Gas Sense
Gas Detection System

zeta
ALARM SYSTEMS

Contents

Introduction

Zeta Alarm Systems, a trading name of GLT Exports Ltd, was founded in 1985 and is a privately held UK manufacturer of **Fire Alarm**, **Gas Detection** and **Emergency Systems**.

Our brand name is well known throughout the industry and is acclaimed in **over forty countries worldwide**. We are currently represented in the UK, Europe, Africa, the Middle East, Southern Asia & South America and this list continues to grow

Introduction to Gas Detection Systems

Gas exposure can be fatal. During everyday life, we will be exposed to a wide range of gasses, which when at low concentration levels, or when carefully controlled & monitored do not pose any danger. But a build up of combustible gas caused by a leak can cause an explosion. Or a build up of toxic gas, such as carbon monoxide can be fatal.

Introduction to the Gas Sense System

With this in mind Zeta Alarm Systems have developed the Gas Sense range of gas detectors.This **innovative detector** can run as a self contained stand alone detector, or it can be linked to a central monitoring panel where up to 48 detectors can be connected. The detectors can be for the same gas, or for mixed gasses.

In its initial release, detectors will be available for the following gasses:-

ACETONE	H2S	N-HEPTANE	CHLORINE
BENZINE	ISO PROPYL ALCOHOL	N-HEXANE	PROPANE
CO	MEK	N-OCTANE	TOLUENE
ETHANOL	METHANE	N-PENTANE	UNLEADDED PETROL
ETHYL ACETATE	METHANOL	NH3	
ETHYLENE	N-BUTANE	NO2	

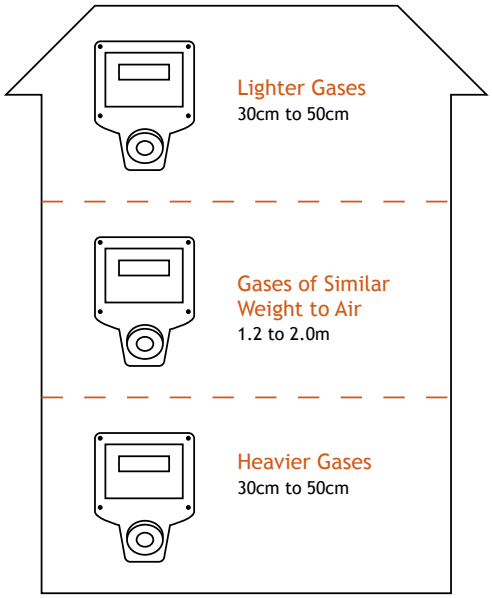
But the modular nature of the design will allow for further gasses to be added in the future.

Where to Install a Gas Detector

Like all gas detectors, the best place to install a Gas Sense detector will depend on the target gas. In general, for gasses lighter than air it will be installed 30-50cm from the ceiling. For gasses lighter than air it will be installed 30-50cm from the floor. For gasses of a similar weight to air, the gas sense detector should be installed close to head height (approx. 1.2 to 2.0m)

The coverage of these detectors will depend on the target gas, and the airflow conditions in the area to be protected. The Typical coverage is 50m^2.

If the gas detector is being installed to monitor a specific risk, then the detector should be located approximately 1.5m away from that point (This is because if the gas escapes under pressure, it may be forced past the sensor, rather than into it, if the detector is too close).



Environmental Factors

When choosing the best place to install the detector, consider all other environmental factors in that area, such as:-

Ventilation or Air Conditioning Vents - Do not place a detector where forced air flow will prevent gas entering the detector.

Open Windows - Airflow through an open window can similarly prevent gas entering the detector.

Dust & Debris - Avoid placing the detector where a constant generation of debris could block the filter, preventing gas from entering the sensor chamber.

Maintenance access - critical detectors should be checked regularly, and the sensor will need to be replaced every 3-5 years. Do not fit to an inaccessible location.

Ceiling beams - if a lighter than air gas is to be detected, large ceiling beams can effect coverage, requiring a detector between each beam.

