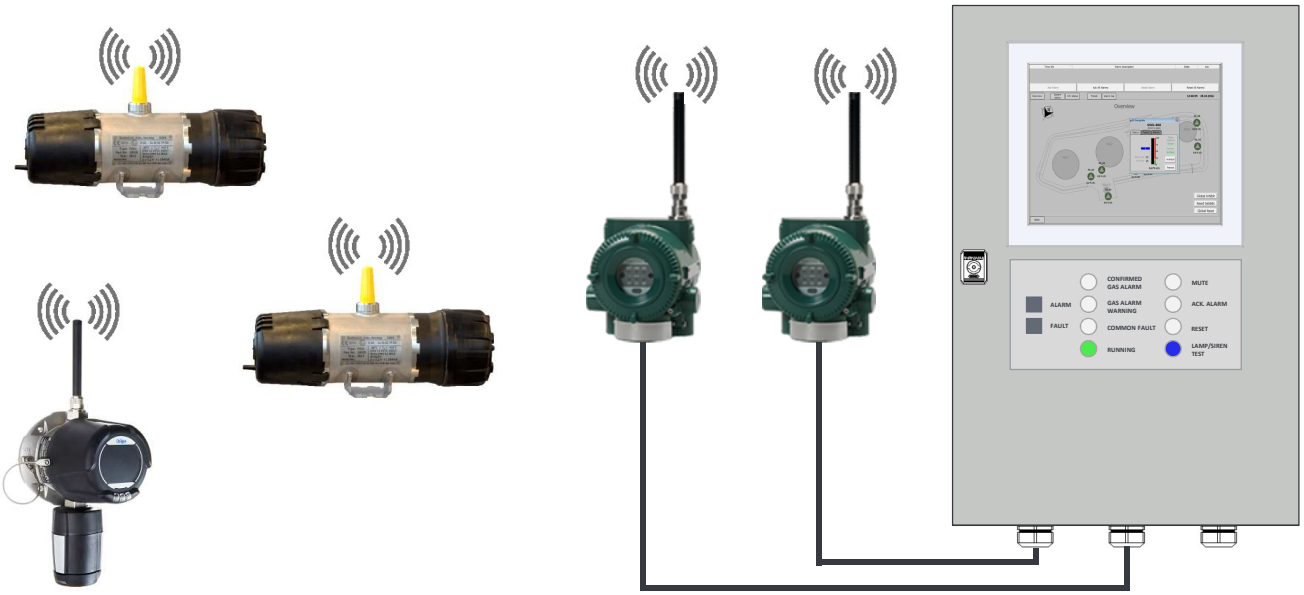
GAS SECURE

A Dräger Company

TURNKEY WIRELESS GAS DETECTION SYSTEM - MEDIUM



Wireless Gas Detectors | Access Points | Control System

OVERVIEW

The GasSecure wireless gas detection (GD) system variant "**MEDIUM**" is a stand-alone solution that only requires a mains power supply for operation. The system is designed for onshore and offshore applications. It can accommodate **up to 80** wireless gas detectors communicating with up to four access points, which are connected to a gateway integrated with the programmable logic controller (PLC). Our offering includes the **GS01** for flammable gases and the **Polytron 6100 EC WL** for toxic gases and Oxygen. The human machine interface (HMI) provides full access to alarms, gas readings, diagnostics and system status. The system also includes a critical alarm panel (CAP), optional uninterruptible power supply and data logger. Each complete system is individually pre-configured to the site requirements and then assembled and tested before delivery. The user only needs to fit the wireless gas detectors, install the access points and connect mains power to the system.

FEATURES

Truly wireless – No cables to field instruments present significant cost and time savings as well as installation flexibility.

Fast response – Direct initiation of alarms for gas presence.

Wide range of gases – Hydrocarbon gases, Oxygen and >100 toxic gases from one supplier.

ISA100 Wireless compliant – Fully based on this open platform for easy integration of additional field wireless instruments.

