Blue-White®

Industries, Ltd.

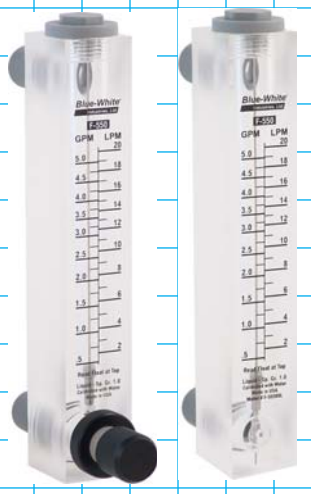
Variable Area Flow Meters

Engineering and Technical Data

F-550

Panel Mount

Needle Valve Adjustment



Features:

- **Durable, highly polished, one piece meter body.**
- **Bulkhead nuts attach directly to inside panel.**
- **Direct reading permanent scale.**
- **White back reflector for easy reading.**
- **Optional flow control needle-type adjustment valve.**
- **316 stainless, PTFE or Hastelloy floats and float guides.**
- **Acceptable in direct sunlight applications.**

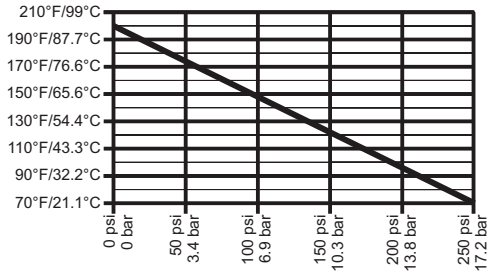
Materials of Construction:

Meter Body: .....Acrylic
Adapters/valve: .....Polypropylene
Bulkhead Nuts (non wet):.....Polypropylene
Guide Rod Holder: .....Polysulfone
O-ring seals: .....Viton® (optional EP)
Float: .....316SS, Hastelloy or PTFE (per model)
Guide Rod:
Standard Series 316SS

Specifcations:

Max. working pressure:.....250 PSI (17.2 bar) @ 70°F (21°C)
Max. fluid temperature:.....200°F (93°C) @ 0 PSI
Full scale accuracy:.....+/- 5%
Calibration fluid:.....Water, specific gravity 1.0
Scale length:.....4" (100mm) approx.
Environment:.....Acceptable for direct sunlight exposure.
Approximate shipping wt: ...2 lb. (.91 kg)

Maximum Temperature vs. Pressure



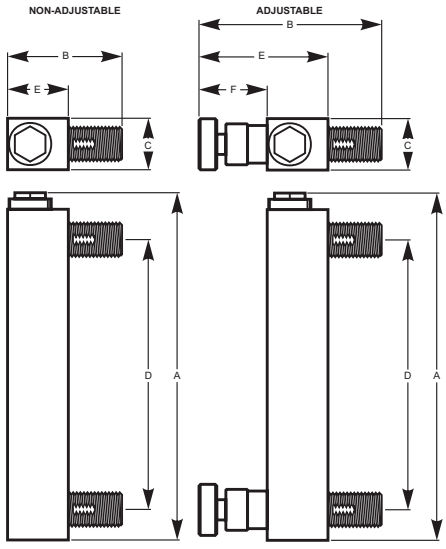
Dimensions:

NON-ADJUSTABLE models

Model #	A	B	C	D	E	Mount Hole
F-55250L (1/4")	7-1/4"	2-1/2"	1-1/16"	5-5/8"	1-1/4"	9/16"
F-55375L (3/8")	8-3/8"	2-3/4"	1-11/32"	6-1/2"	1-1/2"	11/16"
F-55376L (3/8")	8-3/8"	2-3/4"	1-11/32"	6-1/2"	1-1/2"	11/16"
F-55500L (1/2")	8-3/8"	2-3/4"	1-11/32"	6-1/2"	1-1/2"	7/8"
F-55750L (3/4")	9"	3-3/4"	1-1/2"	6-1/2"	1-3/4"	1-1/16"
F-55005L (1")	10-5/8"	4"	1-3/4"	8"	2"	1-21/64"
F-55010L (1")	10-5/8"	4"	1-3/4"	8"	2"	1-21/64"
F-55015L (1")	10-5/8"	4"	1-3/4"	8"	2"	1-21/64"
F-55200L (1")	10-5/8"	4"	1-3/4"	8"	2"	1-21/64"

