



GENERAL MONITORS
Protection for life.

MODEL 2280A

Four-Channel H₂S Gas Monitor



Features

- Continuous diffusion, solid-state 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 2280A is a four-channel system specifically designed for continuous monitoring of Hydrogen Sulfide (H₂S) gas in the ppm (parts-per-million) range. The 2280A controller is a microprocessor-based instrument, which features recent advancements in electronic circuitry and packaging techniques.

The system consists of four remote sensing assemblies and a solid-state controller. The controller consists of four independent channels, each having its own control circuitry. The sensors are monitored independently (i.e. they are not scanned, nor are the signals summed).

User interfaces are provided so that the operator may interpret and direct the Model 2280A in the performance of its various functions. User interfaces consist of a digital display, status indicators, a mode button and a reset button. The digital display provides the user with the gas concentration at the sensor site, fault diagnostic codes, calibration prompts and setup parameters.

The controller should be mounted in a weather protected non-hazardous area. Several General Monitors accessories are available for panel, wall or 19-inch rack installation. For hazardous areas an explosion proof housing is available for Class I, Division 1, Groups C and D.

Applications

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



MODEL 2280A

System Specifications

Digital Readout: 0-20, 0-50, 0-99 ppm

Accuracy: ±2 ppm or 10% of applied gas, whichever is greater

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: 4.0" W x 6.9" H x 11.5" D (102mmW x 175mmH x 292mmD)

Weight: 6.2 lbs. (2.86 kg)

Electrical Specifications

Power: 105-130 VAC (205-255 VAC optional), 50-60 Hz, 22-30 VDC, 9 watts nominal per channel (117 VAC)

Output: Analog 4-20mA (300 ohm load max.) Accuracy ±5%, 1.5-20mA

Alarm Circuits: 4A/117 VAC, resistive

Status Indicators: AO - Analog output malfunction
SE - Sensor malfunction
HI - High line voltage
LO - Low line voltage

Standard Configuration: 2280A-1-1-1-01-1-4 (110 VAC / 24 VDC, common relays/alarms, latch alarm, non-latch warn, de-energized, 100 ppm standard sensor, 99 ppm meter scale, 4-active channels)

Sensor Specifications

Type: Continuous diffusion adsorption type

Temperature Range:
Std. Sensor (CSA) : -40°F to +167°F (-40°C to +75°C)
Std. Sensor (FM) : -40°F to +140°F (-40°C to +60°C)
Std. Sensor (ATEX/IECEX): -40°F to +248°F (-40°C to +120°C)

Response Time: T₅₀ < 14 seconds with full-scale gas applied (screen)
T₅₀ < 30 seconds with full-scale gas applied (sintered)

Zero Drift: Less than 5% per year

Repeatability: ±2 ppm or 10% of reading, whichever is greater

Life: 3 to 5 years, normal service

Classification: Class I, Division 1, Groups B, C and D

Specificity: H₂S specific

Warranty: Two years

Cable Length: Four 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	1,029	3,375
16	686	2,250
18	411	1,350
20	274	900

Specifications subject to change without notice.

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