Complete solution – Includes PLC, alarm panel with buzzers, HMI, all software and settings preloaded for easy commissioning even in remote locations.

Industry-standard interfaces – Facilitates integration to higher control systems and integration of 3rd party equipment.

SPECIFICATIONS

FIELD DEVICES (quoted separately, project dependent)

Wireless gas detector	GS01, GS01-EA, Polytron 6100
Wireless access point	ISA100 Wireless compliant
SHDSL modem [1]	Optional
Sounders & beacons	Optional

ENVIRONMENTAL & ELECTRICAL

Temperature	-40 to +65 °C [2]
Humidity	0 to 100% RH [3]
Ingress protection	IP66
GS01 battery	Lithium-Thionyl Chloride
Access point power	10 - 26 VDC (24 VDC nominal)

REFERENCES / LITERATURE

Please review the following for detailed specifications:

GS01 / GS01-EA	GasSecure GS01 (-EA) datasheet
Polytron 6100 EC WL	Dräger P 6100 datasheet
Wireless access point	Manufacturers datasheet
Gateway	Manufacturers datasheet
Phoenix Contact items	Datasheets at phoenixcontact.com

ON-SITE INTEGRATION

The system is designed as a ready-to-use turnkey solution. Integration of 3rd party wireless and wired equipment is possible e.g. flame detectors or temperature & pressure sensors. Hardwired signals can be terminated directly in the system cabinet or in a separate I/O cabinet that is interfaced to the system via Ethernet.

The wireless GD system “MEDIUM” can easily integrate into an on-site distributed control system (DCS). The interface between the two systems is Modbus TCP.

Maintenance and local access is enabled with the service port. The “MEDIUM” system also contains a data logger, which retains 30 days of measurement and diagnostic data.

CONTROL SYSTEM

Gateway	ISA100 Wireless compliant
PLC	Phoenix Contact RFC
Bus coupler, I/O station	Phoenix Contact IL
Touch panel	Phoenix Contact TP3150S

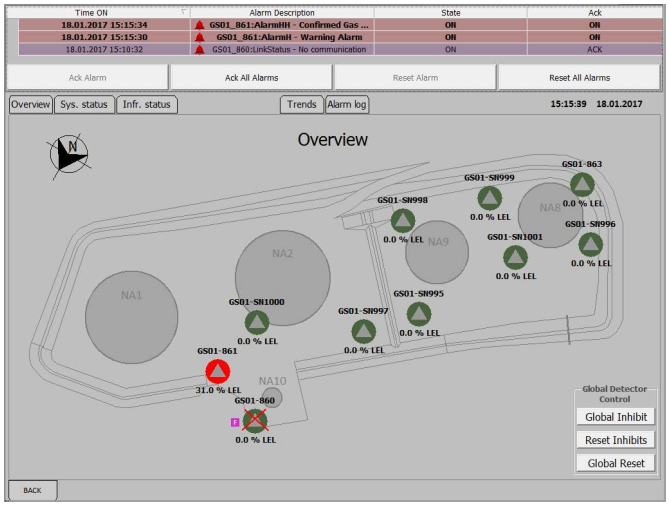
ENVIRONMENTAL & ELECTRICAL

Temperature	0 to +60 °C
Humidity	10 to 95% RH (non-condensing)
Ingress protection	Indoor use
Grounding	6 mm^2 protective & instrument earth
System power	100 - 240 VAC
UPS battery (optional)	12 Ah (2 hour ctr. system operation)

INTERFACES & MECHANICAL

HMI touch panel	15" TFT-Display, 1024 x 768 Pixel
Critical alarm panel	4 LED, 4 buttons, 2 buzzers
Service port	Ethernet10/100 Mbit/s, RJ45
To on-site DCS	Modbus TCP
Dimensions (WxHxD)	600 x 800 x 400 mm
Weight	Approximately 40 kg

EXAMPLE HMI DISPLAY



1) In Ex-d enclosure.
2) GS01 range is -30 to +55 °C (up to +65 °C on request).
3) Except for wireless access point: 5 to 95% RH.

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