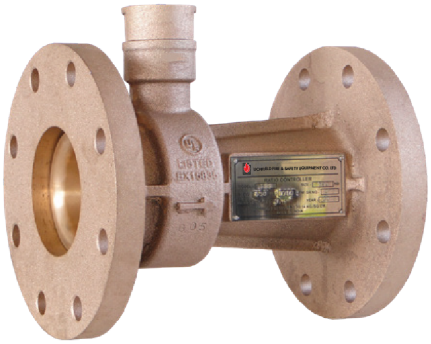
Technical Features

MODEL	Stainless Steel Construction: LF-WSRCX, LF-WSRC, LF-FSRCX, LF-FSRC Bronze Construction: LF-WBRCX, LF-WBRC LF-FBRCX, LF-FBRC
SIZE	65, 80,100,150 & 200 NB
MAXIMUM SERVICE PRESSURE	14 kg/cm2 (200 psi); 12.3 kg/cm2 (175 psi) for UL
FACTORY HYDRO-STATIC TEST PRESSURE	24.6 kg/cm2 (350 psi)
MOUNTING	Between the flanges ANSI B16.5 - 150#
APPROVAL	UL Listed
FINISH	Red RAL 3001 or Natural Finish
ORDERING INFORMATION	Specify a) Model & Size b) Minimum and Maximum Pressure and flow rate c) Induction Percentage



Description

Ratio Controller is used for proportioning foam concentrate into the water supply with a wide range of flow and pressure. The Ratio Controller is also used with Bladder Tank Proportioning System, Inline Balance Proportioning System and Skid Mounted Pump Balance Proportioning System.

Specification

The Ratio Controller works on venturi principle. As the water flow passes through nozzle at the inlet of ratio controller, a low-pressure area is created between inlet nozzle and the down stream section called diffuser. This low-pressure area causes the foam concentrate to flow through a metering orifice at the concentrate inlet and into the low-pressure area. As the system demand varies, the water jet through Ratio Controller increases or decreases, which in turn varies the pressure at the low-pressure area of the Ratio Controller. This affects the corresponding pressure across the foam concentrate-metering orifice. The system requires same pressure of water and concentrate in order to balance the proportioning system.

