

GAS ALARM

Addressable/Direct Analogue Gas Monitoring System

Specification Sheet
ref C689

- 1 to 64 addressable sensors
- 1-16 direct 4~20mA sensors - 2/3 wire
- 1 - 8 plug in direct catalytic cards
- Network up to 16 controllers enabling up to 1024 addressable sensors + direct sensors
- Single 4 core sensor network (addressable)
- Parameter set up via pc or front panel
- 3 alarm levels with time to alarm option
- Addressable relay module - 4, 8 and 32 way option
- Continuous data logging via pc - option (Guardian *Plus* soft)
- Automatic safety check diagnostics/system surveillance
- System management via remote access



Guardian *Plus* 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 Guardian *Plus* 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 8 of which may be converted to accept mV catalytic sensors. Larger systems offering unlimited sensors can be achieved using multiple Guardian *Plus* units housed in a 19" rack based system or a network controller.

The Guardian *Plus* 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 (Guardian Soft) allows full data logging facilities with system management providing real time views showing sensor locations, alarms status and actual gas values.

Sensor points

1-64 addressable – CANbus – and/or
16 direct 4~20mA

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 or group 1
1 common high alarm D.P.C.O or group 2
1 common overrange S.P.C.O or group 3
1 common fault alarm S.P.C.O or group 4
4 user selectable S.P.C.O groups 5 to 8
General alarm relay - resettable S.P.C.O. for sounders etc.
Optional - 2 x 32 relays - first 16 programmable with pattern/event with NE/ND options and delay to de-energise - 48 are single event
Optional - remote addressable 4 way relay unit
RS232 data log - event log
Modbus - RS485 x2
Guardian *Plus* Soft: full data logging /management tool - option.
Individual sensor logging - intervals 1-60 mins storage readings 2880

Audible alarm

Alarm/Fault - permanent mute option
68dBs @ 1m

Power

230/115v AC or 24v DC ±15%
Control unit 7.5w quiescent 17w full alarm
Sensor - 1.25w
Internal power supply: 20 sensors max. 21+ sensors - 11A/24vDC
Auxiliary Power Pack required C1541/C1293

Sensor Cable - Addressable Direct

Main network - 4 core (2 power - 2 comms)
2/3 core (1.5mm² screened max length 1km)
Optional signal booster per additional 1km

Miscellaneous

Enclosure cable entry - bottom, rear, top
Remote reset/mute

Options

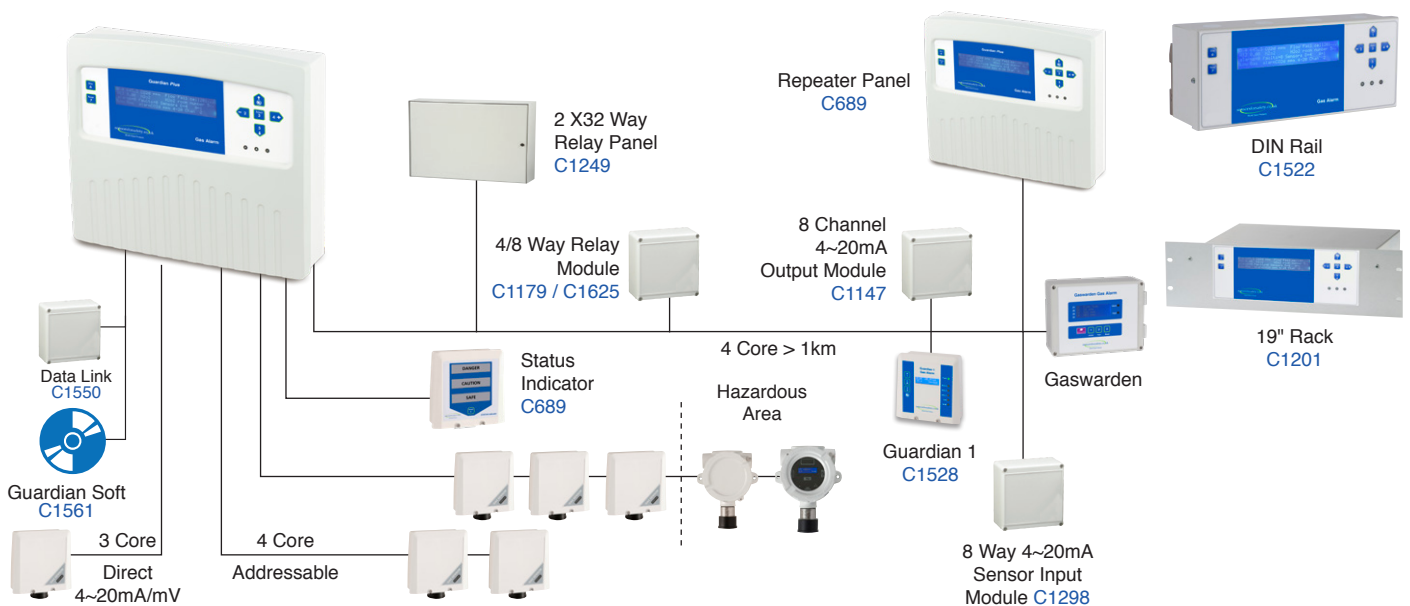
Repeater panel
1-8 plug in catalytic cards
16 way mV catalytic converter
8 way 4~20mA input CAN signal converter
8 way 4~20mA output module
4 way alarm relay module
8 way alarm relay module
2 x 32 way alarm relay panel
Sensor signal booster 1K+
Password protection - user mode/engineers mode
LCD and LED dimming

Environmental

Control unit - IP52 - wall mount
Optional overhousing - IP65
Operating temperature: -10 to +50°C

Dimensions

315W x 265H x 95D - Guardian *Plus* panel
19" x 3U x 300mm Deep - rack panel
295W 120H x 80D Din rail module
315W x 265H x 95D - Auxiliary power pack



For Guardian Plus Controller configuration see C1046.

For Guardian Plus Network controller configuration see C1148.

This document is not contractual and the equipment specification may be modified at any time without prior notice.