The Gas sense range of detectors are not suitable for use in hazardous areas. They are intended for use in light industrial, academic, commercial or domestic installations.

Gas Type	Molecular Weight
NH3	17
CO	28
Air	29
NO2	30
H2S	34
Propane	44
Ethanol	46
N-Butane	58
Acetone	58
Isopropyl Alcohol	60
N-Pentane	72
Benzene	78
N-Hexane	86
Ethyl Acetate	88
Toluene	92
N-Heptane	100
N-Octane	114
Unleaded Petrol	114

When to Test the Detector

Determining the frequency of gas detector testing will depend on a suitable risk analysis of the protected area. For example if the consequences of a leak are small, then checks every 6 months or a year may be acceptable. If the consequences of a leak are severe, then it is good practice to check the detector calibration regularly.

While the gas sense detectors are not currently intended for hazardous area use, the extract below gives an idea of the sort of practice required when the consequences of a leak are severe.

The **International Safety Equipment Association** recommends, at a minimum, verification of sensor accuracy before each day's use. Additional testing of instrumentation should be carried out before each new confined space entry – after the crew's lunch hour, for example.

The only way to guarantee an instrument will detect gas **accurately and reliably** is to test it with a known concentration of gas. Exposing the instrument to a known concentration of test gas will show whether the sensors respond accurately and the instrument alarms properly.

There are two methods of verifying instrument accuracy: a **functional or bump test** and a **full calibration**. Each is appropriate under certain conditions. A bump test verifies calibration by exposing the instrument to a known concentration of test gas. The instrument reading is compared to the actual quantity of gas present, as indicated on the cylinder. If the instrument's response is within an acceptable tolerance range of the actual concentration, then its calibration is verified. It is recommended that users check with the gas detection equipment manufacturer for the acceptable tolerance ranges.

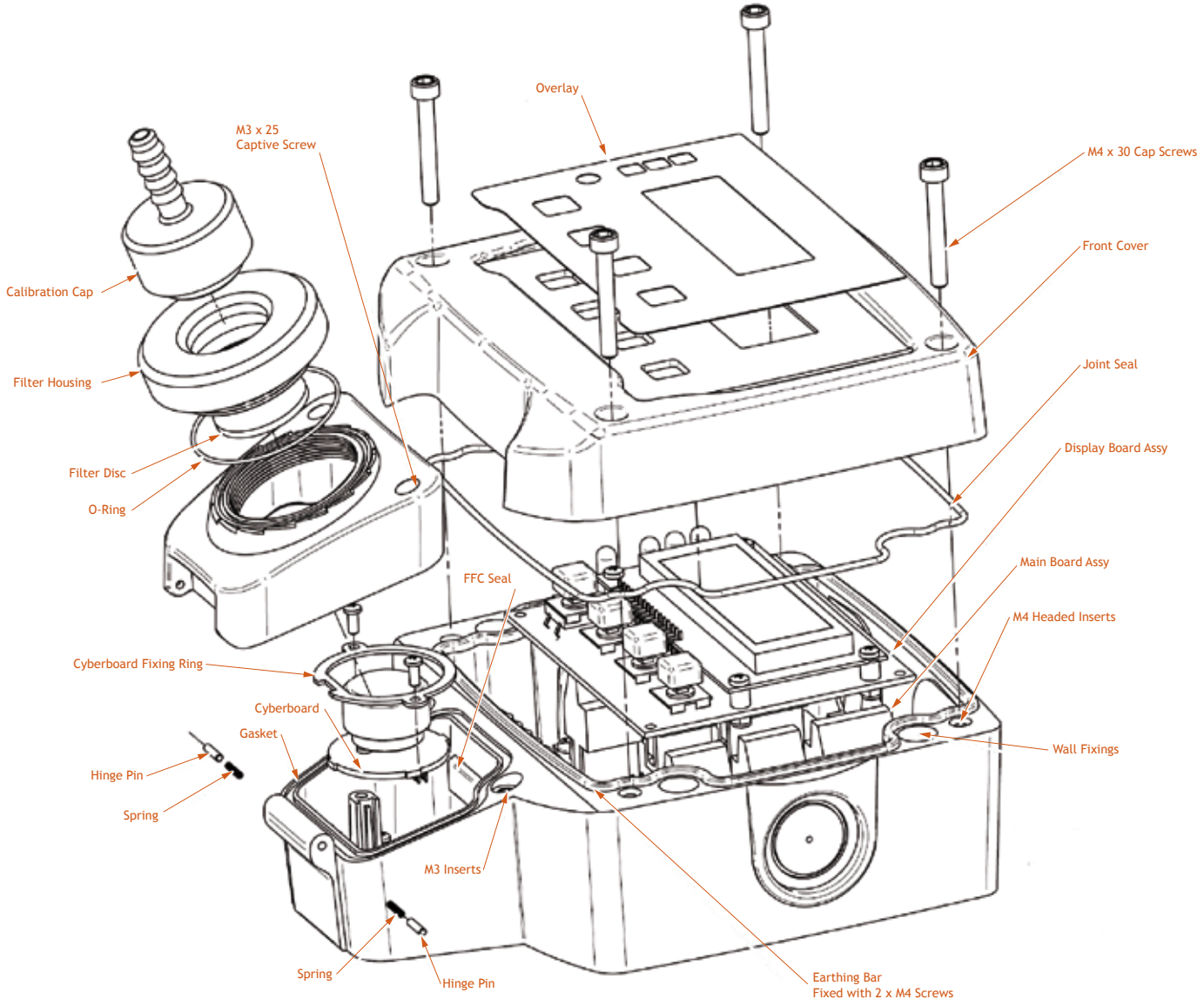
Instruments should be "**zeroed**" before the bump test to give a more accurate picture of the bump test results.