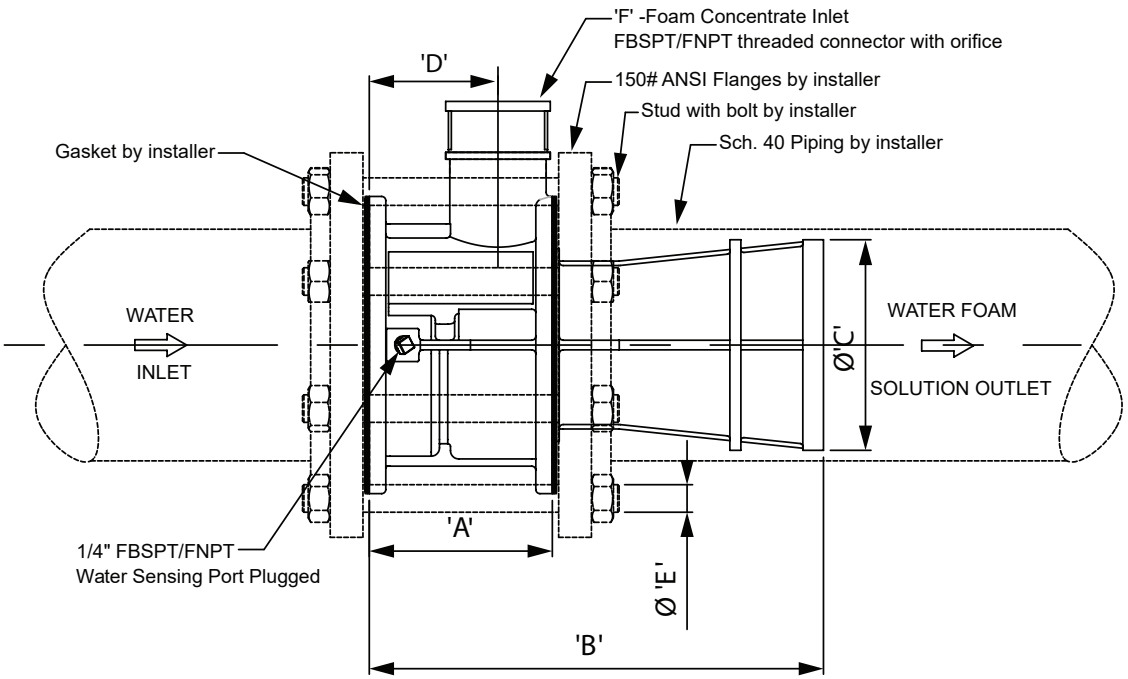
Installation

Ratio Controller Model LF-WSRCX is wafer style to be mounted in SCH40 pipe between two flanges while Model LF-FSRCX has flanged end connection. Flow direction arrow is marked on the Ratio Controller.

Note

1) A minimum of five pipe diameter of straight unobstructed pipe is required at upstream and downstream of each ratio controller.
2) Ratio Controller shall be installed between two ANSI 150# flanges with raised face or flat face. Gaskets, studs & flanges shall be provided by the installer.
3) Provision shall be made in piping for removal of Ratio Controller.
4) The pipes on upstream & downstream side of the Ratio Controller must be adequately supported and no strain shall be imposed on Ratio Controller.
5) Ratio Controller is UL Listed with LIFECO Bladder Tank, Refer to specific UL Listing data for more information.
6) Ratio Controller is UL Listed for 2.1 to 12 bar pressure.
7) For Flow data, when used with Inline Balance pressure proportioner, contact LIFECO Sales.

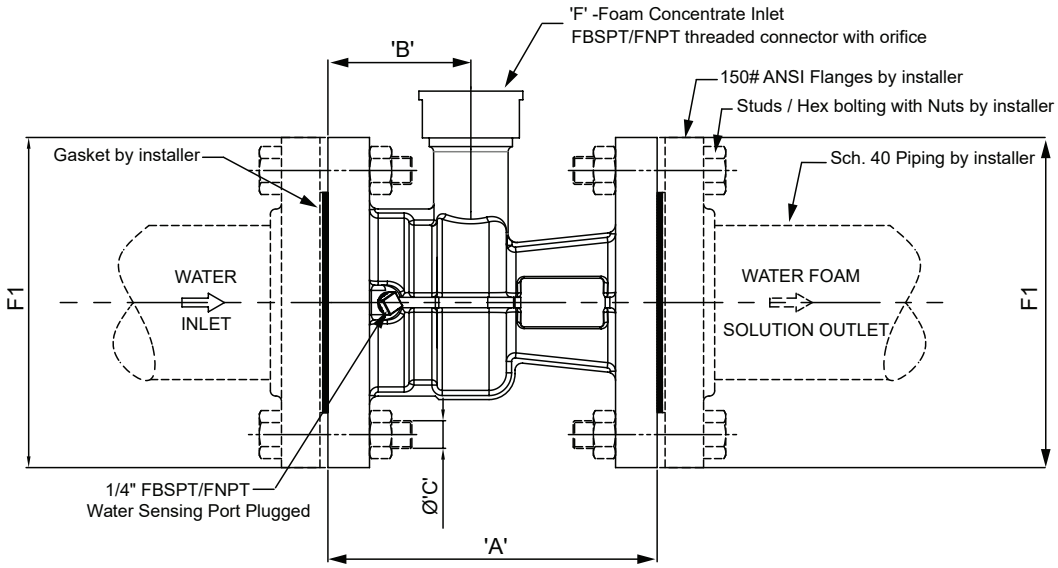
Ratio Controller (Wafer Style - LF-WSRCX Series)



DIMENSIONS

Size	Approximate Dimensions (in mm)					
	'A'	'B'	Ø 'C'	'D'	Ø 'E'	'F'
2½"	80	190	Ø61.7	55	M16 x 170 LONG	1" BSPT (F)/NPT (F)
3"	107.5	190	Ø76	82.5	M16 x 200 LONG	1½" BSPT (F)/NPT (F)
4"	126	266	Ø101	90	M16 x 220 LONG	1½" BSPT (F)/NPT (F)
6"	133	330	Ø152	93.5	M20 x 230 LONG	2" BSPT (F)/NPT (F)
8"	130	340	Ø200	80	M20 X 240 LONG	2" BSPT (F)/NPT (F)

