless Steel

Polycarbonate Shield Kit = KIT-SHS

PP = polypropylene

PVC = Polyvinyl chloride

METER SPECS

Scale	Permanent dual scale silkscreen
Max Pressure	See Temperature vs. Pressure chart*
Max Temperature	See Temperature vs. Pressure chart*
Height	14.5" (368mm)
Width	3.1875" (81mm)
Accuracy	± 2% of full scale reading

APPLICATION NOTES

Although meters may be suitable for other chemicals, Blue-White cannot guarantee their suitability. It is the responsibility of the user to determine the suitability of the flowmeter in their application. **Flowmeters are tested and calibrated for water only.**

MAINTENANCE

The "Exploded View" drawing illustrates assembly of the F-451 series meter. If your flowmeter 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. Note the float's "up" position.

BLUE-WHITE LIMITED WARRANTY

Your Blue-White product is a quality product and is warranted for a specific time from date of purchase (proof of purchase is required). The product will be repaired or replaced at our discretion. Failure must have occurred due to defect in material or workmanship and not as a result of operation of the product other than in normal operation as defined in the product manual. Warranty status is determined by the product's serial label and the sales invoice or receipt. The serial label must be on the product and legible. The warranty status of the product will be verified by Blue-White or a factory authorized service center.

Variable Area and Digital Flow meters are warranted for 1 year from date of purchase (proof of purchase is required). The flow meter will be repaired or replaced at our discretion. The S6A ultrasonic flow meter is warranted for 2 years from date of purchase (proof of purchase is required). The flow meter will be repaired or replaced at our discretion.

WHAT IS NOT COVERED

- Freight to the factory, or service center.
- Products that have been tampered with, or in pieces.
- Damage resulting from misuse, carelessness such as chemical spills on the enclosure, abuse, lack of maintenance, or alteration which is out of our control.
- Damage by faulty wiring, power surges or acts of nature.
- Damage that occurs as a result of: meter misalignment, improper installation, over tightening, use of non-recommended chemicals, use of non-recommended adhesives or pipe dopes, excessive heat or pressure, or allowing the meter to support the weight of related piping.

BLUE-WHITE does not assume responsibility for any loss, damage, or expense directly or indirectly related to or arising out of the use of its products. Failure must have occurred due to defect in material or workmanship and not as a result of operation of the product other than in normal operation as defined in the manual.

Warranty status is determined by the product's serial label and the sales invoice or receipt. The serial label must be on the product and legible. The warranty status will be verified by Blue-White or a factory authorized service center.

PROCEDURE FOR IN WARRANTY REPAIR

Warranty service must be performed by the factory or an authorized service center. Contact the factory or local repair center to obtain a RMA (Return Material Authorization) number. It is recommended to include foot strainer and injection/check valve fitting since these devices may be clogged and part of the problem. Decontaminate, dry, and carefully pack the product to be repaired. Please enclose a brief description of the problem and proof of purchase. Prepay all shipping and insurance cost. COD shipments will not be accepted. Damage caused by improper packaging is the responsibility of the sender. When In-Warranty repair is completed, the factory pays for return shipping to the dealer or customer.

PRODUCT USE WARNING

Blue-White products are manufactured to meet the highest quality standards in the industry. Each product instruction manual includes a description of the associated product warranty and provides the user with important safety information. Purchasers, installers, and operators of Blue-White products should take the time to inform themselves about the safe operation of these products. In addition, Customers are expected to do their own due diligence regarding which products and materials are best suited for their intended applications. BLUE-WHITE is pleased to assist in this effort but does not guarantee the suitability of any particular product for any specific application as Blue-White does not have the same degree of familiarity with the application that the customer/end user has. While BLUE-WHITE will honor all of its product warranties according to their terms and conditions, Blue-White shall only be obligated to repair or replace its defective parts or products in accordance with the associated product warranties.

BLUE-WHITE SHALL NOT BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE WHETHER DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL, ARISING OUT OF OR RELATED TO THE FAILURE OF ANY OF ITS PARTS OR PRODUCTS OR OF THEIR UNSUITABILITY FOR A GIVEN PURPOSE OR APPLICATION.

CHEMICAL RESISTANCE WARNING

BLUE-WHITE offers a wide variety of wetted parts. Purchasers, installers, and operators of Blue-White products must be well informed and aware of the precautions to be taken when injecting or measuring various chemicals, especially those considered to be irritants, contaminants or hazardous. Customers are expected to do their own due diligence regarding which products and materials are best suited for their applications, particularly as it may relate to the potential effects of certain chemicals on Blue-White products and the potential for adverse chemical interactions. Blue-White tests its products with water only. The chemical resistance information included in this instruction manual was supplied to BLUE-WHITE by reputable sources, but Blue-White is not able to vouch for the accuracy or completeness thereof. While BLUE-WHITE will honor all of its product warranties according to their terms and conditions, Blue-White shall only be obligated to repair or replace its defective parts or products in accordance with the associated product warranties.

BLUE-WHITE SHALL NOT BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE, WHETHER DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL, ARISING OUT OF OR RELATED TO THE USE OF CHEMICALS IN CONNECTION WITH ANY BLUE-WHITE PRODUCTS.

Users of electrical and electronic equipment (EEE) with the WEEE marking per Annex IV of the WEEE Directive must not dispose of end of life EEE as unsorted municipal waste, but use the collection framework available to them for the return, recycle, recovery of WEEE and minimize any potential effects of EEE on the environment and human health due to the presence of hazardous substances. The WEEE marking applies only to countries within the European Union (EU) and Norway. Appliances are labeled in accordance with European Directive 2002/96/EC. Contact your local waste recovery agency for a Designated Collection Facility in your area.



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