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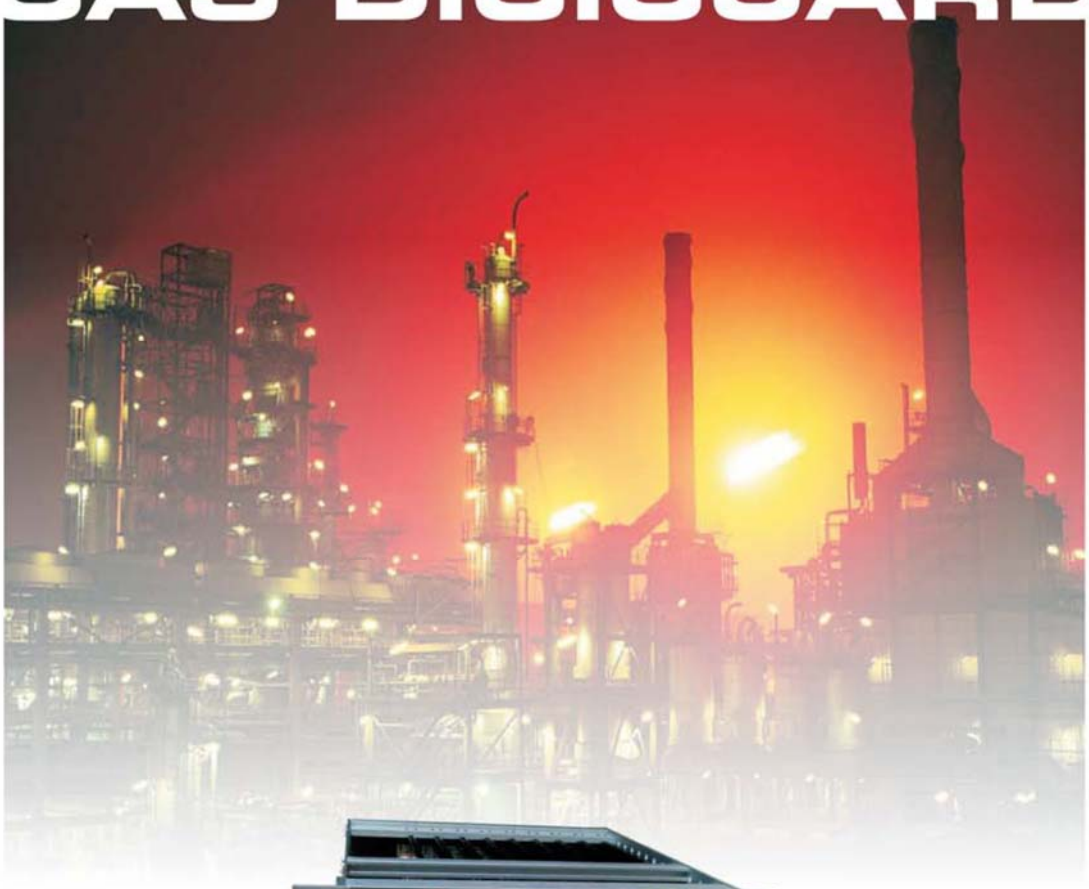
# GAS DIGIGUARD




