GDA 2 Gas Detector Array 2

AIRSENSE ANALYTICS

-24 x 7 Detector for hazardous gases and chemical agent
-Stationary version

The GDA2 (Stationery version) system is a continuously operated 24 x 7 chemical agent detection system.
It is used to supervise sensitive public structures & transport systems, critical facilities, buildings and workplace areas.

The benefit using GDA technology is that to besides the selective detection of chemical warfare agents (CWA) also the whole range of hazardous and less hazardous volatile compounds can be supervised since the GDA technology offers the possibility to detect a very broad range of compounds in the gaseous phase.

The GDA2 system was invented by Airsense with the basic idea of combining several detection principles in order to achieve:
- a broad detection range and thus giving the highest level of safety
- the highest specifity in direct gas detection since combined sensor responses can be used for library comparison

The stationary GDA2 is basically a standard GDA2 with the following changes:
- modified flow system (e.g. pumps allowing long term continuous operation but having larger size and weight)
- prolonged operating time between maintenance (e.g. larger filters allowing 1 year continuous operation guaranteeing cleanness of the system and preservation of sensitivity)
- connectivity – personal computer connectivity offers all common kind of data interfacing
- meeting same analytical capabilities as GDA2 portable version
- customize the GDA2 data base to the requirements of different applications

The detector is rugged and reliable, even operating in adverse environments, but quickly and easily maintained at yearly service intervals.

Important Features:

- **Detection and identification of all main hazardous gases and chemical warfare agents within seconds**
- **Hybrid Sensor Array. Unique combination of different detectors (IMS, PID, EC, MOS)**
- **Stationary instrument with safe alarming concept and communication interface. Flow system adapted for 24/7 operation.**
- **Internal sensor protection system**
- **Easy to install**
- **Database is expandable**
- **Low maintenance costs**
- **Inside or outside operation (wide range of environmental conditions)**
- **Operates on ambient air (does not require any flammable carrier gas)**
- **HVAC Interface capabilities & Air duct monitoring option**

Specifications GDA 2

Sampling

System	continuous vapour sampling through internal pumps, internal sample dilution system
Recovery time	less than typically 5 min
Measurement Time	seconds to less than 1 min (depending on the compound)

Operation Principles

Detection Principle	Ion Mobility Spectrometer IMS (Ni63 ion source, positive and negative mode): orthogonal technology for improved interferent rejection, Photo Ionization Detector PID (10.6 eV), Electrochemical Cell, 2 Metal Oxide Sensors
Modes of Operation	GDA mode for hazardous compounds and chemical warfare agents
Agents detected	nerve, blister, blood & choking agents, toxic industrial chemicals, data base is expandable
Identification	based on pattern recognition methods, individual alarm thresholds are possible

Environment Requirements

Temperature	typical: -30ºC - +50ºC (ambient)
Humidity (relative)	5% to 95%, non-condensing

Power Requirement

Main Power	60W, powered by power supply of 230-250 Volt, 45-65 Hz
Battery Back-up:	Operation on Backup Battery. Battery to be recharged by internal charging circuit

Communication

Computer Interface	serial port – RS 232, RS-485 connectivity, USB, Ethernet, Wireless communication optional

Device Control / Data Handling

Requirements	Windows 2000, XP
Software	WinMuster GDA

Dimensions and Weight

Weight	40kg (4.5 kg for the GDA2 Portable Version)
System	600 x 600 x 200mm

Safety class Compliant to EN50270 / 1999 / type 1 & 2 device

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