Ratio Controllers

Description

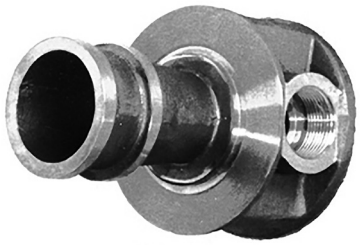
WILLIAMS FIRE & HAZARD CONTROL® (WILLIAMS) Ratio Controllers are modified venturi foam proportioners that accurately meter pressurized foam concentrate into the firefighting water stream. These foam proportioners operate in conjunction with balanced pressure systems, such as bladder tanks and pumped proportioning skids.

In operation, firefighting water flows through the modified venturi, creating an area of lower pressure referred to as the metering pressure drop. The metering pressure drop is directly related to the velocity of the water flowing through the venturi. The (1%, 3%, or 6%) concentrate-to-water ratio is maintained over the entire flow range for each size of ratio controller. However, each ratio controller has a minimum flow rate/velocity requirement which must be maintained for proper ratio controller operation. Available in three styles and various sizes.

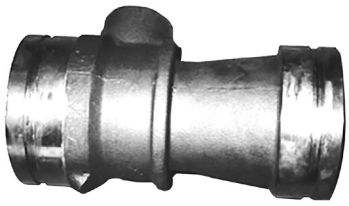
Features

- Delivers foam concentrate into firefighting water stream
- Manufactured from ASTM 85-5-5-5 bronze
- Consists of a body, metering orifice, and inlet nozzle
- Inlet nozzle and metering orifice secured by a stainless steel retaining ring
- Inlet nozzle tapered and machined to a smooth finish to maximize water stream efficiency
- Metering orifice sized to the exact type and percentage of foam concentrate used

THREADED STYLE, 2 IN. AND 2 1/2 IN.
010668



WAFER STYLE, 3 IN., 4 IN., 6 IN., AND 8 IN.
010669



GROOVED STYLE, 5 IN.
010670

Ordering Information

Contact WILLIAMS customer service at Johnson Controls with specific application requirements for custom configuration as well as additional information. When ordering, specify the foam concentrate type and proportioning rates (1%, 3%, or 6%).

Part No.	Description	Nominal Flow – AR-AFFF	Nominal Flow – AFFF	Concentrate Inlet
10947	2 in. ratio controller, threaded style	80 gpm to 200 gpm (303 Lpm to 757 Lpm)	40 gpm to 200 gpm (151 Lpm to 757 Lpm)	1 in. (M)NPT
10948	2 1/2 in. ratio controller, threaded style	160 gpm to 500 gpm (606 Lpm to 1,893 Lpm)	80 gpm to 500 gpm (303 Lpm to 1,893 Lpm)	1 in. (M)NPT
10949	3 in. ratio controller, wafer style	200 gpm to 700 gpm (757 Lpm to 2,650 Lpm)	100 gpm to 700 gpm (379 Lpm to 2,650 Lpm)	1 1/4 in. (F)NPT
10950	4 in. ratio controller, wafer style	300 gpm to 1,250 gpm (1,136 Lpm to 4,732 Lpm)	175 gpm to 1,250 gpm (662 Lpm to 4,732 Lpm)	1 1/2 in. (F)NPT
10952	6 in. ratio controller, wafer style	500 gpm to 2,500 gpm (1,893 Lpm to 9,464 Lpm)	350 gpm to 2,500 gpm (1,325 Lpm to 9,464 Lpm)	2 in. (F)NPT
10954	8 in. ratio controller, wafer style	950 gpm to 4,500 gpm (3,596 Lpm to 17,034 Lpm)	700 gpm to 4,500 gpm (2,650 Lpm to 17,034 Lpm)	2 1/2 in. (F)NPT
10951	5 in. ratio controller, grooved style	400 gpm to 1,800 gpm (1,514 Lpm to 6,814 Lpm)	200 gpm to 1,800 gpm (757 Lpm to 6,814 Lpm)	2 in. (F)NPT