Also, the test should be conducted in a clean, fresh air environment. When performing a bump test, the test gas concentration should be high enough to trigger the instrument alarm. If the instrument fails a bump test, it must be adjusted through a full calibration before it is used.

During a period of initial use of at least 10 days in the intended atmosphere, calibration should be verified daily to ensure nothing is in the atmosphere to poison the sensors. The period of initial use must be of sufficient duration to ensure the sensors are exposed to all conditions that might adversely affect the sensors. If the tests demonstrate that no adjustments are necessary, the interval between checks may be lengthened, but it should not exceed 30 days.

If the instrument fails a bump test, it must be adjusted through a full calibration before it is used. When calibrating an instrument, always follow the manufacturer's recommended calibration frequency and procedure.

Detector Construction



The Detector design consists of 2 chambers. The main chamber houses all the electronics, and is where all electrical connections are made.The second chamber is where the sensor element is located.

This design allows the sensor element to be easily replaced by removing 2 external screws, and 2 internal screws. This avoids all contact with the main electronics.The housing is made from flame retardant ABS. The filter housing is made from stainless steel.

The detector itself has 4 control buttons to allow configuration of the unit. It has a 2 x 16 character LCD display, plus 4 indication LEDS to show its current status. The LEDs are Normal/Fault (2 colour LED), pre-alarm, Alarm 1 and Alarm 2.

Gas Sense Detectors

The Zeta Gas Sense detector is a 24V gas detector that can run either in stand alone mode, or can be connected to a control panel for the centralized monitoring of several detectors.

Stand Alone Mode

In stand alone mode, the detector has 3 relay outputs, and a monitored 24V output (Intended for alarm sirens). The 3 relay outputs correspond to the 3 alarm levels of **PREALARM**, **ALARM 1** and **ALARM 2**. Each of these threshold levels has a default setting, and can be altered by +/- 5% or +/- 10%.

The detector will display the gas type, the current status (normal, fault or alarm), along with the current sensor reading on its 2 x 16 character LCD display. As the gas concentration level rises, the detector will light its relevant alarm LEDs and operate its relays. They operate concurrently, so that in the highest alarm level, all lower alarm LEDs & relays will remain ON.

System Mode

In System mode, the detector will display **SYS** to indicate that it is now part of a system. It will function similar to when it is in Stand alone mode, **except** the alarm relays will be under the control of the fire panel. This feature allows the control panel to monitor the system as a whole before deciding whether or not to operate an output.

