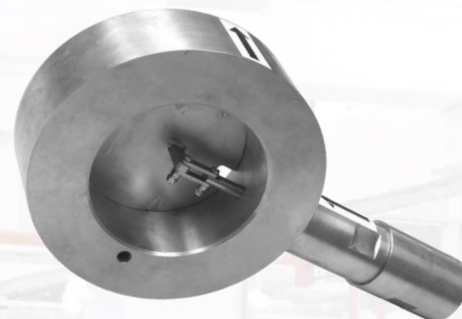


<b>Product name</b>	<b>FlowMax<sup>®</sup> CL Variable Range Proportioner</b>
<b>Description</b>	<b>Foam agent proportioner</b>
<b>Manufacturer</b>	<b>ANSUL</b>
<b>Revision</b>	<b>1.0/2024</b>



## 1. Features

- Designed to meet the proportioning requirements of NFPA 16
- Fast response
- Foam proportioning as low as 49 gpm (185 Lpm)
- Maximum/minimum flow rate ratio of 60:1
- Allows the use of lower cost bladder tank systems
- Less total system hardware required
- Less total system maintenance required
- Easy installation – can be pre-piped to bladder tank
- Minimal moving parts
- No electrical hook-up required
- Fits between two flanges without spool piece

## 2. Application

The FLOWMAX CL Variable Range Proportioner is both UL Listed and FM Approved for use with ANSULITE<sup>®</sup> 3x3 Low Viscosity AR-AFFF (A334-LV) and ANSULITE 3% AFFF (AFC-3B). In addition, it is also UL Listed for use with ANSULITE AFC-3MS 3% AFFF. The proportioner is designed to proportion and control the mixing of the foam concentrate into a water stream over a wide range of water flow rates and pressures.

The FLOWMAX CL proportioner is designed for use with bladder tank systems only. The proportioner can be located up to 35 equivalent ft (10.7 m) from the bladder tank outlet. The normal swing check, concentrate isolation, and hydraulic valve(s) do not have to be included in this equivalent length calculation. The FLOWMAX CL proportioner has a maximum working pressure of 250 psi (17.2 bar). Note: A minimum of 2 in. (50 mm) pipe size is required for water supply to tank and foam concentrate supply to proportioner.

FlowMax<sup>®</sup> CL allows dosing of foam agent in a flow range from 95 l/min to as much as 11356 l/min at a maximum operating pressure of 17.2 bar.

The proportioner was created specifically for sprinkler systems, which are characterized by a large difference in flow between the initial phase, when the operation of the system is initiated by the opening of a small number of sprinklers, and the final phase when, as the intensity of the fire increases, more sprinklers open, causing a much higher flow in the system.

### Examples of usage:

- Fire suppression system used in airplane hangars based on NFPA 409. The use of a single dispenser makes it possible to precisely dispense foam agent both
- in both the sprinkler system and the foam hydrant system, with them different flow rates in both systems.
- A firefighting system used to protect a fleet of liquid fuel tanks based on NFPA 11. The use of a single dispenser of foaming agent in both a foam pot-based system (or other equipment) and a foam hydrant system, despite the different flow rates in the two systems.
- Foam fire suppression system based on sprinklers (close head foam water sprinkler system) used to protect warehouses, production halls, loading fronts or other facilities where there is a fire hazard of flammable liquids.

## 3. Description

The FLOWMAX CL Variable Range Proportioner consists of a brass body, stainless steel deflector, stainless steel spring, and stainless steel foam metering cone and orifice.

The proportioner body is designed to fit between 6 in. pipe flanges.

Note: A minimum of 30 in. (762 mm) of straight pipe is required in the water line before entering the proportioner.

The body is marked with an arrow to indicate the direction of flow. The foam concentrate inlet is a female 2 in. NPT. When installed in a closed head, wet sprinkler system, the proportioner operates as follows:

- With the proportioner properly installed in the sprinkler riser, the water pressure is equal on both sides of the proportioner. As sprinkler heads open in a fire situation, foam concentrate is metered into the water stream through a precisely machined cone and orifice.
- As more sprinkler heads open, the increase in water flow causes the deflector to open more, thus opening the cone versus the orifice, allowing more foam concentrate into the water stream. This feature gives the proportioner the ability to properly proportion at both extremely low flow rates and at extremely high flow rates.



