

CERTIFICATE NUMBER

19-HG1837220-PDA

EFFECTIVE DATE

05-April-2019

EXPIRATION DATE

04-April-2024

ABS TECHNICAL OFFICE

Hamburg Engineering Department

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

HUBA CONTROL AG

located at

INDUSTRIESTRASSE 17
WUERENLOS
Switzerland
CH-5436

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Pressure Transmitter

Model 711

This Product Design Assessment (PDA) Certificate remains valid until expiration date or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

Efstratios Maliatsos Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

HUBA CONTROL AG

INDUSTRIESTRASSE 17

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Tier: 2 - PDA Issued

Product:

Pressure Transmitter

Model:

Intended Service:

Level measuring pressure transmitter for Marine and Offshore Units.

Description:

The level sensing pressure transmitters of type 711 with a relative pressure measuring cell have an adjusted and amplified sensor signal. Cable length from 3 to 300 meters as well as with ex-versions.

Rating:

Pressure range (relative): $0 \dots 0.1 - 0 \dots 16$ bar

Materials in contact with medium:

Case: Steinless steel 1.4404 / AISI 316L Stainless steel 1.4539 / AISI 904L

Sensor: Ceramic Al2O3 (99.6%)

Cable: PE / FEP

Cable grommet: PPE / ETFE Protection cover: PPE / ETFE Sealing material: FPM / EPDM

Power supply: 24V nominal Signal output: 4... 20 mA Accuracy: better than 1% FS

Cable length: 3...300 m (See restriction in comment no.2) Degree of protection: IP 68 (32 bar/320 mH2O, 2 hours)

Ex protection acc. to: Certificate No. SEV 16 ATEX 0120, Certificate No. IECEx SEV 16.0002

Service Restriction:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

2. Cable installation inside closed container and/or tanks only. Outside closed containers a connection with a terminal box has to be realized by a shortest possible cable length (not longer than 6m) as per manufacturer's instructions.

Notes/Drawing/Documentation:

Drawing No. 711, Auxiliary Assembly Drawing_Type 711_7MF1575_LH300, Revision: -, Pages: 1 Certificate No. SEV 16 ATEX 0120, Atex Certification, Huba Control Type 711, Revision: -, Pages: 2

Certificate No. SEV 16 ATEX 0121, Atex Certification, Pressure Transmitter Type Siemens LH300 (7MF1575),

Certificate No. IECEx SEV 16.0002 IECEx Certificate of Conformity, Pressure transducer Type 711, Issue No.0,

Test report No. 1801-0156801R01A, Test Report- EMC for Maritime Equipment- Type 711 Branding Hube Control AG/LH300, Hansecontrol Zertifizierungsgesellschaft mbH, Dated 17 July 2018, Revision: -, Pages: 38 Drawing No. Electronic_Sensor_PCB, Electronic_Sensor_PCB, Revision: -, Pages: 1 Drawing No. Electronic_EMC_PCB, Electronic_EMC_PCB, Revision: -, Pages: 1

Testreport No. 17-1101, Level Meter Probe TS 711, PAConsult Swiss GmbH, Dated 23 May 2018, Revision: 4, Pages: 37

Drawing No. 306324, Test_adapter, Model: TS 711, Revision: -, Pages: 1

Testreport No. 711.9311002000, Overpressure_Test IPX8, Surveyor Witness Test, Dated 20 June 2018, Revision: -,

Document: Operation_Instructions_711_Huba_de_en_fr, Level sensing Pressure Transmitter, Revision: -, Pages: 36

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Tier: 2 - PDA Issued

Document: TS 711_Test Plan, Test Plan- Marine Type Approval- Control Level Meter Probe TS 711, Revision: 001,

Pages: 19

Document: Datasheet_711_Huba_en, Level Sensing Pressure- transmitter type 711, Revision: -, Pages: 5

Terms of Validity:

This Product Design Assessment (PDA) Certificate 19-HG1837220-PDA, dated 05/Apr/2019 remains valid until 04/Apr/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

ABS Rules for Conditions of Classification (2019) 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2019 Marine Vessels Rules 4-6-2/9.11, 4-9-8/13

2019 Steel Vessels Rules 4-6-2/9.11, 4-9-8/13

2019 Offshore Support Vessels Rules 4-6-2/9.11, 4-9-8/13

ABS Rules for Conditions of Classification – Offshore Units and Structures (2019) 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2019 Mobile Offshore Units Rules 4-2-1/11.27.2, 4-2-3/3.7

2019 Mobile Offshore Drilling Units Rules 4-2-1/11.27.2, 4-2-3/3.7

ABS Rules for Conditions of Classification – High-Speed Craft (2019) 1-1-4/11.9, 1-1-A2, 1-1-A3, which covers the following:

2019 High-Speed Craft Rules 4-7-9/15

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA