

# 431-X Mercury Vapor Analyzer



## TIME-TESTED GOLD FILM MERCURY VAPOR ANALYSIS

Durable, dependable and easy to use—the Jerome® 431-X mercury vapor analyzer utilizes our industry-proven gold film sensor technology to detect low levels of mercury vapor. With just the touch of a button, the 431-X can detect mercury in air from 0.003 mg/m<sup>3</sup> to 0.999 mg/m<sup>3</sup> in seconds. It is built tough for use in the field or in the lab and is ideal for industrial hygiene monitoring, mining, regulatory compliance, emergency response and more.

JEROME®

**BROOKFIELD**  
**AMETEK®**

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## Mercury vapor analysis for a wide range of applications

### FEATURES

**LOW-LEVEL DETECTION:** The Jerome® 431-X can detect mercury vapor in air from 0.003 mg/m<sup>3</sup> to 0.999 mg/m<sup>3</sup>, making it ideal for industrial hygiene monitoring, mercury spill detection and cleanup, mercury exclusion testing and more.

**GOLD FILM SENSOR:** Validated in the field and in the lab for over 35 years, our proprietary gold film sensor ensures repeatable results across a wide range of applications.

**RUGGED CONSTRUCTION:** Housed in a sturdy metal case, the 431-X is built to withstand rough operating conditions and deliver accurate results whether it is in the field or in the lab.

**EASY TO USE:** The quick reference guide beneath the handle helps simplify day-to-day use and the easy to read display screen is equipped with an automatic backlight that activates in low-light situations.

**REGULATORY COMPLIANCE:** The 431-X meets and exceeds OSHA, NIOSH, ACGIH and MSHA action levels and is in active use by many environmental agencies, industrial hygienists, miners and first response teams across the world.

**SURVEY MODE:** The 431-X features a survey mode that allows the user to continuously draw in samples of air in order to sweep an area for mercury vapor hot spots and enable corrective action to be taken.

**OPTIONAL DATA LOGGING:** When equipped with data logging capabilities, the 431-X can store data for up to 1,000 samples, including date and time.

**OPTIONAL AUTOSAMPLE MODE:** The 431-X offers an optional autosample mode that can be programmed to take a sample at various intervals between 1 and 60 minutes.

**FIELD REGENERATION:** Sensor regeneration for the 431-X can be performed in the field using the optional Power Inverter Kit, allowing for extended on-location testing.

### APPLICATIONS

Ambient Air Analysis

HAZMAT / Emergency Response

Industrial Hygiene & Worker Safety

Gold Mining

Regulatory Compliance: Detection & Cleanup

Scrubber Efficiency Monitoring

Mercury Exclusion Testing

Light Bulbs & Mercury Switches

Equipment Monitoring

### SPECIFICATIONS

<b>Detection Range</b>	0.003 mg/m <sup>3</sup> to 0.999 mg/m <sup>3</sup>
<b>Resolution</b>	0.001 mg/m <sup>3</sup>
<b>Accuracy</b>	±5% at 0.100 mg/m <sup>3</sup>
<b>Response Time</b>	Sample Mode: 12 seconds Survey Mode: 3 seconds
<b>Flow Rate</b>	750 ± 50 mL/min
<b>Result Units</b>	mg/m <sup>3</sup>
<b>Optional Integrated Data Storage</b>	1,000 test results; retains date and time
<b>Optional Autosample Mode</b>	Intervals between 1 and 60 minutes
<b>Display</b>	Backlit LCD
<b>Battery</b>	Rechargeable NiCad 6 hour life, charges in 14 hours
<b>Power Requirements</b>	100-120 VAC, 50/60 Hz, 1A or 220-240 VAC, 50/60 Hz, 1A
<b>Fuse</b>	F1A 250V, 5 mm x 20 mm
<b>Operating Environment</b>	0°C to 40°C, non-condensing, non-explosive
<b>Output</b>	RS-232 Serial Port Analog: 4-20 mA passive current loop
<b>Dimensions</b>	Standard: 13" L x 6" W x 4" H (33 cm L x 15 cm W x 10 cm H) XE: 14" L x 7" W x 7" H (35 cm L x 18 cm W x 18 cm H)
<b>Weight</b>	Standard: 7 lbs. (3.18 kg) XE: 8 lbs. (3.5 kg)
<b>Warranty</b>	1 year, factory parts and labor
<b>Certifications</b>	CE (220-240 VAC, 431-XE model only)



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