



Flow Assurance in Gas Detection Systems

Application Note Case Study ANCS013

Gas detection systems are an important component to modern mining, chemical and refining operations where hazardous gases can appear. These gas detection systems utilize an air/gas flow sensor to ensure the gas detectors are receiving samples and, if not, to alert operators.

Problem

A major manufacturer supplies gas detection panels that are used to identify leakage of combustible gases from turbine gas compressors. The manufacturer's specified mechanical flow switch was proving to be unreliable and experiencing excessive field failures leading to expensive service claims and site visits for repair or replacement.

Flow Conditions

- Pipe diameter: 1/4" [6 mm] tubing
- Temperature: Ambient
- Pressure: Ambient
- Media: Air and combustible gases

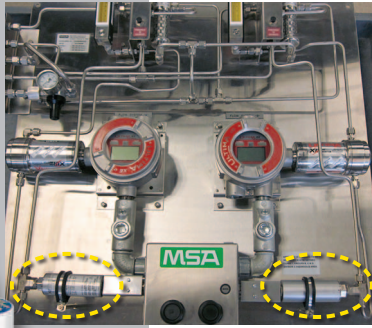
Solution

Utilize a highly reliable, non-clogging, non-fouling, electronic thermal dispersion technology flow switch, FCI Model FS10A, to replace the unreliable mechanical flow sensors. FCI's FS10A carries global agency approvals FM, CSA, ATEX and IECEx, as well as SIL 1, SIL 2 compliance, to meet certification requirements and allow the manufacturer to sell and install their gas detector system throughout the world.

FCI Model FS10A Flow Switch

Benefits

- Cost reduction and increased customer satisfaction by eliminating field failures.
 - No moving parts to foul or clog, virtually maintenance free.
- Simple, thread-in installation to standard 1/4" tube tee.
- Easy set-up via "tamper-proof" push buttons.
- LED bar graph display of flow rate and relay output state.
- Global certifications ensure worldwide compliance.



FCI FS10A;
gas
detection
panel

