[1]

EU-TYPE EXAMINATION CERTIFICATE

[2] Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

[3] EU-Type Examination Certificate Number: **Presafe 19 ATEX 14396X** **Issue 4**

[4] Product: **Hydrogen Generator System**

[5] Manufacturer: **H2-Supply AS**

[6] Address: **Fjærkleivene 52**
4900 Tvedestrand
Norway

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] DNV Product Assurance AS, notified body number 2460, in accordance with Article 17 and Article 21 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 item 16.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-2:2014/AC:2015, EN 60079-7:2015/A1:2018, EN 60079-11:2012 and EN 60079-18:2015

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

[10] If the sign “X” is placed after the certificate number, it indicates that the product is subject to the “Specific Conditions of Use” listed under item 17 of this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. 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:

Ex II 2 G Ex db eb ib mb pxb IIC T4 Gb +5°C ≤ Ta ≤ +40°C

Date of issue:
2024-03-26

NORSK AKKREDITERING
PROD 021

Asle Kaastad
For DNV Product Assurance AS
The Certificate has been digitally signed.
See www.dnv.com/digitalsignatures for info

[13] **Schedule**

[14] **EU-Type Examination Certificate No:** Presafe 19 ATEX 14396X Issue 4

[15] **Description of Product**

Hydrogen Generator Exp-H2 Gen H2-S-510 comprises an enclosure with Parker H2PEM-510 or LNI Swissgas generator models from 120 cm^3/min to 1300 cm^3/min, fiber switch/ethernet modem or switch or both and Vortex cooler 711 BSP. Cabinet is purged and pressurized by air and controlled by the certified system Gönnheimer FS870S/850S Automatic Purge Unit and Dräger P8200 w/remote H2 Sensor.

Type designation
Exp-H2 Gen H2-S-510

Electrical Data
230 V AC, 235 W up to 640 W

Safety Data for Purging and Pressurisation

Minimum flow rate:	2,0 dm^3/ s
Minimum continuous flow in normal operation:	0,5 dm^3/s
Minimum purge time:	16 min.
Min. purge air volume:	1920 dm^3
Minimum overpressure:	80 Pa
Normal operation pressure:	300 Pa
Max . overpressure:	15 kPa
Max. permitted leakage rate:	10 dm^3/min.
Air Supply max. pressure:	0.6 MPa
Air Supply max. pressure (after regulator):	0.2 MPa

Degrees of protection (IP Code)
At least IP40 according

Ambient temperature:

+5°C to +40°C

Routine tests

Routine tests shall be performed according to clauses 17.1 and 17.2 in IEC 60079-2:2014

[16] **Report No**.: PRJN-186001/02

[17] **Specific Conditions of Use**

1. H2 Detector shall be in normal operation before generator is switched on. Startup sequence described in
   System description, Doc Nr. P0000-DOC-SYS-01 shall be followed.

2. The internal thermostat must be set to +40℃

3. The cable glands are tested with a reduced tensile force (25%) inn accordance with clause A.3.1 of IEC 60079-0 and may only be used for fixed installation apparatus. The user shall ensure adequate clamping of the cable. The cable glands sizes M12, M16 and NPT 3/8" are tested for low risk of mechanical danger (drop height 0.4m with 1 kg mas) and shall be protected against higher impact energy levels. The cable glands are with O-ring sealings made of NBR, additionally they can also be used with FKM or VMQ sealings.

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

Met by compliance with the requirements mentioned in item 9.

[19] **Drawings and documents**

Number	Title	Rev.	Date
P0000-DOC-SYS-01	Exp H2 Gen application note system description	02	26.04.2023
P0000-DWG-GA-02	GA Drawing internal	01	22.04.2020
P0000-DWG-GA-01	GA Drawing external	01	22.04.2020
P0000-DWG-SYS-01	System diagram	01	22.04.2020
P0000-DWG-SYS-10	System diagram 1100	01	12.01.2023
P0000-DWG-EL-01	Schematic wiring	01	22.04.2020
P0000-DWG-EL-10	Schematic wiring diagram 1100	01	12.01.2023
P0000-DWG-LST-01	*List of nameplates	03	08.03.2024

*Note: An * is included before the title of documents that are new or revised.*

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue	2019-04-11	D0003864
1	Update of manufacturer address	2019-05-20	D0003864/01
2	Change of ambient temperature from +30°C to +40°C and document number.	2020-05-20	PRJN-186001-2020-PA-NOR
3	Change of H_2 generator, up to 640 W 1300 ltr/min. Update to EN 60079-0:2018	2023-06-14	SC186001-01
4	Re-location to new address.	2024-03-26	PRJN186001-02

END OF CERTIFICATE