APPLICATIONS

The PointWatch® detector is a diffusion-based point-type infrared gas detector approved to provide continuous monitoring of methane gas concentration in the range of 0 to 100% LFL. The detector provides a 4-20 mA output signal, corresponding to the detected gas concentration. The detector has Division and Zone explosion-proof ratings and is suitable for use in indoor and outdoor applications.

PointWatch is ideally suited for use in harsh environments and where the cost of required maintenance for conventional catalytic detectors is prohibitive. The PointWatch IR detector will perform reliably in the presence of silicone and other catalytic poisoning agents and can also operate in oxygen free environments or where high background gas levels are present. There are no known poisons that affect this technology.

The PointWatch detector is globally certified for use in Class 1, Divisions 1 and 2, and Zones 1 and 2 hazardous areas. It is also approved as a stand-alone gas detector, and complies with global approvals when connected to a stand-alone approved controller for life safety. The approved Det-Tronics controllers are the FlexVu® UD10, Infiniti® U9500, R8471, and Eagle Quantum Premier® (EQP).

FEATURES AND BENEFITS

- Requires no routine calibration to ensure proper operation.
- Fail-safe operation.
- Continuous self-test automatically indicates a fault or fouled optics condition.
- Unique multi-layered filtering system protects optics from dirt and water ingress.
- Internal heating system minimizes condensation, allowing reliable operation through temperature extremes.
- There are no known poisons, e.g. silicones or hydrides, that compromise the integrity of the measurement.
- Performs well in the presence of high concentrations or constant background levels of hydrocarbons, and in oxygen depleted atmospheres.
- Standard 4–20 mA output (current source).
- Compact, lightweight, explosion-proof housing is designed for duty in harsh environments.
- Standard 0 to 100% LFL detection range.
Input Voltage  
24 Vdc nominal. Operating range is 18 to 32 Vdc.

Power Consumption (Watts)  
Input Voltage:  
18 Vdc  3.5 Watts  
24 Vdc  4.6 Watts  
32 Vdc  6.2 Watts  
Maximum:  
18 Vdc  4.0 Watts  
24 Vdc  5.5 Watts  
32 Vdc  7.0 Watts

Detection Range  
0 to 100% LFL.

Gases  
The PointWatch detector is approved to methane, but most flammable hydrocarbon vapors (ethane, ethylene, propane, butane, and propylene) are also detectable.

Current Output  
Linear 4 to 20 mA current source
4 to 20 mA output indicates 0 to 100% LFL detection range (for linearized gases)
23.2 mA indicates over-range condition (120% LFL)
0 to 2.4 mA levels indicate calibration, fault and fouled optics conditions.

Accuracy  
(Room Temperature)  
±3% LFL from 0 to 50% LFL,  
±5% LFL from 51% to 100% LFL.

Response Time (seconds)  
T50  7  
T90  14.4

Stability (Temp)  
Zero:  
±2% LFL from -40°F to +167°F  
(-40°C to +75°C).  
Span:  
±5% LFL at 50% LFL from -13°F to +167°F  
(-25°C to +75°C)  
±10% LFL at 50% LFL from -40°F to -13°F  
(-40°C to -25°C).

Stability (Time)  
(10 months) ±2% LFL.

Repeatability  
(20°F, 60% RH, 0° to 100% LFL)  
Zero:  
±1% LFL.  
Span:  
±2% LFL at 50% LFL.

Wiring  
Five 22 AWG wires, 20 inches (50.8 cm) long.

Temperature Range  
Operating:  
-40°F to +75°C (-40°F to +167°F).  
Storage:  
-40°F to +85°C (-40°F to +185°F).

Humidity  
0 to 99% relative humidity (non-condensing)

RFI/EMI Protection  
Operates properly with 5 watt walkie talkie keyed at 1 meter.

Ingress Protection  
IP66, NEMA 4.

Specifications subject to change without notice.
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