

Multi Point Detection

The MPU offers the ideal solution for multi-point monitoring for a range of toxic and explosive gases. With up to 6 channels the unit is ideally suited to small/medium sized applications where the presence of contaminant gases can be either detrimental to health or potentially explosive.

Each sensor is wired back to the microprocessor based controller which provides independent status indication and alarm configuration. The unit is simple to install and is supplied pre-configured to suit your application.

Depending upon the environment and type of location a number of sensor housings are available which include: -

- Surface and wall mount housings for room location
- Tubular housing for plantroom and warehouse locations
- Compression fitting for pressure relief vent line monitoring

The MPU is suitable for the monitoring of HCFC, HC and HFC refrigerants, Ammonia, Organic vapours such as Hexane and Ethanol, Hydrogen, Natural gas, Propane and Butane.

Operation

After connecting all the sensors and applying power the green LED on each channel will flash to indicate the start of the heating process to the sensor. After approximately 4 minutes the green LED will be illuminated permanently and the sensor is fully operational.

Each channel has one yellow and two red warning LED's. The yellow LED indicates a low-level gas leak (above alarm threshold C) whilst the two red LED's indicate gas concentrations above thresholds B and A.

When gas is detected above the respective alarm threshold the appropriate LED's will light and the corresponding relay contacts close. If an alarm delay is selected the respective LED will flash during the 'waiting' time. Upon expiry the LED is permanently illuminated and the relay contacts close. As the gas concentration subsides the LED's and relays will return to their normal state unless the 'manual reset' function has been selected.

Fault Function

In the event of a sensor failure or disconnection of the interconnecting wiring a fault condition will be indicated by the status LED's and alarm relay D will change state. In the event of a power failure fault relay D will also be de-energised. Connections are available for an optional battery back-up in the event of a power failure.



Calibration

The equipment is supplied factory calibrated to suit specific applications. Multiple gases can be accommodated on a single MPU as each channel is totally independent. Details of the gas type(s) for which the unit has been calibrated are stated on the unit and each remote sensor will be labelled within the appropriate channel input reference. Standard alarms settings are based on HSE guidelines for toxic gases and at level lower than 20% of the LEL for explosive gases. Custom calibrations are available upon application.

Key Features

- Independent Channel LED status indication
- 230 volt and 24 volt supply models
- Three independent alarm thresholds per channel
- Four alarm relays with 230 volt rated SPDT contacts
- Optional audible alarm
- IP65 enclosure
- Manual/auto alarm reset
- Factory calibrated
- Failsafe relay operation on loss of power
- Optional battery back-up

Remote Sensors

Gas measurement is conducted by a sensing element located in a remote housing which is hard-wired back to the main panel. The remote housings are available in a number of different options to suit the application and environment.

For monitoring within residential, retail and office premises the sensor can be supplied together with faceplate to fit into a standard surface or flush mount Patress box. Within plantroom and warehouse applications the tubular arrangement is more suitable and is easily secured by a spring clip or tie wrap. For the monitoring of pressure relief vent lines on refrigeration systems a compression fitting assembly is available upon request.

Correct location of the detector is essential otherwise delays in the reporting of gas leaks may occur. The detector must be mounted high (under the ceiling) for gases lighter than air and low for gases heavier than air (20 cm above floor). Due consideration to air movement must be made when locating the sensor.



REMOTE SENSORS	
Standard Housing:	Polycarbonate, PC, IP21
Power supply:	230 V AC or 24 V AC/DC
Status Indication:	Common power LED, Individual LED channel indication of sensor active and 3 alarm levels
Output relays (4 off):	Potential free contacts, SPDT rated at 230 V AC and 5amps
Ambient temp:	0°C to +40°C
Dimensions:	180mm x 255mm x 60mm
Classification:	The product is CE certified and conforms with the EMC-directive 89/336/EEC fulfilling the requirements of: EN 50 081-1, ed. 1 1992 EN 50 082-2, ed. 1 1995