#### 4. System Informations

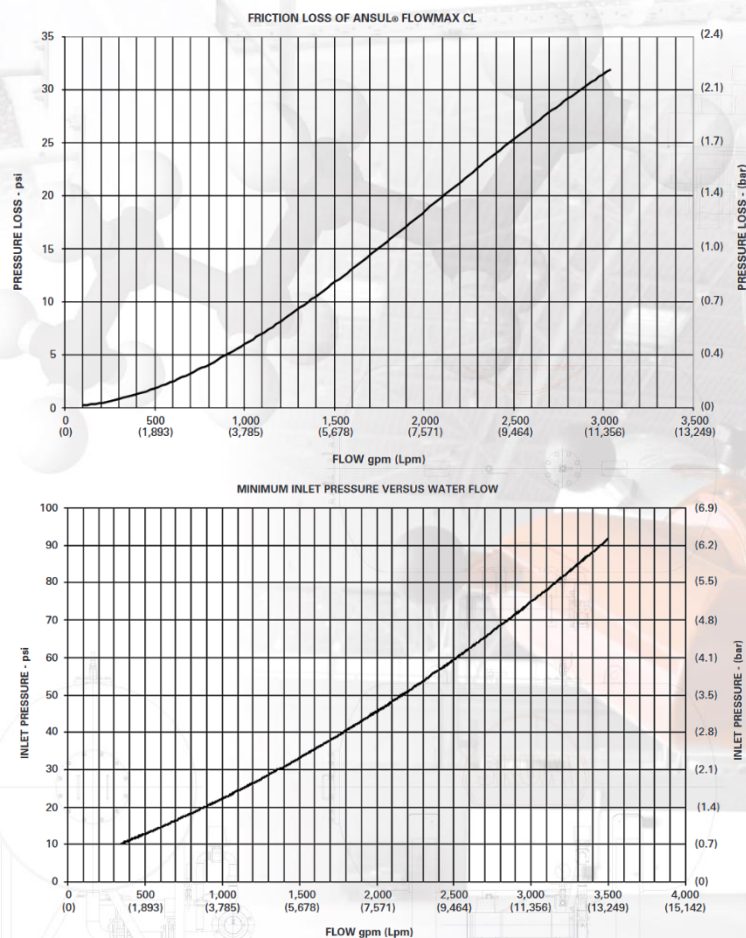
MODEL	FLOWMAX CL	FLOWMAX CL	FLOWMAX CL
FOAM AGENT	ANSULITE 3% AFFF (AFC-3B)	ANSULITE 3X3 LV AR-AFFF (A334-LV)	ANSULITE 3% AFFF (AFC-3MS)
DN	150	150	150
FLOW RATE (l/min)	od 185,5 do 11 818*	od 208 do 13 381*	od 204,5 do 11 705**
MAX PRESSURE	17,2	17,2	17,2

\* UL Listed and FM Approved for flow rate  
 \*\* UL Listed for flow rate

#### 5. Order Informations

Part No.	Description	Weight [kg]	Certificates
445014	FLOWMAX CL ANSULITE 3% AFFF (AFC-3B)	12,3	UL, FM, CNBOP-PIB
445020	FLOWMAX CL ANSULITE 3X3 LV (A334-LV)	12,3	UL, FM, CNBOP-PIB
446599	FLOWMAX CL ANSULITE AFC-3MS 3% AFFF	12,3	UL

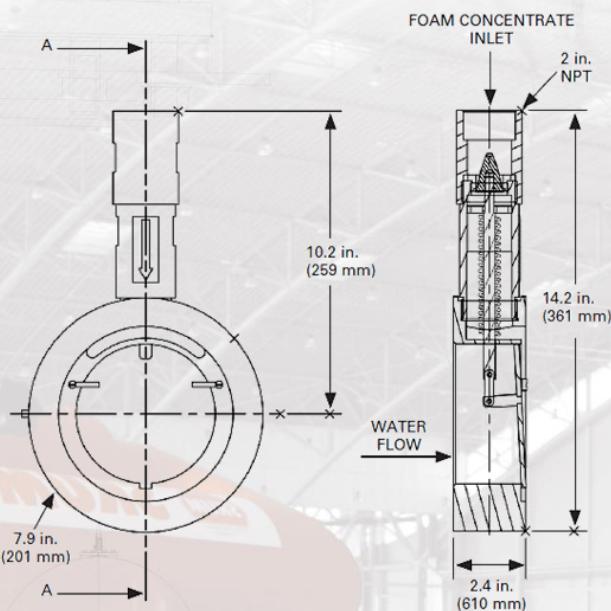
#### 7. Project informations / Dimensions



