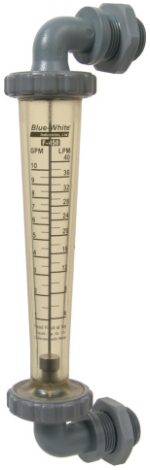


# Technical Data Sheet F-450N Series Flowmeter & Solarmeter®



**F-45750LHNE-12**  
Panel Mount



**F-45750LEA-12**  
Adjustable Panel Mount



**F-457500LHBN-8**  
IN-LINE  
Solarmeter®



**F-45750LHN-12**  
In-Line

**F-450N Features:**

- Tough Polysulfone meter body resists high temperatures and pressures.
- 4" approximate scale length for easy reading.
- Direct reading permanent scale.
- In-line or Panel mount configurations available.
- SolarMeters® available with brass connections.
- Optional integral flow adjustment valve.
- Standard models #316 stainless steel guide rods. (Optional K-series Hastelloy C-276).
- Standard models #316 stainless steel or Teflon float. (Optional K-series Hastelloy C-276 or Teflon).
- Not recommended for direct sunlight.
- Available OEM options:  
Private labeling, custom calibrations, custom materials.

**F-450N Specifications:**

Max. Working Pressure: ... 150 psig (10.3 bar) @ 70° F (21° C)  
 Max. Fluid Temperature: ... 212° F (100° C) @ 0 PSI  
 Models with PVC Float: . 130° F (54° C) @ 0 PSI  
 SolarMeters® :..... 240° F (115° C) @ 0 PSI  
 Full scale accuracy: ..... +/- 5%  
 Meter body material: ..... Polysulfone  
 Adapter material:..... Polysulfone  
 SolarMeters® :..... Brass  
 O-ring seals: ..... Viton  
 Max. pressure drop: ..... 2 psi  
 Approximate shipping wt.. ½ lb. (.23 kg)

**Standard models for liquid**

Pipe Size	Dual Scale Range		Float Material	IN-LINE MOUNT	PANEL MOUNT	PANEL MOUNT
	GPM	LPM		MODEL NUMBER	MODEL NUMBER	ADJUSTABLE MODEL NUMBER
3/8" F/NPT	.1 to 1	.4 to 4	Teflon	F-45375LHN-6	F-45375LHNE-6	F-45375LEA-6
1/2" M/NPT	.1 to 1	.4 to 4	Teflon	F-45375LHN-8	F-45375LHNE-8	F-45375LEA-8
3/8" F/NPT	.2 to 2	1 to 7.5	316 SS	F-45376LHN-6	F-45376LHNE-6	F-45376LEA-6
1/2" M/NPT	.2 to 2	1 to 7.5	316 SS	F-45376LHN-8	F-45376LHNE-8	F-45376LEA-8
3/8" F/NPT	.5 to 5	2 to 20	316 SS	F-45500LHN-6	F-45500LHNE-6	F-45500LEA-6
1/2" M/NPT	.5 to 5	2 to 20	316 SS	F-45500LHN-8	F-45500LHNE-8	F-45500LEA-8
3/4" M/NPT	.5 to 5	2 to 20	316 SS	F-45500LHN-12	F-45500LHNE-12	F-45500LEA-12
3/4" M/NPT	1 to 10	4 to 40	316 SS	F-45750LHN-12	F-45750LHNE-12	F-45750LEA-12

**Standard models for Air**

Pipe Size	Dual Scale Range		Float Material	IN-LINE MOUNT	PANEL MOUNT	PANEL MOUNT
	SCFM	M³HR		MODEL NUMBER	MODEL NUMBER	ADJUSTABLE MODEL NUMBER
3/8" F/NPT	1 to 12	2 to 20	316 SS	F-45376GHN-6	F-45376GHNE-6	F-45376GEA-6
1/2" M/NPT	1 to 12	2 to 20	316 SS	F-45376GHN-8	F-45376GHNE-8	F-45376GEA-8
3/4" M/NPT	4 to 48	8 to 80	316 SS	F-45750GHN-12	F-45750GHNE-12	F-45750GEA-12

**K-Series - Specially Equipped models for liquid**

K-Series models are specially equipped for highly corrosive applications.

