

Jerome® X451 Mercury Vapor Monitoring System

Rugged, Fence-Line Mercury Monitoring

Heavy duty, reliable, and versatile mercury vapor monitoring – the Jerome® X451 monitoring system from AMETEK Brookfield is designed to provide long-term, continuous monitoring even in rough weather conditions. Stationed on a pole, fence or wall, multiple units can be linked to form a perimeter monitoring system. The detachable, hand-held analyzer within the unit can be used to sweep an area and help pinpoint the source of mercury contamination so that corrective action can be taken.



Features

PERIMETER MONITORING: Multiple Jerome® X451 units can be linked to form a perimeter monitoring system to help locate the source of mercury contamination and ensure safety and compliance.

DETACHABLE UNIT: Quickly and easily sweep an area for mercury hot spots with the detachable, hand-held Jerome X451 mercury vapor analyzer.

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.

WEATHER STATION: The attached weather station monitors outside temperature as well as wind speed and direction for increased accuracy in pinpointing the source of mercury contamination.

DATA TRANSMISSION: Advanced data logging and radio telemetry capabilities make downloading data to a remote PC easy and convenient.

PC SOFTWARE: Intuitive PC software with user-selectable time-weighted average reporting and a site view tab give users a bird's-eye view of the monitoring system as a whole.

PROGRAMMABLE ALARMS: The X451 comes with programmable alarms that automatically send email alerts if your mercury levels rise above your specified upper limit.

TEMPERATURE-CONTROLLED INTERIOR: Resistive heating and thermoelectric cooling keep the interior of the X451 at a consistent temperature for increased accuracy.

REGULATORY COMPLIANCE: The X451 meets and exceeds OSHA, NIOSH, ACGIH, and MSHA action levels, making it ideal for monitoring mercury levels in high-risk areas, such as in industrial hygiene and mining.

Jerome® X651 Mercury Vapor Monitoring System

Mercury Vapor Analysis for a Wide Range of Applications

Specifications	
Detection Range	0.003 mg/m ³ to 0.999 mg/m ³
Resolution	0.001 mg/m ³
Accuracy	±8% at 0.100 mg/m ³
Sample Intervals	1, 2, 5, 10, 15, 30, 60 or 120 minutes
Regeneration Intervals	6, 12, 24, and 48 hours
Flow Rate	750 mL/min
Operating Environment	-40°C to 55°C, non-explosive, 0-100% RH
Result Units	mg/m ³
Data Storage Capacity	50,000 test results
Power Requirements (451 Unit)	100-120 VAC, 50/60 Hz, 7A or 210-240 VAC, 50/60 Hz, 4A
Control Board Fuse	Fast-acting IEC 1.6A 250V, 5 mm x 20 mm
Case Construction	Polyester with insulation to reduce heat transfer
Battery (Detached X431 Unit)	Rechargeable NiCad 6-hour life
Estimated Sensor Life	3 to 6 months, depending on operating conditions
Display	8 digit alphanumeric LCD
Output	Spectra Radio Analog: 4-20 mA passive current loop
Dimensions	26" W x 25" H x 9" D (67 cm W x 64 cm H x 23 cm D)
Weight	52 lbs. (24 kg)
Warranty	1 year, factory parts and labor except for 431 sensor

Spectra Radio Modem Specifications	
Frequency	2.4-2.4835 GHz (2400 MHz) 49 selectable channels
Serial Interface	RS-232
Power Requirement	10-30 VDC, 450 mA
Operating Temperature	-40°C to 75°C
Range	Up to 6.4km (4 mile) "line of sight" Longer distances may be obtainable through use of a high-gain antenna or by using the optional Radio Repeater

