

451 Mercury Vapor Monitoring System



RUGGED FENCE-LINE MERCURY MONITORING

Heavy duty, reliable and versatile mercury vapor monitoring—the Jerome® 451 monitoring system from AMETEK Arizona Instrument 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.

JEROME®



451 Mercury Vapor Monitoring System



Mercury vapor analysis for a wide range of applications

FEATURES

PERIMETER MONITORING: Multiple Jerome® 451 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® 431-X 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 451 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 451 at a consistent temperature for increased accuracy.

REGULATORY COMPLIANCE: The 451 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.

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 431-X 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-X 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



An ISO 9001-2015 Registered Company
3375 N Delaware St. | Chandler, AZ 85225
(p) 800-528-7411 | (f) 602-281-1745
salesall.azic@ametec.com | www.azic.com