Pipe Size	Dual Scale Range		Float Material	IN-LINE MOUNT	PANEL MOUNT	PANEL MOUNT
	GPM	LPM		MODEL NUMBER	MODEL NUMBER	ADJUSTABLE MODEL NUMBER
3/8" F/NPT	.1 to 1	.4 to 4	Teflon	F-45375LHKN-6	F-45375LHKNE-6	F-45375LKEA-6
1/2" M/NPT	.1 to 1	.4 to 4	Teflon	F-45375LHKN-8	F-45375LHKNE-8	F-45375LKEA-8
3/8" F/NPT	.2 to 2	1 to 7.5	Hastelloy	F-45376LHKN-6	F-45376LHKNE-6	F-45376LKEA-6
1/2" M/NPT	.2 to 2	1 to 7.5	Hastelloy	F-45376LHKN-8	F-45376LHKNE-8	F-45376LKEA-8
3/8" F/NPT	.5 to 5	2 to 20	Hastelloy	F-45500LHKN-6	F-45500LHKNE-6	F-45500LKEA-6
1/2" M/NPT	.5 to 5	2 to 20	Hastelloy	F-45500LHKN-8	F-45500LHKNE-8	F-45500LKEA-8
3/4" M/NPT	.5 to 5	2 to 20	Hastelloy	F-45500LHKN-12	F-45500LHKNE-12	F-45500LKEA-12
3/4" M/NPT	1 to 10	4 to 40	Hastelloy	F-45750LHKN-12	F-45750LHKNE-12	F-45750LKEA-12

**Solarmeters® for liquid with Brass Adapters**

Pipe Size	Dual Scale Range		Float Material	IN-LINE MOUNT	IN-LINE MOUNT
	GPM	LPM		MALE NPT MODELS	SWEAT MODELS
1/2"	.1 to 1	.4 to 4	Teflon	F-45375LHBN-9	F-45375LHBN-8
1/2"	.2 to 2	1 to 7.5	316 SS	F-45376LHBN-9	F-45376LHBN-8
1/2"	.5 to 5	2 to 20	316 SS	F-45500LHBN-9	F-45500LHBN-8
3/4"	.5 to 5	2 to 20	316 SS	F-45500LHBN-13	F-45500LHBN-12
3/4"	1 to 10	4 to 40	316 SS	F-45750LHBN-13	F-45750LHBN-12

## Installation Guideline

**Caution:** Follow these instructions to avoid failure.

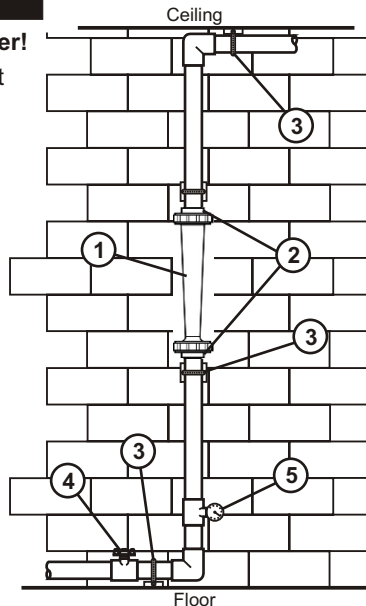
**Danger:** Wear eye protection when installing or removing flowmeter.

### 1. Misalignment will damage the meter!

Flowmeter must be installed in an exact vertical plane to ensure accuracy. Be certain of proper plumbing alignments. Misalignment may cause the o-ring seals to leak. 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 Teflon® 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 flowmeter to a glued pipe configuration, install the flowmeter *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. Vibration and heavy loads will damage the meter!

Wall, floor and ceiling mounts and supports must be carefully aligned with the meter body and sturdy enough to support the plumbing and prevent vibration. Never allow the flowmeter to support the weight of related piping.

