



Lloyd's
Register

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

This certificate is issued to:

PRODUCER	Green Instruments A/S Erhvervsparken 29 DK- 9700 Brønderslev Denmark
DESCRIPTION	Analyser for direct on-stack wet measuring of NO _x and Oxygen of exhaust gas emissions. The analyser has 2 analogue output signals 4- 20mA, digital outputs for alarms and CAN-Bus for other interfaces; internal log of the last 360 values; full data and alarm logs in SD card. Back flushing of the stack gas probe can be controlled by the analyser.
TYPE	Analyser models, G4100 NO _x /O ₂ with ejector probe, or G4130 NO _x /O ₂ with diffusion probe comprising: analyser, sample/calibration board and gas probe. Both models exist in panel mounted and stand-alone versions of the analyser.
APPLICATION	Marine, Offshore and Industrial applications suitable for use in environmental categories ENV1 and ENV2 as defined in. LR Test Specification No.1: 2002, where the test specification is applicable for the service.
STANDARD	NO _x Technical Code 2008; Appendix III; Section 1.6.2 to 1.10 IACS UR E10
Certificate No.	19/20060
Issue Date	16. September 2019
Expiry Date	08. February 2024
Sheet	1 of 2



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RATINGS

Measuring range:

	Range	Accuracy	Repeatability
NO _x :	0-1500ppm (F.S. = 1500ppm)	< 2 prc. of F.S.	< 1 prc. of F.S.
O ₂ :	0-21.0% (F.S. = 21.0%)	< 2 prc. of F.S.	<1 prc. of F.S.

Power supply: 90-230VAC (50/ 60Hz) or 20-30VDC

OTHER CONDITIONS

Test of Software has been restricted to demonstration of correct functions during Type Approval testing

Software Version: 3.022

The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

The Design Appraisal Document No. HTS/ETS 38785-19 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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