TOC-625 MICRO SERIES GAS DETECTION SYSTEM

International Gas Detectors

TOC-625 is a multi-channel detector controller in an easily installed and implemented small format package. The system can be used with the Tocsin Addressable range of detectors or I/O modules listed in the auto setup table.

625 Micro has a unique Auto Setup Function.

Setup Wizard at Startup

TOC-625 Automatically Finds Connected Devices

Detected Devices are Automatically Installed

Alarm Levels and Outputs are Automatically Set

The control panel should be located outside the area where the detectors are located so that it is not necessary to enter to the area with a gas alarm to reset or check the controller.

For detector locations refer to IGD document BS023 Siting Gas Detectors. This is available from the downloads area of our website.

Detectors are supplied pre-calibrated. If it is required to check or demonstrate operation, test gas kits are available from IGD

Auto Setup Table 1

Note Alarms Levels and Types Are Fixed and Cannot be Adjusted

Gas / Outputs	Range	Type	Alarm 1 / Relay 1	Alarm 2 / Relay 2
Flammables	0-100% LEL	Rising - Latching	10% LEL	20% LEL
Carbon Monoxide	0-100ppm	Rising - Latching	30ppm	75ppm
Carbon Dioxide	0-5000ppm	Rising - Latching	1500ppm	5000ppm
Carbon Dioxide	0-5%	Rising - Latching	0.5%	1.5%
Chlorine	0-5ppm	Rising - Latching	0.5ppm	1ppm
Oxygen	0-25%	Falling - Latching	19.5%	18.5%
Hydrogen Sulphide	0-50ppm	Rising - Latching	5ppm	10ppm

Relay 1 and Relay 2 on the TOC-625-Micro are set to be normally energised, de-energising on alarm or power failure.

The TOC-625-Micro can FIND up to 10 devices. These can be any mix of gas detectors and up to 2 output nodes

The TOC-625-Micro can FIND up to 4 addressable relays on 2 output nodes. Relay nodes supplied with TOC-625-Micro need to be addressed as follows and will operate according to the following table.

Relays Active on First Alarm	Output Node 1		Output Node 2	
	Relay 1	Relay 2 Mutable	Relay 1	Relay 2 Mutable
Node Relay Address	4201	4202	4203	4204

Note that mutable relays re-energise on second alarm.

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Ref T625M-3

bsi.

UKAS MANAGEMENT SYSTEMS 003

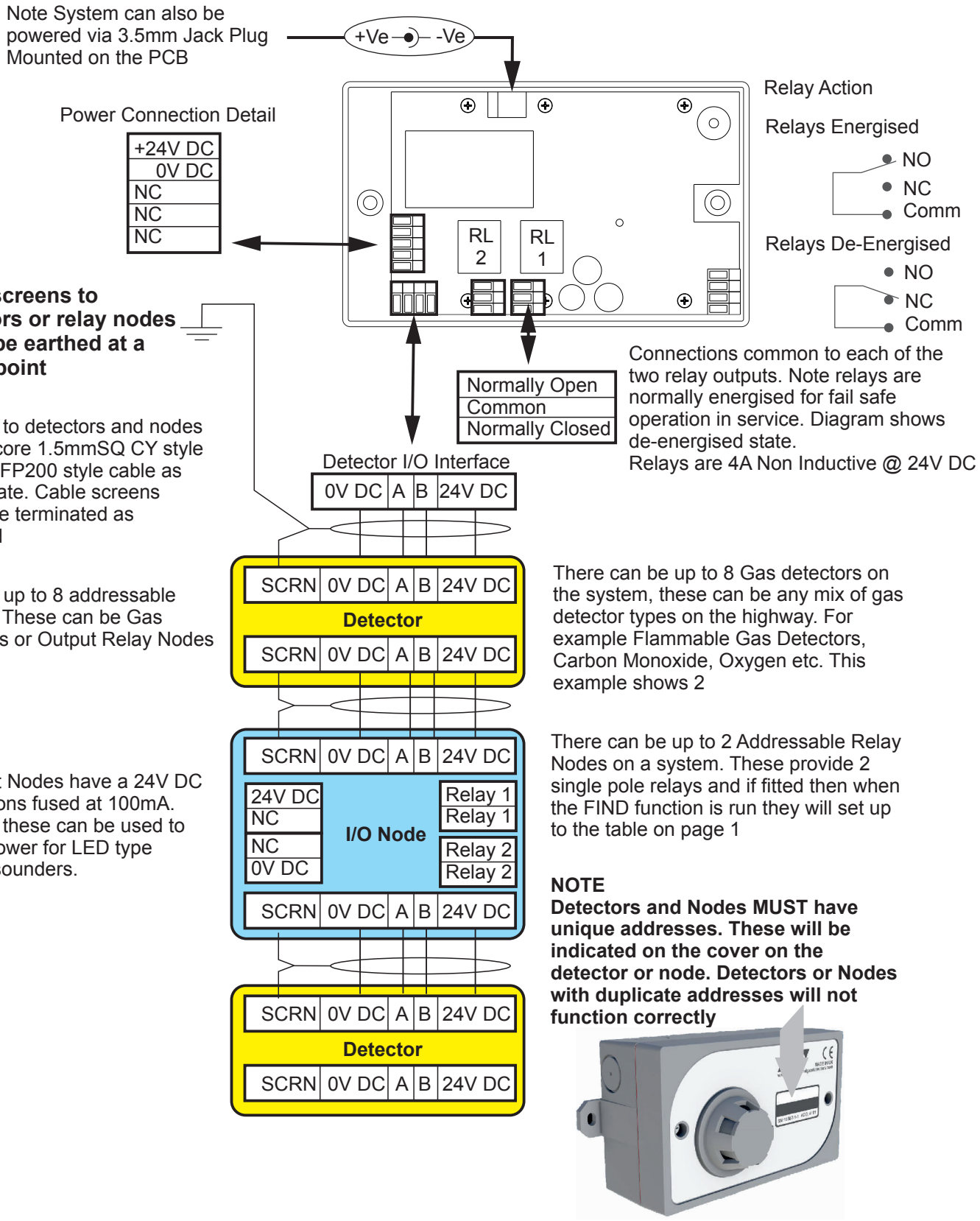
Electrical Details Figure 1 24V DC Operation

Electrical Power: 18-28V DC	Electrical Load:	TOC-625 Micro Controller in Alarm State 0.3A @ 24 V DC TOC-30 Series Addressable Gas Detector 0.1A @ 24 V DC TOC-30 Series Relay Node Activated 0.2A @ 24 V DC

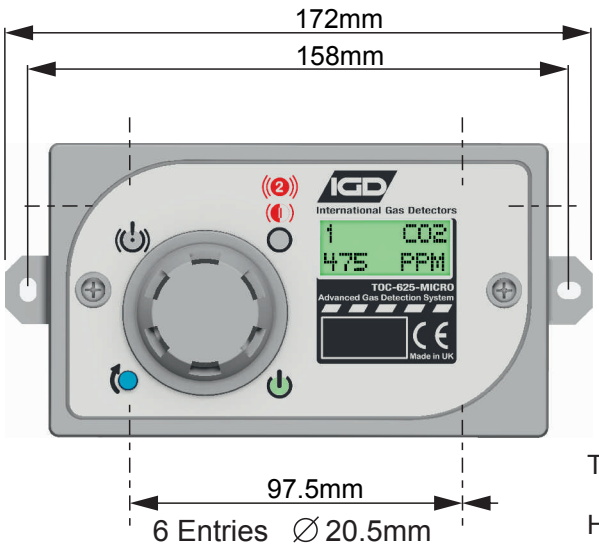
Power Requirements For 8 Detectors and 2 Nodes From Above Table = 1.5A

Important Note:
If you are using a floating output DC supply that does not have a grounded output then with the case open high voltages could be present. Power down equipment before opening the housing and ensure installation is by a competent person.

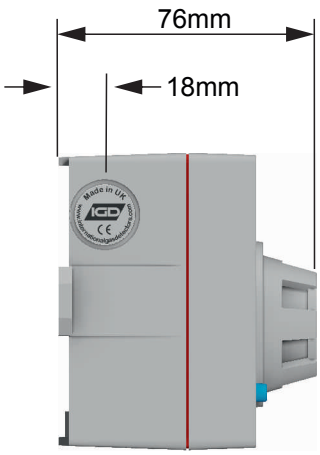
Rear View Front View Cover Open TOC-625 Micro



Front View



Side View



Temp Rating	-5 to To 55 Deg C
Humidity Rating	0-95% RH Non-Condensing
Sealing	IP54

