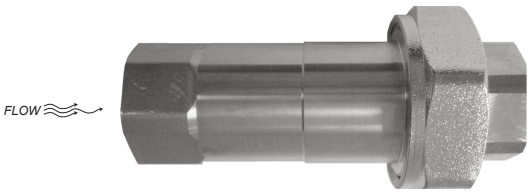
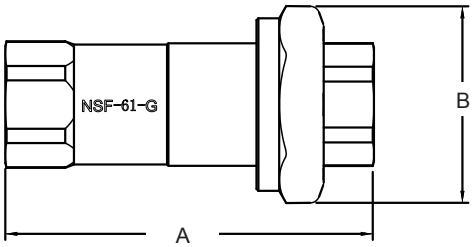
ICSS

Data Submittal Sheet
Inline Automatic Flow Controller

Form No.: F326.1 7.14
Supersedes: F326.0 11.12





Model ICSS shown standard FPT x Union FPT

Product Information

Body: Series 300 Stainless Steel
Union Nut: Nickel Plated Brass
Flow Cartridge: Series 300 Stainless Steel Wear Surfaces
Accuracy: Flow Rate ±5% over 95 % of the Control Range

Model ICSS is a compact inline automatic flow controller that is factory set to automatically limit the flow to within ±5% over 95% of the control range. The flow cartridge is removable from the valve body to provide ease of access for changeout, inspection and cleaning.

Certified to NSF/ANSI 61-G

The Model ICSS is the first automatic control valve that is NSF/ANSI 61-G Certified by NSF and is designed specifically for drinking water applications.

Dimensions not to be used for construction unless prints certified by factory.

Dimensions				Max. Flow gpm (lps)		Weights
				Control Range psi (kpa)		
Model	Size in./(*mm*)	A in./(*mm*)	B in./(*mm*)	2-32 Low (14-220)	5-60 High (35-414)	lb. (kg)
ICSS050FF	1/2 (15)	3.8 (97)	1.6 (39)	3.0 (0.2)	5.0 (0.3)	0.6 (0.3)
ICSS075FF	3/4 (20)	3.8 (97)	2.1 (52)	8.0 (0.5)	12.0 (0.8)	0.9 (0.4)

Notes
Weights based on FPT x Union FPT.
All weight and dimensions are subject to minor changes.
Model ICSS meets BAA requirements.

Connections

Model	Size	Fixed Connections (Inlet)	Union Connections (Outlet)
ICSS050FF	1/2	1/2F	1/2F
ICSS075FF	3/4	3/4F	3/4F

F = female NPT

Flow Rates

Size	PSID Range	Flow Rate (gpm)
1/2”	2 - 32L	0.3, 0.5, 0.7, 0.9, 1.0, 1.1, 1.2, 1.5, 1.8, 2.0, 2.2, 3.0
	5 - 60H	1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0
3/4”	2 - 32L	0.3, 0.5, 0.7, 0.9, 1.0, 1.1, 1.2, 1.5, 1.8, 2.0, 2.2, 3.0 3.5, 4.0, 4.5, 5.0, 6.0, 7.0, 8.0
	5 - 60H	1.0, 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0

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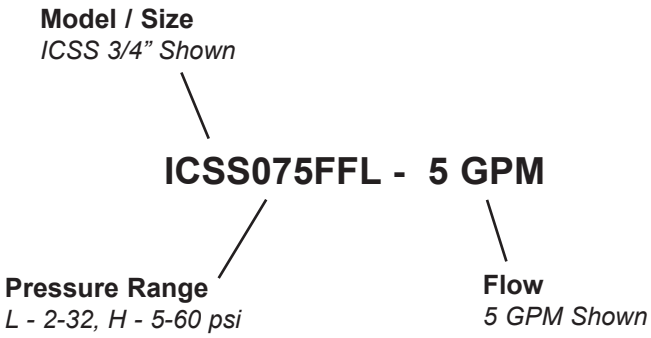
A division of IMI Indoor Climate

FDI
FLOW DESIGN INC

ICSS

Inline Automatic Flow Controller

Model Designation



Installation

Straight Run Requirements

Model ICSS requires no straight runout downstream of the valve. Upstream, the only requirement is that there be 5 diameters after an increase in pipe size: for instance if a ¾" ICSS is installed on a ½" line, there should be a transition up to ¾" followed by 2 ½" of pipe entering the ICSS. There is no requirement for upstream straight runs after an elbow, tee, or line size control valve.

Orientation

These valves can be installed and will work properly in any orientation provided that the pipe is full of water. An arrow on the body indicates the regulated flow direction. Water flowing in the opposite direction will not be regulated.

Heat

Model ICSS has an o-ring on the union and around the cartridge. These are made of EPDM and are well suitable for hot water service. They need to be protected, though, from the temperatures produced by brazing, soldering, or welding equipment.

Operation

Pressure Range

The parameter listed as Y below indicates the range of differential pressures over which this particular device will control the flow rate. The first number indicates the pressure at which regulation begins, and the second indicates the pressure at which regulation ends.

