# OIML Certificate

**OIML Member State**
The Netherlands

Number R117/2007-A-NL1-19.10
Project number 2202829


| | |
|---|---|
| Issuing authority<br>Person responsible: | NMi Certin B.V.<br>Fabienne van Booma – de Smit |
| Applicant and Manufacturer | Endress + Hauser Flowtec AG<br>Kägenstrasse 7<br>CH-4153 Reinach<br>Switzerland |
| Identification of the certified type | A **measurement transducer**<br>Type: Promass Q 300 DNxxx[1]; Promass Q 500 DNxxx[1] |
| Characteristics | See page 2 and further |

This OIML Certificate is issued under scheme A

This Certificate attests the conformity of the above-identified type (represented by the sample(s) identified in the OIML Type Evaluation Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

**R 117-1 (2007)** "Dynamic measuring systems for liquids other than water"

Accuracy class 0.3 / 0.5 / 1.0 / 1.5

This Certificate relates only to the metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML International Recommendation identified above. This Certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate was issued, partial quotation of the Certificate and of the associated OIML Type Evaluation Report(s) is not permitted, although either may be reproduced in full.

[1] With xxx denoting the size of the Promass Q measurement sensor.

Issuing Authority **NMi Certin B.V., OIML Issuing Authority NL1**
3 December 2019

Certification Board

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The conformity was established by the results of tests and examinations provided in the associated report(s):

- NMi-15200323-01 dated 25 October 2016 that includes 94 pages;
- NMi-16200475-01 dated 22 December 2016 that includes 247 pages;
- NMi-16200475-02 dated 22 December 2016 that includes 16 pages;
- NMi-1901185-01 dated 1 November 2017 that includes 269 pages;
- NMi-1901704-01 dated 31 August 2018 that includes 17 pages;
- NMi-2202829-01 dated 3 December 2019 that included 261 pages.

**Characteristics of the flow transmitter**
In Table 1, the general characteristics of the measuring instrument are presented.
The construction of the measurement transducer is recorded in documentation folders TC7149-7 for the measurement sensor and TC10822-3 for the electronics.

**Table 1 General characteristics of the Promass Q measurement sensor**

| Sensor size | DN25 | DN50 | DN80 | DN100 |
|---|---|---|---|---|
| Maximum flow rate [t/h] | 20 | 80 | 200 | 400 |
| Minimum flow rate [t/h][2] | 0.45 | 2 | 6 | 14 |
| Minimum flow rate [t/h][3] | 0.225 | 1 | 3 | 7 |
| Minimum Measured Quantity [kg] | 10 | 20 | 100 | 200 |
| Maximum pressure | 100 bar | | | |
| Density range | 400…1400 kg/m$^3$. | | | |
| Maximum Viscosity | 1000 mPa·s | | | |
| Accuracy class | 0.3; 0.5; 1.0 and 1.5 | | | |
| Environmental classes | M3 / E2 / H3 | | | |
| Ambient temperature range | -40 – +55 °C | | | |
| Product temperature range | -10 – +90 °C for mass, density and volume measurement | | | |
| | -200 – +90 °C for mass measurement | | | |
| Intended for the measurement of | Oil and oil products, chemicals, potable liquids and liquefied gases under pressure. | | | |

[2] For Accuracy Class 0.3 and 0.5
[3] For Accuracy Class 1.0 and 1.5

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**Table 2 General characteristics of the Promass 300 and Promass 500 electronics**

| | | | |
|---|---|---|---|
| Environmental classes | M3 / E2 / H3 | | |
| Ambient temperature range | -40…+55 °C; condensing humidity | | |
| Power supply voltage | 24 VDC;<br>100…240 VAC; 50…60 Hz<br>24 VDC/100…240 V AC;-/50…60 Hz | | |
| Software identification | Version number | Checksum | |
| | | Modbus | Hart |
| | 01.00.02[4] | 0xE87F | 0x321F |
| | 01.00.03[4] | 0x79B5 | 0x1585 |
| | 01.01.01 | 0xA476 | 0x977D |
| | 01.01.02 | 0x2AAB | 0xED44 |
| | 01.01.03 | 0x6A37 | 0x86FC |
| | 01.01.04 | 0x6D79 | 0x674 |
| | 01.02.00 | 0x5645 | - |
| | 01.05.00 | 0xA9EE | 0xB4A1 |

The Promass 300 and Promass 500 flow transmitter is solely to be used in combination with dynamic mass meters (Coriolis meters) of brand Endress + Hauser.

[4] This software version is only allowed for the Promass 300 electronics.