

# Jerome® J405 & J505: Essential Tools for Fire and Rescue Services

## Introduction

In high-risk environments like fire and rescue operations, especially those near industrial areas, the need for reliable toxic gas monitoring is paramount. The Jerome J405 and J505 Mercury Vapor Analyzers by AMETEK Brookfield are critical investments for fire and rescue services, addressing the challenge of detecting mercury vapor efficiently and accurately. This technical note will cover why the J405 and J505 are indispensable for fire and rescue applications, their unique advantages, and how they enhance safety in the field.

Jerome J405



## Challenges in Fire and Rescue Environments

### Mercury Vapor Exposure:

Mercury is a highly toxic element that poses significant health risks, particularly in industrial accidents or incidents involving older household items and equipment.

Mercury vapor, even at low concentrations, can lead to neurological and respiratory issues if inhaled. Traditional detection methods can be time-consuming and may delay response efforts, making the need for reliable and fast mercury vapor analyzers essential.

## Why the Jerome J405 and J505?

The Jerome J405 and J505 are specifically designed to meet the rigorous demands of emergency response teams, offering unparalleled performance and reliability for mercury vapor monitoring. Here's why they are the preferred choice for fire and rescue services:

### Precision and Sensitivity:

The Jerome J405 detects mercury vapor at ultra-low levels, down to 0.5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), while the Jerome J505 provides a more advanced level of accuracy with a sensitivity of 0.05  $\mu\text{g}/\text{m}^3$ . This precision ensures the earliest possible detection of mercury vapor, protecting first responders and enabling quicker mitigation efforts.

### Field-Ready Durability:

Both the J405 and J505 are built for tough environments, featuring rugged designs and long-lasting batteries that allow for extended use in challenging conditions.

Their resistance to environmental factors such as dust and smoke ensures accurate readings, even in the harsh conditions of fire and industrial accident zones.

Jerome J505



## Data Logging and Portability:

The Jerome J405 and J505 come equipped with comprehensive data logging capabilities, storing thousands of sample readings with timestamps and location data. This feature is crucial for post-incident analysis and compliance with safety regulations.

Lightweight and easy to carry, their compact designs and intuitive interfaces enable rapid deployment and straightforward operation, even in high-stress scenarios.

## Versatility in Application:

These analyzers are ideal for detecting mercury vapor in various settings, including industrial facilities, waste processing sites, and environmental remediation projects.

Their ability to provide real-time area surveys helps first responders quickly locate sources of mercury contamination, a critical factor during emergency operations.

## Compliant and User-Centric Design:

Trusted by regulatory agencies worldwide, the J405 and J505 ensure compliance with strict safety standards.

With simple operation, durable construction, and seamless USB data transfer, these analyzers are designed to be user-friendly, even under the most challenging conditions.

## Conclusion:

The Jerome J405 and J505 Mercury Vapor Analyzers are indispensable tools for fire and rescue teams, offering unmatched precision and reliability in mercury vapor detection. Their advanced sensitivity, robust designs, and versatility make them essential for improving safety and compliance in high-risk environments. By equipping emergency personnel with these analyzers, AMETEK Brookfield empowers teams to respond effectively to toxic mercury vapor incidents, protecting both first responders and the public.

