

Danfoss

IXA

Brochure I Danfoss IXA

Document **regulatory compliance** with **intelligent analysis**

SO₂, CO₂ analyzer for scrubber application, MES 1002



Best-in-class solution for safe performance

At Danfoss IXA we work together with all relevant class societies. This ensures that our products live up to the leading standards in the industry as well as ensuring the design quality.



Marine regulatory compliance calls for **reliable and compliant solutions**

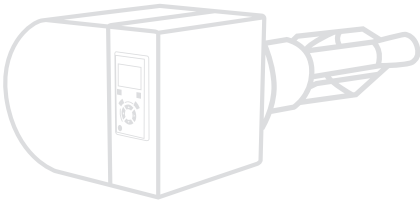
In the challenging environment of Exhaust Gas Cleaning Systems (EGCS), also referred to as scrubbers, robust solutions are essential. MES 1002, as one such solution, is well-equipped to withstand this harsh environment.



MARPOL

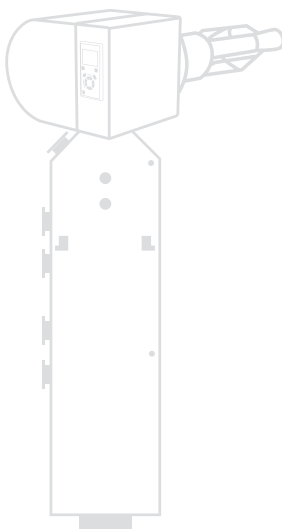
Compliance with
MEPC.340(77) and
MEPC.259(68)

Comply with environmental regulations



With SO₂, CO₂ analyzer, MES 1002, you achieve best-in-class emission monitoring and documentation compliant with the global sulphur cap 2020.

This, combined with our emission monitoring application knowledge, enables you to stay in compliance with sulphur regulations in a reliable way.



Global sulphur cap 2020

In an effort to limit sulphur emissions, the International Maritime Organization (IMO) has established that ships, as of January 1st 2020, are not allowed to burn fuel with a sulphur content above 0.5% worldwide.

Along with this, Emission Control Areas (ECA) have also been established, which limit sulphur emissions to 0.1% for ships operating in those areas. Emission regulations are consequently becoming more and more strict, and this calls for reliable solutions that ensure compliance.

Danfoss IXA specializes in emission monitoring solutions that provide fast and accurate measurements, which is vital in ensuring optimum use of the scrubber.

MES 1002

Where Compliance Meets Innovation

MES 1002 SO₂ and CO₂ analyzer

The MES 1002 is designed to document the SO₂/CO₂ ratio in a scrubber application according to the specifications defined by the MEPC.259 (68) and MEPC.340(77). The MES 1002 is characterized by its very compact design and outstanding quality as it is designed specifically for maritime applications.