Ratio Controller (Flange Style - LF-FSRCX Series)



Dimensions of Inlet / Outlet Flanges (F1) is as per ANSI B16.5 #150

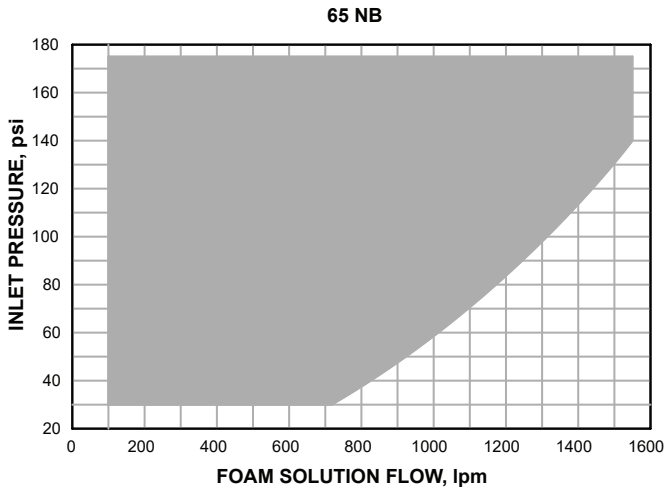
DIMENSIONS

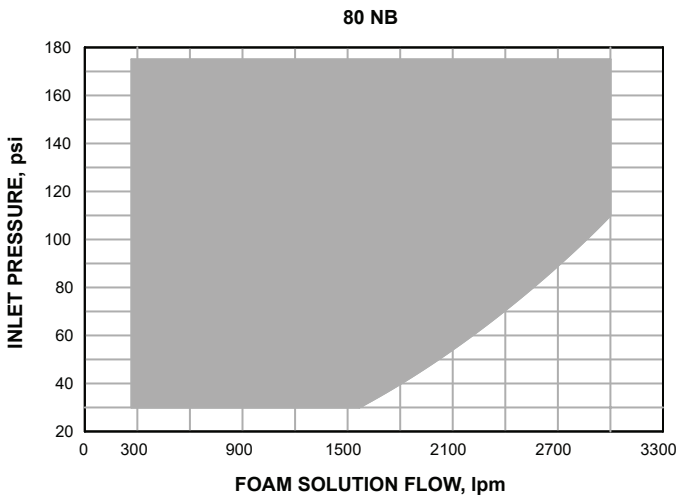
Size	Approximate Dimensions (in mm)			
	'A'	'B'	Ø 'C'	'F'
2½"	190	55	M16	1" BSPT (F)/NPT (F)
3"	190	82.5	M16	1½" BSPT (F)/NPT (F)
4"	266	90	M16	1½" BSPT (F)/NPT (F)
6"	330	93.5	M20	2" BSPT (F)/NPT (F)
8"	340	80	M20	2" BSPT (F)/NPT (F)

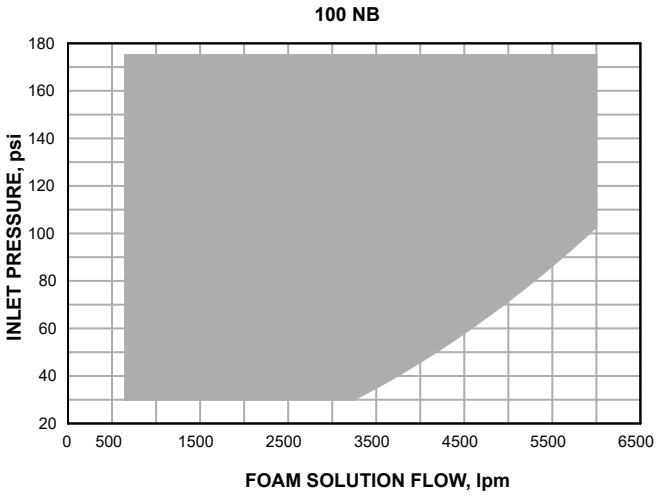
UL Listed Ratio Controller Flow Range (Lpm)

