

# AROUND-THE-PUMP FOAM PROPORTIONING SYSTEM / DIGIFOAM DF/DFL



OR

## FEATURES AND BENEFITS

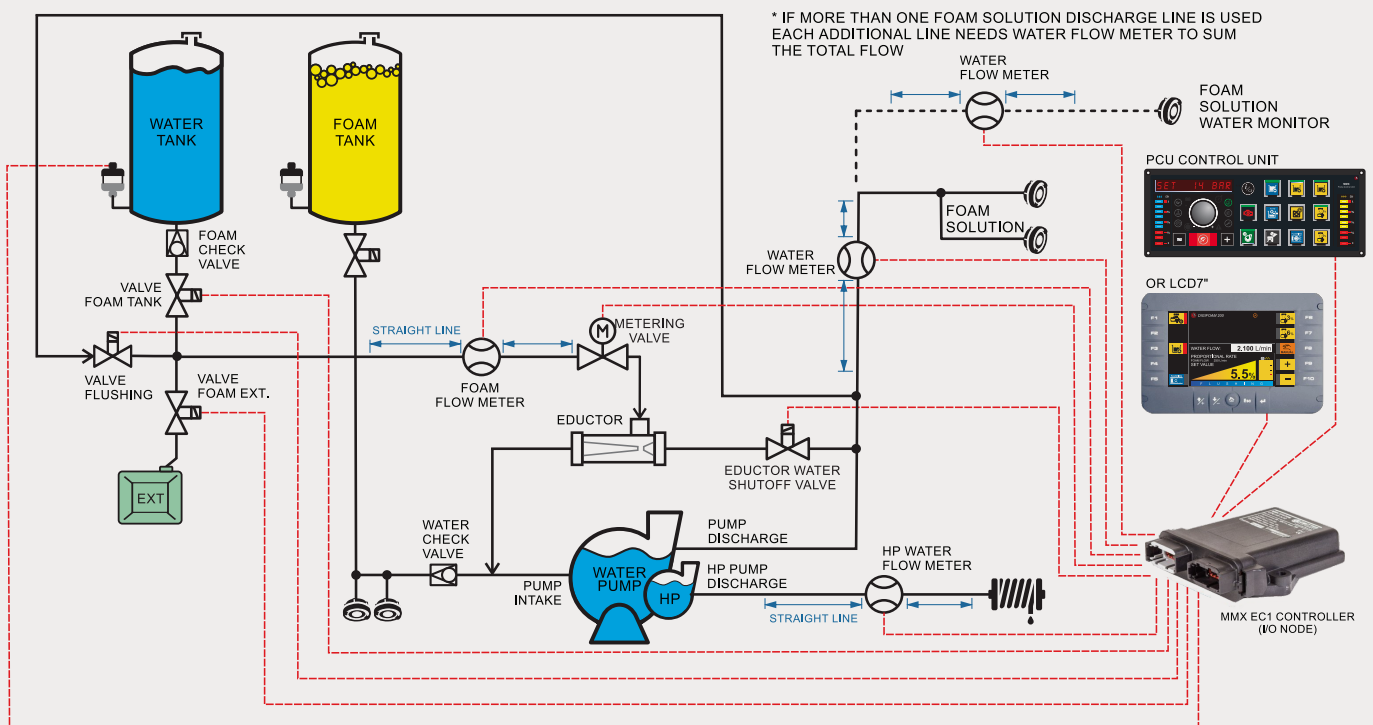
- 1 Automatic ATP foam system in the range of 1 % to 8 %
- 2 Precise control with steps of 0.1 %
- 3 Wide range of eductor capacity, up to 680 L/min
- 4 Compatible with any type of foam concentrate and foam making nozzle
- 5 Manual or automatic operation mode
- 6 LCD 7" or PCU HMI
- 7 Magnetic-inductive flow-meter for maximum life and less maintenance
- 8 Easy operation

Digifoam – Digitally controlled fully automatic Around-The-Pump foam proportioning system is used to maintain selected constant foam-water proportion regardless of water flow and pressure fluctuations. The system accurately delivers foam concentrate from 1 % to 8%.

The system utilizes a brass eductor installed on the discharge side of the fire pump to send a small volume of water back to the suction side of the fire pump. The venturi action of the eductor creates a vacuum at the foam concentrate inlet allowing foam to be pulled through the metering valve, into the water stream.

The backpressure - water pressure entering the pump should always be almost zero, any back pressure on the ATP proportioner could reduce the foam induction rate.

## PLUMBING DIAGRAM



The rich foam solution is discharged back to the suction side of the fire pump and sent through all the discharge piping – allowing foam solution of the required proportion to be available for each discharge outlet.

The DIGIFOAM DF type standardly uses a large 7" TFT LCD unit for overall control of all functions of the system and allows an easy overview of process data, such as water-flow, foam-flow, proportional rate, warning and error messages.

