

EU-TYPE EXAMINATION CERTIFICATE

- [2] EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 2014/34/EU
- [3] EU-Type Examination Certificate Number: **Presafe 20 ATEX 69761X** **Issue 0**
- [4] Product: **Laser Analyser Module LS25 Ex**
- [5] Manufacturer: **ABB automation GmbH**
- [6] Address: **Stierstädter Str. 5
60488 Frankfurt, Germany**
- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV GL Presafe AS, notified body number 2460, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
- The examination and test results are recorded in confidential reports listed in section 16.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018, EN 60079-2:2014 & EN 60079-28:2015
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- [11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- [12] The marking of the product shall include the following:

 **II 2 G Ex pxb [op is Ga] IIC T4 Gb, -20°C≤Ta≤+55°C.**
II 2 D Ex pxb [op is Da] IIIC T100°C Db, -20°C≤Ta≤+55°C.

Date of issue:
2020-10-19



Bjørn Spongsveen
For DNV GL Presafe AS
The Certificate has been digitally signed.
See www.dnvgl.com/digitalsignatures for info



This certificate may only be reproduced in its entirety and without any change, schedule included.

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[13] **Schedule**

[14] **EU-Type Examination Certificate No:** Presafe 20 ATEX 69761X Issue 0

[15] **Description of Product**

Laser Analyser Module LS25 Ex, is an optical instrument based on transmitting infrared laser light from a transmitter unit on one side of the stack to a receiver unit in the diametrically opposite side of the stack. The measurement principle uses infrared single-line absorption spectroscopy.

Type designation

Laser Analyser Module LS25 Ex

Electrical Data

18-32VDC

Purging Conditions:

Volume of enclosure	12 Litre	12 Litre
Minimum purge flow	11 l/min	48 l/min
Minimum purging time	3m 40 sec	1m 15 sec
Minimum overpressure	0.8 mbar	4 mbar
Maximum overpressure	20 mbar	20 mbar
Maximum leakage rate	2 l/min	2 l/min

Degrees of protection (IP Code): IP 66 according to EN 60079-0 for the enclosure. Purge system connections are not included

Ambient temperature:

-20°C to +55°C

Routine tests

Leakage test shall be performed according to clause 16.3 according to EN 60079-2

[16] **Report No.:** 188434
Project No.: PRJN-188434-2020-PA-NOR

[17] **Specific Conditions of Use**

- Safety control system are not part of the assessment. Ex certified safety control system complying relevant safety integrity level shall be used.
- If not already embodied into the pressurization control system, a safety device limiting the pressure to the specified maximum overpressure of the equipment must be mounted.
- The equipment contains a 3V lithium cell. Do not open equipment when an explosive atmosphere may be present
- Potential risk of electrostatic discharge. See instructions for guidance to minimize risk of electrostatic discharge

[18] **Essential Health and Safety Requirements**

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9

[19] **Drawings and documents**

Number	Title	Rev.	Date
13745	Certification drawing Ex-p Monitor stack version/ LS25 Ex-p LaserGas II(2Sheets)	A	2019-11-21
13778	Certification drawing ATEX Ex-P/Ex-n(6 sheets)	D	2019-11-22
12944	Mainboard-G2.1	G2	2019-11-01
110419	RU-B2.0	B2.0	2019-02-26
12924A	LasModStdA (Laser module)	A	2003-12-09
12933	Aux Board	B0	2018-06-11
STO-DEV7239-JB	Snap H Module	A	2013-07-08
17373	Assembly certification ATEX gasket information LaserGas II	-	2020-01-28
NDOC-7-1121	110494 Main G2 BOM	1	2019-12-12
NDOC-7-1120	110496 - AUX-B.0 BOM	1	2019-06-14
NDOC-7-1122	110419 - LG2RU B2 BOM	1	2019-06-14
NDOC-7-716	Sample specimen for Zone 1 LS25 Transmitter Label ABB with Presafe Certificate	4	2020-08-12
NDOC-7-715	Sample specimen for Zone 1 LS25 Receiver Label ABB with Presafe Certificate	4	2020-08-12

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue	2020-10-19	188434

END OF CERTIFICATE