DNV·GL

Certificate No:
TAA000023F

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Misc. detector

with type designation(s)
MH 620 - II / 4-20 / CAN Art.no.: 2846Z01-321.001

Issued to
Fernsteuergeräte Kurt Oelsch GmbH
Berlin, 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	**B**
Humidity	**B**
Vibration	**B (5g)**
EMC	**A**
Enclosure	**C**

Issued at **Hamburg** on **2019-03-20**
This Certificate is valid until **2024-03-19**.
DNV GL local station: **Essen**

Approval Engineer: **Didier Girardin**

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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Job Id: **262.1-029821-1**
Certificate No: **TAA000023F**

Product description
Magnetic Double Rotary Transducer
Hall effect transducer sensor
Housing AIMgSi1 (3.2315.72)
Shaft length 15.6mm
Supply 18-33V DC
Outputs 2x CANopen / independent channels / baud rate 125 kb/s
2x 4...20mA / Burden 600 Ohm
galvanic separation between channels, supply & output
Microcontroller dsPIC30F6012A
Resolution 14 bit-internal sensor (SPI Protokoll)
1,3 µA - output signals
Accuracy ± 0,3%
Active angle 360°
Vibration 5g

Application/Limitation
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.

Type Approval documentation
05 13 002.03/03a, 06 13 002 01, 05 13 002.02, 2846Z01-321M001E, 2846Z01-
2846Z01 70,2846Z01 71, G0M-1901-7967-CI01IND-V01

Tests carried out
Applicable tests according to class guideline DNVGL-CG-0339, November 2016

Marking of product
Magnetic Double Rotary Transducer
Type: MH620-II/4-20/CAN
Art.-Nr.: 2846Z01-321.001
Ger.-Nr.: xxxxxxxx

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.