



Marine & Offshore

Certificate number: 58412/B0 BV

File number: AP4844

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 - SWITZERLAND

for the type of product

FLOW METER

Flow Transmitter

Proline Promag P 100

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 31, 41

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: 01 Oct 2029

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 01 Oct 2024,

Dirk Hoepfner

This certificate was created electronically and is valid without signature



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 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Proline Promag P 100 is a flowmeter for liquids which operates on the electromagnetic measurement principle. The measuring system consists of a transmitter (Promag 100) and a sensor (P).

1.1 - Main characteristics:

Transmitter:

Power supply: 24V DC
 Output: 4 to 20mA HART; Pulse/Frequency/Switch ; Modbus RS 485; Ethernet; Profibus DP or Profinet
 Operation: With or without display
 Housing: Aluminum or Stainless Steel
 Degree of protection: IP66, IP67
 Software version: 01.01.xx HART, Profibus DP, Modbus, Ethernet; 01.00.xx Profinet

Sensor:

Process connection: Flange, DN 15 to DN 600

1.2 - Variants:

Promag P 100		
Order Code		5P1B aa – bb c d e f g h iii j k
aa	Nominal Diameter:	15; 25; 32; 40; 50; 65; 80; 1H; 1Z; 1F; 2H; 2F; 3H; 3F; 4H; 4F; 5H; 6H
bb	Approval:	Any combination of two letters and/or numbers
c	Power Supply:	D
d	Output; Input:	B; L; M; N; R
e	Display; Operation:	A; B
f	Housing:	A
g	Electrical Connection:	A; B; C; D; L; N; P; Q; U
h	Liner:	A; B; E
iii	Process Connection:	Any combination of three letters and/or numbers
j	Electrodes:	G; H; 0; 1; 2; 3; 4; 5; 8
k	Calibration Flow:	A; B; D; E; M; N; 9

2. DOCUMENTS AND DRAWINGS:

- TI01102D/06/EN/05.17
- IECEx DEK 12.0041 Issue 4 dated 2017-09-21
- 322747-0000ZEE version 00 dated 01.03.2016; 323351-0000ZAC version 00 dated 01.03.2016
- 340765-0000JAA version 00 dated 23.01.2012; 340765-1002JAA version 00 dated 17.06.2013
- 340931-0000TBB version 00 dated 03.04.2014

3. TEST REPORTS:

- MeßTechnikNord: 07295.184.14 V1.1, dated 02.09.2014
 - paconsult: 14-5875, dated 19th Aug., 2014; 18-10301G Rev. 3 dated Nov. 05, 2018
- For A1 version:
- EMC2020PCF0013 V01.00 dated 2020-10-13

4. APPLICATION/LIMITATION:

- 4.1 - Bureau Veritas Rules 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, 41**
- 4.4 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev9.
- 4.5 - 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 Body.
- 4.6 - This type approval does not cover pressure contained wetted parts of the sensor.
- 4.7 - 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.

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.

5.5 - For information, **Endress + Hauser Flowtec AG** has declared to Bureau Veritas the following production site:

Endress + Hauser Flowtec AG
Kaegenstrasse 7
4153 Reinach BL1
SWITZERLAND

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° 58412/A1 BV issued on 24 Jan 2022 by the Society.

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