The detectors can also be locally recalibrated, with menu options to set the zero level, and options to set the calibration span, with the use of a calibration gas cylinder filled with the full scale gas concentration level.

At the end of the recommended working life of the sensor, a replacement sensor should be fitted. The part numbers for each sensor are shown on the specification table.

Toxic Detector Specifications

In order to easily identify each toxic gas detectors, each gas has it's own colour coded label.

Gas Type	H2S			NH3		NO2	CO	CL2
Model Number	ZS-H2S/500	ZS-H2S/200	ZS-H2S/100	ZS-NH3/1000	ZS-NH3/100	ZS-NO2/20	ZS-CO/300	ZS-CL2/20
Part Number	47-522	47-521	47-520	47-531	47-530	47-540	47-510	47-550
Replacement Sensor Part Number	DXCY-DT-NT-H2S-3	DXCY-DT-NT-H2S-2	DXCY-DT-NT-H2S-1	DXCY-DT-NT-NH3-2	DXCY-DT-NT-NH3-3	DXCY-DT-NT-NO2	DXCY-DT-NT-CO-2	DXCY-DT-NT-CL2
Supply Voltage	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC	24VDC
Sensor Type	Electro Chemical	Electro Chemical	Electro Chemical	Electro Chemical	Electro Chemical	Electro Chemical	Electro Chemical	Electro Chemical
Sensor Life	2 years	2 years	2 years	2 years	2 years	4 years	>2 Years	>2 Years
Specific Gravity (Air=1)	1.19	1.19	1.19	0.59	0.59	1.1	0.97	2.45
Pre Alarm (PPM) **Bold = Default**	050ppm, 075ppm, **100ppm,** 125ppm, 150ppm	020ppm, 030ppm, **040ppm,** 050ppm, 060ppm	010ppm, 015ppm, **020ppm,** 025ppm, 030ppm	0.10kppm, 0.15kppm, **0.20kppm,** 0.25kppm, 0.30kppm	010ppm, 015ppm, **020ppm,** 025ppm, 030ppm	2.0ppm, 3.0ppm, **4.0ppm,** 5.0ppm, 6.0ppm	030ppm, 045ppm, **060ppm,** 075ppm, 090ppm	2.0ppm, 3.0ppm, **4.0ppm,** 5.0ppm, 6.0ppm
1st Alarm (PPM) **Bold = Default**	100ppm, 125ppm, **150ppm,** 175ppm, 200ppm,	040ppm, 050ppm, **060ppm,** 070ppm, 080ppm	020ppm, 025ppm, **030ppm,** 035ppm, 040ppm	0.20kppm, 0.25kppm, **0.30kppm,** 0.35kppm, 0.40kppm	020ppm, 025ppm, **030ppm,** 035ppm, 040ppm	4.0ppm, 5.0ppm, **6.0ppm,** 7.0ppm, 8.0ppm	060ppm, 075ppm, **090ppm,** 105ppm, 120ppm	4.0ppm, 5.0ppm, **6.0ppm,** 7.0ppm, 8.0ppm
2nd Alarm (PPM) **Bold = Default**	150ppm, 175ppm, **200ppm,** 225ppm, 250ppm	060ppm, 070ppm, **080ppm,** 090ppm, 100ppm	030ppm, 035ppm, **040ppm,** 045ppm, 050ppm	0.30kppm, 0.35kppm, **0.40kppm,** 0.45kppm, 0.50kppm	030ppm, 035ppm, **040ppm,** 045ppm, 050ppm	6.0ppm, 7.0ppm, **8.0ppm,** 9.0ppm, 10.0ppm	090ppm, 105ppm, **120ppm,** 135ppm, 150ppm	6.0ppm, 7.0ppm, **8.0ppm,** 9.0ppm, 10.0ppm
Target Gas Range	0-500 ppm	0-200 ppm	0-100 ppm	0-1000 ppm	0-100 ppm	0-20 ppm	0-300 ppm	0-20 ppm
Operating Temperature	-20˚C to 50˚C	-20˚C to 50˚C	-20˚C to 50˚C	-30˚C to 50˚C	-30˚C to 50˚C	-20˚C to 50˚C	-20˚C to 50˚C	-20˚C to 50˚C
Maximum Humidity (Constant)	15-90% RH	15-90% RH	15-90% RH	15-90% RH	15-90% RH	15-90% RH	15-90% RH	15-90% RH
Maximum Humidity (Intermittent)	0-99% RH	0-99% RH	0-99% RH	0-99% RH	0-99% RH	0-99% RH	0-99% RH	0-99% RH
IP Rating	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Quiescent Current	48mA	48mA	48mA	48mA	48mA	48mA	48mA	48mA
Response Time	20 seconds	20 seconds	20 seconds	<90 seconds	<90 seconds	<25 seconds	< 45 seconds	<25 seconds
Storage Time Without Comprising Lifetime	6 months	6 months	6 months	6 months	6 months	6 months	< 6 months	6 months
Recommended Storage Temperature	0˚C- 20˚C	0˚C- 20˚C	0˚C- 20˚C	0˚C- 20˚C	0˚C- 20˚C	0˚C- 20˚C	0˚C- 20˚C	0˚C- 20˚C

Combustible Detector Specification

Alkanes & Aromitics

For combustible gases, the Zeta Gas Sense detector uses the same sensor element for all gas types. The detector is then calibrated specifically for that gas.

Gas Type	Benzine	Propane	Methane	Ethyl Acetate	N-Octane	N-Butane	Isopropyl Alcohol	N-Heptane	N-Pentane
Model Number	ZS-BEN/1.3%	ZS-PRO/2.1%	ZS-MTE/5.0%	ZS-ELA/2.2%	ZS-OCT/.95%	ZS-BUT/1.8%	ZS-IPA/2.2%	ZS-HEP/1.05%	ZS-PEN/1.4%
Part Number	47-570	47-700	47-620	47-590	47-680	47-650	47-610	47-660	47-690
Replacement Sensor Part Number	DXCY-DF NP17SH-BZ	DXCY-DF NP17SH-PR	DXCY-DF NP17SH	DXCY-DF NP17SH-AE	DXCY-DF NP17SH-OT	DXCY-DF NP17SH-BU	DXCY-DF NP17SH-IP	DXCY-DF NP17SH-EP	DXCY-DF NP17SH-PE
Supply Voltage	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC
Sensor Type	Catalytic	Catalytic	Catalytic	Catalytic	Catalytic	Catalytic	Catalytic	Catalytic	Catalytic
Sensor Life	< 5 years	< 5 years	< 5 years	< 5 years	< 5 years	< 5 years	< 5 years	< 5 years	< 5 years
Specific Gravity (Air=1)	2.67	1.57	0.55	3.03	3.93	2.06	2.07	3.45	2.49
Pre Alarm (%LEL) **Bold = Default**	10%, 15% , **20%**, 25%, 30%	10%, 15% , **20%**, 25%, 30%	10%, 15% , **20%**, 25%, 30%	10%, 15% , **20%**, 25%, 30%	10%, 15% , **20%**, 25%, 30%	10%, 15% , **20%**, 25%, 30%	10%, 15% , **20%**, 25%, 30%	10%, 15% , **20%**, 25%, 30%	10%, 15% , **20%**, 25%, 30%
1st Alarm (%LEL) **Bold = Default**	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%
2nd Alarm (%LEL) **Bold = Default**	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%
Target Gas Range	1.3% Vol	2.1% Vol	5% Vol	2.2% Vol	.95% Vol	1.8% Vol	2.2% Vol	1.05% Vol	1.4% Vol
Operating Temperature	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C
Maximum Humidity (Constant)	0-100%RH	0-100%RH	0-100%RH	0-100%RH	0-100%RH	0-100%RH	0-100%RH	0-100%RH	0-100%RH
IP Rating	IP65	IP65	IP 65	IP65	IP65	IP65	IP65	IP65	IP65
Quiescent Current	67mA	67mA	67mA	67mA	67mA	67mA	67mA	67mA	67mA
Response Time	8 seconds	8 seconds	8 seconds	8 seconds	8 seconds	8 seconds	8 seconds	8 seconds	8 seconds
Storage Time Without Comprising Lifetime	< 6 months	6 months	6 months	6 months	6 months	6 months	6 months	6 months	6 months
Recommended Storage Temperature	0-20˚C	0-20˚C	0-20˚C	0-20˚C	0-20˚C	0-20˚C	0-20˚C	0-20˚C	0-20˚C

