



Detectors

Infrared flammable gas detector you can trust

Nimbus

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Nimbus is compact and lightweight but rugged. Maintenance is simple, and because it is compatible with handheld and laptop computers, units can be checked by a single engineer.

It can be integrated into existing systems with ease. Nimbus protects staff and property without making your life complicated.

Rugged & reliable

Nimbus has been designed to be **lightweight but tough**.

Even in the dirtiest conditions Nimbus still functions. The optics operate at up to 90% obscuration. While still detecting gas, at 75% obscuration a dirty optics warning flashes **so you know when to clean Nimbus**.

Dust and water ingress are not a problem either as **Nimbus is rated IP66 and IP67**. Allied to this Nimbus has full approvals from both **EUROPE and North America**.

Nimbus has a **MTBF of 10 years**. This figure has been independently assessed using the MIL Handbook 217F/2/12/91

In short you can rely on Nimbus to protect you.

One man calibration

Nimbus is compatible with Windows software, which means that a Windows compatible **portable PC can be used to check gas levels, find faults and change configurations in the field. Only one person** is required to do this.

Nimbus is fitted with an optical Communications Interface Module, to allow **connection of a PC without opening the detector**.

For detectors installed in a hazardous area, the configuration and status can be checked remotely using the Modbus serial link.

Simple maintenance

Nimbus has a local external status light which shows, at a glance, if the unit is in normal function or fault. When a hazard is detected it indicates both rising gas and alarm levels.

The status light clearly indicates 22 further conditions for **instant diagnosis**.

Nimbus is simple to use even in inaccessible areas. A duct mounting plate is available, which incorporates a **remote gassing port** to allow calibration checking without requiring entry into the duct.

Flexible installation

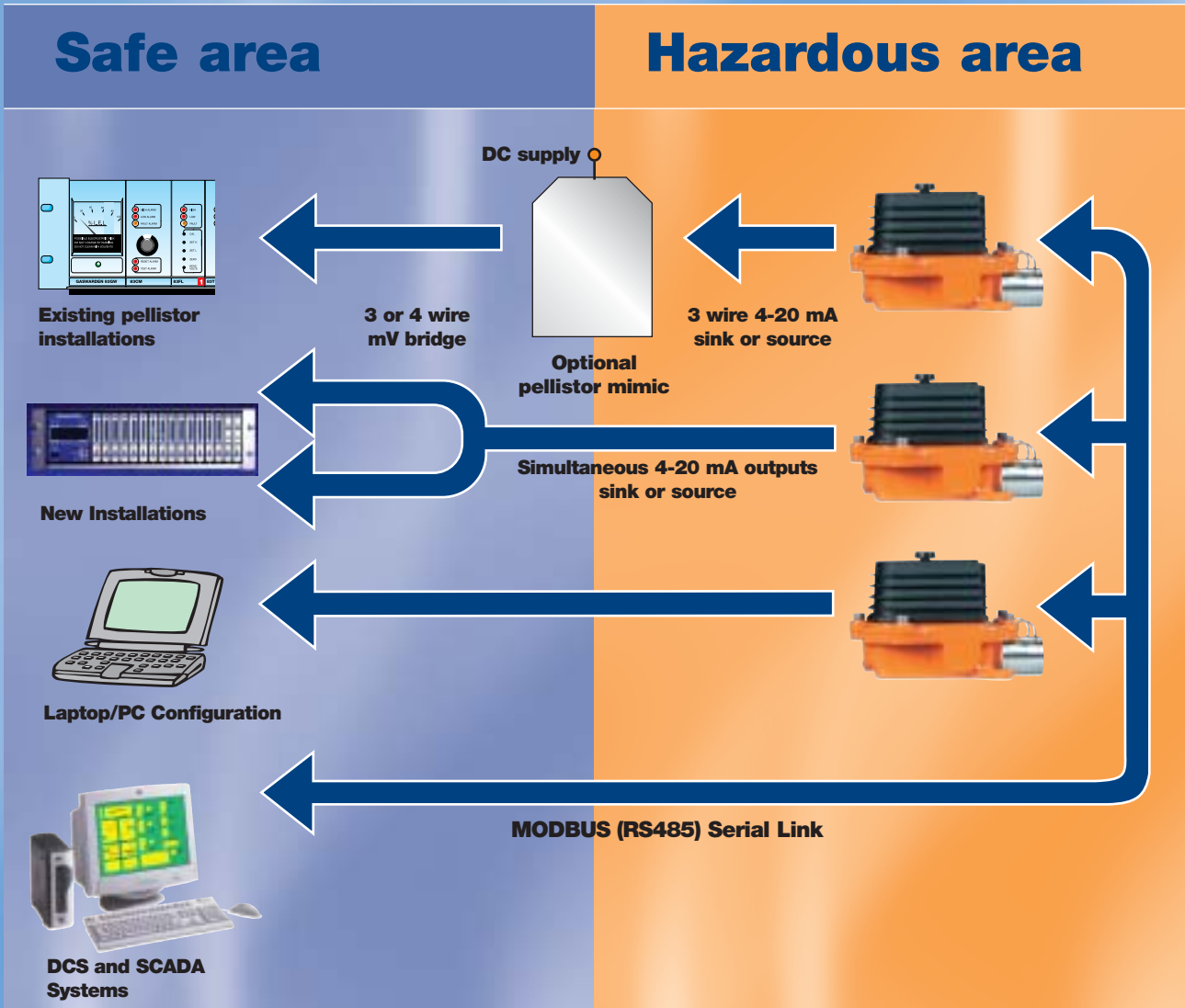
Nimbus can be integrated into existing situations with ease. It has a RS485 output and dual redundant 4-20mA outputs, compatible with metric and imperial armoured cable and conduit.