The DIGIFOAM DFL type on the other hand uses a

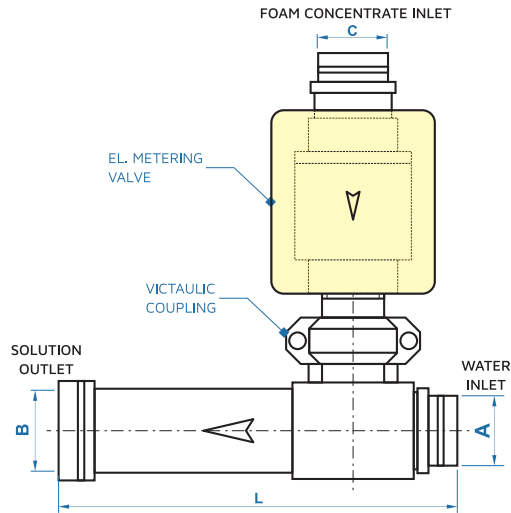
PCU (Pump Control Unit) with an integrated foam management system instead.

Digifoam can be used as a stand-alone system or as a part of the MMX system connected via CAN bus to the other MMX devices. Several remote LCD display control units can be connected to control the foam proportioning on different locations e.g. in the driver's cabin.

The eductor assembly includes an eductor and a special electric metering valve. The eductor housing and valve are in brass.

**DF OPERATING RANGE**

DF60	3-60 LPM
DF220	5-220 LPM
DF340	40-340 LPM
DF450	40-450 LPM
DF560	80-560 LPM
DF680	80-680 LPM



**SPECIFICATIONS**

POWER	
<b>Supply Voltage</b>	20-30 V DC electronic components
<b>Current</b>	max. 0.1 A @ 24 V – controller without loads connected max. 1.8 A metering valve
<b>Electrical Protection</b>	Main controller EC1: overvoltage, transients, reverse polarity, load dump
HMI – CONTROL PANEL	
<b>Digifoam - DF</b>	LCD TFT 7", sunlight readable, anti-reflective glass, 10+5 soft keys
<b>Digifoam Lite -DFL</b>	PCU-pump control unit with foam management system
OPERATING RANGE	
<b>DF60</b>	3 .. 60 L/ min @ 8 .. 17 bar
<b>DF220</b>	5 .. 220 L/ min @ 8 .. 17 bar
<b>DF340</b>	40 .. 340 L/ min @ 8 .. 17 bar
<b>DF450</b>	40 .. 450 L/ min @ 8 .. 17 bar
<b>DF560</b>	80 .. 560 L/ min @ 8 .. 17 bar
<b>DF680</b>	80 .. 680 L/ min @ 8 .. 17 bar

ENVIRONMENT	
<b>Temperature Range</b>	operating from -40°C to +85°C for electronic parts storage from -40 to +85°C
<b>IP Class (IEC529)</b>	MMXEC1 controller: P67 MMXLCD7: IP65 MAGFLOW: IP65 El. metering valve: IP67
<b>EMC</b>	designed to EN 61000-6-2, noise immunity designed to EN 61000-6-4, radiation immunity
DIMENSIONS	
<b>DF60</b>	A:1"VIC., B:1 ½" VIC., C:1" VIC., L:152 mm
<b>DF220</b>	A:1"VIC., B:1 ½" VIC., C:1" VIC., L:152 mm
<b>DF340</b>	A:1 ½" VIC., B:2" VIC., C:2" VIC., L:190.5
<b>DF450</b>	A:1 ½" VIC., B:2" VIC., C:2" VIC., L:190.5
<b>DF560</b>	A:2" VIC., B:3" VIC., C:3" VIC., L:254 mm
<b>DF680</b>	A:2" VIC., B:3" VIC., C:3" VIC., L:254 mm
MISCELLANEOUS	
<b>Connectors</b>	Deutsch DTM and AMP automotive connectors

**ORDERING CODE**

Use characters in **bold** to create order code

Ordering code example:

<b>D</b>	<b>F</b>	<b>L</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>W</b>	<b>4</b>	<b>0</b>	<b>F</b>	<b>1</b>	<b>5</b>	<b>H</b>	<b>1</b>
L: LIGHT VERSION (PCU CONTROL)		EDUCTOR TYPE		WATER FLOW METER DIMENSION-INCH:		FOAM FLOW METER DIMENSION-INCH:		FOAM HP FLOW METER DIMENSION-INCH:					
60: .. 60LPM		15: DN40 = 1.5"		05: DN15 = 1/2"		05: DN15 = 1/2"		1: DN25 = 1"					
220: .. 220 LPM		20: DN50 = 2.0"		07: DN20 = 3/4"		07: DN20 = 3/4"							
340: .. 340 LPM		25: DN65 = 2.5"		10: DN25 = 1.0"		10: DN25 = 1.0"							
450: .. 450 LPM		30: DN80 = 3.0"		15: DN40 = 1.5"		15: DN40 = 1.5"							
560: .. 560 LPM		40: DN100 = 4.0"		20: DN50 = 2.0"		20: DN50 = 2.0"							
680: .. 680 LPM		60: DN150 = 6.0"		25: DN65 = 2.5"		25: DN65 = 2.5"							
000: .. WITHOUT EDUCTOR				30: DN80 = 3.0"		30: DN80 = 3.0"							