Combustible Detector Specification (Continued)

Other Gases

Gas Type	N-Hexane	Toluene	Ethanol	Unleaded Petrol	Methanol	Ethylene	Acetone	Methyl Ethyl Ketone (Mek)
Model Number	ZS-HEX/1.02%	ZS-TOL/1.2%	ZS-ENL/3.3%	ZS-PET/1.3%	ZS-MTL/6.7%	ZS-ELE/2.7%	ZS-ACE/2.6%	ZS-MEK/1.9%
Part Number	47-670	47-710	47-580	47-720	47-630	47-600	47-560	47-640
Replacement Sensor Part Number	DXCY-DF NP17SH-ES	DXCY-DF NP17SH-TO	DXCY-DF NP17SH-ET	DXCY-DF NP17SH-VB	DXCY-DF NP17SH-MT	DXCY-DF NP17SH-EL	DXCY-DF NP17SH-AT	DXCY-DF NP17SH-MK
Supply Voltage	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC
Sensor Type	Catalytic	Catalytic	Catalytic	Catalytic	Catalytic	Catalytic	Catalytic	Catalytic
Sensor Life	< 5 years	< 5 years	< 5 years	< 5 years	< 5 years	< 5 years	< 5 years	< 5 years
Specific Gravity (Air=1)	2.97	3.18	1.59	0.7	1.1	0.97	2	2.48
Pre Alarm (%LEL) **Bold = Default**	10%, 15%, **20%**, 25%, 30%	10%, 15%, **20%**, 25%, 30%	10%, 15%, **20%**, 25%, 30%	10%, 15%, **20%**, 25%, 30%	10%, 15%, **20%**, 25%, 30%	10%, 15%, **20%**, 25%, 30%	10%, 15%, **20%**, 25%, 30%	10%, 15%, **20%**, 25%, 30%
1st Alarm (%LEL) **Bold = Default**	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%	20%, 25%, **30%**, 35%, 40%
2nd Alarm (%LEL) **Bold = Default**	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%	30%, 35%, **40%**, 45%, 50%
Target Gas Range	1.02% Vol	1.2% Vol	3.3% Vol	1.3% Vol	6.7% Vol	2.7% Vol	2.6% Vol	1.9% Vol
Operating Temperature	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C	-20 to 150˚C
Maximum Humidity (Constant)	0-100%RH	0-100%RH	0-100%RH	0-100%RH	0-100%RH	0-100%RH	0-100%RH	0-100%RH
IP Rating	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Quiescent Current	67mA	67mA	67mA	67mA	67mA	67mA	67mA	67mA
Response Time	8 seconds	8 seconds	8 seconds	8 seconds	8 seconds	8 seconds	8 seconds	8 seconds
Storage Time Without Comprising Lifetime	6 months	6 months	6 months	6 months	6 months	6 months	6 months	6 months
Recommended Storage Temperature	0-20˚C	0-20˚C	0-20˚C	0-20˚C	0-20˚C	0-20˚C	0-20˚C	0-20˚C

Zeta Sense Gas Control Panel

The Zeta Gas Sense Controller (ZSC100) has been designed to monitor and control 48 gas sense detectors.

In addition to this, it can run Zeta addressable I/O units, and the range of Zeta addressable sounders. It has a 4 x 40 character LCD display which helps display all the required device information on the screen.

From the user menu, the status of each detector can be viewed, and its gas concentration level observed. This remote monitoring and checking facility is useful if there are many detectors spread across a wide area on the system.

