

Features

- Tri-color LED status indicator
- Fail-Safe diagnostic test
- CF8M stainless steel
- Redundant xenon flashlamp technology
- Field programmable
- IP67
- CSA and DEMKO certifications

Description

AutroPath HC600 Gas Detection System delivers reliable, open-path infrared combustible gas detection for protection of oil/gas and other industrial facilities.

With a sensing path of up to 60 meters, AutroPath HC600 system offers industry-leading features including stainless steel construction, redundant xenon flashlamp technology, multiple communication protocols, unequalled ease of installation and alignment, and a standard 3-year warranty. AutroPath HC600 system is especially useful for perimeter monitoring and applications where combustible gas/vapor leaks can happen over a widely dispersed area. The system is optimized for low maintenance, no false alarms, and low cost, and is housed in flameproof enclosures approved for use in Class 1, Division 1 and Zone 1 hazardous areas. AutroPath HC600 system utilizes an on-board heater within both modules to melt snow and ice, enabling unattended and uninterrupted in inclement weather.

Theory of operation

AutroPath HC600 system is based upon the spectrophotometric principle that a photon beam will interact with hydrocarbon molecules present in the atmosphere. As the light photons interact with and are absorbed by the hydrocarbon molecules, they are removed from the beam. The AutroPath HC600 system measures this reduction in photons and converts it to an analog signal representing the hydrocarbon concentration. AutroPath HC600 uses a modulated xenon source to mitigate against solar interference, both direct and indirect/reflected, and high quality optical components to ensure proper system sensitivity and performance.



Part number:	Description:
116-5861-011.6100	AutroPath HC600 Exde 4 – 20mA

Specifications:	
INPUT VOLTAGE (Both Modules)	24Vdc nominal. Operating range is 18 to 30 Vdc. Ripple cannot exceed 0,5 volts P-P.
POWER CONSUMPTION (Per Module)	<p>Transmitter: Tx= 4,3 watt nominal @ 24Vdc, 6,2 watts @ 30Vdc 4,9 watt peak @ 24Vdc, 6,6 watts @ 30Vdc</p> <p>Receiver without relays: Rx= 4,9 watt nominal @ 24Vdc, 6,7 watts nominal @ 30Vdc</p> <p>Receiver with relays: Rx= 6,1 watt peak @ 24Vdc, 7,7 watts nominal @ 30 Vdc</p>
TRANSMITTER LAMPS	Two xenon flashlamps, field-replaceable module.
WARMUP TIME	1 minute for transmitter. 30 seconds for receiver from power-up when correctly aligned.
CURRENT OUTPUT	Linear 4 to 20 mA (current source/sink, isolated/non-isolated) rated at 600 ohms maximum loop resistance @ 24 Vdc operating voltage.
OPTIONAL RELAY OUTPUT	Alarm and fault relay
VISUAL STATUS INDICATOR	Tri-color LED: Red = gas alarm Green = power on / OK Yellow = fault / back-up lamp mode.
ALARM SETPOINT RANGE	Low Alarm: 1 to 3 LEL-meters (default = 1) High Alarm: 1 to 3 LEL-meters (default = 2).
DETECTION RANGE	20 to 60 meters, 5 to 20 meter with accessory (p/n 008987-001)
CALIBRATION	Calibrated for methane at the factory.
RESPONSE TIME	T90: <5 seconds.
TEMPERATURE RANGE	Operating: -40°C to +60°C (-40°F to +140°F). Storage: -55°C to +85°C (-67°F to +185°F).
HUMIDITY	5 to 99% relative humidity; designed for outdoor applications.
MEASUREMENT RANGE	0-5 LEL-meters.
INTERFERENCE RESISTANCE	Immune to sun and flare radiation, up to 750 W/m ² ≥3° to optical axis and common contaminants.
SELF-DIAGNOSTIC TEST	Fail-Safe operation ensured by performing all critical tests once per second.
MODULE HOUSING MATERIAL	CF8M stainless steel (castable 316 equivalent)
CONDUIT ENTRY OPTIONS	Two entries, 3/4 inch NPT or 25 mm.
HART COMMUNICATION PORT	Intrinsically safe port on receiver to connect HART devices.
OPTICS PROTECTION	Stainless steel brow protects against windblown dirt and rain. Heated optics minimize ice and dew formation. Heater can be turned off for indoor applications or reduced power.
WIRING	Field wiring screw terminals are UL/CSA rated for up to 14 AWG wire, and are DIN/VDE rated for 2.5 mm ² wire. Screw terminal required torque range is 3.5–4.4 in.-lbs. (0.4-0.5 N·m). Transmitter requires power only. Receiver can be wired using 3 or 4 wires.
CERTIFICATION	CSA: Class I, Div. 1, Groups C & D (T4). Class I, Div. 2, Groups A, B, C & D (T4). DEMKO: EEx d e ib T6 IIC T5 ATEX.
INGRESS PROTECTION	IP67.
DIMENSIONS	<p>Module: Length: 11.5 inches (29 cm) Diameter: 3.5 inches (9 cm) nominal 4.5 inches (11 cm) max.</p> <p>Mounting Plate: Height: 11.5 inches (29 cm) Width: 6 inches (15 cm). Designed to affix to a 4 inch nominal diameter pipe.</p>
SHIPPING WEIGHT	Transmitter with pan tilt bracket: 12 kg Receiver with pan tilt bracket: 12 kg

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