

Features

- Heated sapphire optics deliver stable, high-performance detection in demanding environments
- Superior optics protection system.
- No undisclosed failure modes.
- Routine calibration not required.
- Explosion-proof, stainless steel housing with tethered-weather protection baffle.
- Integral wiring compartment eliminates need for external junction boxes.
- Built-in tri-colour LED indicates normal, alarm, & fault conditions at a glance
- Field configuration and calibration option.
- Immune to damage from exposure to constant background gases or to high gas concentrations.
- CENELEC, CE (including ATEX 94/9/EC), and DNV certifications.
- Certified to CENELEC EEx d, e protection standards for maximum versatility.

Application / Description

The AutroPoint HC300PL is a diffusion-based, infrared combustible gas detector that provides continuous, fixed monitoring of flammable hydrocarbon gases in concentrations from 0 to 100% Lower Explosive Limit (LEL).

Ideally suited for protection of challenging on/offshore oil and gas facilities and other downstream hydrocarbon applications, the AutroPoint HC300PL is certified for use in hazardous areas Zone 1 and Zone 2. In addition, the stainless steel construction, sapphire optics, and modular design all combine to deliver industrial grade hardness along with easy installation and the lowest cost of ownership available.



The AutroPoint HC300PL is capable of detecting hundreds of flammable hydrocarbon vapours. Field-selectable algorithms are provided for methane (default), ethane, propane, butane, ethylene, and propylene. Numerous additional operating parameters are programmable via an optional HART hand-held field communicator.

A key feature of the HC300PL IR gas detector is the built-in PowerLoop system technology, enabling the detector to communicate with AutroSafe Integrated Fire and Gas (IFG) systems on a single pair of wires.

This compatibility, called the PowerLoop technology, is a two-wire power and signalling bus connected in a ring topology and galvanically isolated from the rest of the system, saving cable cost and weight. Each detector has a built-in short-circuit isolator, hence no detectors will be lost because of a single break or short-circuit in the PowerLoop lines.

All alarms and faults are signalled via the PowerLoop. The detector does not require any local power supply.

Technical specifications:	
Input Voltage	PowerLoop 20-30VDC
Power Consumption	7 watts maximum
Warmup Time	Two minutes from cold power-up to normal mode; 1 hour minimum recommended.
Detection Range	0 to 100% LEL standard. Other ranges are configurable.
Detectable Gases	Most flammable hydrocarbon vapours are detectable. Standard gases include methane, ethane, ethylene, propane, butane and propylene. Detection of non-standard gases is configurable using the HC375 HART communicator.
Calibration	All units are methane-calibrated at the factory. Device configuration is required for detection of vapours other than methane.
Device Configuration (via HART Communicator)	Configuration parameters include tag number, measurement range, signal processing algorithm, alarm levels, and other selectable parameters.
Response Time	Without Hydrophobic Filter: T50: 7, T90: 10 With Hydrophobic Filter: T50: 8, T90: 12
Temperature Range	Operating: -40°C to +75°C (-40°F to +167°F). Storage: -55°C to +85°C (-67°F to +185°F).
Humidity (non-condensing)	0 to 99% R.H. 5 to 95% R.H. (FM/CSA/CENELEC verified).
Alarm Setpoint Range	Low Alarm: 5 to 60% LEL High Alarm: 5 to 60% LEL.
Accuracy	±3% from 0 to 50% LEL, ±5% from 51 to 100% LEL.
Self-Diagnostic Test	All critical tests performed once per second.
Ingress Protection	IP67 (CENELEC Verified).
Detector Housing Material	CF8M stainless steel.
Conduit Entry Options	Two entries, 25 mm.
HART Communicator or Port	Intrinsically safe (CENELEC/CE).
Optics Protection	Weather baffle assembly is Polythalamide plastic, UV-resistant, static dissipating black. Optional internal hydrophobic filter recommended for areas with high levels of airborne particulates or humidity.
Visual Status Indicator	Tri-colour LED: Red = alarm Green = power on / OK Yellow = fault.
Wiring Terminals	Field wiring screw terminals are UL/CSA rated for 14 to 24 AWG wire, and are DIN/VDE rated for 2.5 mm ² wire. Screw terminal required torque range is 0.4-0.5 N·m. Wiring compartment is rated Increased Safety (EEx e).

Certifications	DNV Maritime Approval CENELEC: DEMKO 01 ATEX 129485X EEx d e [ib] IIC T5 (Tamb -40°C to +40°C) EEx d e [ib] IIC T4 (Tamb -40°C to +75°C). IP67. Intrinsically Safe HART Port: Uo = 4.0 V Io = 100 mA Co = 20 µF Lo = 500 nH. CE: Conforms to: Low Voltage Directive: 73/23/EEC, EMC Directive: 89/336/EEC, ATEX Directive: 94/9/EC.
Shipping Weight	3,4 kg

Order number	Description
116-5861-011.5300	HC300PL, Infrared Hydrocarbon Gas Detector

Dimensions