The system can be divided into 20 zones, allowing detectors to be grouped either by gas type, or by building area.

The Panel has a powerful, but intuitive interface for programming system cause and effect, allowing the various detectors on the system to operate whichever outputs are required.

Model	ZSC100
Supply Voltage	+ 24V
Back-up Battery	2 x 12 Ah MAX
Quiescent Current	175mA
Alarm Current (excl. devices)	241 mA
Operating Temperature	-5 °C to + 40°C
Humidity	95% RH Non-Condensing
IP Rating	30
Size (Height x Width x Depth)	335 x 375 x 125mm
Weight (Without Batteries)	6 kg
Loop Capacity	Up to 125 Devices

Zeta Addressable Input-Ouput Units

The Zeta addressable input output units (ZIOU and ZIOU/230) are used to interface external equipment to any Zeta addressable fire alarm system.

It has a switch monitoring input with a 47K End-of-Line resistor and volt free SELV relay output.

There are two versions available, one for switching low voltage (ZIOU) and the other for switching mains (ZIOU/230).

As with all addressable interfaces, the outputs are controlled by the panel to which they are connected. Consequently the interfaces will behave differently on different panels, i.e some may allow the outputs to be programmed whilst others will have a default “pre-programmed” operation.

Model	ZIOU	ZIOU/230
Part No	48-105	48-106
Operating Voltage	17-33V DC	17-33V DC
Quiescent Current	900uA	900uA
Alarm Current	10.6mA	10.6mA
Fault Current	2.8mA	2.8mA
Isolating Current	7.3mA	7.3mA
Input End-of-Line	47K	47K
Device Normal Resistance (Return Value 16)	10K to 75K	10K to 75K
Device Open CCT Fault Resistance (return Value 4)	85K to open circuit	85K to open circuit
Device Alarm Resistance (Return Value 64)	0K to 5K	0K to 5K
Relay Rating	1 Amp SELV Only	5 Amp 230V AC Resistive
Operating Temperature	O°C to 50° C	O°C to 50° C
Maximum Humidity	95% RH Non-Condensing	95% RH Non-Condensing
IP Rating	43	43
Size (Width x Height x Depth)	127 x 88 x 59mm	127 x 88 x 59mm
Weight	220g	220g

Maxitone Addressable Sounder

The Maxitone addressable Sounder is a large horn sounder suitable for many applications.

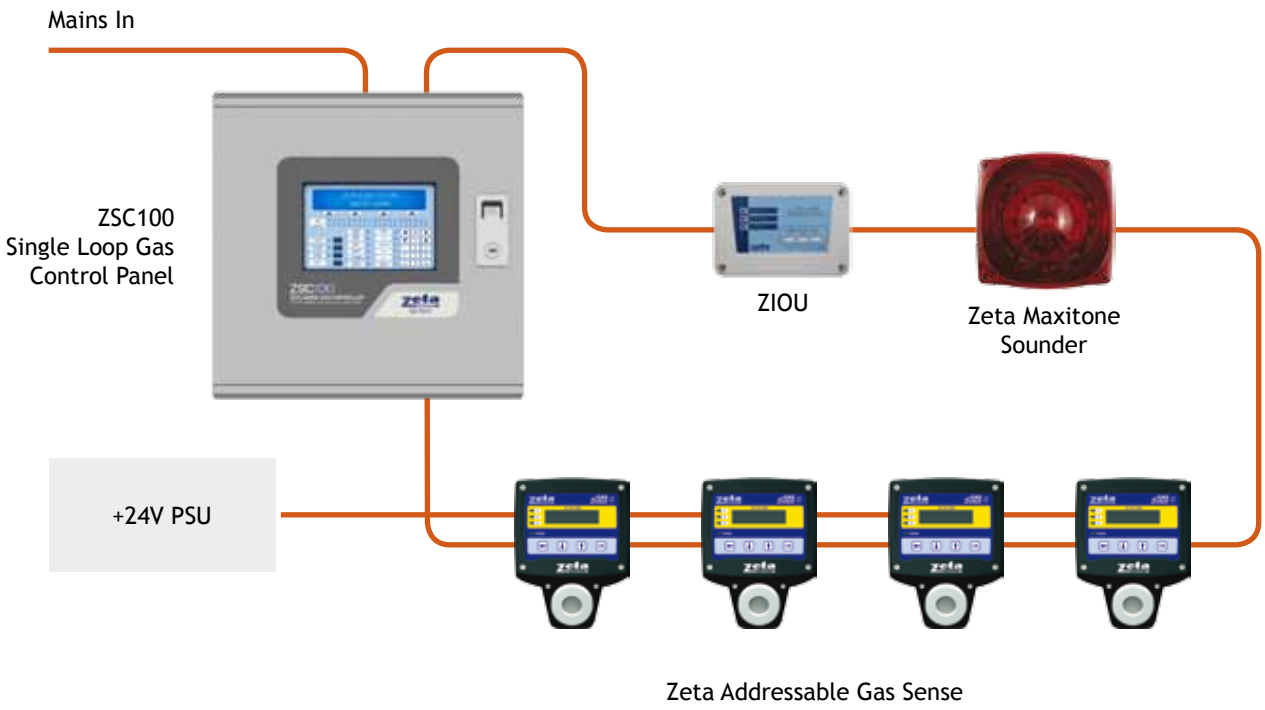
It can be used on any panel using Zeta Addressable Protocol. It is available as a sounder only in red or white, or as a combined sounder flasher in transparent red. It is suitable for indoor and outdoor use.

