

Reliable gas detection in sensor unfriendly environments



Protecting life, environment and property

Operating principle

The heart of the system is the zone 1 detector cabinet. This enables the gas detectors to be located in a clean and controlled environment as close as possible to the location that needs to be monitored, limiting the distance the gas needs to travel and therefore ensuring fast and reliable gas detection resulting in safe operating conditions.

Each individual detection point is directly connected to a dedicated IR sensor via a distinct sampling line. This direct sampling loop is continuously monitored to ensure sufficient gas flow as well as proper operation. The detection and flow signals from the detector cabinet are hardwired to a control and alarm panel located in a safe area.

Standardized

The Omicron Direct Sampling System is tailor made to cost efficiently meet the most regular applications within the Oil θ Gas market. It is ejector based and equipped with a standard 3 sampling lines in order to provide a good coverage by at same time maintaining short sample times. The 4 – 20 mA sensor outputs as well as the Namur digital flow signal outputs can easily be connected to any typical 3rd party alarm and control system or an Omicron alarm θ control cabinet.

The system furthermore contains a manual selection panel for purging and calibration as well as shut off valves for disconnection of the individual sample points.

Cold weather version

Besides the regular system an extended cold weather version is available. The cold weather variant is equipped with a 300W Ex d IIC approved heating element enabling the system to tolerate temperatures far below freezing point and making it suitable for operations in the northern fields.

Features

3 sampling points

Zone 1 design

Infrared hydrocarbon sensors with range 0 - 100% LEL

Low and high gas alarms

Flame arrestor and shut off valves for each sampling line

Ejector based sampling

Continuous system verification

Intrinsically safe flow meters and switches

Gas filter for sampling line

Manual selection panel for purging and calibration



Specifications

EX classification: Zone 1

2 G IIB T4 Gb

Number of sampling points: 3

Sensor type: Autropoint HC 200

Range: 0 - 100% LEL Sensor Signal Output: 4 - 20 mA

Purge air supply: 6 - 8 bar (instrument air)

Power supply, heater: 230 V AC Nom. Flow Signal Output: Namur digital

Alarm for clogged tubes: Yes

Ambient air temperature: 5 – 40°C

-25 – 40°C (cold weather ver.)

Type fittings: Swagelok
Type cable glands: CMP

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