



TYPE APPROVAL CERTIFICATE

Certificate No:
TAA00000F0
Revision No:
1

This is to certify:

That the Misc. detector

with type designation(s)
Inductive conductivity measurement Smartec CLD18

Issued to
Endress+Hauser Conducta GmbH+Co. KG
Gerlingen, Baden-Württemberg, Germany

is found to comply with
DNV GL rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

Temperature	A
Humidity	B
Vibration	A
EMC	A
Enclosure	IP67 without Salt Mist Test

Issued at **Hamburg** on **2021-05-20**

for **DNV**

This Certificate is valid until **2026-01-29**.

DNV local station: **Augsburg**

Approval Engineer: **Holger Jansen**

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 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 300,000 USD.



Product description

Compact measuring system for inductive conductivity measurement in liquids with medium to high conductivity:

- Nominal input voltage: 24 V DC
- Current consumption at 24 V: 30 mA
- Output signal Conductivity 0/4 to 20 mA
- Output signal Temperature 0/4 to 20 mA

Housing: Stainless steel or Plastic PBT GF 10

Process Connection: GCP, GGE, LQP, MDK, MEK, MOK, MOP, MQK, MXK, MYK, TDK, TSK, TXJ, YYY

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.

Ambient temperature range up to +60 °C.

Place of manufacture

Endress+Hauser Conducta GmbH+Co.KG
Betriebsstätte Waldheim
Landsberger Straße 28
04736 Waldheim

Type Approval documentation

Test report : U151998E1 2nd version, E151998E1, E201128E1, Verifikationsplan und Report CLD18 VEP DE Schiffahrtzulassung Nr. 0005693-00, CLD18_Nema_6P_970003873, 970004038

Documents: TI01080C/07/EN/05.19 Operating Instructions, Data Sheet

TI01080CEN_0214, Manufacturing Drawing 403124-2415, Process connections CLD18.

Type Approval Assessment Report 2021-05-05

Tests carried out

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

Marking of product

The products to be marked with:

- model name
- manufacturer 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