

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Flow Transmitter**with type designation(s)
ProcessMaster Series FEP630

Issued to

ABB Engineering (Shanghai) Ltd.
Shanghai, China

is found to comply with

DNV GL 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 GL.****Location classes:**

Temperature	D
Humidity	B
Vibration	B
EMC	A
Enclosure	B/D

Issued at **Hamburg** on **2020-09-10**for **DNV GL**This Certificate is valid until **2025-09-09**.DNV GL local station: **Shanghai**Approval Engineer: **Dariusz Lesniewski**

Joannis Papanuskas
Head of Section

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.



Product description

ProcessMaster electromagnetic flowmeter series FEP630, comprising the following models:

Model no.

FEP631	Compact design without explosion protection
FEP631	Compact design with explosion protection
FEP632	Remote design – Flowmeter sensor without explosion protection
FEP632	Remote design – Flowmeter sensor with explosion protection
FET632	Remote design – Transmitter without explosion protection
FET632	Remote design – Transmitter with explosion protection

Technical data

Measured value error:	0.4%, 0.3% or 0.2% of rate
Transmitter housing and sensor material:	Aluminium (Al) or stainless steel (SST)
Power supply specification FEP630:	100-230VAC 50/60Hz, 24VDC

Signal output: 4-20 mA

Communication interfaces available (not scope of this certification): Profibus DP, Modbus or HART

Place(s) of manufacture

ABB Engineering (Shanghai) Co., Ltd.
Shanghai, China

ABB Limited
Oldends Lane, Stonehouse
GL10 3TA, Gloucestershire, UK

ABB Inc.
125 East County Line Road
Warminster, PA 18974, USA

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Application/Limitation

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification / Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Type Approval documentation

Drawings:

3KXF000017G0007_2, 3KXF000018G0007_2, 3KXF000019G0007_4, 3KXF000020G0007_2

Technical documentation:

Data sheet FEP630 – DS/FEP630-EN Rev. E

Test reports:

SiTiiAS No. A19-009-WT-01, dated 2020-06-12
SiTiiAS No. A19-009-WT-02, dated 2020-06-12
SiTiiAS No. A19-009-WT-03, dated 2020-07-07
SiTiiAS No. A19-009-WT-04, dated 2020-06-12
SiTiiAS No. A19-009-WT-05, dated 2020-06-12
SiTiiAS No. A19-009-WT-06, dated 2020-06-12
SiTiiAS No. A19-009-WT-07, dated 2020-06-12

Job Id: **262.1-024681-1**
Certificate No: **TAA00002V3**

SiTiiAS No. A19-009-WT-08, dated 2020-06-12
SiTiiAS No. A19-009-WT-09, dated 2020-06-12
SiTiiAS No. A19-009-WT-10, dated 2020-08-05
SiTiiAS No. A20-033-WT, dated 2020-09-09
SiTiiAS No. C20-192-WT, dated 2020-08-18

TYPE EXAMINATION CERTIFICATES FM17ATEX0016X, FM17ATEX0017X
IECEX Certificate of Conformity IECEX FME 17.0001X
FM17US0062X, FM17CA0033X

Type approval periodical assessment report issued at Shanghai on 2017-05-31
Type approval periodical assessment report issued at Magdeburg on 2017-08-23
Type approval initial assessment report issued at Manchester on 2018-11-23
Type approval initial assessment report issued at Houston, TX on 2019-03-12
Type approval initial assessment report issued at Shanghai, on 2019-07-23

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, December 2019.

Marking of product

The products to be marked with:

- manufacturer name
- model name
- 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