It has a large back-box with knockout cable entries, which has plenty of room for fitting the cables. It has an internal 8 way dip switch for setting the device address, and sound output of 94 dBA at 1m.

Both units have a built-in short circuit isolator to provide system integrity in the event of cable damage.

Model	ZAMT/R	ZAMT/W	ZAMTF/R
Part No.	42-007	42-007A	42-070
Colour	Red	White	Red
Supply Voltage	17.33V	17.33V	17.33V
Standby Current	0.6mA	0.6mA	0.6mA
Active Current	12mA	12mA	15mA
Sound Output	94dB	94dB	94dB
Number of Tones	2 (Controlled by FACP)	2 (Controlled by FACP)	2 (Controlled by FACP)
Flasher	N/A	N/A	Red LED-2Hz
Operating Temp.	0°C to 50°C	0°C to 50°C	0°C to 50°C
Max. Humidity	95% RH N/C	95% RH N/C	95% RH N/C
IP Rating	IP65	IP65	IP65
Size	124 X 129 x 100 mm	124 X 129 x 100 mm	124 X 129 x 100 mm
Weight	200g	200g	200g

Typical Connection Diagram



Calibration and Bump Testing

Gas detectors should be functionally tested regularly to ensure their correct operation. This is referred to as bump testing.

To bump test a Zeta Gas Sense detector, fit the Calibration cap to the stainless steel filter housing. Then take a test Cylinder with the appropriate gas type & concentration. Fit the tube from the cylinder to the Calibration cap . Open the regulator on the cylinder. Check that the reading on the detector rises and reaches the level indicated on the cylinder (Within the specified tolerance range)

If a detector fails this bump test then it should be zero's in clean air then recalibrated using the calibration cap and the gas cylinder.

Test Gas Cylinders

A range of cylinders are available for testing the Gas Sense detectors.

Gas Type	H2S	H2S	H2S	NH3	CO	NO2	O2
Volume Of Test Cylinder	34 Litres	34 Litres	34 Litres	34Litres	34 Litres	34 Litres	34 Litres
Test Gas Concentration	250 ppm	100 ppm	50 ppm	500 ppm	50 ppm	10 ppm	150 ppm
Part Number	31650-3-1	31650-4-1	31650-5-1	31650-7-1	31650-6-1	31650-2-1	31650-1-1
Pressure	500PSI	500PSI	500PSI	500PSI	500PSI	500PSI	500PSI

Other gasses & concentrations are available on request.

Available now from:

GLT Exports Ltd
MANUFACTURERS OF FIRE ALARM EQUIPMENT

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