Flexibility that meets your requirements

# Technical Summary

## GAS DIGIGUARD


**GAS MONITORING SYSTEM.**

| | | |
|---|---|---|
| Model | : | GAS DIGIGUARD. |
| Type | : | Micro-controller based, multi-channel monitoring and control of Gas Sensors. |
| No. of Channels | : | 16. |
| Input Signals | : | Three-wire Gas Sensors. |
| Gas Library | : | 24 Gases and 7 Units – freely customizable for each channel. |
| Indications | : | • Centralized Bright blue OLED Display with 20-character x 4-line indication of process parameters and system configuration.<br>• 8-segment LED Bar-graph display for individual channels.<br>• LEDs for Alarm status and annunciation. |
| Operator interface | : | Six-key Tactile Keyboard with embedded LEDs. |
| Gas Name identification | : | Transparent Insert Windows for each Channel. |
| Control outputs | : | Four control Relay outputs - three for Alarms and one for Fault/Inhibit. |
| Contact Rating | : | 10 Ampere @ 230 VAC for non-inductive loads. |
| Alarm Annunciation | : | Acknowledge and Reset Keys on front panel. |
| Analog Outputs | : | 16x 4 to 20 mA DC retransmission signals - one for each channel. |
| Load Driving Capacity | : | 600 Ohms each. |
| Communication Port | : | RS485 on Modbus RTU. |
| Features | : | Channel Skip, Relay Disable, Latching / Non-latching, Acknowledgable / Non-Acknowledgable alarms, |
| Termination | : | On rear Mother-board. |
| Power Supply | : | 24 V DC. |
| Execution | : | 19" Rack system, 3U enclosure with modular channel-cards. |
| Enclosure | : | Aluminium Card-frame with plug-in Cards in modular system. |
| Dimensions | : | 3U x 84T x 250 mm (133.35 x 482.6 x 250 mm). |
| Ambient Temperature | : | 0 to 60 deg C. |
| Rel Humidity | : | 0 to 95% non-condensing. |

**SPECIAL FEATURES**

- Multifunctional architecture with simple operational procedure.
- Simultaneous sixteen-channel monitoring of Gas levels.
- Standard 19" EuroRack execution for Full-Rack (16 channel) and Half-Rack (8 channel) options.
- Modular execution in plug-in Euro-card format with minimal rear terminal wiring.
- 16-bit Microcontroller-based Central Controller card.
- Every channel Card with independent 14-bit Microcontroller in modular configuration.
- Three programmable Alarm set-points with potential free Relay change-over contacts.
- Fault control Relay output for Sensor Fault. Total of 64 Relays per Rack
- Inhibit indication by LED flashing for each channel.
- Bright blue OLED 20-character x 4-line Display for system parameters.
- 8-segment LED bar-graph display for each channel for Gas levels.
- Dedicated analog 4 to 20 mA DC retransmission for each channel (up to 1 km distance).
- RS485 Data communication on Modbus RTU protocol (up to 5 km distance).
- Local and Remote Acknowledge function.
- Stand-alone execution or compatible with PLC / SCADA.

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# Application Sectors

## GAS DIGIGUARD

**OIL & GAS**
- Petrochemical
- Onshore Operations
- Offshore Operations

**INDUSTRIAL**
- Chemical
- Water Treatment
- Semi conductor
- Paper & Pulp

**COMMERCIAL**
- Building Services
- Car Parks
- Boiler Houses
- Food
- Printing

**DESCRIPTION**

The GAS DIGIGUARD is a multi-channel 19" Rack mounted Controller system that monitors the levels of up to sixteen remotely mounted Gas Sensors. The instrument is a standalone system that can be operated independently, or can also be connected to a PLC or DCS through a RS485 communication port on Modbus RTU protocol. This advanced multi-microcontroller based system is compatible with all the Gas Sensors from Honeywell Life Safety and can provide audio/visual alarms when the set values are exceeded.

The GAS DIGIGUARD has a central OLED 20-character by 4-line bright blue display which sequentially indicates the details of the Gas being monitored in each of the sixteen channels along with it's level and units. This Display is also used to configure the instrument, select Gas names from a library of 24 Gases and 7 Units, set the measured Ranges of each Gas, set the required Alarm Levels, the Alarm Types and Alarm Delays, besides additional functions like Calibration, Retransmission, Drift Values, enabling or disabling Relays, Skipping Channels, setting the Password, performing self-diagnostics, etc. The display information is multiplexed for eight channels at a time, with a Page Mode which gives complete information of any desired Channel. Further, each channel has an eight-bar multicolor LED bar-graph display for real-time monitoring of Gas levels.

The instrument offers four Relay controls for each channel with three Alarm levels and one Fault output to monitor Sensor Fault /Inhibit output. Besides, the GAS DIGIGUARD provides analog retransmission for each of the sixteen channels. Data information of all channels is available on a communication port on the rear panel on a RS485 port on Modbus RTU protocol. The GAS DIGIGUARD has a six-key tactile Keyboard interface on the front panel, which allows the user to set and monitor the various Gas parameters, Acknowledge and Reset Alarms, etc. The configured system menu is stored in a NVRAM which protects the data against power fluctuations and outages.

**GAS DIGIGUARD**
**brings future thinking to a new generation of gas detection, alarm and control applications**

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