

GAS DETECTOR TYPE ED 810

The ED 810 Gas Detector has found extensive use in small marine craft , boiler rooms, refrigeration plant, car parks and many other applications.

Hazardous area certification, together with convenient battery back up capability allows an economic solution to a long standing problem.

Impressive approvals and an established track record since first certified in 1986 ensures long term reliability second to none.



Features

- Fixed installation, continuous monitoring, alarm and control.
- Non poisoning, well proven, semi conductor sensors.
- Double level alarm for each sensor.
- Continuous fault monitoring of sensor wiring.
- Auto reset as standard, manual reset optional.
- Alarm accept and alarm test capability.
- Alarm acceptable and non alarm acceptable, voltage free changeover contacts for alarm level and fault.
- Fused Input supply available for external functions.
- Built in fail safe low consumption gas valve control.

- Calibration only required annually.
- Very large range of detected gases, flammable and toxic, without changing sensors. Selected by department of education and science for fume cupboard monitoring.



TYPE EDF
SENSOR

Approved By:



Approved by
Lloyd's Register
of Shipping.

U.K.D.Tp The Department
of Transport.
(Maritime &
Coastguard
Agency)



Baseefa2001
Certified
II(1)G [EEEx ia] IIC



Quality Assurance
to Baseefa2001
Regulations
Certificate
Number: O344

HAZARDOUS AREAS

BASEEFA2001 Certified Intrinsically Safe to EN50-014 and 020. Coding II(1)G [EEx ia] IIC.

The ED810 is certified for both insulated and earthed return electrical systems. A separate DC-DC inverter is available if required.

PERFORMANCE

Alarm Level Accuracy

RANGE	SENSOR TEMP	ACCURACY
5-30%	LEL-5°+30°C	2% LEL
5-30%	LEL-25°+55°C	3% LEL
30-100%	LEL-5°+30°C	3% LEL
30-100%	LEL-25°+55°C	6% LEL

NB: The above assumes correct calibration at prevailing RH. Reduction in alarm point level (ie fail safe) is not greater than 3% LEL from 40% to 100% RH at 20°C. The reduction is greater at higher temperature. For the highest accuracy calibration under prevailing conditions is advised.

WORKING TEMPERATURE RANGE

-20°C to +40°C

WARM UP TIME

1 minute

RESPONSE TIME

Type EDF 1B or EDF 2B sensors, 10 seconds max. to 20% LEL for step function from clean air to 50% LEL concentration.

See separate data sheet for details on our I.S. Transmitter range

Designed to accept either Pellistor or Electrochemical cell sensors.

HIGH GAS CONCENTRATION

After exposure to 100% gas (propane), reset within 10 minutes. Step function of 50% LEL alarms at 20% LEL within 10 seconds.

ENVIRONMENTAL

The ED810 functions normally when subjected to the following conditions:

TEMPERATURE RANGE

-20°C to +40°C (SENSORS to +60°C). 0 TO 100% RH.

HUMIDITY

2 Hz to 13.2 Hz at 1mm Displacement.

VIBRATION

13.2 Hz to 100 Hz at 0.7g Acceleration.

INCLINATION

Static 30° either side of vertical in two mutually perpendicular planes.

Dynamic: 22.5° either side of vertical; 10 second period.

POWER SUPPLY

Battery: 24V dc – 25% + 30%; Mains (permanent): 110/240V – 10%, 50/60Hz – 5% Mains (transient): 110/240V – 20%, 50/60Hz – 10% (Using separate Approved power supply Type 3).

ELECTRO-MAGNETIC

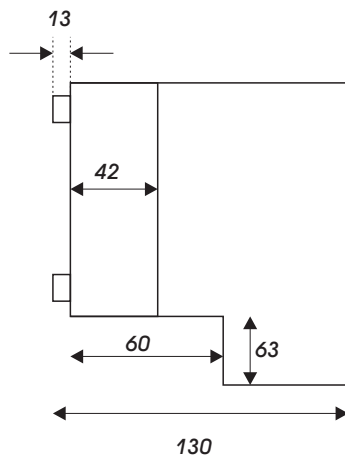
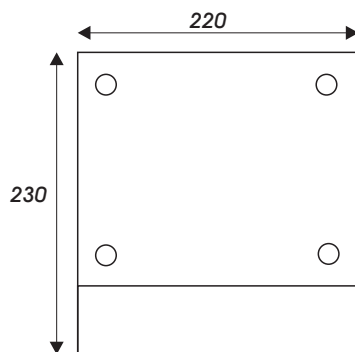
Conducted Audio Frequency: 3V RMS in series with supply from 50Hz to 20KHz. Conducted Radio Frequency: 1V RMS carrier 30% Mod at 1KHz. from 10KHz to 50MHz. Spatial Radio Frequency: 10V/m field 30% Mod at 1KHz from 30KHz to 512MHz. 40V/m near sensors leads.

SALT MIST

To BS2011: Part 2.1 Kb.

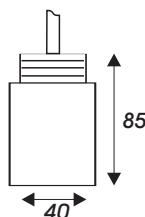
DIMENSIONS

(All dimensions in mm)



SENSORS

Type EDF 1B, 2B or 3B (Stainless Steel)
II 2 G EExd IIC T6
Weight: 0.5 Kg
M32 male thread

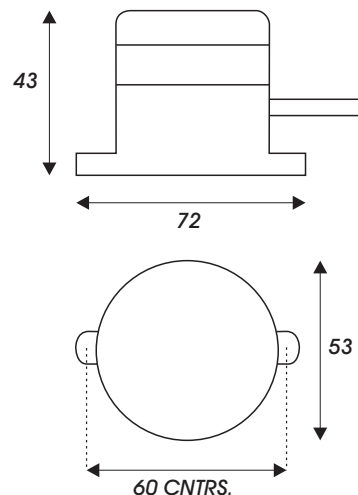


The EDF is intended to be Bulkhead mounted in quick release clips to facilitate testing calibration etc. The EDF types are suitable for direct internal tank mounting using the M32 male thread or via suitable adaptors to conduit, junction

AUDIO ALARMS

Type ED4 or Type ED6 LRS and MCA Approved

TYPE ED4



GAS VALVE

In line 3/8" BSP 12V dc consumption 1.9W which is reduced to approximately half this value by the built in fail safe circuitry of the ED810. Overall dimensions are 75mm x 80mm including the waterproof plug provided. Maximum weight 0.5Kg.

MAINS OPERATION

If the ED810 is to be powered from an AC main supply the Lloyd's and Department of Transport approved Type 3 Power Supply Unit may be used. The Power Supply Unit will also charge and house 24V sealed lead acid batteries (max 12AH) accepts 110, 120, 220, 230, 240 and 254V 50/60Hz mains supplies and provides up to 27.6V at 5A.

Also available in this range of Gas Detectors are the following models:
ED 210, ED 910, ED 811

ELECTRONIC DEVICES LIMITED

ENIGMA HOUSE, ENIGMA BUSINESS PARK, MALVERN, WORCESTERSHIRE WR14 1GD ENGLAND.

TELEPHONE : +44 (0) 1684 891500 FACSIMILE: +44 (0) 1684 891600 EMAIL: sales@electronicdevice.demon.co.uk