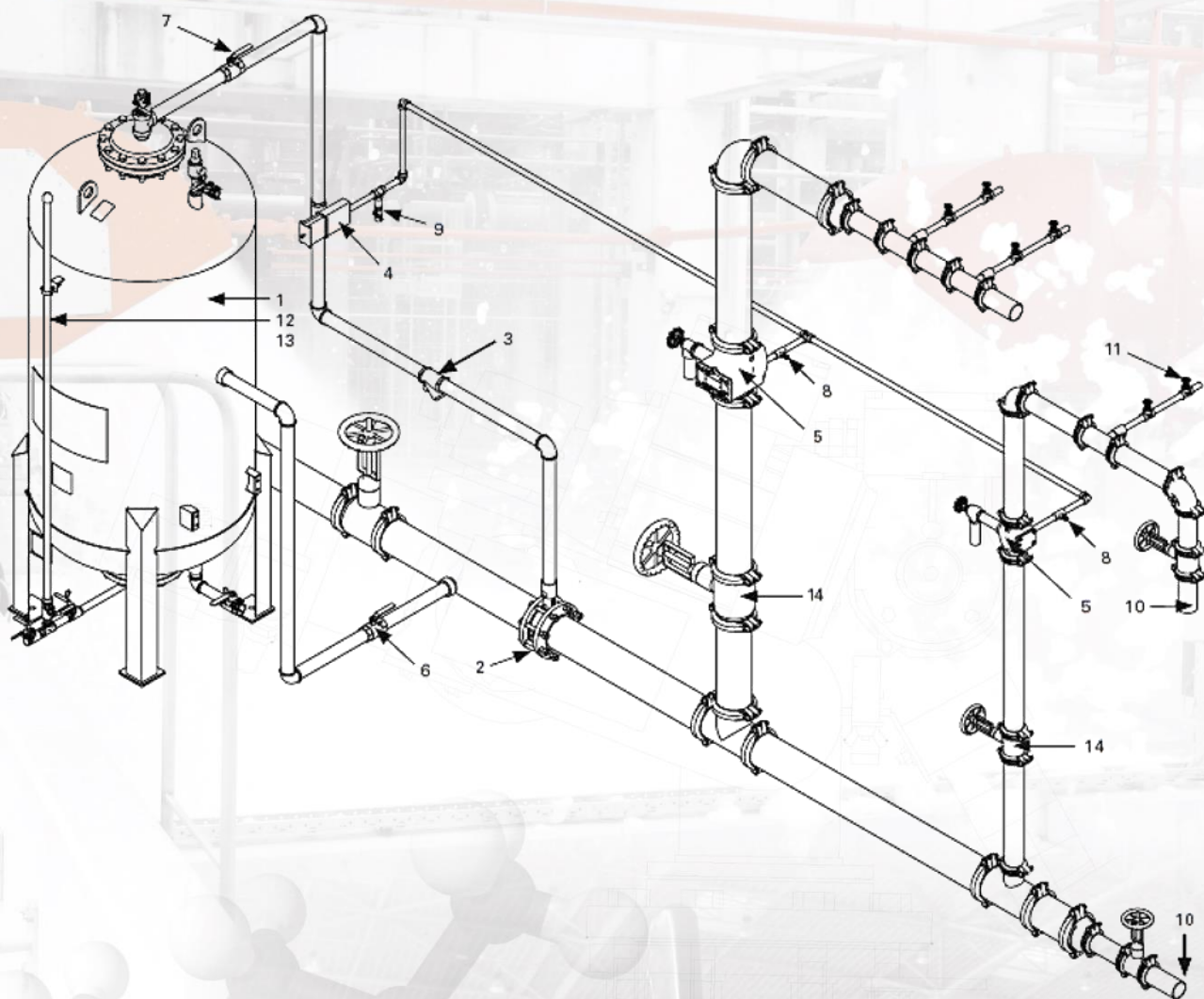
#### 6. Certificates, Approvals

FlowMax<sup>®</sup> CL Variable Range Proportioner meets the standards of the UL and FM, only when used with the dedicated foaming agents ANSULITE<sup>®</sup> 3x3 Low Viscosity AR-AFFF and ANSULITE<sup>®</sup> 3% AFFF.

- UL Listed
- FM Approved
- National Certificate of Constancy of Performance Properties CNBOP no 063-UWB-0081







No.	Description	Normal Position
1	Bladder Tank	—
2	FLOWMAX CL Proportioner	—
3	Swing Check Valve	—
4	Hydraulic Foam Concentrate Control Valve	Closed
5	Sprinkler Valve (Alarm, Deluge, Pre-action, Dry)	—
6	Water Valve Inlet	Open
7	Foam Valve Outlet	Open
8	Actuation Check Valve	—
9	Actuation Line Drain Valve (Locked or Plugged)	Closed
10	Foam Test Outlet	Closed
11	Discharge Device (Sprinklers)	—
12	Foam Sight Gauge (Optional)	—
13	Foam Concentrate AFFF or AR-AFFF	—
14	Butterfly Valve	—

**Notes:**

1. It is recommended that the FLOWMAX CL variable range proportioner is located on the supply side of the sprinkler valve to allow standard sprinkler valve drain trim to be utilized if required.
2. Discharge device may be sprinkler heads (as shown in figure) or other type device such as monitor nozzles, high-expansion generators, handline nozzles, or foam chambers as required by system design.
3. The FLOWMAX CL variable range proportioners can be located up to 35 equivalent length feet of piping from the concentrate outlet of the bladder tank.
4. Pre-primed systems can be designed to fill the piping with solution as part of the annual proportioning verification flow test. The test connection located at the remote end of the system should be sized to achieve the minimum flow of the 4 most remote heads. If desired the connection can be sized to support the design flow rate and a separate test header is not required.