

# Jerome 631-X<sup>®</sup> Hydrogen Sulfide Analyzer

With the push of a single button, the portable Jerome 631-X hydrogen sulfide analyzer displays low-level concentrations in just seconds. It offers an analysis range of 0.003-50 ppm for odor and corrosion control, safety, and leak detection in such industries as wastewater treatment, oil and gas, pulp and paper, and farming. This simple-to-use instrument weighs only 7 pounds, utilizes an internal rechargeable battery pack or AC power, and is easily carried to suspected sources of hydrogen sulfide for detection and measurement. Locked in survey mode, the 631-X automatically displays hydrogen sulfide concentrations as quickly as every 3 seconds.

The Jerome 631-X utilizes a patented gold film sensor. The instrument's selectivity to hydrogen sulfide eliminates interferences from sulfur dioxide, carbon dioxide, carbon monoxide, and water vapors. When the sample button is pressed, an internal pump draws air into the instrument. Any hydrogen sulfide in the sample is absorbed by the sensor which registers a proportional change in electrical resistance. The hydrogen sulfide concentration is displayed on the LCD, where it remains until the next sample is taken.

Additional accessories are available to customize the Jerome 631-X to meet individual application needs. For unattended sampling, the instrument can be programmed by a computer using the Jerome Communication Software (JCS). A data logger plugs into the back of the instrument for data acquisition during portable surveys or unattended sampling without a computer. Recorded data can be downloaded later to a computer using the JCS software for analysis, printout, and permanent record keeping. An available internal option board allows auto-zeroing, DC power operation, timed regeneration, and timed sampling during prolonged, unattended sampling periods. The option board also allows external fresh air solenoid support and 4-20 mA or 0-2 V analog output. Instrument calibration can be verified in the field using the Functional Test Module (FTM). A molded hard carrying case or soft field case give added versatility and organized storage for the instrument and its accessories.



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### Features:

Rugged and easy to operate  
Inherently stable gold film sensor  
Pressure sensitive membrane switch operation  
Rechargeable internal battery pack for portability  
Wide detection range allows for multiple applications  
Automatic LCD backlight during low light conditions  
Survey mode for rapid source detection of hydrogen sulfide concentrations  
Microprocessor ensures a linear response throughout the entire range of the sensor

### Specifications:

Resolution	0.001 at Range 0 to 1 ppm at Range 3	
Detection Range	0.003-50 ppm	
Precision	5% Relative Standard Deviation	
Accuracy	Range 0: ±0.003 ppm at 0.050 ppm Range 1: ±0.03 ppm at 0.50 ppm Range 2: ±0.3 ppm at 5.0 ppm Range 3: ±2 ppm at 25 ppm	
Response Time	Sample Mode:	Survey Mode:
	10-50 ppm in 13 seconds	10-50 ppm in 3 seconds
	1.0-10.0 ppm in 16 seconds	1.0-10.0 ppm in 6 seconds
	0.10-1.00 ppm in 25 seconds	0.10-1.00 ppm in 15 seconds
	0.001-0.100 ppm in 30 seconds	0.001-0.100 ppm in 20 seconds
Flow Rate	150 cc/min or 0.15 l/min	
Power Requirements	100-120 V~, 50/60 Hz, 1 A or 220-240 V~, 50/60 Hz, 1 A	
Internal Battery Pack	Rechargeable nickel-cadmium	
Environmental Range	0-40°C, noncondensing, nonexplosive	
Interfaces	RS-232 PC using Jerome Communications Software	
Dimensions	631-X: 6" W x 13" L x 4" H / 16 cm W x 33 cm L x 10 cm H 631-XE: 7" W x 14" L x 7" H / 18 cm W x 35 cm L x 18 cm H	
Weight	631-X: 7 lbs / 3 kg 631-XE: 8 lbs / 3.5 kg	
Warranty	1 year, factory parts and labor	
Marks	European Communities (CE) for 220-240 V~ model only	

### Options:

Functional Test Module for sensor operation verification in the field (30 or 250 ppb)  
Data Logger to record field monitoring information  
Maintenance Kit for routine maintenance and upkeep  
Hard or Soft Field Carrying Case for versatile handling and additional storage  
Jerome Communications Software Kit for downloading information from the data logger to a PC or for unattended, fixed-point sampling  
Option Board for external fresh air solenoid support, auto-zeroing, DC power operation, timed regeneration, 4-20 mA or 0-2 V analog output, and timed sampling

### Applications:

Leak Detection	Applied Research Projects
Quality Control	Scrubber Efficiency Testing
Ambient Air Analysis	Hydrogen Sulfide Source Detection
Regulatory Compliance	Control Room Corrosion Monitoring
Nuisance Odor Monitoring	Accuracy Check for other Hydrogen Sulfide Monitors and Control Systems