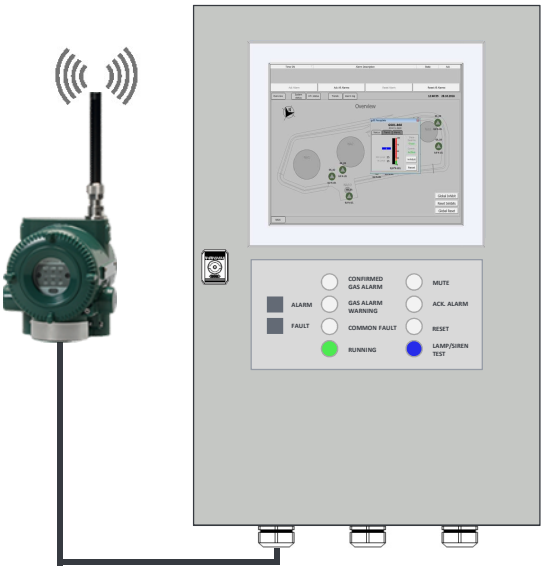
GAS SECURE

A Dräger Company

WIRELESS GAS DETECTION SYSTEM WITH LOCAL ALARMS

Field Devices Alarm Devices



Access Point Control System

OVERVIEW

The GasSecure wireless gas detection (GD) system variant "**LOCAL ALARM**" is a stand-alone solution that only requires a mains power supply for operation. 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. This system includes field wireless modules with relay contacts for local alarm devices. With this layout, beacons and sounders on the spot are triggered from the control room via radio link to the field module. The human machine interface (HMI) provides full access to alarms, gas readings, diagnostics and system status. The system contains a critical alarm panel (CAP), optional uninterruptible power supply and data logger. Each system is individually pre-configured to the site requirements and assembled and tested before delivery.

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.

Radio-triggered alarms – No cables to local alarm devices supporting the wireless approach.

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, 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 field module	Yokogawa FN510 / FN110
Wireless access point	Yokogawa YFGW510 or YFGW520
SHDSL modem[1], sounders & beacons	Optional

ENVIRONMENTAL & ELECTRICAL

Temperature	-40 to +65 °C [2]
Humidity	0 to 100% RH [3]
Ingress protection	IP66
Field device 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	Datasheet at yokogawa.com
Gateway	Datasheet at yokogawa.com
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 “LOCAL ALARM” 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. This system also contains a data logger, which retains 30 days of measurement and diagnostic data.

CONTROL SYSTEM

Gateway	Yokogawa YFGW410
PLC	Phoenix Contact RFC
Bus coupler, I/O station	Phoenix Contact IL
Touch panel	Phoenix Contact TP3150S

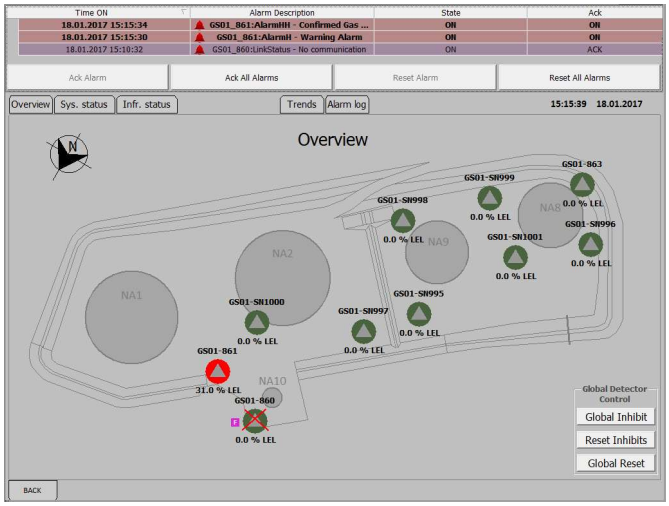
ENVIRONMENTAL & ELECTRICAL

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 YFGW510 YFGW520: 5 to 95% RH.

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