### 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.

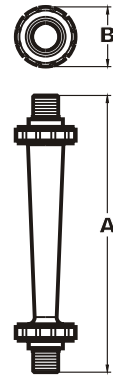
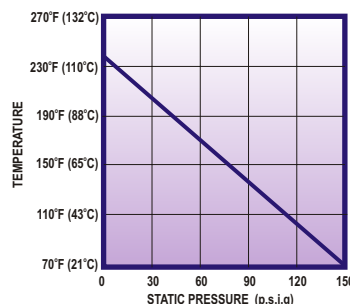
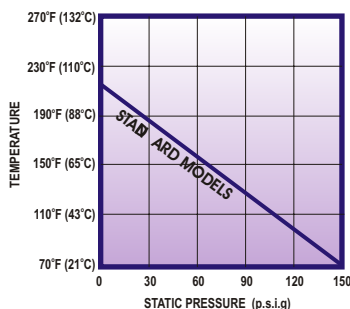
### 5. High pressures and temperatures will damage the meter!

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

## Maximum Temperature vs. Pressure

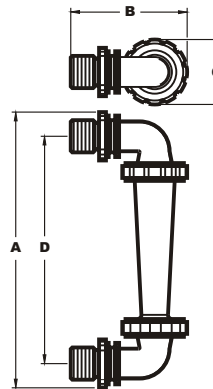
### F-450N Standard Meters

### F-450N SolarMeters®



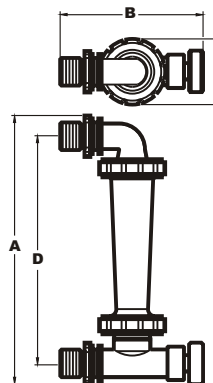
### Dimensions Inline Models

MODEL	A	B
F-45375***-6	8-3/8"	2"
F-45375***-8	8-7/8"	2"
F-45376***-6	8-3/8"	2"
F-45376***-8	8-7/8"	2"
F-45500***-6	8-3/8"	2"
F-45500***-8	8-7/8"	2"
F-45500***-12	8-7/8"	2"
F-45750***-12	10"	2"



### Dimensions Panel Mount Models

MODEL	A	B	C	D
F-45375	9-7/8"	3-1/8"	2"	8-9/16"
F-45376	9-7/8"	3-1/8"	2"	8-9/16"
F-45500	9-7/8"	3-1/8"	2"	8-9/16"
F-45750	10-1/2"	3-1/4"	2"	9-3/16"



### Dimensions Adjustable Models

MODEL	A	B	C	D
F-45375	9-7/8"	4"	2"	8-9/16"
F-45376	9-7/8"	4"	2"	8-9/16"
F-45500	9-7/8"	4"	2"	8-9/16"
F-45750	10-1/2"	4-1/2"	2"	9-3/16"

## F-450N Series Parts

Part Number	Description
F-45011N	3/8" F/NPT In-line Adapter, Polysulfone
F-4441K	3/8" M/NPT 90° Panel mount Elbow, Polysulfone
F-45013N	1/2" M/NPT In-line Adapter, Polysulfone
F-4442K	1/2" M/NPT 90° Panel mount Elbow, Polysulfone
F-45048N	1/2" M/NPT In-line Adapter, Brass
F-45008N	1/2" SWEAT In-line Adapter, Brass
F-4409	3/4" M/NPT In-line Adapter, Polysulfone
F-4421K	3/4" M/NPT 90° Panel mount Elbow, Polysulfone
F-4425	3/4" M/NPT In-line Adapter, Brass
F-4423	3/4" SWEAT In-line Adapter, Brass
F-4406P	Half Union, Polysulfone
F-4406AL	Half Union, Aluminum
F-4427A	3/8" and 1/2" Panel mount Lock Nut, Polysulfone
F-4428A	3/4" Panel mount Lock Nut, Polysulfone
F-45005	F-45375, F-45376, F-45500 Guide Rod, 316 SS
F-45021	F-45750 Guide Rod, 316 SS
F-45005H	F-45375, F-45376, F-45500 Guide Rod, Hastelloy
F-45021H	F-45750 Guide Rod, Hastelloy
F-4410V	3/8" and 1/2" O-ring seal, Viton
F-4411V	3/4" O-ring seal, Viton
F-45007	3/8" and 1/2" Guide rod holder, Polysulfone
F-45019	3/4" Guide rod holder, Polysulfone