ELECTROLAB

PLC ELECTRONIC FOAM CONTROL MODEL PLC

System Product Description

The system is designed to deliver a level of performance that's unsurpassed. Its foam pump has capacities up to 300 gallons per minute and is capable of supporting a 5,000 GPM discharge rate while using a 6-percent foam concentrate. This unique, patent-pending, digitally controlled foam proportioning system responds rapidly and accurately to changes in water pressures and flows.

What is a non-recirculation automatic pressure balanced system?

Foam concentrate does not recirculation back to the foam tank. Foam concentrate pressure is automatically balanced to equal water pressure.

Key Specs

- Pressure control: Microprocessor with foam and water pressure transducers.
- Manual Pressure control: Needle valve with pressure differential gauge.
- Foam pump: Edwards 160 GPM (606 LPM) / 300 GPM (1136 LPM) or equivalent brand.
- Foam pump inlets: Two 2.5" (6.35 cm) ball valves with 4" (10.16 cm) stainless steel piping.
- Metering valves: Epicyclic control with 4:1 ratio on 2.5" (6.35 cm) valves and 16:1 ratio on 4" (10.16 cm) and larger valves.
- Metered foam discharges: Ten maximum.
- Metering accuracy: Preset to 1%, 3%, or 6% with ball valve shutoff operated from pump panel.

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Key Features

- 160/300 is designed for Class B foams exclusively.
- Electronic digital foam proportioning system improves responsiveness, reliability, and accuracy through a range of 75 psi to 250 psi.
- On-demand design ensures no foam is bypassed back to the foam tank or recirculated through the foam pump.
- Clean-up is easy because each discharge outlet features its own metering valve. The operator needs only to flush the discharge lines used.
- Flexible foam pump drive systems are engineered to run from either a pump transmission or PTO system, depending on customer needs. With the PTO-driven system, foam transfer operations are easy because there is no need to engage the water pump during foam discharge.
- Foam systems are capable of using the vehicle's water tank, high-pressure hydrant or draft as a water source.
- Foam systems can draft foam concentrate from an outside source, allowing extended foam operation.
- Uses a lower electrical load, helping to create a lower-cost system that requires less power from the chassis, and prevents overloading during tough fire calls. This system is the only municipal-market foam system with this feature.

Type 160 Capacity

1.3%=160GPMX100GAL/1.3GAL=12,308 GPM
1.3%=605.67LPMx378.54L/4.92L=46,599.66LPM

3.9%=160GPMX100GAL/3.9GAL=4,103 GPM
3.9%=605.67LPMx378.54L/14.76L=15,533.22LPM

7.0%=160GPMX100GAL/7.OGAL=2,286 GPM
7.0%=605.67LPMx378.54L/26.50L=8,651.71LPM

The 160 system is best applied for water pump capacities between 1,500 GPM (5,678.12 LPM) and 2,000 GPM (7,570.82 LPM), which will typically flow approximately 2,300 GPM (8,706.45 LPM) and 3,100 GPM (11,734.78 LPM) respectively at 80psi dynamic hydrant pressures. However, when flowing greater than 2,286 GPM (8,653.45), you will be restricted to 3% foam.

Type 300 Capacity

1.3%=300GPMX100GAL/1.3GAL=23,O77 GPM
1.3%=1,135.62LPMx378.54L/4.76L=90,310.42 LPM

3.9%=300GPMX100GAL/3.9GAL=7,692 GPM
3.9%=1,135.62LPMx378.54L/14.76L=29,124.5LPM

7.0%=300GPMX100GAL/7.0GAL=4,286 GPM
7.0%=1,135.62LPMx378.54L/26.50L=16,221.8LPM

The 300 system is required for water pumps that are in the 2,500 GPM (9,463.53 LPM) to 3,500 GPM (13,248.94 LPM) range. When using a high flow device such as the Schwing, you will not be able to flow foam through any other outlet when metering foam at a 6% setting.

Manufacturing & design are according to NFPA

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