

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Dräger-Tube Pump**with type designation(s)
accuro

Issued to

Dräger Safety AG & Co. KGaA
Lübeck, Germany

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

Temperature	A
Humidity	B
Vibration	n/a
EMC	n/a
Enclosure	n/a

Issued at **Hamburg** on **2021-02-25**for **DNV GL**This Certificate is valid until **2026-02-24**.DNV GL local station: **Hamburg – CMC North/East**Approval Engineer: **Dariusz Lesniewski****Joannis Papanuskas**
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Job Id: **262.1-034233-1**
Certificate No: **TAA00002X5**

Product description

The Dräger-Tube pump **accuro** is a gas detector pump that uses bellows to suck the gas to be tested through the test tube.

The test tubes are not subject of this certification.

Technical data:

Stroke volume:	100 ±5cm ³
Weight	250g
Accessories:	extension hose of maximal 15m length

Application/Limitation

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to DNV GL Rules and Ex-Certification / Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Type Approval documentation

Product Information 90 71 299, 19.02-2

Instruction for Use 90 22 003, Ed. 11 – December 2019

Construction drawing no. 6400050-CE, 18.10.2018

2nd Supplement to the EU-Type Examination Certificate BVS 04 ATEX H 068 X N2

Certificate: No. IFA 1905009, 2019-02-14

Test report: BVS PP 1100/187/02 EG, 13.02.2006

Test report: BVS PP 1100/187/02 EG N1, 23.02.2016

Test report: BVS PP 1100/187/02 EG N2, 17.06.2019

Test report: IFA no. 2018 21980, 2019-02-14

Test report: Freigabeprotokoll Fertigung, Artikel-Nr. 6400050-Rev.18, Best.-Nr. FA33195, 20121-02-17

Type approval assessment report issued at Hamburg on 2021-02-16

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, December 2019.

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE