



Marine & Offshore

Certificate number: 42181/A1 BV

File number: AP4661

Product code: 3896H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

ENDRESS+HAUSER CONDUCTA GmbH+Co.KG

Gerlingen - GERMANY

for the type of product

MEASURING DEVICE TRANSDUCERS

Conductivity measurement sensor

Smartec CLD18

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 31.

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 25 Jan 2021

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 22 May 2017,

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 2 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Smartec CLD18 is an inductive conductivity measurement sensor for liquids.

1.1 - Main characteristics:

Rated voltage: 24V DC
Output signal: 0/4..20mA (conductivity); 0/4..20mA (temperature)
Degree of protection: IP69K
Hardware version: FXSD1 VX.xx.xx
Firmware version: V2.xx.xx

1.2 - Type: CLD18 - a bbb

a = Housing material / connection: A (plastic), B (stainless steel), C (plastic with M12 plug), D (stainless steel with M12 plug)
bbb = Process connection: GCP; GGE; LQP; MDK; MEK; MOK; MOP; MQK; MXK; MYK; TDK; TSK; TXJ

2. DOCUMENTS AND DRAWINGS:

- TI01080C/07/EN/02.14; BA01149C/07/EN/02.13; 403124-2415 Rev. A dated 25.04.13; TI_CLD18 Rev. B dated 31.07.14;
- For A1: BA01149C/07/DE/05.17; 403124-2415 Rev. D dated: 2016-10-17; BA-L50R5B0F dated 2012-01-27;
BA-L11R5C0B dated 2011-11-30

3. TEST REPORTS:

Phoenix Testlab GmbH: E151998E1 dated 18.08.2015; U151998E1 dated 28 September 2015
Endress+Hauser GmbH+Co. KG: 970003872 dated 20.06.2013; 970003873 dated 24.06.2013; 970004038 dated 07.10.2013

4. APPLICATION/LIMITATION:

4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships.
4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT** and **AUT-IMS**.
4.3 - Bureau Veritas Environmental Category, **EC Code: 31**.
4.4 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zone and Deck Zones.
4.5 - Only Hardware and Firmware successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer is covered by this certificate.

4.6 - The installation shall comply with the Manufacturer's recommendation described in the above-referenced documentation.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above mentioned products are to be supplied by **Endress + Hauser Conducta GmbH + Co. KG** in compliance with the type described in this certificate.
5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320.
5.3 - **Endress + Hauser Conducta GmbH + Co. KG** has to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320 for HBV products:
Endress + Hauser Conducta GmbH + Co. KG
Landsbergerstrasse 28
04736 Waldheim - GERMANY
5.4 - Equipment is to be supplied with manual(s) for installation, use and maintenance.

6. MARKING OF PRODUCT:

- Maker's name or trademark.
- Equipment type or model identification.
- Date of manufacture and/or serial number.
- Ex marking, as relevant

7. OTHERS:

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **Endress + Hauser Conducta GmbH + Co. KG - GERMANY**, will accept full responsibility for informing shipbuilders, ship owners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.
7.2 - This certificate supersedes the Type Approval Certificate N° 42181/A0 BV issued on 25 Jan 2016 by the Society

*** END OF CERTIFICATE ***