Detector Order Codes

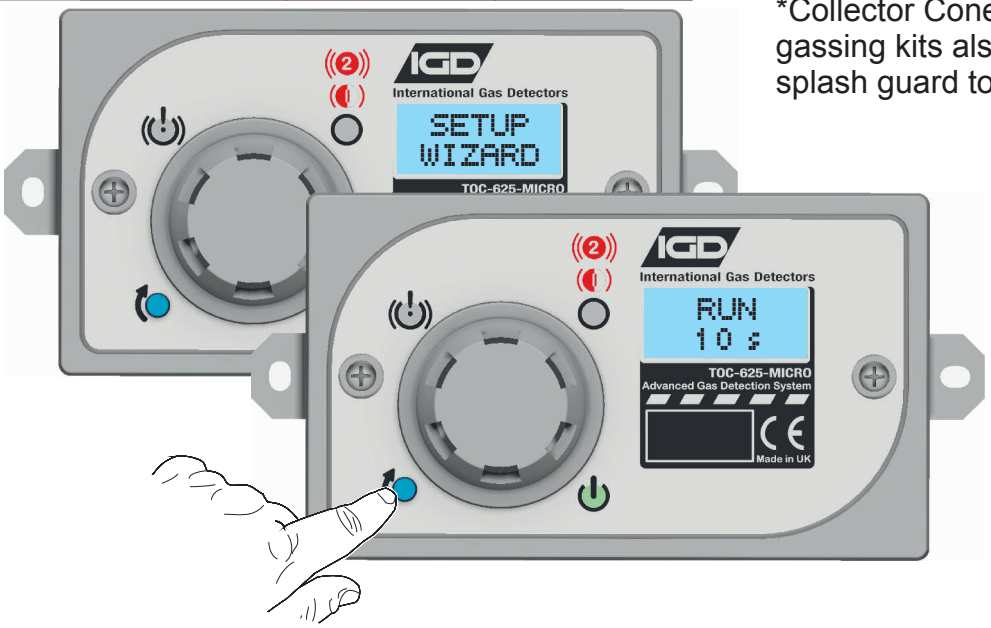
Gas	Standard Range	Order Code	Typical Cell Life
Flammable Gases	0-100% LEL	TOC-30P-PHC	>3 Years
Carbon Monoxide	0-100ppm	TOC-30P-CO	>5 Years
Oxygen	0-30% Vol	TOC-30P-O2	>5 Years
Chlorine	0-20ppm	TOC-30P-CL2	>2 Years
Carbon Dioxide	0-5%	TOC-30P-CO2	>5 Years
Carbon Dioxide	0-5000ppm	TOC-30P-LCO2	>5 Years
Hydrogen Sulphide	0-50ppm	TOC-30A-H2S	>3 Years

Accessory Order Codes

Gas Collector Cone*	5210101
Remote Gassing Kit*	5110150
Cal Gas Adaptor	5925701
Splashguard	TOC-30-GD
Beacon Sounder With Signage	5083701
5A PSU With Battery Backup 110/230V AC	TOC-PSU-B
2.5A 24V DC PSU 110/230V AC	TOC-PSU

*Collector Cones and remote gassing kits also require the splash guard to be fitted

