

Fixed firefighting systems

Automatic sprinkler systems

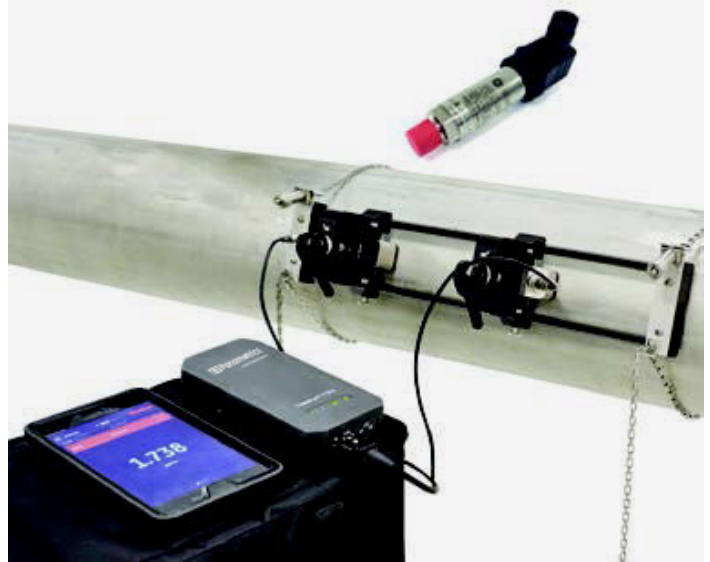
Problem:

For automatic sprinkler systems, all regions across the world are following similar guidelines for fire safety systems. The regions have implemented local standards to ensure safety measures are in place to protect people and assets.

In Europe, European Standard EN 12845 covers installation and maintenance of fixed fire sprinkler systems in buildings and industrial plants. The standard covers the types of sprinkler specified in EN 12259-1 (annex L). This standard is also applicable to any addition extension, repair or modification to a sprinkler system. It requires a yearly full capacity test.

To meet the standard, you need to measure flow and pressure to assess pump performance. The pump curves that must be checked are based on the pump manufacturer (pump and efficiency curves) and the actual system curve. The higher the flow, the lower the pressure and vice-versa. Therefore, you need pressure and flow measurement at the same time.

There are several ways to meet these measurements. The most common current practice is to use variable area flowmeters to measure flow and pressure gauges to report pressure. This practice is a manual approach that is time consuming and can be prone to errors.



Solution

Our Swedish partner Pema Control uses the Transport PT900 capabilities to clamp on the pump discharge line combined with the PTX5000 pressure transmitter allowing to accurately log flow and pressure simultaneously without pen and paper. The system is very portable and can easily be moved from place to place and is able to precisely assess the full capacity test of the fire system.

With the Panametrics design, the installation time is shortened by at least one hour per day compared to the traditional method. Considering a cost of \$100 per hour and 230 days of testing per annum, return-on-investment is only 3 months. Pema Controls has sold many similar packages to customers handling these type of installations in Sweden.

