

PhaseAlarm™

PROTECT YOUR GAS ANALYZERS AGAINST LIQUID DAMAGE



The patented PhaseAlarm™ liquid-detection analyzers:

- Detects: Aerosols and liquids in sample lines leading to gas analyzers
- Protects: Diverts flow away from analyzers when liquids are detected.
- Application: Can be used with all analyzers or in measurement skids.
- Benefits: Prevents liquid intrusion and damage to gas analyzers.



The problem

Liquid intrusion into gas analyzers are costly and cause major repair problems. Liquid intrusion is the main cause of GC failures, causes errors and failures in TDLAS analyzers, and skews measurements in other analyzers. The results are costly down-time, replacement and repair cost and disruption to operations.

The Solution

PhaseAlarm™ uses Infra-Red Phase Detect™ (IRPD™), a patented IR-based technology to immediately and unambiguously detect liquids and aerosols in gas streams. An optional integrated 3-way valve can be used to divert the flow away from other analyzers until the liquid carry over is stopped. When liquids are no longer present in the sample line, flow back to the analyzers can be restored automatically.

Data-logging capabilities provide a time-stamp of the liquid intrusion event as well as gas temperature data. This data can be used for troubleshooting the cause of the liquid formation.

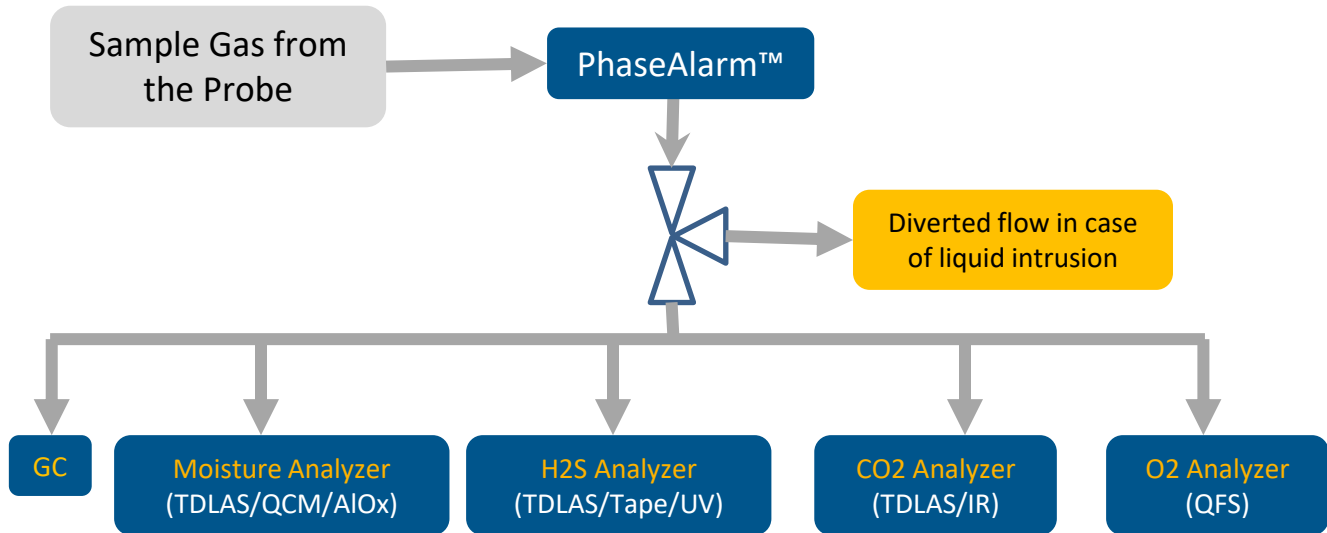


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Typical Installation



PERFORMANCE

Detection Limit:	Typically, 3mg/M3 ,(0.1 mg/Cu.ft.) Up to 70 °C. Can vary depending on other factors.
Measurement Time	Continuous
Response time	<2 Sec.

APPLICATION CONDITIONS

Operating Temperature	-20 °C to +60 °C (-4 °F to 140 °F)
Max. Input Pressure	2000 psi without an integrated solenoid valve, 60 psi with an integrated solenoid valve
Output Pressure	Same as input pressure. No pressure drop.
Storage Temperature	-30 °C to +60 °C (-22 °F to 140 °F)
Flow Rate	Up to 50 SLM

ELECTRICAL and COMMUNICATIONS

Input Voltage	24 VDC. (AC available)
Power Usage	Average < 5 W without an activated solenoid valve, <20W with an activated solenoid valve
Communication	2x Analog Outputs (4-20mA), 2x Digital Outputs
Data Storage	Up to two years

PHYSICAL

Size (without sample system)	16"x14" (300 mm x 355 mm x 150 mm)
Weight (without sample system)	30 lbs. (13 kg)

