

Fire Suppression System Monitor

Applications:

- Fire Suppression System Monitor
- Fire Suppression Flow Indicator
- Fire Suppression Flow Switch
- Fire Suppression Flow Monitor

Application Background:

It is a requirement to monitor the flow of a fluid (liquid or gas) being pumped in a fire suppression system. The monitor detects the fluid flow through the supply line once the fire has tripped a sprinkler head sensor automatically activating the suppression system. The flow monitor or switch would have a relay contact to activate an alarm and perhaps initiate an emergency call to a fire department or other interested parties.

Application Solution:

There are many techniques to provide the flow monitoring switch. A pressure switch is probably the most common technique with displacement (paddle) types also applied in this application. Both of these techniques are mechanical in nature and subject to malfunction. A thermal flow switch provides for a more reliable technique without any moving parts.

With a single process connection into the fire suppression system flow pipe (MNPT or flange), any of Delta M's flow switch models (microtuf® or VersaSwitch®) can provide a reliable alarm output relay when activated by the fluid flow (liquid or gas). An added feature of the VersaSwitch® is its second channel relay tripped by a failure alarm option which monitors the switch itself for proper power input, sensor and electronics status. With the failure alarm option you have assurance and confidence that the suppression flow switch is armed and ready to perform its alarm function when the time comes.

For full details go to our website, www.deltamcorp.com to the products tab and look for Manuals. Find the dual channel Model VS5100 Versa-Switch® product manual. Section 10.2 will explain how the Failure Alarm Option can be provide a "Watchdog" feature for your fire suppression monitoring application.