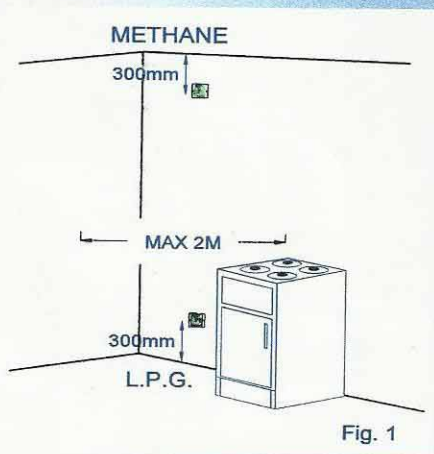


### Operation

The Domestic gas detector operates using a catalytic combustion (hot wire) type of gas sensor in a sensitive bridge configuration. There are two elements one active and one passive. The elements are protected by a fine stainless steel wire mesh which both protects the elements and acts as a barrier to external combustion. When the air containing gas comes into contact with the active element its temperature increases and therefore its resistance also increases. This resistance increase is detected by an amplifier and used to cause an alarm when the gas concentration gets to only 15% of the gas required to cause an explosion. Two levels of alarm are given. Pre alarm does not operate the Relay but turns on the Pre Alarm LED and strobes the sounder. Pre Alarm does not latch.

The detector is available for operation on 220/230V AC 50/60 Hz.

### Typical Detector Location



The Domestic detector should be wall mounted near to any source of gas such as a cooker. When a heavier than air gas is being used then the detector should be mounted approximately 300 mm from the floor and within 2 metres from the gas source. For lighter than air gases such as methane then the detector should be 300 mm from the ceiling. See Fig. 1





# EDS Shield Ltd

## EDS Domestic Gas Monitor



The Domestic Gas Detector has been designed to protect against gas leaks in domestic and hotel kitchens etc. It is a stand alone device and does not need to be connected to any other monitoring equipment. Both audible and visual indication is given by means of an internal sounder and a red alarm LED.

The detector is suitable for use between  $-5^{\circ}\text{C}$  and  $+55^{\circ}\text{C}$ .

Alarm is given when gas is detected at 15% of the Lower Explosive Limit (LEL). As well as operating the sounder and alarm LED an internal relay operates to allow the shut off of the gas supplies etc.

We supply three different types of Kitchen detector all operating on mains supply.:

1. Stand alone operating on mains supply.
2. As above but equipped with an Addressable interface

All units have a relay for switching mains. The relay is operated at the 15% alarm level and can be used to shut of the gas supply.

The Addressable versions (Items 2 and 3) have addressable analogue output and addressable relay that can be controlled both locally and directly from the control panel of by logic installed in the control panel. Both Tigo - panels and Sigo addressable panels.

The "Tigo Panel" option is for connection up to 13 either conventional or addressable devices such as Flammable Gas, Toxic Gas (CO), Smoke or Heat detectors. The Alarm and Fault condition being reported to the main control panel. This Panel has two relays for control of 24VDC gas solenoids.

The "Tigo Panel" is supplied complete with Mains supply/charger and battery backup. Both addressable Kitchen detectors and Conventional Exp/Addressable devices can be monitored by Tigo and Sigo Panels.



# Connection Diagram

