



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

23-2385782-PDA
20-Apr-2023
19-Apr-2028
Rio de Janeiro Engineering -
Machinery

CERTIFICATE OF Product Design Assessment

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

ENDRESS + HAUSER WETZER GMBH + CO. KG

located at

OBERE WANK 1, , NESSELWANG, Germany, D-87484

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: **Temperature Field Transmitter**

Model: **TMT162**

Endorsements:

Tier: **2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 19/Apr/2028 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


Ivson Leal Soares, 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)

ENDRESS + HAUSER WETZER GMBH + CO. KG

OBERE WANK 1

NESSELWANG

Germany D-87484

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Email: info.ehts@endress.com

Web: www.endress.com

Tier: 2 - PDA Issued

Product: Temperature Field Transmitter

Model: TMT162

Endorsements:

Intended Service:

Temperature monitoring, transmission and display.

Description:

Electronic monitoring, conversion and display of input signals for on-board temperature measurements.

Illuminated LCD (pluggable in 90°-stages).

Housing made of aluminum or stainless steel (1.4435/AISI 316L) material.

Inputs (2x): resistance thermometers, thermocouples and voltage transmitters.

Output: 2-wire, 4...20mA, HART protocol.

Rating:

Rated power supply: 24 V DC (11...40V DC), IP66/67.

Explosion proof protection according to Certificates:

CSA 1406494, dated 05-Jul-2018

FM17US0288X, dated 01-Apr-2019

DEKRA 17ATEX0048 X, Issue Nb. 1, dated 27-Sep-2021

EPS 17 ATEX 1 131 X, Rev. 2, dated 21-Apr-2021

IECEX EPS 17.0077X, Issue Nb. 1, dated 21-Apr-2021

IECEX KEM 06.0020X, Issue Nb. 4, dated 22-Jun-2020

IECEX KEM 06.0038X, Issue Nb. 5, dated 27-Sep-2021

KEMA 02ATEX2338X, Issue Nb. 7, dated 31-Jan-2020

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. Each particular application and installation is to be specifically approved in conjunction with the relevant system, locations and environmental conditions. The devices are to be installed such that they may be removed without emptying tanks or without impairing the integrity of pressurized systems.

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

Notes/Drawing/Documentation:

Drawing No. BA01801TEN_0221, Operating Instructions, Revision: 1

Drawing No. TI01344TEN_0321, Technical Information, Revision: 1

Drawing No. TMT162 Illustration assembly, Assembly drawing, Revision: 1

Drawing No. 03-9-609-50-E-002en, EMC Testreport, issued by Endress+Hauser Laboratory, dated 18-Mar-2003

Drawing No. 073175.052.22 Test Report Endress+Hauser (Deutschland) GmbH+Co. KG_TMT162_V1.0, EMC Testreport, issued by MessTechnikNord GmbH, dated 23-Mar-2023

Drawing No. 073499.007.23 Test Report Endress+Hauser (Deutschland) GmbH+Co. KG_TMT162_V1.0, EMC Testreport, issued by MessTechnikNord GmbH, dated 23-Feb-2023

Drawing No. 22DE-00858A-BE-TMT 162, Environmental Testreport TMT162, issued by PAConsult GmbH Environmental Testing Laboratory, dated 23-Mar-2023

Drawing No. QUD_Change W10118_EN_V0200, EMC Testreport, issued by Endress+Hauser Laboratory, dated 20-Apr-2010

Drawing No. Report 50515_20709e, EMC Testreport, issued by SENTON Testcenter, dated 28-Nov-2002

Drawing No. Signed Report 122-03, Environmental Testreport, issued by PAConsult GmbH Environmental Testing Laboratory, dated 17-Feb-2003

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Tier: 2 - PDA Issued

Drawing No. Test report 07-1567_rev1, Salt Mist Testreport, issued by PAConsult GmbH Environmental Testing Laboratory, dated 28-Sep-2007

Drawing No. end207091e, EMC Testreport, issued by SENTON Testcenter, dated 28-Nov-2002

Drawing No. end302130e, EMC Testreport, issued by SENTON Testcenter, dated 28-Apr-2023

Drawing No. CSA1406494_70182308_Ed.9, Ex Approval - CSA (US and CA), issued by CSA Group, dated 05-Jul-2018

Drawing No. DEKRA 17ATEX0048X_Iss.1, Ex Approval - ATEX, Issue Nb. 1, issued by DEKRA Certification B.V., dated 27-Sep-2021

Drawing No. EPS 17 ATEX 1 131 X_Iss.2, Ex Approval - ATEX, Rev. 2, issued by Bureau Veritas Consumer Products Service Germany GmbH, dated 21-Apr-2021

Drawing No. FM17US0288X_Supp 13, Ex Approval - FM (US and CA), issued by FM Approvals LLC, dated 01-Apr-2019

Drawing No. IECEx EPS 17.0077X_02, Ex Approval - IECEx, Issue Nb. 1, issued by Bureau Veritas Consumer Products Service Germany GmbH, dated 21-Apr-2021

Drawing No. IECEx KEM 06.0020X_05, Ex Approval - IECEx, Issue Nb. 4, issued by DEKRA Certification B.V., dated 22-Jun-2020

Drawing No. IECEx KEM 06.0038X_06, Ex Approval - IECEx, Issue Nb. 5, issued by DEKRA Certification B.V., dated 27-Sep-2021

Drawing No. KEMA 02ATEX2338 X_07, Ex Approval - ATEX, Issue Nb. 7, issued by DEKRA Certification B.V. dated 31-Jan-2020

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 19/Apr/2028 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).

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STANDARDS

ABS Rules:

Marine Vessel Rules (2023): 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/9.11.1, 4-6-2/9.11.3, 4-8-3/1.7, 4-8-3/13.1, 4-8-3/13.3, 4-9-9/7, 4-9-9/13, 4-9-9/15.7 Table1

Mobile Offshore Unit Rules (2023): 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-3-3/9.1.1, 4-3-3/9.1.2, 6-1-6/5.7, 6-1-6/Table 1

National:

NA

International:

NA

Government:

NA

EUMED:

NA

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OTHERS:
NA