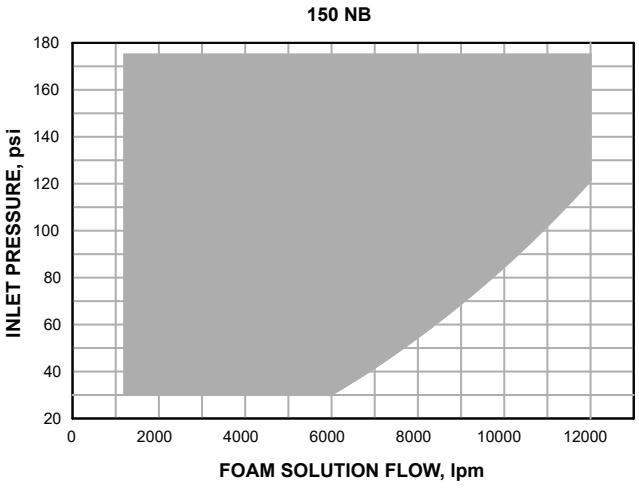
Size	Model		UL Listed	
	Wafer Style	Flange Style	AFFF 3%	AR-AFFF 3X3%
65 NB	LF-WBRCX, LF-WSRCX	LF-FBRCX, LF-FSRCX	100 TO 1550	421 TO 1460
	LF-WBRC, LF-WSRC	LF-FBRC, LF-FSRC	-----	160 TO 582
80 NB	LF-WBRCX, LF-WSRCX	LF-FBRCX, LF-FSRCX	260 TO 3000	787 TO 3060
	LF-WBRC, LF-WSRC	LF-FBRC, LF-FSRC	-----	-----
100 NB	LF-WBRCX, LF-WSRCX	LF-FBRCX, LF-FSRCX	650 TO 6000	1140 TO 6060
150 NB	LF-WBRCX, LF-WSRCX	LF-FBRCX, LF-FSRCX	1200 TO 12000	-----
	LF-WBRC, LF-WSRC	LF-FBRC, LF-FSRC	-----	2370 TO 12210
200 NB	LF-WBRCX, LF-WSRCX	LF-FBRCX, LF-FSRCX	2750 TO 17860	2320 TO 17500

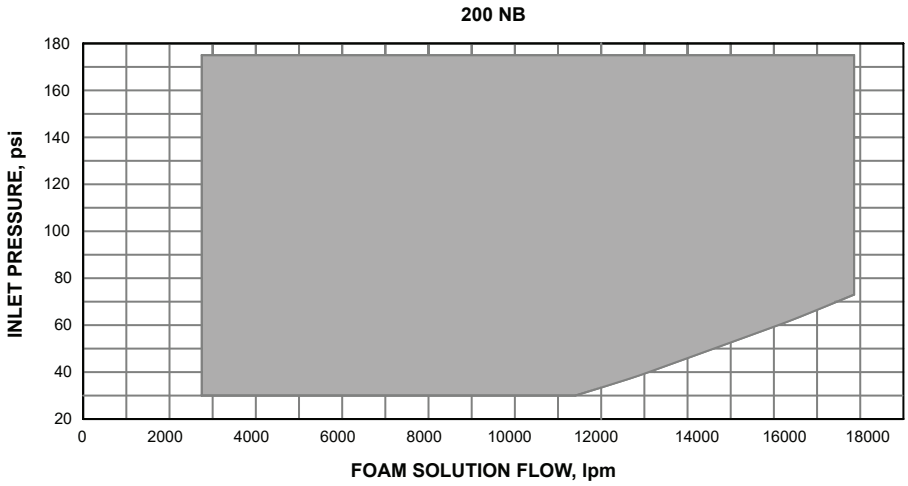
Inlet Pressure Vs Foam Solution Flow UL Listed, Model LF-WBRCX / LF-WSRCX / LF-FBRCX / LF-FSRCX (Foam Concentrate: Afff 3%)



