

4750-PM

PM-CEMS DUST MONITOR

TUV dotCOM APPROVED TO EN 15267



Continuous Particulate Matter Measurement



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AMETEK[®]
PROCESS & ANALYTICAL INSTRUMENTS



QUALITY CUSTOMER SOLUTIONS

4750-PM

AMETEK LAND HAS BEEN MANUFACTURING PRECISION MEASURING EQUIPMENT SINCE 1947.

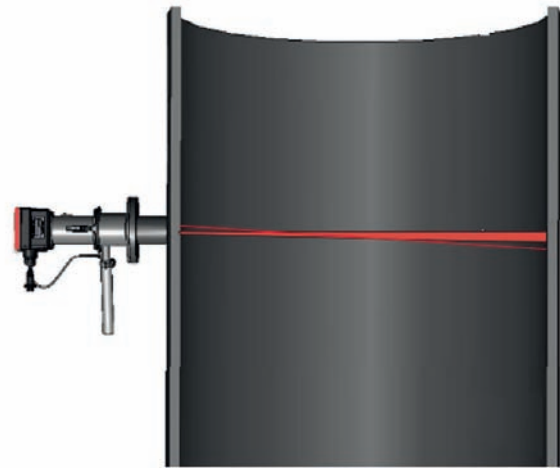
WE ARE SPECIALISTS IN NON-CONTACT TEMPERATURE MEASUREMENT AND COMBUSTION MONITORING WITH APPLICATIONS ACROSS DIVERSE INDUSTRIES SUCH AS STEEL AND GLASS MAKING, POWER GENERATION AND CEMENT MANUFACTURE.

As part of AMETEK Process & Analytical Instruments Division since 2006, our customers benefit from the worldwide AMETEK sales and service team.

THE 4750-PM PROVIDES ACCURATE AND RELIABLE MEASUREMENT OF PARTICULATE MATTER.

The 4750-PM uses an improved back scatter technique to measure particulate matter in stacks and ducts. It features a highly stable optical system resulting in a lower detection limit.

The rugged and reliable design is ideal for applications in electricity generation, industrial boilers, glass, cement and metals. It can be installed after a baghouse or electrostatic precipitator.



FEATURES ▼

Large area collection optics

Non-intrusive sensor

Wide measurement range

No moving parts

Wide temperature range

Zero and span check capability

RS485, 4-20 mA outputs

BENEFITS ▼

Collects scatter from across the stack

Not affected by flue gas conditions

Measures concentrations from <1 to 1000 mg/m³

Highest stability and reliability

Standard temperatures up to 250 °C (480 °F)

Ensures accurate performance over instrument range

Maximum flexibility and connectivity

THE 4750-PM IS A RUGGED, RELIABLE AND VERY ACCURATE DUST MONITOR FOR TYPICAL COMBUSTION APPLICATIONS.

SPECIFICATION & DESIGN

WIDE TEMPERATURE RANGE

There are no delicate components in the stack, so the 4750-PM can be used in temperatures up to 250 °C (400°F).

NO MOVING PARTS

The optical path is pre-set to maximise the measurement across the stack.

CALIBRATION CHECK

Check of zero and upscale calibration capable by inserting pre-defined filters to suit compliance requirements.

BACK SCATTER

As particles travel through the laser beam, they scatter light in all directions. Back scattered light is collected on a detector with stray light eliminated by the inherent instrument design.

CALIBRATION AUDIT

Filter audit units allow for periodic linearity checks to ensure compliance to international and national emission monitoring standards.

PM-CEMS

The 4750-PM can be used as a continuous emissions monitor (PM-CEMS) for compliance or process monitoring.



TEMPERATURES UP
TO 250 °C (400 °F)

INSTRUMENT DESIGN

The 4750-PM comprises a stack-mounted sensor with combined internal user interface. All inputs and outputs are connected to the sensor for simple installation and ease of use. Digital and analogue outputs are sent back to the data acquisition system directly as required. Remote triggering of calibration and purge fail sensor are additional options as is a flue gas protector (maybe required when instrument is opened for manual audit and maintenance) to protect operator.

APPLICATIONS

THE 4750-PM CAN BE USED TO MEASURE PM IN ALL COMBUSTION PROCESSES WHERE CONDENSED WATER IS NOT PRESENT

- Electricity Generating Units
- Industrial Boilers
- Glass Works
- Cement Plant
- Metals Refining
- Process Heaters

4750-PM

DUST MONITOR

SPECIFICATIONS

Measuring Probe

Measuring Technique:	Back-scatter Optical Detection
Light Source:	Diode Laser 650 nm. Class 3R
Measurement Range:	0 - 1000 mg / m ³
Detection Limit:	< 1 mg / m ³
Resolution:	0.1 mg / m ³
Response Time:	2 s
Operating Temperature:	-20 °C to 50 °C / -4 °F to 122 °F
Max. Flue Gas Temperature:	250 °C (480 °F)
Stack Pressure:	± 20 hPa
Stack Size:	1.5 m - 15 m (5ft - 50 ft)
Stack Mounting Flange:	DN80 PN10/16 or 3 in. 150 lb ANSI
Materials:	Enclosure: Powder-coated aluminium
Air Purge:	30 - 40 litre/minute (1.05 to 1.41 cfm)
Sealing:	IP65
Power Supply:	100 to 230 V ac
4-20 mA Outputs:	1
Outputs:	1x RS485 Modbus
Inputs:	1 x digital input
Alarms:	2 x Relays
Size (H x W x D):	H 216 mm x W 199 mm x L 354 mm (H 14 in x W 8.5 in x L 8 in)
Weight:	9.6 kg (21 lb)
Options:	Calibration Audit, Manual Test Kit
Purge Air:	Purge fail sensor and alarm
Blower:	Purge blower and blower cover
Flue Gas Protection:	Flue gas blocker
Approvals:	EN 15267 certified by TUVdotCOM



PERFORMANCE SERVICES
AMETEK Land's AMECare Performance Services ensure peak performance and maximum return on investment over the life of your equipment.

We will deliver this by:

- Proactively maintaining your equipment to maximize availability.
- Optimizing solutions to meet your unique applications.
- Enhancing user skills by providing access to product and application experts.

AMETEK Land's global service network provides unparalleled after-sales services to ensure you get the best performance and value from your AMETEK Land products. Our dedicated service centre teams and on-site engineers are trained to deliver the highest standard of commissioning, maintenance and after-sales support.

SEE OUR OTHER DUST AND OPACITY RELATED LITERATURE:



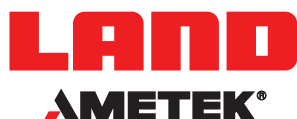
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 COMPLIANCE DUST AND OPACITY MONITOR



4400
 DUST AND OPACITY MONITORING

DISCOVER HOW OUR BROAD RANGE OF NON-CONTACT TEMPERATURE MEASUREMENT AND COMBUSTION & EMISSIONS PRODUCTS OFFER A SOLUTION FOR YOUR PROCESS

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