



Marine & Offshore

Certificate number: 40713/B0 BV

File number: AP4622

Product code: 3744H

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 FLOWTEC AG

Reinach BL 1 - SWITZERLAND

for the type of product

FLOW METER

Proline Prowirl 200 series

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 31 / 41BS

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: 02 Feb 2026

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 02 Feb 2021,

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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The **Proline Prowirl 200** series are flow measuring devices consists of a sensor and a transmitter (together or separated mounted) for steam, gases and liquids.

1.1 - Main characteristics:

Transmitter:

Display with or without
 Power supply: 24V DC
 Housing material: Aluminium or stainless steel
 Output/Input: 4–20mA with HART protocol; pulse/frequency/switch output
 Communication: HART; PROFIBUS PA; FOUNDATION Fieldbus
 Degree of protection: IP66 / 67
 Firmware: 01.03.xx (HART); 01.01.xx (PA); 01.01.xx (FF)

Sensor:

Types: Prowirl D 200: Wafer device
 Prowirl F 200: Standard device
 Prowirl R 200: For low flow applications
 Prowirl O 200: For high-pressure applications
 Process connections: Prowirl D: DN15 to 150 (½ to 6"); Wafer
 Prowirl F: DN15 to 300 (½ to 12") flange (EN [DIN], ASME, JIS)
 Prowirl R: DN25 to 250 (1 to 10") flange (EN [DIN], ASME, JIS)
 Prowirl O: DN15 to 300 (½ to 12") flange (EN [DIN], ASME, JIS), butt-weld version
 Process temperature: Standard: –200 to +400°C (–328 to +752 °F)
 Materials: Stainless steel, Alloy C22

1.2 - Types:

PROWIRL D 200

Order code:
7D2B aa - bb c d e f g hhh i or **7D2C aa - bb c d e f gg hhh i**
aa = Nominal diameter: 15; 25; 40; 50; 80; 1H; 1F
bb = Approval: Ex- approvals
c = Output; Input: A; B; C; D; E; G
d = Display; Operation: A; C; E; L; M
e = Housing: B; C; J; K
f = Electrical connection: A; B; C; D; I; M; 6
g or gg = Sensor Version: 1; 2; 3 or AA; BA; CA
hhh = Process Connection: AAS; ABS; AFS; AGS; DDS;
 DES; D1S; D2S; NDS; NES; NFS; NGS
i = Calibration Flow: K; M

PROWIRL O 200

Order code:
7O2B aa - bb c d e f g hhh i or **7O2C aa - bb c d e f gg hhh i**
aa = Nominal Diameter: 15; 25; 40; 50; 80; 1H; 1F
bb = Approval: Ex- approvals
c = Output; Input: A; B; C; D; E; G
d = Display; Operation: A; C; E; L; M
e = Housing: B; C; J; K
f = Electrical connection: A; B; C; D; I; M; 6
g or gg = Sensor Version: 4; 5; 6 or BD; CD
hhh = Process Connection: ACS; ADR; ADS; ADT; AES;
 AET; A6B; A6C; D3W; D4W; D5W; D6B; D6W; NGS
i = Calibration Flow: K; L; M

PROWIRL F 200

Order code:
7F2B aa - bb c d e f g hhh i or **7F2C aa - bb c d e f gg hhh i**
aa = Nominal diameter: 15; 25; 40; 50; 80; 1H; 1F; 2H; 2F;
 3H
bb = Approval: Ex- approvals
c = Output; Input: A; B; C; D; E; G
d = Display operation: A; C; E; L; M
e = Housing: B; C; J; K
f = Electrical connection: A; B; C; D; I; M; 6
g or gg = Sensor version: 1; 2; 3 or AA; AB; AC; BA; BB;
 CA; CB; CC
hhh = Process connection: AAS; ABS; ACS; AFS; AGS;
 DDS; DES; D1S; D2S; D3W; D4W; D5S; D6S; NDS; NES;
 NFS; NGS
i = Calibration flow: K; L; M; N

