Intelligas Limited

4 zone gas detection system

Installation instructions

Please read before attempting installation works

For technical support please call 02381 290444

Siting the panel.

Firstly choose a suitable mounting position for the control unit, mount the unit away from sources of extreme heat, ensure the panel is placed in a position where mechanical damage is unlikely and where it can be easily accessed for use and maintenance.

Fix the panel using the marked enclosure holes only, take care not to damage the internal wiring or PCB of the unit when drilling. The PCB can be carefully removed if required.

Field wiring

All wiring from the supply and to the gas valve carries mains voltage (230v ac nominal). The current edition of the IEE Wiring Regulations should be strictly adhered to, wiring and connections should be made by a suitably qualified electrician or competent person. Field wiring to the interlocks carries 24vdc, however, to comply with regulations in force this should be insulated within the control panel to the highest voltage present (230vac).

Please follow the first fix wiring schedule set out below,

1) Gas valve 2 core + E 1.5mm

2) Emergency stops 2 core .75mm

3) Thermal links 2 core .75mm

4) Fire alarm interlock (if req) 2 core .75mm

5) Main supply 2 core + E 1.5mm

6) Detector wiring 3 core .75 shielded (shield grounded at one end)

The mains supply should be 230v 1 phase, fed via a fused DP connection switch fused

at 5 amp max,

ONLY CONNECT MAINS VOLTAGES TO THE TERMINALS MARKED "MAINS & GAS VALVE"

ALL OTHER TERMINALS ARE LOW VOLTAGE

UNDER NO CIRCUMSTANCES SHOULD TERMINATIONS BE MADE OR DISCONNECTED WHILE POWER IS APPLIED TO THE UNIT.

Product overview

The Intelligas GDMS is a 4 zone gas detection system capable of powering and interpreting detectors of all industry standard types.

4-20ma (3 wire), 0-10 volt (or 2-10v) or switched input type detectors can be connected to the system.

The system has an onboard emergency stop, inputs for additional emergency stops, thermal links and fire alarm.

Additionally the system has outputs for strobe warning lights & sounders. Signalling relays are provided to alert that thermal links have been operated, pre-alarms and full alarms. Additionally a gas valve output is provided in order to isolate gas supplies where necessary.

Setting up zone attributes

Each zone needs to be individually setup for each detector type necessary. First of all, setup the input type using the jumper links next to the terminals.

0-10volts

Switched input (N/C)

4-20ma

Once the jumpers have been set for each zone the dip switch must also be set. Use the first bank of 4 switches. The switch for each zone chooses between 4-20ma (on / up) or 0-10v / switched input (off / down)

Once this has been done the system needs to be told which zones are in use, use the second set of dip switches to select each zone (on / up for zone in use. Off / down for not in use)

Once all these steps have been completed the system can be powered up (please note that changes to the dip switches settings are only accepted on power up. Any settings changed will require the panel to be switched off and back on again.

Setting the alarm trip points

Use the pots marked for each zone to set the trip points. E.G. you have a CO_2 detector that is 0-10v over a 0-5000ppm scale and you want the alarm to go off at 2500ppm. That is a set point of 50% of the 0-10v scale. Therefore the pot should set to 50% of its scale. The software will then automatically set a pre alarm to 75% of the alarm set point.

Interlock inputs, mains installation and output attributes

The Emergency stop, fire and thermal link interlocks are all normally closed circuits. If these aren't being used then they must be linked out. As many estops, thermal links and fire alarm signals can be added, as is necessary, as long as the loop is broken by each device connected

See "setting up zone attributes" on page 3

Beacon output activates on pre alarm and alarm

24v Sounder output activates on alarm and deactivates on pressing the mute button

Thermal link relay output can be used to operate fire alarms or I/O modules programmed to alert the buildings occupier.

Pre-alarm and alarm relays operate in conjunction with the fascia LED indicators. They are reset when the system is reset via the fascia pushbutton

Mains supply should be via a local fused spur fitted with a 5amp fuse using suitable mains cable

The feed out to the gas valve should also have a local isolator near the gas valve