



# Data Sheet

MES1001 - NOx CEMS for Maritime Applications – Prod. no. 100100

## Key benefits

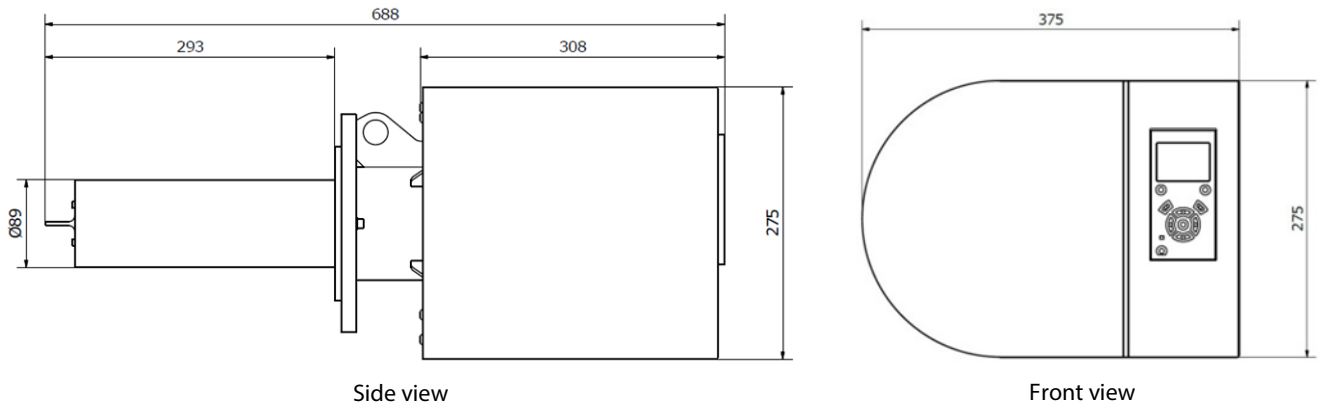
- Optional SO<sub>2</sub> and NH<sub>3</sub> measurements
- Easy installation
- Easy operation
- Easy maintenance
- Easy connection to ship management systems

## Maintenance

- UV lamp exchange approx. every 12-14 months depending on use and environment.
- Low cost of ownership

## Functionality

- Automatic Zero Calibration
- Log functionality which logs various events like warnings, errors, system status, measured gas concentration
- Display for local access
- Tamper-proof



All dimensions are in mm.

## Specification

Prod. no. 100100

Parameter	Description
<b>General</b>	
Application	In Situ Emission Sensor
Technology	UV absorption spectroscopy
Mounting flange	Circular, bolted connection DIN 2633, DN100, PN16
Location	Low pressure side of engine exhaust system
<b>Supported gases</b>	
NO <sub>x</sub> *	0 – 2000 ppm
SO <sub>2</sub>	0 – 1000 ppm
NH <sub>3</sub>	0 – 100 ppm
<b>Performance</b>	
Data update rate	1 second
Output resolution	1 ppm (digital)
Response time	< 10 seconds (T <sub>90</sub> )
<b>Environmental</b>	
Operating ambient temperature (Sensor)	0 – 55 °C
Exhaust gas temperature (Probe)	Max. 500 °C
Storage temperature	-25 – 85 °C
Ingress protection	IP65
Humidity	95% RH
<b>Inputs and outputs</b>	
Power	24 VDC
Ethernet	10 BASE-T/100 BASE-TX
RS-422	Ship GPS input Supported protocol: NMEA 0183
Analog output	4 x 4 – 20 mA
Digital outputs	2 (relay controlled)
Digital inputs	2 (relay controlled)
Compressed Air	Service air from ship

Parameter	Description
<b>Compressed Air</b>	
Supply	5,5 – 9 bar, max. 145 l/min @ 1 bar
Quality **	A filter must be installed before the sensor to ensure that air delivered to the sensor is compliant with ISO 8573-1:2010 [1:7:2] at all times.
<b>Power</b>	
Power supply	24 VDC ± 25%
Power consumption	< 75 W
<b>Dimensions</b>	
Size (H x W x D)	688 x 375 x 275 mm (incl. probe)
Weight	33 kg
<b>Approvals</b>	
Marine type approval	DNV-GL, RINA, ABS

\*) The sensor can display the NO<sub>x</sub> in the range 0 – 2000 ppm, which is calculated as NO + NO<sub>2</sub>. Please note that the maximum level NO<sub>x</sub> is defined by the maximum levels for NO and NO<sub>2</sub> which are 1500 ppm and 500 ppm respectively.

\*\*\*) In case the compressed air system holds pockets of oil/water which may flush into the sensor, please contact our sales team for further assistance.



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