



# Monitoring of particulate matter on ships

KEEP TRACK OF DUST EMISSIONS

**SICK**  
Sensor Intelligence.

Since dust particles too have a negative impact on humans and the environment, recording and accurately measuring dust and particle emissions is essential for sustainable environmental protection. By burning fossil fuels, ships also contribute to air pollution and health effects on humans – especially near the coast – and affect the climate in the polar region as well.

To enable ship operators to monitor their dust emissions and meet local restrictions and regulations, SICK offers a broad selection of dust analyzers. These analyzers monitor your dust emissions continuously, precisely and directly from the exhaust stack so you can keep track of your dust emissions at all times.





With its comprehensive product portfolio for small to large measuring ranges and gas duct diameters, SICK offers suitable solutions even for difficult measuring tasks, such as dust measurement in wet gases. Suitability-tested devices with automatic testing of zero and reference points are also available. Optional features such as contamination control or automatic self-alignment round out the excellent properties of the dust measuring devices from SICK.

For continuous dust measurement on ships, the main principles or technologies are opacity (transmissometers) and scattered light. Both principles are irrespective of gas velocity, humidity or charging of particles. Our devices are characterized by their simple installation and start-up, convenient operation, and long maintenance intervals.

#### The DUSTHUNTER T (transmissometer / opacity)

is suitable for continuous measurement of medium and high dust concentrations.

#### The DUSTHUNTER B (scattered light backwards)

is a measuring device for dust at low to medium concentrations. The single-sided installation underlines the user-friendliness.



- + Continuous, accurate data of real dust emissions (in e.g.  $\mu\text{g}/\text{m}^3$ )
- + Combustion process optimization
- + Proof of meeting current and future local restrictions and regulations
- + Positive image regarding environmental awareness and protection

More information → [www.sick.com/DUSTHUNTER](http://www.sick.com/DUSTHUNTER)  
→ [www.sick.com/maritime](http://www.sick.com/maritime)