- 1 to 64 addressable sensors
- 1-16 direct 4~20mA sensors - 2/3 wire
- Either or both types of sensors
- Single 4 core sensor network (addressable)
- Parameter set up via PC or front panel
- On screen text description of sensor locations
- 3 alarm levels with time to alarm option
- Event - data logging - internal 99 event
- Low cost installation
- Repeater panel - option
- 64 Additional relays - option
- Addressable relay board - option
- One man calibration utilising peak readings
- Continuous data logging via PC - option (combi soft)
- Automatic safety check diagnostics/system surveillance
- Combi Plus, up to 128 addressable sensors per standard panel size
- System management via remote access

Application

Combi has been designed to operate in the full range of environments from commercial premises through to heavy industrial applications which may require hazardous area sensing.

Typical monitor locations are - public buildings, car parks, tunnels, breweries, boiler plant rooms, water treatment works, H&V control, manufacturing, process plants, horticulture, hotels, offices.

Operation

Each gas sensor continuously monitors the atmosphere, reporting any hazardous conditions to the control unit, for display by the alpha numeric screen indicating the reporting sensor, gas type, concentration and alarm status. Alarm levels that are exceeded will automatically activate a variety of signal outputs including analogue/digital data and user selectable relays.

The Combi system operates on a 4-core (addressable) or 2/3 core (direct) cable network and has the capacity to monitor up to 64 addressable and 16 direct sensors of various gas types. Larger systems offering unlimited sensors can be achieved using multiple combi units housed in a 19" rack based system. The Combi is supplied ready to use with pre-calibrated gas sensors and provides for additional sensors that can be easily added to any point of the network.

Optional software (Combi Soft) allows full data logging facilities with system management providing real time views showing sensor locations, alarms status and actual gas values.

Technical Data

Sensor points	• 1-64 addressable – Can bus – and/or • 16 direct 4~20mA • Combi Plus - 128 addressable
Measurements	• Combustible Gas - L.E.L., % vol • Toxic Gas - ppm, % vol • Oxygen - % vol - Depletion/Enrichment • Refrigerant - ppm • Any 4 ~ 20mA transmitter
Indicators - control unit concentration	• Dot matrix LCD 4 line 40 character - indicating sensor location, gas type, (rising or falling alarms), alarm status, system fault, sensor line fault, sensor fault, inhibit, real time clock, event memory • Red LED - global alarm, Amber LED - global fault, Amber LED-inhibit

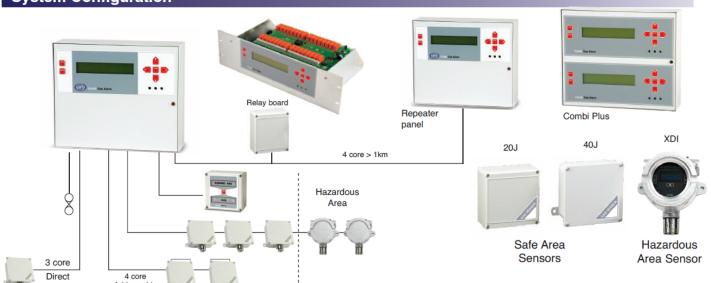|	

Outputs	• 8 user selectable zone/voting – with NE/ND option and delay to de-energise
	Relay contacts - 2 D.P.C.O / 6 S.P.C.O. rated @ 5A-230v AC
	Factory set - 1 common low alarm D.P.C.O
	                1 common high alarm D.P.C.O
	                1 common overange S.P.C.O
	                1 common fault alarm S.P.C.O
	                4 user selectable S.P.C.O
	• General alarm relay - resetable S.P.C.O. - for sounders etc.
	• Optional - 64 relays - first 16 programmable with pattern/event with NE/ND options and delay to de-energise
	• Optional - remote addressable 4 way relay unit
	• 2 channel 4~20mA - assignable to any sensor
	• RS232 data log - event log
	• Modbus - RS485 x2
	• Combi Soft - full data logging and management tool - option.

Audible alarm	• Alarm/Fault - permanent mute option
Power	• 230/115v AC or 24v DC • Control unit 7.5w quiescent 17w full alarm • Sensor - 2.5w • Internal power supply - 20 sensors max - 21+ sensors - PS10 Power Pack required
Sensor Cable - Addressable Direct	• Main network - 4 core (2 power - 2 comms) ⎤ 1.5mm² screened max length 1km • 2/3 core
Miscellaneous	• Enclosure cable entry - bottom, rear, top • Remote reset/mute • Front panel button – key lock • Repeater panel • 16 way 4~20mA catalytic converter panel • LED indication – Comms fail, Modbus fail, MPU fail • Password protection - user mode/engineers mode • LCD and LED dimming
Environmental	• Control unit - IP52 • Operating temperature -10 + 50˚C
Dimensions	• 315W x 265H x 95D - Combi panel • 315W x 265H x 95D - Auxiliary power pack
Weight	• 4.95Kg

System Configuration

Relay board

Repeater panel

Combi Plus

4 core > 1km

Hazardous Area

20J

40J

XDI

Safe Area Sensors

Hazardous Area Sensor

3 core Direct

4 core Addressable