PROWIRL R 200

Order code:
7R2B aa - bb c d e f g hhh i or **7R2C aa - bb c d e f gg hhh i**
aa = Nominal Diameter: RF; RG; RJ; RK; RM; RN; RR; SF;
 SG; SJ; SK; SM; SN; SR
bb = Approval: Ex- approvals
c = Output; Input: A; B; C; D; E; G
d = Display; Operation: A; C; E; L; M;
e = Housing: B; C; J; K
f = Electrical connection: A; B; C; D; I; M; 6
g or gg = Sensor Version: 1; 2; 3 or AA; AB; BA; BB; CA; CB
hhh = Process Connection: AAS; ABS; AFS; AGS; DDS;
 DES; D1S; D2S; D5S; D6S; NDS; NES; NFS; NGS
i = Calibration Flow: K; L; M; N

2. DOCUMENTS AND DRAWINGS:

- BA01156D/06/EN/03.14; BA01216D/06/EN/01.14; BA01223D/06/EN/02.14; CP01089D/06/EN/01.14;
 - IN01039D/06/EN/01.13; KA01136D/06/EN/04.14; TI01083D/06/EN/04.14; TI01084D/06/EN/04.14
 - DEKRA Certification B.V.: IECEx KEM 09.0029U Rev. 7 dated 2013-5-17; NL/KEM/ExTR08.0048/03 dated 2013-03-29;
 NL/KEM/ExTR09.0035/01 dated 2012-08-30; NL/KEM/ExTR10.0026/01 dated 2012-08-06;
 NL/KEM/ExTR10.0054/02 dated 2012-08-06; NL/DEK/ExTR12.0029/02 dated 2014-03-14;
 NL/DEK/ExTR12.0057/00 dated 2012-08-31; NL/DEK/ExTR13.0030/00 dated 2013-05-17
 For B0 version:
 - IN01039D/06/EN/02.18; TI01083D/06/EN/05.15; TI01332D/06/EN/02.20; TI01084D/06/EN/05.15;
 TI01333D/06/EN/04.20; TI01085D/06/EN/04.14; TI01334D/06/EN/04.20; TI01086D/06/EN/05.15; TI01335D/06/EN/03.20
 - 322458-0000JHC dated 10.12.2013; 330732-0000ZCC dated 10.12.2014; 211007529 dated 07.06.2018
 - KEMA 10ATEX0072 Issue:8 dated 20.Sep 2017

3. TEST REPORTS:

- Endress+Hauser GmbH+Co.KG: 970003925 dated 15.07.2013; 970003926 dated 17.07.2013; 970003927 dated 19.07.2013;
 970003928 dated 19.07.2013; 15-05 LTE dated 04.05.2015; Performance test 400°C dated 21.05.2015;
 Steam Test dated 13 May 2015;
 - IWS Institut für Werkstoffkunde und Schweisstechnik Service GmbH: G 275-15 dated 27.04.2015;
 - MeßTechnikNord GmbH: 07472.062.15 V1.1. dated 08.06.2015;
 - Paconsult GmbH: 15-6583 dated 03 June 2015; 15-6583B dated June 9, 2015;
 For B0 version:
 - Laboratory E+H Flowtec: EMC2020PCF0008 dated 2020-09-08; EMC2020PCF0009 dated 2020-09-08;
 EMC2021PCF0002 dated 2021-01-26; Vib_2020_PW200_001 dated 21 Oct 2020

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 / 41BS**
- 4.4 - The equipment fulfils the EMC requirements for installation in General Power Distribution and Deck Zones.
- 4.5 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev7.
- 4.6 - Ex-certification is not covered by this certificate. Applications in hazardous areas are to be approved in each case according to the Rules and Conditions for Safe Use specified in a valid Ex-Certificate issued by a Notified or Recognised Certification Body.
- 4.7 - 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.
- 4.8 - This type approval does not cover pressure contained wetted parts of the sensor.
- 4.9 - The used sensor material should be suitable for the intended media.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The above mentioned products are to be supplied by **Endress+Hauser Flowtec AG** 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 and as such does not require a BV product certificate.
- 5.3 - A Bureau Veritas inspection certificate could be required for pressure contained wetted parts of the sensor depending on the size, pressure, temperature and used media.
- 5.4 - **Endress+Hauser Flowtec AG** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

Endress + Hauser Flowtec AG
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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 - It is the responsibility of **Endress+Hauser Flowtec AG** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 40713/A0 BV issued on 07 Aug 2015 by the Society.

***** END OF CERTIFICATE *****