

PSV's - Enhanced Operational Monitoring/Control



Why:

- Improved Operations by increased Digitalization Saves on Costs!
- The Fusion 100 IoT sensor applicable to Pressure Safety Valves is based on MEMS technology.
- Immediate detection of PSV activation (POP) and consequently initiation of required maintenance of the valves. The unit will log these events including the time and date each event occurred.

What:

- The Wireless PSV Transmitter (Fusion 100) fits to any type of Pressure Safety Valves and can be installed in less than 5 minutes. Fusion 100 will detect release activation and prediction of maintenance for the valves. Certain movement or vibration patterns recognized by the advanced algorithm will be detected and evaluated.

How:

- Quick and easy installation - no cabling needed.
- PSVs can easily be retrofitted with Fusion sensors communicating to a PDA or via a gateway to a data cloud / ERP system.
- The smart Fusion series are connected IoT sensors that offer exponentially expanding opportunities for new functionality and far greater reliability.

Description of Applications

Fusion 100 is the newest generation smart sensor(s) for Condition Based Monitoring. The compact size (45mm x 35mm x 45mm / 1.8" x 1.4" x 1.8") and advanced technology open up for countless valve configurations and works well both on spring and weight operated PSVs. The new and highly advanced technology provides a low cost solution to your PSV monitoring applications and therefore allows for more valves to be monitored.

The new world class Fusion 100 sensor has no moving parts and no mechanical units that opens for failures and maintenance. Onboard sophisticated microprocessors and MEMS (Micro Electro Mechanical Systems) detects valve vibrations and movement. Embedded software algorithms linked to vibration library will monitor and track valve release events.

Fusion 100 is battery powered and communicates wireless with BLE (Bluetooth® Low Energy) to operator's terminals running companion apps for a range of operational applications, including transfer of logged data to ERP systems by means of web services.

Design and Technology Features

- Recognizes a PSV release pattern in a noisy and dynamic environment
- Connects to smart phones and tablets with Bluetooth® Low Energy / Certified Bluetooth® Wireless technology
- Housing: High impact polycarbonate and stainless steel construction
- Ultra-low power consumption, no battery change between valve service periods
- Secure Field programmable
- Cloud Architecture
- Android App for calibration purposes and data retrieval (when not connected to a gateway)

Reference Environmental an Electrical Specification

Internal 3,6 V battery no field replacement

The complete assembly will withstand saline and humid atmosphere

Operating temperature: Minus 40°C (- 40°F) to Plus 80°C (176°F)

Environmental protection according to IEC standard 60529 to IP 67

Explosion protection Ex II 1 G ia IIB T4 Ga

Tested according to IEC 60079-0:2012 and IEC 60079-11

EMC Directive: EN 61326-1:2013, EN 61326-2-3: 2013