



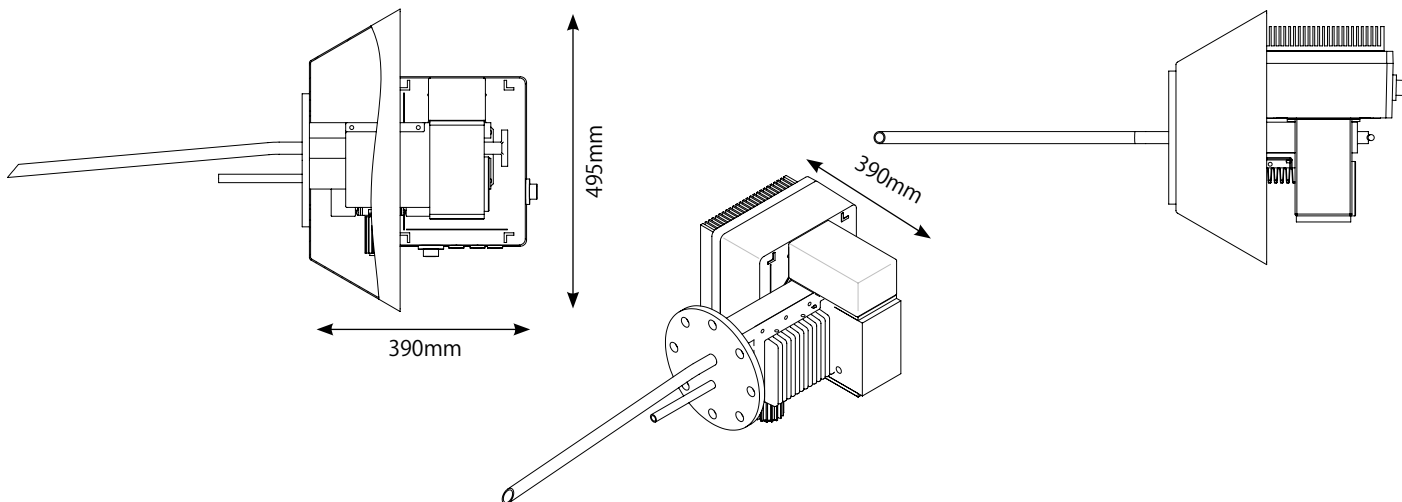
NO NO₂ SO₂ CO₂

Easy Installation
Low running costs
Certified performance

Cascade's On Stack product is targeted at Marine Emissions Monitoring applications. Exploiting the latest developments in Quantum Cascade Lasers (QCL's), the product has been shown to meet and surpass the rigorous legislative requirements associated with this market. Cascade's unit offers easy installation and low running costs combined with accurate measurement of target gases. The outputs can be used to report emissions as well as a tool to achieve fuel efficiency.

Dimensions

Dimensions in mm: 390 x 495 x 420



On Stack solution

Operating Environment

Ambient temperature	-20 to +70°C
Stack gas temperature	Up to 450°C
Compliances pending	Marine type approval MCERTS
Laser Safety	Class 1a

Technique & Performance

Measurement Technique	MidIR Absorption Spectroscopy
Mid IR Source	Quantum Cascade Laser
Number of gases	4 gases
Response Time	Sub 10 seconds
Zero drift	<2%
Span drift	<2%
Linearity error	<2%

Inputs and Outputs

Power Supply	
Input Range	110-230 VAC, 50/60Hz
Sensor Power Consumption	
Max	450W
Data output	Ethernet

Mechanics

Housing Material	Powder coated aluminium
Weight	12 kgs sensor unit 14 kgs mounting
Mounting flange	Standard flange is PN10 4"
Protection classification	IP65
Unit frame & structure	Stainless Steel S304 Electroless Nickel coated Aluminium
Gas flowrate	7.6L/min
Cell refresh rate	4 seconds

Gases measured

		Measurement range	Lower Detectable Limit	Resolution
Carbon Dioxide	CO2	0-10%	0.1%	0.1%
Nitric Oxide	NO	0-2000ppm	20ppm	0.5ppm
Nitrogen Dioxide	NO2	0-300ppm	3ppm	0.2ppm
Sulphur Dioxide	SO2	0-1750ppm	17.5ppm	0.2ppm



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Specifications are subject to change without prior notice.
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