



GENERAL MONITORS
Protection for life.

MODEL 580A

Dual-Channel Combustible Gas Monitor



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.

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



MODEL 580A

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, 2-active channels)

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: T₅₀: 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

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.

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