The **Modbus serial link** allows addressable detectors to be looped **providing a remote control and interrogation facility**.


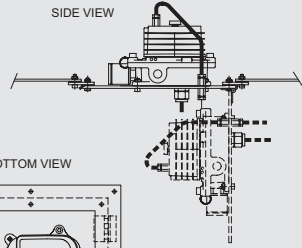
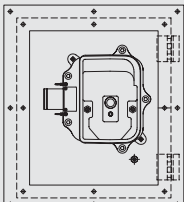

For facilities where Nimbus is replacing a pellistor based detector the **pellistor mimic means that existing cabling can be retained to reduce upgrade costs**.

Nimbus, the total system solution



It can interface with any standard control system, or combination of systems, new or old.



Mounting Options

| | | |
|---|---|---|
| <h3>Interior</h3>  | <h3>Duct Mounting</h3> <p>SIDE VIEW</p>  <p>BOTTOM VIEW</p>  <p>NIMBUS DUCT MOUNTING PLATE WITH HINGE FOR EASY ACCESS</p> | <h3>Exterior</h3>  |
|---|---|---|



| Model | Nimbus |
|---|---|
| Function | The detection of hydrocarbon gases C 1 to C 6 + ethanol, ethylene and LPG in the LEL range by means of infrared absorption. Contact Crowcon for a full list of available gases and ranges. |
| Dimensions | 125 x 170 x 210 mm (5 x 6.8 x 8.3 ins) |
| Weight | 2.5 kg, (5.5 lbs) |
| Construction | LM25 marine grade alloy, polyester powder coated |
| Optical system | Dual wavelength, dual detector |
| Optical performance | Correct operation with up to 90% obscuration Dirty optics warning above 75% (configurable) Heated optics to avoid condensation. |
| Power consumption | <i>Operating voltage:</i> 10 to 32 V dc (nominal 24 V) <i>Operating current:</i> 300 mA max (7.2 W @ 24 V, 3 W @ 10 V) <i>Operating current:</i> 180 mA max (4.3 W @ 24 V, 1.8 W @ 10 V) |
| – LK2 fitted (Anti Condensation Heater) | |
| – LK2 not fitted | |
| Typical output signals | All levels configurable - simultaneous sink and source output 0 mA: <i>fault</i> 2 mA: <i>dirty optics</i> 4-20 mA: <i>0-100% LEL</i> 24 mA: <i>over range</i> |
| Status light | Green - normal function Orange - fault Red - detecting gas 22 other conditions indicated by flash rate |
| Communications | Modbus RS485 serial link |
| Functional testing | Flow adaptor for gassing |
| Accuracy | ±2% of gas reading @ ≤ 50% LEL ±5% of gas reading @ > 50% to 100% LEL |
| Response time | <7 seconds - T ₉₀ <3 seconds – instantaneous high levels of gas |
| Temperature range | -40°C to 65°C (-40°F to 149°F) |
| Humidity range | 0 to 99% RH non-condensing |
| European Approvals and Standards |  ATEX II 2G EEx d IIB+Hydrogen T6 Safety Cert. No: DEMK001ATEX130838 T _{amb} = -40°C to 65°C EN50014, EN50018 Suitable for use in Zone 1 or Zone 2 Hazardous Areas |
| UL Approval and Standards |  Class 1, Div 1, Groups B, C & D T _{amb} = -20°C to 65°C UL 1203 (When connected to a class 2 Power Supply) |
| Ingress protection | IP66 (jets of water) IP67 (temporary submersion), NEMA 4X |
| Light immunity | Totally immune to all external light, both constant and modulated (including sunlight, white light, flashing beacons etc.) |
| General immunity | Totally immune to all catalyst poisons |
| Electromagnetic compatibility | <i>Gas detection standard EN50270</i> <i>RF emissions EN50081-2</i> <i>RF immunity EN50082-2</i> |