

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Measurement Converter

with type designation(s)
MEV 273...3

Issued to

Dr. E. Horn GmbH & Co. KG
Gaertringen, Baden-Württemberg, 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 A

EMC A

Enclosure Required protection according to DNVGL Rules shall be provided upon installation on board

Issued at **Hamburg** on **2018-06-04**

This Certificate is valid until **2023-06-03**.

for **DNV GL**

DNV GL local station: **Augsburg**

Approval Engineer: **Jens Dietrich**

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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.



Product description

CPU: 80C552 12/16 MHz
Power supply: 24 V DC
Power consumption: approx. 5 W
Signal input : for sensor type magnetic-inductive with sine input signal,
minimum amplitude $V_{pp}=400$ mV or FG 3/2
Frequency range: 0...10 kHz
Analogue voltage output: 0...10 V
Analogue current output: 0...20 mA or 4... 20 mA, galvanic isolated
Relay data: Version change over contact
max. switch voltage 250 V
max. switch current 6 A.
Software version: MEV 273 Version 1.02 dated 20.06.1997.

Application/Limitation

The Type Approval covers hardware and software 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 RU SHIP Pt.4 Ch.9 Sec.1.

Tests carried out

Applicable tests according to DNV GL Class Guideline CG-0339, November 2016.

Marking of product

Maker, type designation, 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 this certificate.

END OF CERTIFICATE