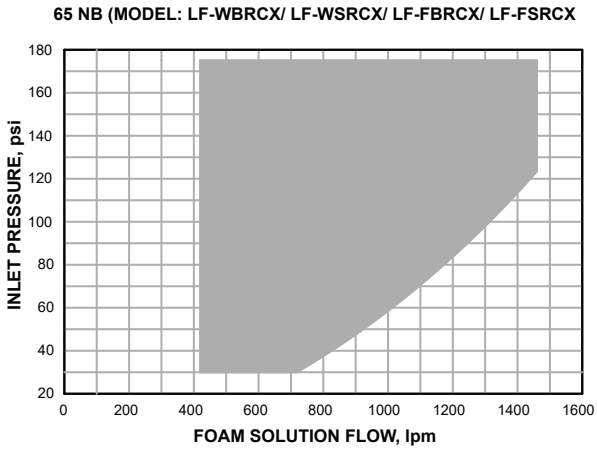


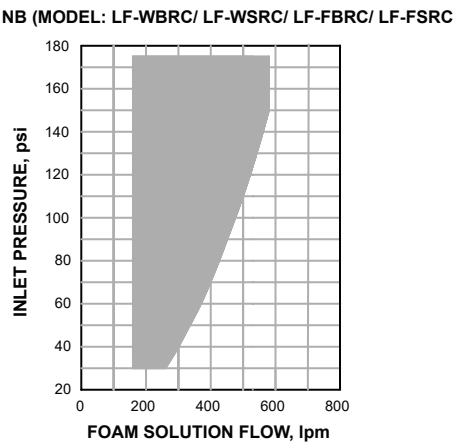




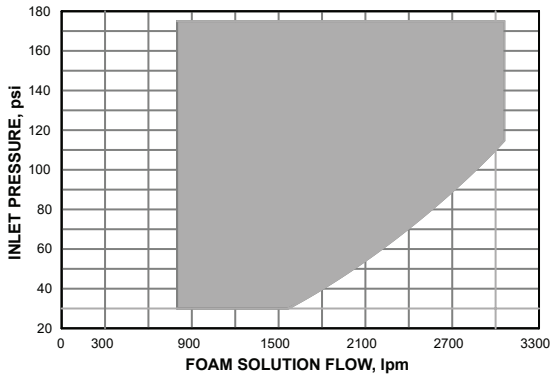


Inlet Pressure Vs Foam Solution Flow UL Listed (Foam Concentrate: Ar-Afff 3x3%)

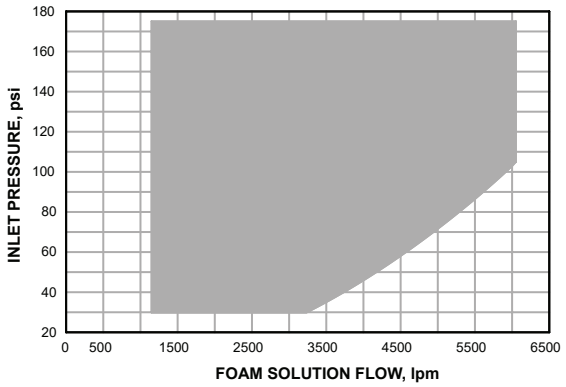




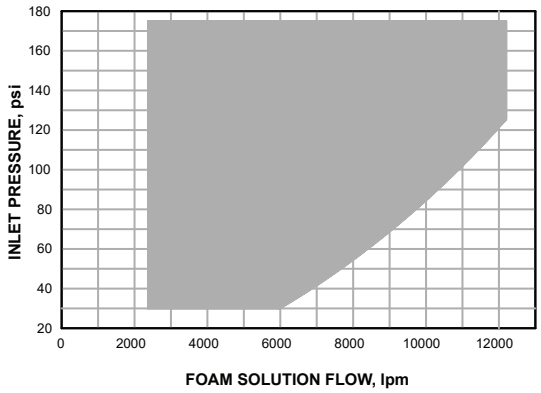
80 NB (MODEL: LF-WBRCX/ LF-WSRCX/ LF-FBRCX/ LF-FSRCX



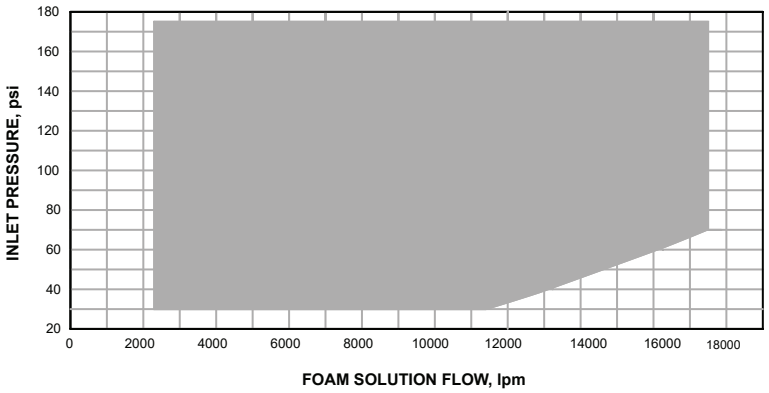
100 NB (MODEL: LF-WBRCX/ LF-WSRCX/ LF-FBRCX/ LF-FSRCX



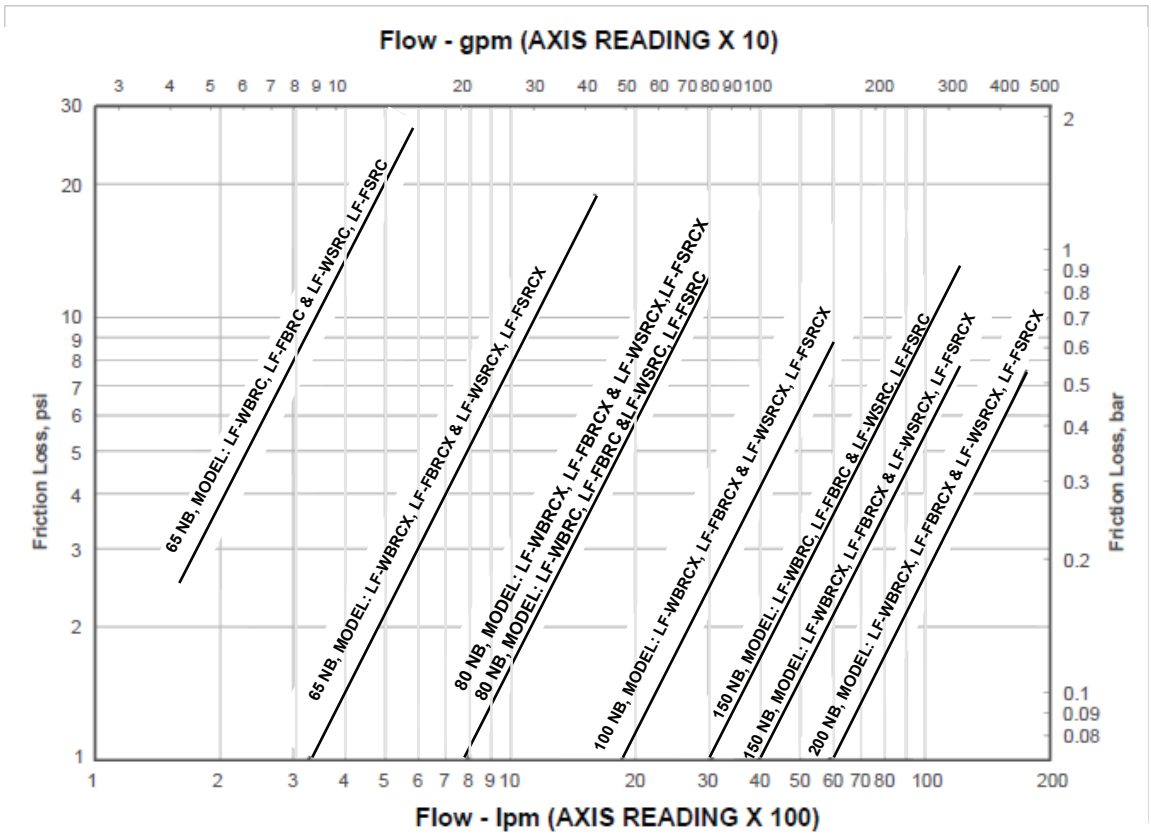
150 NB (MODEL: LF-WBRC/ LF-WSRC/ LF-FBRC/ LF-FSRC



200 NB (MODEL: LF-WBRCX/ LF-WSRCX/ LF-FBRCX/ LF-FSRCX



Flow Vs Pressure Loss



Note: Friction loss above 1 psi is plotted in the graph (flow range is as per given Table.