Y	Starting Pressure	Ending Pressure
L	2 PSID	32 PSID
H	5 PSID	60 PSID

Outside the control range, the device acts as a fixed orifice at the nearest regulated pressure. When the pressure is between the starting and ending pressure, the flow will be within ±5% of the specified value.

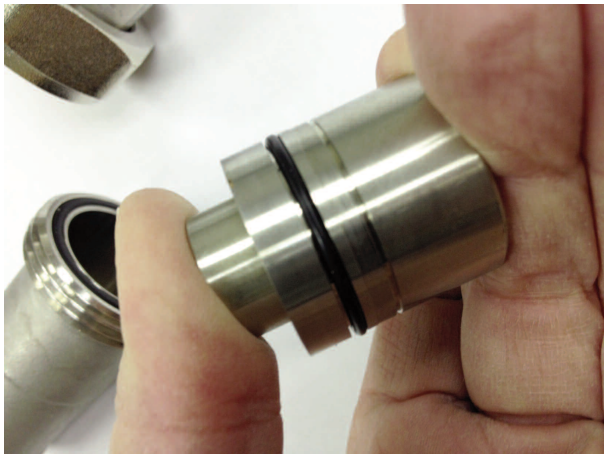
Maintenance

The regulating cartridge can be removed by (1) first unscrewing the union nut, (2) then removing the tailpiece. Once these are removed, (3) the cartridge can be pulled out. It should be possible to (4) push the piston into the cartridge, (5) and it should spring back out to its original position. Any debris should be removed by flushing with clean water and exercising the cartridge. To re-install the cartridge, it is recommended that the o-ring be wet with water only to avoid possible system contamination. The cartridge inserts into the body piston end first, and it should be pushed in at least until it is flush with the body (an internal stop prevents it from going too far)

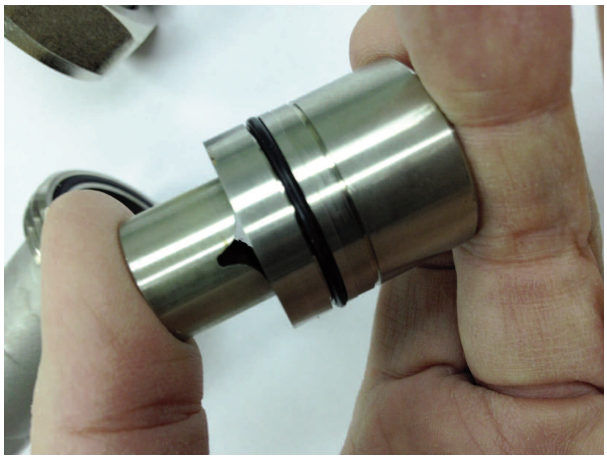
Step 1

Step 2

Step 3



Step 4



Step 5

NSF/ANSI 61-G Certification

NSF International
Ann Arbor, MI • Brussels, Belgium

September 20, 2012

Mr. Mike Trantham
Flow Design Inc.
8908 Governors Row
Dallas, TX 75247

Dear Mr. Trantham:

NSF International is an independent organization that writes standards, tests and certifies products for the food, water and consumer goods industries to minimize adverse health effects and protect the environment (nsf.org). Founded in 1944, NSF is committed to protecting human health and safety worldwide. NSF is a World Health Organization Collaborating Centre for Food and Water Safety and Indoor Environment.

NSF International's Water Programs require extensive product testing and unannounced audits of production facilities to verify that water treatment products meet the design, material and performance requirements. NSF also developed the American national public health standards for materials/products coming into contact with drinking water and chemicals used to treat drinking water.

NSF/ANSI 61 was developed to establish minimum requirements for the control of adverse human health effects from chemicals and impurities that leach from products, components and materials in contact with drinking water. NSF requires annual monitor testing of products certified under NSF/ANSI 61 in order to maintain certification along with an unannounced audit of the production facility.

NSF developed the evaluation procedures in NSF/ANSI Standard 372 (NSF 372) to establish an American National Standard to determine product compliance with the ≤0.25% percent maximum weighted average lead content requirement. NSF/ANSI Standard 61, Annex G (NSF 61-G) references NSF 372. Certification to NSF 61-G or NSF 372 meets the requirements of the California Health and Safety Code (Section 116875; commonly known as AB1953) as well as for other states developing similar regulations. This also meets the new low lead requirements of the U.S. Safe Drinking Water Act, which go into effect in January 2014, but states like California and Vermont have already begun enforcing it. NSF also requires annual lead content monitoring testing in addition to an annual production site audit in order to maintain certification under NSF/ANSI 372.

Flow Design Inc has successfully gone through the NSF certification process for NSF/ANSI 61-G for the ICSS050FF and ICSS075FF Valves for Commercial Hot Water Contact. The Official Listing for the products can be located on the NSF website Listings page: www.nsf.org/Certified/PwsComponents/.

If you have any questions regarding NSF and its certification programs, please contact me directly at 734-913-5773.