

# Model 580A

Dual-Channel Combustible Gas Monitor



General Monitors



## Applications

- Compressor Stations
- Drilling Platforms and Rigs
- Fuel Loading Facilities
- Gas and Oil Production Platforms
- Gas Turbines
- LNG Processing and Storage
- Oil Well Logging
- Sewage Plants
- Solvent Vapors

## Features

- Continuous diffusion, electro-catalytic sensor
- High visibility LED status indicators
- Adjustment-free calibration
- Low power consumption
- Wide variety of relay options
- Two year warranty

## Benefits

- Stable operation over wide ambient temperature and humidity ranges
- Provides visual indication of fault and alarm status at the detector location
- Lower calibration costs
- Lower operating costs
- Provides choice to meet specific customer requirements
- User protection

## Description

The Model 580A Controller is a two-channel system designed to continuously monitor for potential explosive concentrations of most combustible gases/vapors. The 580A consists of a controller plus two sensor assemblies. The sensors are monitored independently. The controller can be wall, panel or rack mounted in a non-hazardous area.

The system operates in the range of 0-100% LEL (Lower Explosive Limit) and is calibrated to a particular gas or vapor. User interfaces are provided so that the operator may interpret and direct the Model 580A in the performance of its various functions. User interfaces consist of a digital display, status indicators, a channel/select button, a mode button, and a reset button.

The system operates on 117 VAC, 50-60 Hz (optional 220 VAC, 50-60 Hz), or 24 VDC primary input power with the capability of 24 VDC battery backup. Nominal power consumption is 18 watts.



The Safety Company

Because every life has a **purpose...**

System Specifications	
DIGITAL READOUT	0-99% LEL
ACCURACY	±3% LEL ≤ 50% LEL gas 5% LEL > 50% LEL gas
CLASSIFICATION	General purpose for mounting in non-hazardous areas, indoors.
WARRANTY	Two years
APPROVALS	CSA
Environmental Specifications	
TEMPERATURE RANGE	32°F to 140°F (0°C to 60°C)
STORAGE TEMPERATURE	-4°F to 149°F (-20°C to 65°C)
HUMIDITY	10-95%, non-condensing
Mechanical Specifications	
MOUNTING	Panel or wall
DIMENSIONS	2.1" W x 6.9" H x 11.5" D (53mmW x 175mmH x 292mmD)
WEIGHT	3.8 lbs. (1.8 kg)
Electrical Specifications	
POWER	105-130 VAC (205-255 VAC optional), 50-60 Hz, 22-30 VDC, 9 watts nominal per channel (117 VAC)
ALARM CIRCUITS	4A/117 VAC, resistive
LED STATUS INDICATORS	SE - Sensor malfunction HI - High line voltage LO - Low line voltage
STANDARD CONFIGURATION	580A-1-1-01-2 (110 VAC / 24 VDC, latch alarm, non-latch warn, de-energized, standard)

## Sensor Elements

General Monitors' sensors are designed for reliable performance and long life. Each sensor must undergo extensive burn-in and rigid quality control procedures before shipment.

The sensors consist of two catalytic bead elements in a balanced Wheatstone bridge circuit. These low temperature catalytic bead-sensing elements require minimal sensor excitation current, greatly increasing sensor life.

Sensor Specifications																
TYPE	Continuous diffusion, low temperature catalytic bead. Standard Industrial Hydrocarbon Sensor. High Temperature Standard Industrial Hydrocarbon Sensor.															
TEMPERATURE RANGE	-40°F to +167°F (-40°C to +75°C) High Temperature Sensor to 392°F (200°C)															
RESPONSE TIME	T <sub>50</sub> : typically 6 seconds															
ZERO DRIFT	Less than 5% per year															
LIFE	3 to 4 years, normal service															
CLASSIFICATION	Class I, Division 1 and 2, Groups B, C and D															
CABLE LENGTH	Three conductor cable. Maximum length of cable between controller and sensor assembly with loop resistance of 20 ohms NOTE: Shielded cable is recommended															
	<table border="1"> <thead> <tr> <th>Wire Size AWG</th> <th colspan="2">Length (Meters) (Feet)</th> </tr> </thead> <tbody> <tr> <td>14</td> <td>2,320</td> <td>7,600</td> </tr> <tr> <td>16</td> <td>1,460</td> <td>4,800</td> </tr> <tr> <td>18</td> <td>910</td> <td>3,000</td> </tr> <tr> <td>20</td> <td>580</td> <td>1,900</td> </tr> </tbody> </table>	Wire Size AWG	Length (Meters) (Feet)		14	2,320	7,600	16	1,460	4,800	18	910	3,000	20	580	1,900
Wire Size AWG	Length (Meters) (Feet)															
14	2,320	7,600														
16	1,460	4,800														
18	910	3,000														
20	580	1,900														
WARRANTY	Two years															
APPROVALS	CSA and/or FM															

### Specifications subject to change without notice.

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products. Specifications subject to change without notice.



#### Corporate Headquarters:

**MSA**  
1000 Cranberry Woods Drive  
Cranberry Township, PA 16066  
United States  
+1-724-776-8600  
[info.us@MSAsafety.com](mailto:info.us@MSAsafety.com)

#### Design Center:

**General Monitors**  
26776 Simpatica Circle  
Lake Forest, CA 92630  
United States  
+1-949-581-4464  
[info.gm@MSAsafety.com](mailto:info.gm@MSAsafety.com)

ID 1465-08-MC / Nov 2015

© MSA 2015 Printed in U.S.A.

Additional locations can be found on our web site:  
[www.MSAsafety.com](http://www.MSAsafety.com)