

# TG5000 Monitoring System



## Application

Industrial facilities possess a wide variety of gas detection needs. From boiler rooms, battery rooms, engineering and research labs, and transportation maintenance facilities, to a myriad of other industrial building and facility applications, each environment has its own monitoring needs. To enable personnel to work safely in these environments, monitoring of toxic gases, oxygen enrichment and deficiency, and combustible gases is necessary. Due to this wide variety, a flexible, versatile gas monitor is absolutely essential.

## Solution

The TG5000 Monitoring System is an effective and economical solution to detecting combustible and toxic gases, as well as oxygen deficiency/enrichment. This self-contained package featuring audible-visible signaling is particularly well-suited to notify workers of an emergency condition to prompt evacuation protocols as quickly and safely as possible. The dual sensing design enables users to double the sensing power with half the footprint of a single gas sensor transmitter, and the remote sensing capability permits strategic sensor positioning for optimal facility safety.

# TG5000 Monitoring System



## Additional Features

- Operates in diffusion mode, with factory-calibrated sensors ready to perform immediately after installation
- Available for remote sensing applications, where installation requires the sensor to be separated from the electronics
- Can operate on a completely stand-alone basis with its large LCD display, quick-check LEDs and three relay outputs (two alarm and one fault), or can be connected with a 4-20 mA output to a control system (PLC, DCS, etc.)
- SafeSwap enables safe and quick replacement of XCell Gas Sensors without turning off the instrument
- Pre-calibrated sensor modules are ready for installation out of the box
- Sensors can be replaced in the field without the use of tools—the unit quickly recognizes the new sensor type and reconfigures alarm and relay settings to optimize the new sensor

## Stay Connected. Work Smarter.

- Bluetooth wireless technology
- Check status and get alerts up to 75 ft. (23 m) away
- Modify settings/setpoints/alarms
- Initiate calibration and view progress



## Available Options

- Strobes (one or two)
- Internal 50 W power supply
- Sunshield
- Mounting brackets

Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice. MSA is a registered trademark of MSA Technology, LLC in the US, Europe, and other Countries. For all other trademarks visit <https://us.msasafety.com/Trademarks>.

TG5000 Specifications	
<b>GAS TYPE</b>	Toxics, oxygen, & combustibles
<b>GAS SAMPLING</b>	Diffusion
<b>OUTPUT TYPE</b>	4-20 mA, HART
<b>SENSOR LOCATION</b>	Local or remote sensor up to 100 m (328 ft.)
<b>RELAYS</b>	6 Amp DPDT, 2 relays
<b>HOUSING MATERIAL</b>	General-purpose polycarbonate enclosure
<b>TEMPERATURE RANGE</b>	-20°C to +40°C
<b>POWER INPUT</b>	Internal 110VAC/24VDC power supply
<b>ALARM TYPE</b>	Piezo horn (95 dB) with horn silence button
<b>WARRANTY</b>	2 years

Sensor Specifications			
SENSOR TEMPERATURE RANGE	XCELL	XIR PLUS	
(May differ by gas, see manual)			
-40°C to +60°C (-40°F to 140°F)			
-40°C to +60°C (-40°F to 140°F)			
SENSOR PERFORMANCE*	T90 (typical)	Repeatability	Zero Drift (per year)
XIR PLUS COMB.	< 2 sec.	< ± 1% LEL	N/A
XIR PLUS CO <sub>2</sub>	< 6 sec.	< ± 1% Vol	N/A
XCELL COMB.	< 22 sec.	< ± 3% LEL	< 5% LEL
XCELL CO	< 9 sec.	< ± 1%	< 1% full scale
XCELL Cl <sub>2</sub>	< 12 sec.	± 1%	≤ 1% FS per mo.
XCELL ClO <sub>2</sub>	< 30 sec.	< ± 15%	< 1% FS per mo.
ETO	< 140 sec.	< ± 15%	< 2% FS per mo.
HCl	< 120 sec.	< ± 35%	< 1% FS per mo.
HCN	< 30 sec.	< ± 15%	< 1% FS per mo.
HF	< 90 sec.	< ± 15%	< 2% FS per mo.
H <sub>2</sub>	< 185 sec.	< ± 10%	< 1% FS per mo.
XCELL H <sub>2</sub> S	< 23 sec.	< ± 1%	< 1% full scale
XCELL NH <sub>3</sub>	< 280 sec.	± 1%	≤ 1% FS per mo.
NO <sub>2</sub>	< 60 sec.	< ± 10%	< 1% FS per mo.
XCELL O <sub>2</sub>	< 11 sec.	< ± 1% Vol	< 0.2% Vol
XCELL SO <sub>2</sub>	< 6 sec.	± 1%	≤ 1% FS per mo.
SENSOR RELAYS	5 Amp SPDT; 3 relays (2 alarm, 1 fault) @220 VAC or 30 VDC		

\* Typical response at standard temperature and pressure test conditions

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