

GAS DETECTOR - TYPE ED 810



The ED810 Gas Detector has found extensive use in small marine craft, boiler rooms, refrigeration plants, car parks and many other applications worldwide.

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

Ease of installation, impressive approvals and an established track record since first certified in 1986 ensures long term reliability second to none.



APPROVED BY



Type approved by
the American
Bureau of Shipping



Number - 0598
Certificate
Baseefa03ATEX 0507



Number - 1180
Certificate
BAS21UKEX0600



SGS Baseefa
Certified
II(1)G [Ex ia Ga] IIC



Quality Assurance
SGS Baseefa
Certificate
Number: 0344

FEATURES

- Fixed installation, continuous monitoring, alarm and control.
- Non poisoning, well proven, semi conductor, pellistor or electro-chemical sensors.
- Double level alarm A1 & A2 for each sensor.
- Continuous fault monitoring of sensor wiring.
- Manual reset as standard, auto reset optional.
- Alarm accept and alarm test capability.
- Alarm acceptable and non alarm acceptable, voltage free changeover contacts for alarm levels and fault.
- Fused Input supply available for external functions.
- Built in fail safe low consumption gas valve control is available.
- Calibration only required annually.
- Very large range of detected gases, flammable and toxic, can be detected.
- 12V or 24V DC with mains 110/120 220/240 50/60Hz available from the separate Type3 PSU.

HAZARDOUS AREA

SGS Baseefa Certified Intrinsically Safe to EN60079-0 and EN60079-11

Coding II(1)G [Ex ia Ga] IIC.

The ED810 is certified for both insulated and earthed return electrical systems.

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 also 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 up to +60°C).

HUMIDITY

0 TO 100% RH.

VIBRATION

2 Hz to 13.2 Hz at 1mm Displacement.
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).

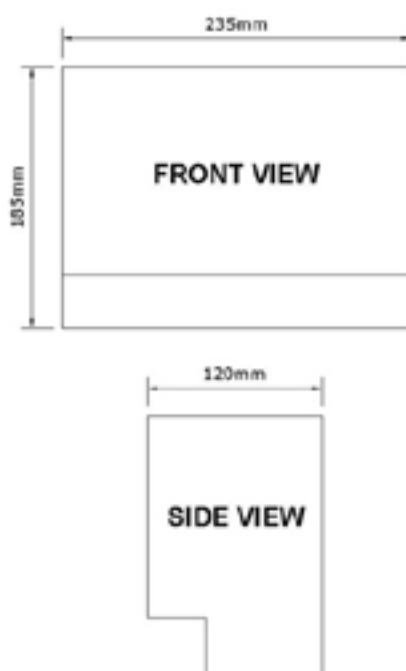
ELECTRO-MAGNETIC INTERFERENCE

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 IEC60068-2-52 - Test Kb.

DIMENSIONS



SENSORS

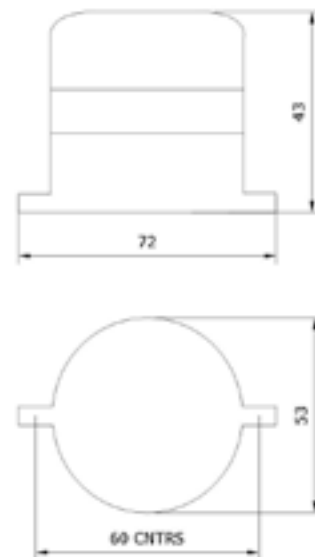


Type EDF 1B, 2B or 3B (Stainless Steel)
II 2 G EExd IIC T6
Weight: 0.5 Kg
M32 male thread planes.

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 boxes etc.

AUDIO ALARMS

Type ED6 Audible and Audible/beacon alarms are available



GAS VALVES

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 (ABS type 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