



TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA000024D
Revision No:
2

This is to certify:
that the Flow Transmitter

with type designation(s)
Promass E, F 100

issued to
Endress+Hauser Flowtec AG
Reinach, Switzerland

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Location classes:

Temperature	D
Humidity	B
Vibration	A
EMC	A
Enclosure	C

Issued at **Hamburg** on **2024-04-05**

This Certificate is valid until **2029-04-04**.

for **DNV**

DNV local unit: **Augsburg**

Approval Engineer: **Dariusz Lesniewski**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

Revision: 2023-09

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Product description

Coriolis flowmeter for mass or volume flow measurement of fluids or gases
 The device consists of sensor Promass E, F and transmitter Promass 100
 Process connection: flange
 Flange dimensions: DN 8 to 80 (E), DN 8 to 250 (F)
 Measuring accuracy: see manufacturer specification
 Power supply: 24V DC
 Output signal: 4...20mA HART, Modbus RS485, Ethernet/IP, Profibus DP, Profinet
 Pulse/Frequency/Switch
 Degree of protection: IP 66/67
 Ex-proof protection: according to relevant Ex-Certificate(s)

Firmware versions:

01.01.zz, HART
 01.01.zz, Profibus DP
 01.03.zz, Modbus
 01.02.zz, Ethernet/IP
 01.00.zz, Profinet

Variants according to order code:

Promass E 100		
Order Code	8E1B aa – bb c d e f g hh iii j	
aa	Nominal Diameter:	08; 15; 25; 40; 50; 80
bb	Approval:	Any two letter and/or number combination
c	Power Supply:	D
d	Output; Input:	B; L; M; N; R
e	Display; Operation:	A; B
f	Housing:	A; B; C
g	Electrical Connection:	A; B; C; D; I; L; N; P; Q; U
hh	Meas. Tube Mat., Wetted Parts Surface:	SA; SB; SC;
iii	Process Connection:	Any triple letter and/or number combination
j	Calibration Flow:	H; I; J; 9

Promass E 100		
Order Code	8E1C aa – bb c d e f g hh iii j	
aa	Nominal Diameter:	08; 15; 25; 40; 50; 80
bb	Approval:	Any two letter and/or number combination
c	Power Supply:	D
d	Output; Input:	B; L; M; N; R
e	Display; Operation:	A; B
f	Housing:	A; B; C
g	Electrical Connection:	A; B; C; D; I; L; N; P; Q; U
hh	Meas. Tube Mat., Wetted Parts Surface:	SA; SB; SC;
iii	Process Connection:	Any triple letter and/or number combination
j	Calibration Flow:	A; B; C; H; I; J; 9

Promass F 100		
Order Code	8F1B aa – bb c d e f g hh iii j	
aa	Nominal Diameter:	08; 15; 25; 40; 50; 80; 1H; 1F; 2F
bb	Approval:	Any two letter and/or number combination
c	Power Supply:	D

d	Output; Input:	B; L; M; N; R
e	Display; Operation:	A; B
f	Housing:	A; B; C
g	Electrical Connection:	A; B; C; D; I; L; N; P; Q; U
hh	Meas. Tube Mat., Wetted parts Surface:	HA; SA; SB; SC; SD; SE; SF; TH
iii	Process Connection:	Any triple letter and/or number combination
j	Calibration Flow:	A; B; C; D; K; L; M; 8; 9

Place of manufacture

Endress + Hauser Flowtec AG
 Reinach, Switzerland

Endress + Hauser Flowtec (China) Co. Ltd.
 Suzhou, China

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Application/Limitation

This type approval does not cover wetted parts. Suitability of pressure contained wetted parts to be considered for each application according to relevant requirements.

Type Approval documentation

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.

Marking of product

The products to be marked with:

- manufacturer name
- model name: [Promass E/F] + [Promass 100]
- serial number
- power supply ratings

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE