



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	<b>IECEX PRE 19.0026X</b>	Page 1 of 4	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 4	Issue 3 (2023-06-14)
Date of Issue:	2024-03-26		Issue 2 (2020-05-20)
Applicant:	<b>H2-Supply AS</b> Fjærkleivene 52 4900 Tvedestrand <b>Norway</b>		Issue 1 (2019-05-20)
Equipment:	<b>Exp-H2 Gen H2-S-510</b>		Issue 0 (2019-04-11)
Optional accessory:			
Type of Protection:	<b>Pressurized "pxb"</b>		
Marking:	<b>Ex db eb ib mb pxb IIC T4 Gb +5°C ≤ Ta ≤ +40°C</b>		

Approved for issue on behalf of the IECEx  
Certification Body:

**Asle Kaastad**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**DNV Product Assurance AS**  
Veritasveien 1  
1363 Høvik  
Norway





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Manufacturer: **H2-Supply AS**  
Fjærkleivene 52  
4900 Tvedestrand  
**Norway**

Manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

## STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

[IEC 60079-18:2014](#) Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"  
Edition:4.0

[IEC 60079-2:2014](#) Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"  
Edition:6

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"  
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

## TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[NO/PRE/ExTR19.0022/00](#)  
[NO/PRE/ExTR19.0022/03](#)

[NO/PRE/ExTR19.0022/01](#)  
[NO/PRE/ExTR19.0022/04](#)

[NO/PRE/ExTR19.0022/02](#)

Quality Assessment Report:

[NO/PRE/QAR19.0006/04](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

Hydrogen Generator Exp-H2 Gen H2-S-510 comprises an enclosure with Parker H2PEM-510 or LNI Swissgas generator models from 120 cm<sup>3</sup>/min to 1300 cm<sup>3</sup>/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 Gönzheimer FS870S/850S Automatic Purge Unit and Dräger P8200 w/remote H2 Sensor.

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

H2 Detector shall be in normal operation before generator is switched on. Startup sequence described in operation manual P01-DOC-MAN-02-rev03 Operation and Maintenance Instruction H2-Generator shall be followed.

The cable glands are tested with a reduced tensile force (25%) in 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.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Re-location to new address.

**Annex:**

[Annex til IECEx PRE 19.0026X Issue 4.pdf](#)

### Safety Data for Purging and Pressurisation

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

### Degree of protection.

Degrees of protection (IP Code) At least IP4X according to IEC 60529: 2013

### Ambient temperature:

+5°C ≤ Ta ≤ +40°C

**Annex to certificate: IECEx PRE 19.0026X Issue 4**

**Certified parts and components of the Hydrogen Generator System**

Certified parts and components of the Hydrogen Generator System

SEC	TAG	DESCRIPTION	IECEX	STND.
1	XU-1	Purge unit FS870 Gönheimer	IECEX BVS 10.0095	IEC 60079-0 : 2011 Edition: 6.0 IEC 60079-1 : 2014-06 Edition: 7.0 IEC 60079-11 : 2011 Edition: 6.0 IEC 60079-18 : 2014 Edition: 4.0 IEC 60079-2 : 2014-07 Edition: 6 IEC 60079-31 : 2008 Edition: 1 IEC 60079-7 : 2006-07 Edition: 4
2	XU-2	Disconnecter unit SR852 Gönheimer	IECEX BVS 17.0006X	IEC 60079-0 : 2011 Edition: 6.0 IEC 60079-18 : 2014 Edition: 4.0 IEC 60079-31 : 2013 Edition: 2 IEC 60079-7 : 2015 Edition: 5.0
3	XU-4	Operation Panel Gönheimer	IECEX BVS 10.0095	IEC 60079-0 : 2011 Edition: 6.0 IEC 60079-1 : 2014-06 Edition: 7.0 IEC 60079-11 : 2011 Edition: 6.0 IEC 60079-18 : 2014 Edition: 4.0 IEC 60079-2 : 2014-07 Edition: 6 IEC 60079-31 : 2013 Edition: 2 IEC 60079-7 : 2015- Edition: 5
4	SV-1	Solenoid valve purge 072x Burkert Werke GmbH	IECEX EPS 15.0066X	IEC 60079-0 : 2017 Edition: 7.0 IEC 60079-18 : 2017 Edition: 4.1

**Annex to certificate: IECEx PRE 19.0026X Issue 4**

5	SV-2	Solenoide valve vortex AC10 Burkert Werke Gmbh	IECEX PTB 14.0049X	IEC 60079-0 : 2011 Edition: 6.0 IEC 60079-18 : 2014 Edition: 4.0
6	JB-01	Junction Box Rose Elektrotechnik	IECEX PTB 08.0004	IEC 60079-0 : 2017 Edition: 7.0 IEC 60079-1 : 2014-06 Edition: 6 IEC 60079-11 : 2011 Edition: 6 IEC 60079-18 : 2014 Edition: 4 IEC 60079-31 : 2013 Edition: 2 IEC 60079-7 : 2015 Edition: 5
7	GD-01	H2 detector P8200 Dräger Safety	IECEX PTB 11.0005X	IEC 60079-0 : 2017 Edition:7.0 IEC 60079-1 : 2014-06 Edition: 7.0 IEC 60079-11 : 2011 Edition: 6.0 IEC 60079-31 : 2013 Edition: 2 IEC 60079-7 : 2017 Edition: 510
8	--	Cable Glands Hummel Elektrotechnik	IECEX BVS 14.0020X	IEC 60079-0 : 2017 Edition: 7.0 IEC 60079-7 : 2015 Edition: 5 IEC 60079-31 : 2013 Edition: 2
9	--	Enclosure	IECEX BVS 14.0032	IEC 60079-0 : 2011 Edition: 6.0 IEC 60079-11 : 2011 Edition: 6.0 IEC 60079-2 : 2007-02 Edition: 5 IEC 61241-4 : 2001 Edition: 1