DNV·GL

Certificate No:
TAA00002JG

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Gas Transmitter

with type designation(s)
GTR 210 EX MED, GTR 210 MED

Issued to
Ados GmbH
Aachen, 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.

Location classes:

Temperature	**C, D***
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**C**

Issued at **Hamburg** on **2020-06-15**
This Certificate is valid until **2025-06-14**.
DNV GL local station: **Essen**

Approval Engineer: **Dariusz Lesniewski**

for **DNV GL**

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.

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Product description

Gas transmitters type GTR 210 EX MED are used for measuring of combustible or toxic gases and vapours or oxygen.

Models:

Type	Meassuring range	Gas
GTR 210 EX MED VQ (Pellistor)	0…100%LEL	alkanes (methane to hexane), hydrogen, ethanol
GTR 210 EX MED IR (infrared)	0…100%LEL	methane, propane
GTR 210 EX MED TOX (electro-chemical)	0…25Vol%	O_2
GTR 210 EX MED IR (infrared)	0…5000ppm	CO_2
GTR 210 EX MED TOX (electro-chemical)	0…50ppm H_2S	H_2S
GTR 210 MED IR (infrared, no EX)	0…2000ppm	R134a

Power supply: 24V DC
Output: 4…20mA
Display: graphical LC-display, background red/green/yellow, LED Power/Fault/MainFailure/Inhibit Operating keys
Degree of protection: IP66/IP67
Software version: V3.08

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Application/Limitation

*Location class temperature reduced to 'C' for detector with range 0...50 ppm H_2S

Type Approval documentation

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
- power supply ratings

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