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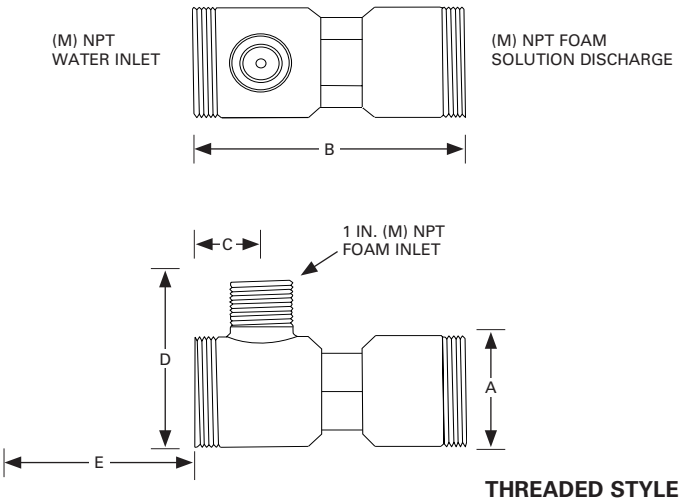
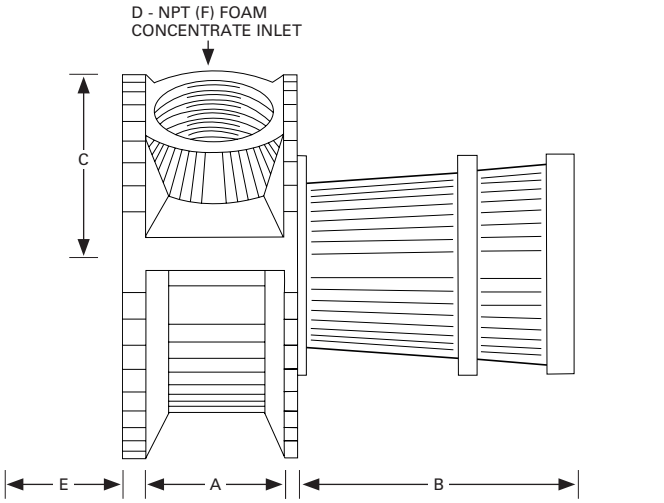
 | Form No. WM-2018140-00

Dimensional Information



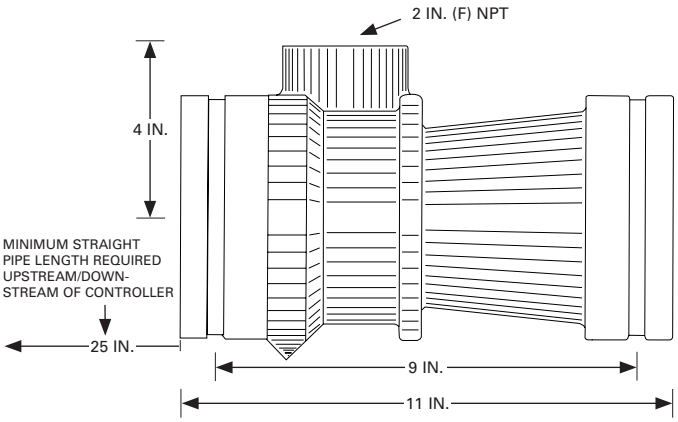
THREADED STYLE
010671



WAFER STYLE
010672

Dimension	Threaded Style				Wafer Style							
	2 in. Threaded Style		2 1/2 in. Threaded Style		3 in. Wafer Style		4 in. Wafer Style		6 in. Wafer Style		8 in. Wafer Style	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
A	2 3/8	(60.3)	2 3/8	(60.3)	2 3/8	(60.3)	2 1/2	(63.5)	3 1/4	(82.6)	3 1/2	(88.9)
B	7	(177.8)	7	(177.8)	6 1/16	(154.0)	8	(203.2)	12	(304.8)	12	(304.8)
C	2 1/16	(52.4)	2 1/16	(52.4)	2 5/8	(66.7)	3 1/8	(79.4)	4 1/8	(104.8)	5 1/4	(133.4)
D	3 3/4	(95.3)	4 1/8	(104.8)	1 1/4	(31.8)	1 1/2	(38.1)	2	(50.8)	2 1/2	(63.5)
E*	10	(254.0)	13	(330.2)	15	(381.0)	20	(508.0)	30	(762.0)	40	(1,016.0)

*Minimum straight pipe lengths required upstream/downstream of controller.



GROOVED STYLE
010673

Note: The converted metric values in this document are provided for dimensional reference only and do not reflect an actual measurement.