



## GasScanner

### Fixed Gas Detection Series



GS-1C



GS-2C



GS-4C



GS-8C

#### Introduction

The GasScanner Series is a powerful, low cost fixed gas detection system that is available for one, two, four or eight points of gas detection. It is microprocessor controlled, versatile, simple to install and operate, and priced to be the industry's best value gas detection controller.

It is capable of accepting Matheson Tri-Gas sensors for LEL level combustibles, oxygen, CO<sub>2</sub>, corrosives, and toxic gases.\* The GasScanner can also accept any 4-20 mA transmitters (2 or 3 wires, 24 VDC). Sensors can be mounted directly at the GasScanner housing, or can be wired remote from the controller.

The 10 amp rated relay contacts are strong enough to directly control external alarms and horns. The digital display has backlighting and simultaneous readout of the gas type and concentration.

The Gas Scanner is housed in a NEMA 4X rated case for a weather tight seal. This case design complies with lock out / tag out standards and can be fully secured. An external reset switch allows the alarm to be silenced from outside of the controller housing. Gas Scanner ships complete with a wall mounting kit for easy installation. Matheson Tri-Gas offers the industry's widest selection of standard and toxic gas detection sensors, which can be utilized with the Gas Scanner, providing gas-monitoring protection for almost any application.

#### Features

- Low cost versatile solution
- Easy to install, operate and expand
- Compact, weatherproof, NEMA 4X enclosure
- 115/220 VAC
- Audible alarm with reset button
- Built-in trouble alarm with relay
- Relay rating 10 amps, form C
- Provides 4-20 mA output
- Two programmable alarm levels
- Simultaneous readout on one, two, four or eight channels.
- Accepts any 4-20 mA transmitter
- CCSAUS Electrical Approval
- Accepts sensors for LEL, O<sub>2</sub>, H<sub>2</sub>S, CO, and CO<sub>2</sub> as well as toxic sensors\*
- Long life sensors (2+ years typical)

\* See Sensor list for available gases

#### Ordering Information

Model Number	Description
GS-1C	One Channel Controller
GS-2C	Two Channel Controller
GS-4C	Four Channel Controller
GS-8C	Eight Channel Controller



## GSS Series GasScanner Sample Diffusion Transmitters



### Description

The GSS Series Gas Scanner Diffusion Transmitters are highly reliable and very cost effective for the detection of common gas hazards. The GSS Series Transmitters are available for LEL, O<sub>2</sub>, H<sub>2</sub>S, CO and for various fuels or solvents. These detector assemblies are rated for for Class1, Div. 1 Group B, C & D atmospheres. The only tools required to calibrate the GSS Series are a voltmeter, a screwdriver, and a cylinder of calibration gas. Field calibrations can be performed easily and quickly by one person.

The GSS Series Diffusion Transmitters are ideal for ether indoors or outdoors. The flame arrestor utilizes a patented water repellent coating. Splashguards are also available for use in very wet environments. The transmitters operate from 24 VDC (10.5 DC to 30 VDC), and provide a 4-20 mA signal that can be connected to a wide variety of controllers.

### Features

- Explosion Proof Housing Class 1, Div 1, Group B, C, & D
- Available for LEL, O<sub>2</sub>, CO, H<sub>2</sub>S
- Infrared sensors available for combustibles and CO<sub>2</sub>
- Special CO sensor without H<sub>2</sub> interference available as an option
- Cost effective
- 24 VDC operation
- LEL Sensors – UL approved. CO, H<sub>2</sub>S, O<sub>2</sub> – CCSAUS Electrical Approval

### Ordering Information

Model Number	Description
TGSS-C2H2	ACETYLENE, 100% LEL, Diffusion Transmitter
GSS-C4H6	BUTADIENE, 100% LEL, Diffusion Transmitter
GSS-C4H10	BUTANE, 100% LEL, Diffusion Transmitter
GSS-CO2	CARBON DIOXIDE, 5000 ppm, Diffusion Transmitter
GSS-CO	CARBON MONOXIDE, 300 ppm, Diffusion Transmitter
GSS-D2	DEUTERIUM, 100% LEL, Diffusion Transmitter
GSS-DSLFL	DIESEL FUEL, 100 % LEL, Diffusion Transmitter
GSS-ETHNL	ETHANOL, 100% LEL, Diffusion Transmitter
GSS-FLOL	FUEL OIL, 100% LEL, Diffusion Transmitter
GSS-GASLN	GASOLINE, 100% LEL, Diffusion Transmitter
GSS-C6H14	HEXANE, 100% LEL, Diffusion Transmitter
GSS-H2	HYDROGEN, 100% LEL, Diffusion Transmitter
GSS-H2S	HYDROGEN SULFIDE, 100 ppm, Diffusion Transmitter
GSS-C4H10	ISOBUTANE, 100% LEL, Diffusion Transmitter
GSS-C4H8	ISOBUTYLENE, 100% LEL, Diffusion Transmitter
GSS-ISPRPNL	ISOPROPANOL, 100 % LEL, Diffusion Transmitter
GSS-CH4	METHANE, 100% LEL, Diffusion Transmitter
GSS-MTHNL	METHANOL, 100% LEL, Diffusion Transmitter
GSS-CH4NG	NATURAL GAS, 100% LEL, Diffusion Transmitter
GSS-O2	OXYGEN, 0-25%, Diffusion Transmitter
GSS-C5H12	PENTANE, 100% LEL, Diffusion Transmitter
GSS-C3H8	PROPANE, 100% LEL, Diffusion Transmitter
GSS-C3H6	PROPYLENE, 100% LEL, Diffusion Transmitter



## GSM Series

### GasScanner Stand Alone Diffusion Transmitters



#### Description

The GSM Series is a state of the art transmitter that can operate as an independent, stand alone system or as part of a system connected with an analog signal to a GasScanner controller. The GSM Series detects LEL combustibles, O<sub>2</sub>, H<sub>2</sub>S, CO, and CO<sub>2</sub>. These detector assemblies are rated for Class 1, Division 1, Group B, C and D atmospheres. It utilizes a magnetic wand technique for performing non-intrusive calibration. The GSM Series provides an automatic zero drift correction feature, which results in more stable readings and reduces the need for adjustments due to sensor aging.

The housing of the GSM does not need to be opened for zeroing or calibration, making it unnecessary to declassify the area for routine maintenance. It is designed so that a complete field calibration can be performed by one person. The stainless steel flame arrestor housing that covers the sensor (LEL, H<sub>2</sub>S, or CO) is water repellent with a special patented water resistant coating.

#### Features

- Direct digital readout
- Monitors combustibles, H<sub>2</sub>S, CO and O<sub>2</sub>
- Catalytic and infrared option for LEL detection
- H<sub>2</sub> specific version available
- Operates independently or with any controller, PLC or DCS
- Non-intrusive calibration via magnetic wand
- 2 programmable alarm relays, plus fail relay
- Explosion proof housing
- UL version for LEL (standard)
- LEL Sensors – UL approved. CO, H<sub>2</sub>S, O<sub>2</sub> – cCSAus Electrical Approval

#### Ordering Information

Model Number	Description
GSM-C2H2	ACETYLENE, 100% LEL, Diffusion Transmitter
GSM-C4H6	BUTADIENE, 100% LEL, Diffusion Transmitter
GSM-C4H10	BUTANE, 100% LEL, Diffusion Transmitter
GSM-CO2	CARBON DIOXIDE, 5000 ppm, Diffusion Transmitter
GSM-CO	CARBON MONOXIDE, 300 ppm, Diffusion Transmitter
GSM-D2	DEUTERIUM, 100% LEL, Diffusion Transmitter
GSM-DSLFL	DIESEL FUEL, 100 % LEL, Diffusion Transmitter
GSM-ETHNL	ETHANOL, 100% LEL, Diffusion Transmitter
GSM-FLOL	FUEL OIL, 100% LEL, Diffusion Transmitter
GSM-GASLN	GASOLINE, 100% LEL, Diffusion Transmitter
GSM-C6H14	HEXANE, 100% LEL, Diffusion Transmitter
GSM-H2	HYDROGEN, 100% LEL, Diffusion Transmitter
GSM-H2S	HYDROGEN SULFIDE, 100 ppm, Diffusion Transmitter
GSM-C4H10	ISOBUTANE, 100% LEL, Diffusion Transmitter
GSM-C4H8	ISOBUTYLENE, 100% LEL, Diffusion Transmitter
GSM-ISPRPNL	ISOPROPANOL, 100 % LEL, Diffusion Transmitter
GSM-CH4	METHANE, 100% LEL, Diffusion Transmitter
GSM-MTHNL	METHANOL, 100% LEL, Diffusion Transmitter
GSM-CH4NG	NATURAL GAS, 100% LEL, Diffusion Transmitter
GSM-O2	OXYGEN, 0-25%, Diffusion Transmitter
GSM-C5H12	PENTANE, 100% LEL, Diffusion Transmitter
GSM-C3H8	PROPANE, 100% LEL, Diffusion Transmitter
GSM-C3H6	PROPYLENE, 100% LEL, Diffusion Transmitter



## 411d GSK Series

## GasScanner Sample Draw Transmitters

**Description**

The GSK Series is a complete sample draw gas monitor, including digital readout and alarm relays. The GSK Series is equipped with a new smart gas sensor technology using an intelligent sensor for remote location calibration and setup. These new smart sensors also double calibration interval requirements to once a year, which equates to reduced maintenance cost. In addition, the sensors can be calibrated away from the gas detector installation, for example in a service area or offsite. This eliminates the inconvenience of bringing calibration gases into the fab or monitoring location. GSK Series easily connects to existing GasScanner Control Boxes 1C- 8C or to PLC systems and is ideal for applications needing a local readout or a relay control for activating other devices.

**Features**

- Digital display (LED) for gas concentration
- Sensor information and calibration is stored within sensor memory
- Long life sensors
- Zero suppression and correction
- Smaller housing design for narrow wall mounting locations
- Self-diagnostic functions by microprocessor
- Electrochemical sensors for wide selection of toxic gases
- Built-in sampling pump
- Easy replacement of pump and sensor
- Two alarm levels, plus trouble alarm with relays
- 24 VDC operation

**Ordering Information**

Model Number	Description
GSK-NH3	AMMONIA, 75 ppm, Sample Draw Transmitter
GSK-ASH3	ARSINE, 0.2 ppm, Sample Draw Transmitter
GSK-BCL3	BORON TRICHLORIDE, 5 ppm, Sample Draw Transmitter
GSK-BF3	BORON TRIFLUORIDE, 9 ppm, Sample Draw Transmitter
GSK-CO	CARBON MONOXIDE, 150 ppm, Sample Draw Transmitter
GSK-CL2	CHLORINE, 1.5 ppm, Sample Draw Transmitter
GSK-CLF3	CHLORINE TRIFLUORIDE, 0.6 ppm, Sample Draw Transmitter
GSK-B2H6	DIBORANE, 0.3 ppm, Sample Draw Transmitter
GSK-DCS	DICHLOROSILANE, 15 ppm, Sample Draw Transmitter
GSK-SI2H6	DISILANE, 15 ppm, Sample Draw Transmitter
GSK-F2	FLUORINE, 3 ppm, Sample Draw Transmitter
GSK-HBR	HYDROGEN BROMIDE, 9 ppm, Sample Draw Transmitter
GSK-HCL	HYDROGEN CHLORIDE, 15 ppm, Sample Draw Transmitter
GSK-HF	HYDROGEN FLUORIDE, 9 ppm, Sample Draw Transmitter
GSK-H2S	HYDROGEN SULFIDE, 30 ppm, Sample Draw Transmitter
GSK-NO2	NITROGEN DIOXIDE, 15 ppm, Sample Draw Transmitter
GSK-O3	OZONE, 0.6 ppm, Sample Draw Transmitter
GSK-PH3	PHOSPHINE, 1 ppm, Sample Draw Transmitter
GSK-SIH4	SILANE, DH SENSOR, 15 ppm, Sample Draw Transmitter
GSK-WF6	TUNGSTEN HEXAFLUORIDE, 9 ppm, Sample Draw Transmitter
GSK-NF3	NITROGEN TRIFLUORIDE, 30 ppm, With Pyrolyzer, Sample Draw Transmitter