

THE LEADING TRANSPORTABLE, VERSATILE MULTI-GAS AREA MONITOR WITH A WIRELESS FUNCTION.

The BM25 multi-gas area monitor can detect up to five gases, packing the benefits of a fixed detector into a transportable, rugged and easy-to-use device.

It has been designed to protect teams performing work or maintenance in zones with a gas risk, for short-term maintenance or construction work.

With its 32 interchangeable sensors, the BM25 offers a whole range of possible combinations, meaning it can be used in a number of sectors, including the petrochemical, chemical, refinery and pharmaceutical industries, as well as for work in confined spaces and water treatment plants, for example.

TECHNICAL DATA

Size: 16.7 x 7.1 x 7.5 in. (47.0 x 18.0 x 19.0 cm)

Weight: 15 lbs (6.8 kg)

Protection Class: IP66

Construction: Impact resistant polycarbonate

Display: Graphic liquid crystal display with backlight

Sensors:

Combustible Gas – Catalytic Diffusion

Methane, Propane, Butane, Isobutane, LPG, Ethanol, Pentane – Infrared

Oxygen and Toxic Gases – Electrochemical

CO₂ – Infrared

Isobutylene – PID

Temperature: -4°F to 122°F (-20°C to +50°C)

Humidity: 1% to 99% RH sensor dependent

Alarms: Visual (Ultrabright LED beacon visible 360°), Audible (103 dB @ 1m)

Operating time: NiMH (up to 170 hours operating time, 135 hours in wireless mode), charging in 4.5 hrs

Wireless network:

2.4 GHz - 100 mW - IEEE 802.15.4

30 devices per network

16 independent networks

Communication distance : 0.6 mile line of sight

Approvals:

ATEX / IECE (standard version)

Without IR sensor: II 1G / I M1, Ex ia IIC T4 Ga / Ex ia I Ma

With IR sensor: II 2G / I M2, Ex ia d IIC T4 Gb / Ex ia d I Mb

ATEX / IECE (wireless version)

Without IR sensor: II 1G / I M1, Ex ia IIB T4 Ga / Ex ia I Ma

With IR sensor: II 2G / I M2, Ex ia d IIC T4 Gb / Ex ia d I Mb

Warranty: Two-year warranty, excluding consumables (sensors, filters, etc.)



FEATURES:

The area monitor has a powerful 360° beacon, as well as a 103dB audible alarm at one metre. STEL and TWA values can be measured, and it is also possible to log data for a duration of four months (in a five-gas configuration).

The BM25's batteries provide a continuous runtime of over 170 hours depending on the configuration, and only take 4.5 hours to recharge.

In addition, a safe trickle charger can be used to power the monitor's batteries for long-term work in classified zones. The area monitor can also be used in a network to send alerts from one device to another, to monitor a safety perimeter, for example.

Used in a network, the BM25 transfers alert information from one device to another via a connecting cable or by wireless radio communication. When wirelessly connected to the controller, gas concentration measures can also be communicated.

It uses mesh-network technology. All the BM25s are connected peer-to-peer, without a centralised hierarchy, therefore forming a mesh-like structure. Consequently, each BM25 can receive, send and relay data.

Communication takes place every 10 seconds on the licence-exempt frequency band around 2.4GHz at less than 100mW and at a distance of up to 1,000 metres in the line of sight.



TRICKLE CHARGER (6311085)

The optional intrinsically safe trickle charger can be used to charge the area monitor on-site for long-term work, even in ATEX zones.

25m, 50m and 100m versions available.

SENSOR SPECIFICATIONS

Gas	Measuring range	Resolution
Combustible Gases	0-100% LEL	1% (catalytic)
Methane	0-100% LEL	1% (Infrared)
Methane	0-100% of volume	1% (Infrared)
Propane	0-100% LEL	1% (Infrared)
Butane	0-100% LEL	1% (Infrared)
Isobutane	0-100% LEL	1% (Infrared)
LPG	0-100% LEL	1% (Infrared)
Ethanol	0-100% LEL	1% (Infrared)
Pentane	0-100% LEL	1% (Infrared)
Oxygen	0-30% of volume	0.1%
Carbon Monoxide	0-1,000 ppm	1 ppm
Hydrogen Sulfide	0-100 ppm	1 ppm
Hydrogen	0-2,000 ppm	1 ppm
Sulfur Dioxide	0-30 ppm	0.1 ppm
Chlorine	0-10 ppm	0.1 ppm
Nitrogen Dioxide	0-30 ppm	0.1 ppm

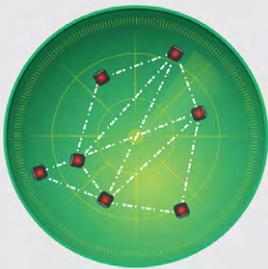
Gas	Measuring range	Resolution
Nitric Oxide	0-300 ppm	1 ppm
Hydrogen Chloride	0-30 ppm	0.1 ppm
Hydrogen Cyanide	0-10 ppm	0.1 ppm
Ammonia	0-1,000 ppm	1 ppm
Phosphine	0-1 ppm	0.01 ppm
Arsine	0-1 ppm	0.01 ppm
Silane	0-50 ppm	0.1 ppm
Ethylene Oxide	0-30 ppm	0.1 ppm
Carbon Dioxide	0-5% of volume	0.1%
Isobutylene	0-1,500 ppm	1 ppm
Fluorhydric Acid	0-10 ppm	0.1 ppm
Ozone	0-1 ppm	0.01 ppm
Phosgene	0-1 ppm	0.01 ppm
Chlorine Dioxide	0-3 ppm	0.01 ppm
Hydrazine	0-1 ppm	0.01 ppm

Available as an option, the radio communication allows several BM 25 devices to communicate on the same network or to send information wirelessly to a controller.

A scalable network

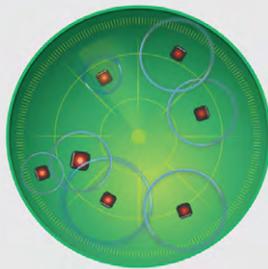
Adding a BM 25 on an existing network has never been so easy as you just need to turn it on. The BM 25 is automatically added on the network

- Up to 30 BM 25 can be meshed on the same network
- Up to 16 networks can coexist with no interference



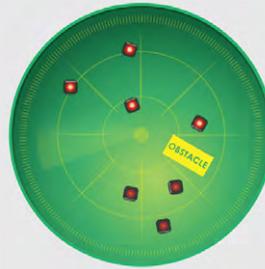
Alarm Transfer

If a BM 25 goes into gas alarm, all BM25s in the network will report a corresponding alarm.



Safety Function Remains

If a BM 25 does not respond or if the network is split, then it is possible to continue to work by the time of the restoration of the network. The gas detection remains effective and each BM 25 would still locally alarm in the presence of gas.



Network Self-Healing

When the obstacle is gone, the communication resumes automatically. The two groups merge together to form only one group again.

