



CERTIFICATE NUMBER	21-2124617-PDA
EFFECTIVE DATE	11-Jun-2021
EXPIRY DATE	10-Jun-2026
ABS TECHNICAL OFFICE	Houston ESD - Subsea

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

DRAEGER SAFETY AG & CO. KG AA

located at

REVALSTRASSE 1, D-23560 LUEBECK, Germany

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Gas Detector
Model: PIR 7x00 (IDS 01x1, IDS 01x2, IDS 01x5)
Endorsements:
Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 10/Jun/2026 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Efstratios Maliatsos, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

DRAEGER SAFETY AG & CO. KG AA

REVALSTRASSE 1

D-23560 LUEBECK

Germany

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Web: www.draeger.com

Tier: 2 - PDA Issued

Product: Gas Detector
Model: PIR 7x00 (IDS 01x1, IDS 01x2, IDS 01x5)
Endorsements:

Intended Service:
Stationary gas detector for Marine and Offshore Applications.

Description:
The infrared gas transmitters are fixed apparatus for monitoring concentrations of combustible/ toxic gases, vapors.

Rating:
Power supply: 13 to 30 V DC (3-wire shielded cable)
Output: 4 to 20 mA, HART
Ambient Conditions: operation: -25°C to +70°C, 700 to 1300 mbar, 0 to 100% RH.
Degree of Protection: IP66/67
Certified: IIC G Ex d IIC T6/T4 Gb (DEMKO 07 ATEX 0654417X Rev. 3)
Ex tb IIIC T80°C, T130°C Db (IECEx PTB 07.0016 Rev. 2, Issued by UL)
II 2 D Ex tb IIIC T80°C/T130°C Db (PTB 07 ATEX 1016, 2. Supplement)
Class I, Div. I, Groups B,C and D,
Class II, Div. I, Groups E, F and G,
Class I, Zone I, Group IIB + He, Type 4X (CSA, 1839123)

Service Restriction:
1) Unit Certification is not required for this product.
2) If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:
1) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2) The products are to be marked with the manufacturer name, model, and Ex marking as well as the name or mark of the certificate issuer and the certificate reference.
3) Where the detector is installed as a component of a detection system, the complete system is to be specifically approved.

Notes/Drawing/Documentation:
Document No. 9023885_18 Draeger PIR 7000 Instruction for Use, Pages: 37
Document No. BVS 08 ATEX G 001 X Sup, EU-Type Examination Certificate Supplement 11, Issue date: 2019-12-16, Pages: 3
Document No. CECERT No. 416.040.2 Rev.0, EMC Test Report, Issue date: 2016-06-28, Pages: 38
Document No. CECERT No. 420.096.1 Rev.0, EMC Test Report, Issue date 2020-04-01, Pages: 16
Document No. DEMKO 07 ATEX 0654417X Rev, 4, Issue date: 2020-12-21, Pages: 2
Document No. Draeger No, SE20590, Test Report IP66 PIR 7000, Date: 2007-08-13, Pages: 5
Document No. Draeger No, SE23356-00, Revision: Y, Date: 2013-07-11, Pages: 8
Document No. DNV-GL MEDB00005BR, MED Certificate, Issue date: 2020-05-14, Pages: 2
Document No. Material Declaration, Date: 2021-01-05, Pages: 2
Document No. PTB 07 ATEX 1016 Sup, -, Issue date: 2015-12-11, Pages: 1
Document No. SE20448_05, IDS 010x, Revision: -, Pages: 1
Document No. SE20507_05, IDS 011x, Revision: Y, Pages: 1
Document No. SE20520_05, EAC (00xx), Revision: -, Pages: 1
Document No. SE20525_02, SCH PCB Main IDS 01xx, Revision: Y, Pages: 13
Document No. SE20620_01, Splashguard / Plates PIR 7000, Revision: -, Pages: 1
Document No. SE23354_02, Version Report, OIR 7x00, Revision: Y, Pages: 8
Document No. TREO No, 063-20, Revision: 1, Laboratory Test Report - EUT: PIR 7000 Infrared Gas Detector, Issue

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Tier: 2 - PDA Issued

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Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 10/Jun/2026 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

2021 Rules for Conditions of Classification, Part - I: 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2021 Marine Vessel Rules: 4-8-3/1.7, 4-8-3/1.11, 4-8-3/13.3, 4-9-9/13/ Table 2, 5C-1-7/31.9, 5C-1-7/20.3.1(a), 5C-8-10/2

2021 Rules for Conditions of Classification, Part 1 - Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2021 Mobile Offshore Units: 4-3-1/11, 4-3-1/15, 4-3-3/9.3

2021 Facilities on Offshore Installations: 3-8/7.7

National:

NA

International:

IACS UR E10, Rev 7

Government:

NA

EUMED:

NA

OTHERS:

NA