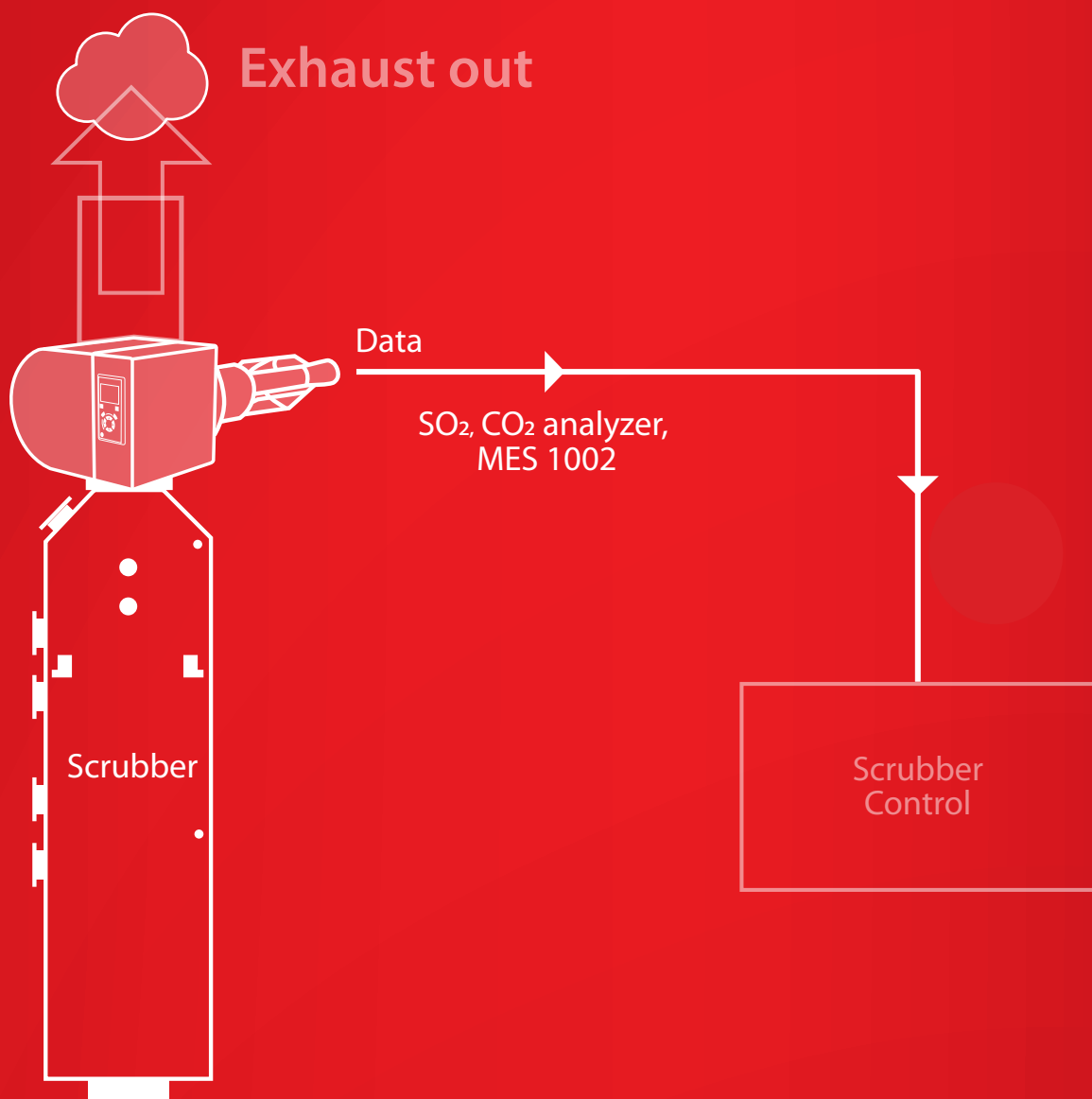


KEY BENEFITS

- **Compliance with MEPC.340(77) and MEPC.259(68):** Compliant with local and international regulations.
- **Minimal Maintenance:** Light source lifetimes: 12-14 months of operation, extendable with standby mode. Air Filter Maintenance requiring only biweekly inspections and regular replacement of filter elements for minimal downtime.
- **Easy installation:** Streamlined setup, requiring only power, air, and data, saves time and resources, ensuring hassle-free installation for quick and immediate benefits.



SO₂/CO₂ analyzer, MES 1002 for scrubber application



The MES 1002 offers the following specifications:

- SO₂ range: 0 – 200 ppm
- CO₂ range: 0 – 15%
- Modbus TCP/IP or Analog 4-20mA, RS-422 for GPS
- 24 VDC, <125W

The MES 1002 is based on an optical measurement principle using two light sources and two detectors; one set for each gas. UV light is used for measuring SO₂ and IR light is used for measuring CO₂. The sensor measures in-situ and offers accurate and reliable measurements. All measurements are stored internally for 18 months. The probe is made from SMO254 which can withstand an environment of sulfuric acid.

Cost-efficient performance with innovative solutions

The MES 1002 is the most cost-effective
CEMS solution for scrubber.

Installation is easy and maintenance costs are low. The only consumables in the analyzer are two light sources, which must be exchanged every 12 months of operation.



One solution provider of emission monitoring

Danfoss IXA is one solution provider of emission monitoring.

This covers monitoring and gathering of all emission data to be used for compliance, control, documentation, and optimization of processes in various applications throughout the engine room. This is done through platforms provided by the Danfoss IXA product portfolio.

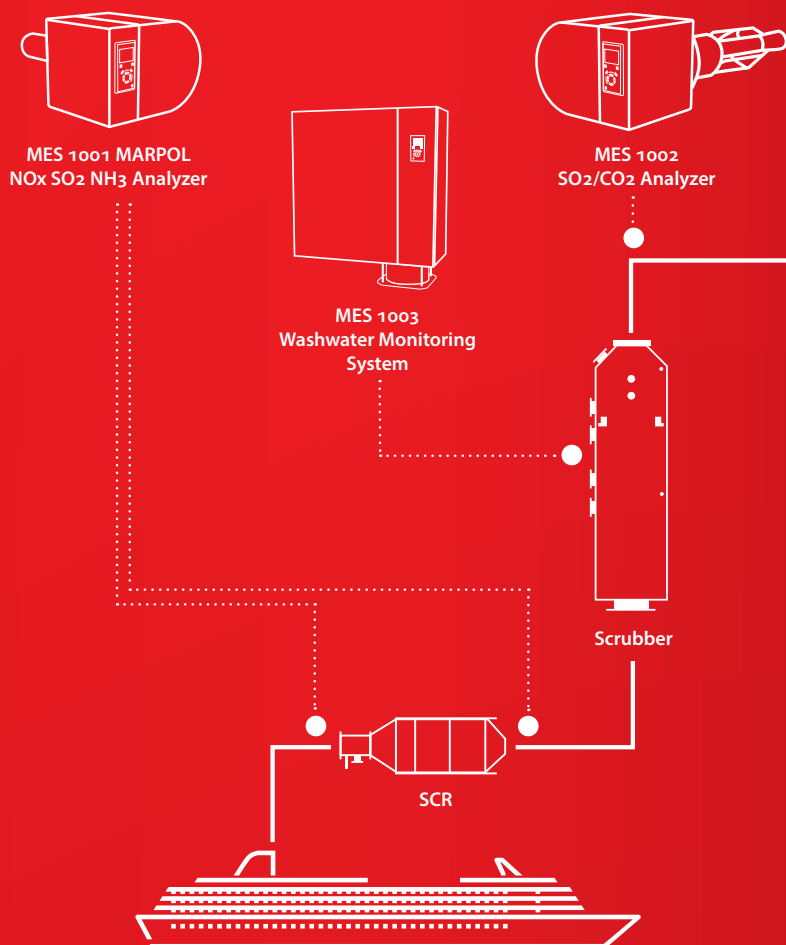
All Danfoss IXA products together provide you with the best solution for emission monitoring that is easy to install, operate and maintain.

Danfoss IXA is world class provider of emission monitoring solutions.

Discover more about MES 1002 on our website



Scan
QR code



MES 1002 Measurement ranges

SO ₂	0 – 200 ppm
CO ₂	0 – 15%

One solution provider of emission monitoring in the maritime industry

Danfoss IXA A/S, part of the Danfoss Group, is a leading player in certified marine emission monitoring solutions. We develop innovative analyzers and systems that precisely and continuously measure climate parameters and environmentally harmful gases, providing documentation of regulatory compliance and essential input for energy optimization.



MES 1001
NO_x, NH₃ and SO₂ analyzer



MES 1001 MARPOL
Calibration on-site



MES 1002
SO₂, CO₂ analyzer



MES 1003
Washwater Monitoring System

Engineering a more sustainable shipping industry

Maritime expertise across divisions

To serve the marine industry in the best possible way, several Danfoss divisions bring a particular range of technical know-how and benefits on board. On their own, each division is at the forefront of its field with industry-leading insight and innovation. Working together, the Danfoss divisions form a comprehensive array of components that help major ships around the world ashore safely and on-time.

Maritime Products with High Standards

Danfoss IXA's products are designed for the maritime environment and comply with industry standards. Thorough testing and third-party approvals ensure high technical standards.

Learn more at danfoss-ixa.com