Models with ADJUSTABLE VALVE

Model #	A	B	C	D	E	F	Mount Hole
F-55250LA (1/4")	7-1/4"	3-7/16"	1"	5-5/8"	2-7/16"	1-11/32"	9/16"
F-55375LA (3/8")	8-3/8"	4-1/2"	1-11/32"	6-1/2"	3-1/4"	1-3/4"	11/16"
F-55376LA (3/8")	8-3/8"	4-1/2"	1-11/32"	6-1/2"	3-1/4"	1-3/4"	11/16"
F-55500LA (1/2")	8-3/8"	4-1/2"	1-11/32"	6-1/2"	3-1/4"	1-3/4"	7/8"
F-55750LA (3/4")	9"	5-1/2"	1-1/2"	6-1/2"	3-1/4"	15/16"	1-1/16"
F-55010LA (1")	10-5/8"	5-1/4"	1-3/4"	8"	3-1/2"	17/16"	1-21/64"
F-55015LA (1")	10-5/8"	5-1/4"	1-3/4"	8"	3-1/2"	17/16"	1-21/64"
F-55200LA (1")	10-5/8"	5-1/4"	1-3/4"	8"	3-1/2"	17/16"	1-21/64"



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Variable Area Flow Meters

Installation Requirements:

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 PTFE® tape on the threaded adapters. The meter body and plastic 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!

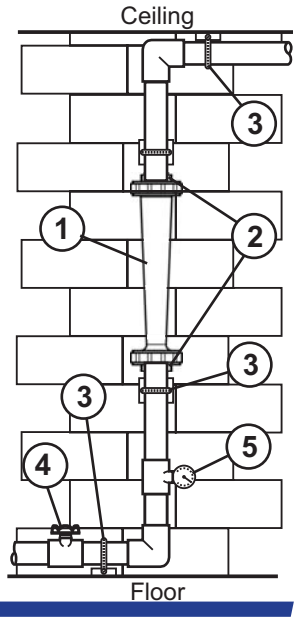
Wall, floor and ceiling mounts and supports must be carefully aligned with the meter body and sturdy enough to support the plumbing and prevent vibration. Never allow the flowmeter to support the weight of related piping.

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).



Flow Range and Model Options:

Standard Series - *Equipped with 316 SS guide rod*

Pipe M/NPT	Dual Scale Range GPM	LPM	Material	NON-ADJUSTABLE MODEL NUMBER	WITH ADJUSTABLE VALVE MODEL NUMBER
1/4”	.025 to .250	0.1 to 1.0	316 SS	F-55250L	F-55250LA
3/8”	0.1 to 1.0	0.4 to 4.0	316 SS	F-55375L	F-55375LA
3/8”	0.2 to 2.0	0.75 to 7.5	316 SS	F-55376L	F-55376LA
1/2”	0.5 to 5.0	2.0 to 20.0	316 SS	F-55500L	F-55500LA
3/4”	1.0 to 10.0	4.0 to 40.0	316 SS	F-55750L	F-55750LA
1”	1.0 to 5.0	3.0 to 18.0	PTFE	F-55005L	not available
1”	1.0 to 10.0	4.0 to 40.0	316 SS	F-55010L	F-55010LA
1”	1.0 to 15.0	5.0 to 60.0	316 SS	F-55015L	F-55015LA
1”	2.0 to 20.0	7.5 to 75.0	316 SS	F-55200L	F-55200LA

K-Series - *Equipped with Hastelloy guide rod*

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

Material	NON-ADJUSTABLE MODEL NUMBER	WITH ADJUSTABLE VALVE MODEL NUMBER
Hastelloy	F-55250LK	F-55250LKA
Hastelloy	F-55375LK	F-55375LKA
Hastelloy	F-55376LK	F-55376LKA
Hastelloy	F-55500LK	F-55500LKA
Hastelloy	F-55750LK	F-55750LKA
PTFE	F-55005LK	not available
Hastelloy	F-55010LK	F-55010LKA
Hastelloy	F-55015LK	F-55015LKA
Hastelloy	F-55200LK	F-55200LKA

Note: Meters calibrated with water, Sp.Gr. 1.0. Custom Sp.Gr. calibrations available. Contact the factory.

Blue-White® Industries, Ltd.
5300 Business Drive, Huntington Beach, CA 92649
Tel: 714-893-8529 **Fax:** 714-894-9492
www.blue-white.com **Email:** sales@blue-white.com

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Technical data sheet #85000-113 rev.05152017