



Certificate no.:
TAA00003TM

TYPE APPROVAL CERTIFICATE

This is to certify:

that the RPM sensor

with type designation(s)
HZTL-Series

issued to

NORIS Automation GmbH
Nürnberg, Bayern, Germany

is found to comply with

DNV 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.

Location classes:

Temperature	D (-40°C/ 125°C)
Humidity	B
Vibration	B
EMC	A
Enclosure	B (IP66/67)

Issued at **Hamburg** on **2026-02-04**

This Certificate is valid until **2031-02-03**.

for **DNV**

DNV local unit: **Augsburg**

Approval Engineer: **Holger Jansen**

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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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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 USD 300 000.

Product description

HZTL-Series

One channel speed sensor with inductive-magnetic measuring principle with screw-in thread and optional with voltage limiter to protect evaluation electronics from overvoltage and suppress the occurrence of oscillation.

Type	
HZTL321002Pxxxx	with AMP SUPERSEAL 1,5 connector
HZTL326634Pxxxx	with AMP SUPERSEAL 16 connector
HZTL321300Pxxxx	with AMP SUPERSEAL 1,5 connector
HZTL322832Rxxxx	with 10SL-3P-B connector
HZTL322830Rxxxx	with KPTC6ME10-6P connector and voltage limiter
HZTL323317Pxxxx	with KPTC6ME10-6P connector
HZTL220101Rxxxx	with KPTC6ME10-6P connector
HZTL218112Pxxxx	with 10SL-3P-B connector
HZTL318297Pxxxx	with 10SL-3P-B connector
HZTL446144Rxxxx	with voltage limiter

xxxx: Extra code for customer options

Frequency range:	5 ... 10.000 Hz
Output signal:	Sinus wave, limited to ± 15 V
Material:	Stainless steel
Max. Length:	712mm
Mounting:	via screw-in thread
Air gap:	0,2 ... 2,0 mm
Measuring channels:	1

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, 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 Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

Tests carried out

Applicable tests according to DNV Class Guideline CG0339, August 2021.

Marking of product

The products to be marked with:

- Manufacturer's name
- Type designation
- Production date
- 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.

Manufactured by:

Noris Automation Nuremberg GmbH
Muggenhofer Str. 95
90429 Nuremberg/Germany
END OF CERTIFICATE