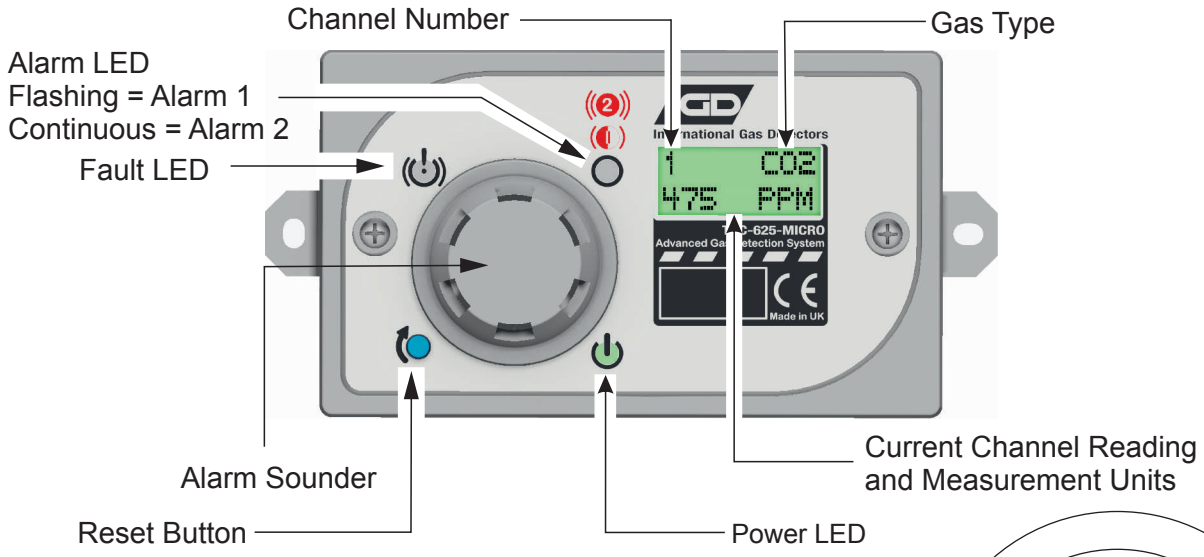
Start up



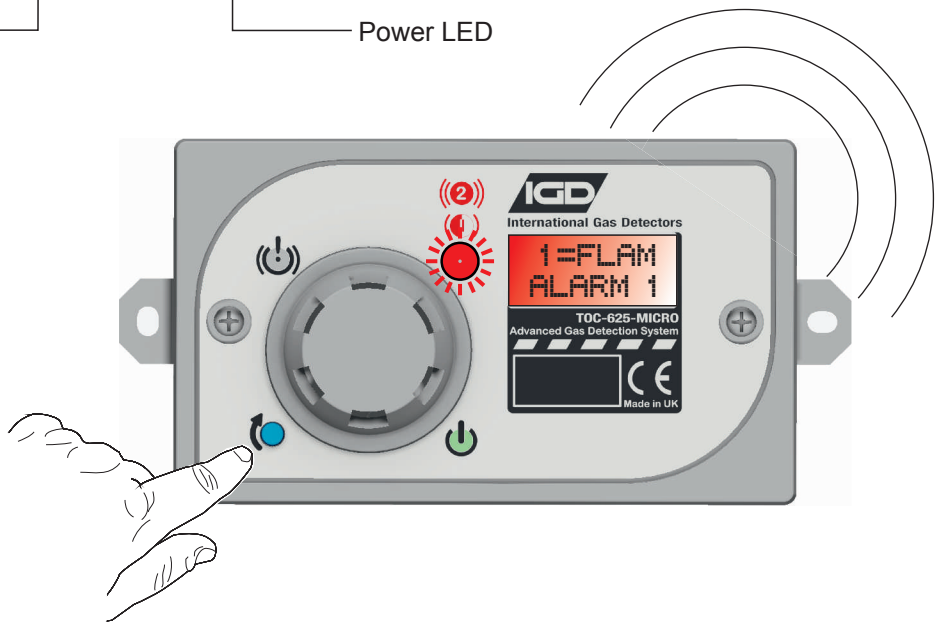
After the start up cycle the Setup Wizard is displayed and RUN option will be available for 10 seconds. Press the button during this period and the TOC-625 Micro will search for connected detectors and relay nodes. Based on the devices found the controller will set itself up based on table 1. No operator intervention is required. Gas channels will be automatically configured based on the devices found. Need to add or remove a detector or node? Just make the physical changes and select the RUN option again on power up

User Actions....Day to Day Operation

Once fully installed the TOC-625 controller will continuously monitor connected gas detectors and sensors and compare current values with any set alarm thresholds. The display will cycle to display each channel in turn.



In Alarm Condition



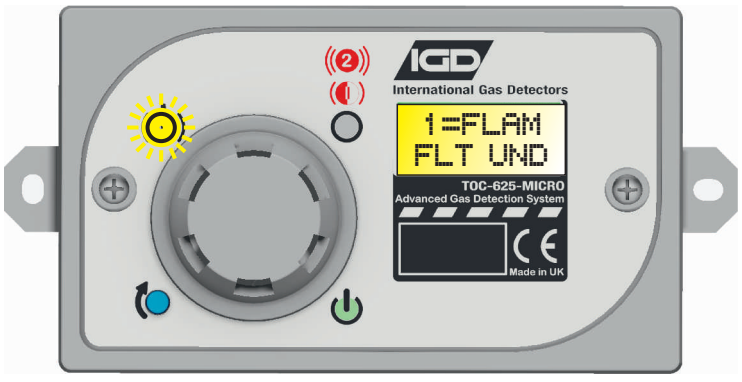
In alarm mode the RED alarm led will either be flashing for alarm level 1 or solid for alarm level 2. The bottom line of the display will indicate:

Alarm 1
Alarm 2
Alarm 1&2

The back light will flash red and the display will indicate which alarm level and which channel is in alarm. The sounder will also activate. Pressing the button will silence the sounder and mute the relay nodes if connected as indicated in table 1. If the gas is still breaching the alarm threshold it will not be possible to reset the alarm

In Fault Condition

In FAULT mode the Yellow fault led will be on. The bottom line of the display will indicate as follows:



FLT COM	communication error to sensors
FLT SEN	Sensor Error
FLT OVR	Sensor Over Range
FLT UND	Sensor Under Range

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