

CERTIFICATE OF CONFORMITY

1. ELECTRICAL EQUIPMENT PER US REQUIREMENTS

2. **Certificate No:** FM23NUS0018
3. **Equipment:** FieldEdge HXF40, FieldGate NXA80 and Density
(Type Reference and Name) Calculator QML51
4. **Name of Listing Company:** Endress+Hauser SE+Co. KG
5. **Address of Listing Company:** Hauptstraße 1, Maulburg D-79689, Germany

6. The examination and test results are recorded in confidential report number:

PR467480 dated 12th December 2023

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM 3810:2021, ANSI/UL 61010-1:2019

8. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

9. **Equipment Ratings:**

Suitable for installation in Ordinary (unclassified) locations

10. Description of Equipment:

General - The FieldEdge HXF40 offers the necessary CPU power and memory to run your software application also if it is containerized for example with Docker ®. It comes with an industry proven operating system based on the LINUX YOKTO ® project giving all the freedom for your software. With 2 Ethernet ports (RJ45), one USB (type A) and one RS485 the necessary physical interfaces are ready for data collection and distribution within the IT or OT arena. Additional storage space can be added by MicroSD card. The FieldEdge HXF40 can be used to run your software application locally or can be connected to cloud applications - as you need it and design it into your software. Various Endress+Hauser solution packages can be installed on the unit.

- 2 Ethernet ports (RJ45) to communicate for example with operation technology
- (OT) and information technology (IT) systems
- RS485 interface fulfilling process industry requirements

Certificate issued by:



J.E. Marquedant
VP, Manager - Electrical Systems

09/29/2026

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1165 Boston-Providence Turnpike, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com

SCHEDULE

to US Certificate of Conformity No: FM23NUS0018

- USB (type A) ports giving freedom to further extend the system to your application needs
- Internal storage and Micro SD slot to be able to extend storage space
- Secure element enabling state of the art IT security
- Industry proven operating system for embedded software

Fieldgate NXA80 is such a solution developed by Endress+Hauser Level+Pressure. It will be used in the context of inventory monitoring. Field devices are connected via a Fieldbus (NXA80 comes with one, in future four variants: Modbus, future: V1, WM550, 4...20mA/HART) to the Fieldgate. Fieldgate will act as a Master in these systems.

The QML51 measuring system consists of the following main components:

- Liquiphant density
- Density calculator

In conjunction with the density calculator, the Liquiphant Density measures the density of a Newtonian, purely viscous, liquid in pipes and tanks.

A piezoelectric drive causes the vibrating fork of the Liquiphant Density to vibrate at its resonance frequency. Changes in liquid density cause a change in the resonance frequency of the vibrating fork. As a result, the density of the medium has a direct impact on the resonance frequency of the vibrating fork. This effect is used for density measurement.

In the density calculator, the density of the liquid is calculated from the resonance frequency of the vibrating fork transmitted by the sensor and from stored sensor-specific parameters. To compensate for temperature and pressure influences, additional corresponding sensors can be connected to the density calculator.

Operation Temperature Ranges

The ambient operating temperature range of the FieldEdge HXF40, FieldGate NXA80 and Density calculator QML 51 is -20°C to +60°C.

Electrical Data

The FieldEdge HXF40, FieldGate NXA80 and Density calculator QML51 have the following electrical ratings:

Supply voltage: Recommended supply voltage: 24 V DC (+/-20%)

The power unit must provide safe electrical separation and be tested to ensure it meets safety requirements (e.g., PELV, SELV, Class 2).

Power consumption: < 9W

11. Specific Conditions of Use:

1. The power unit must provide safe electrical separation and be tested to ensure it meets safety requirements (e.g., PELV, SELV, Class 2).
2. The FieldEdge HXF40, FieldGate NXA80 and Density calculator QML51 must be housed in a cabinet outside the hazardous area. A minimum IP67 rated cabinet must be utilized for wet locations.

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1165 Boston-Providence Turnpike, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com

SCHEDULE

to US Certificate of Conformity No: FM23NUS0018

12. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

13. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

14. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
12 December 2023	Original Issue.
29 September 2026	<u>Supplement 1:</u> Report Reference: PR475963 dated 29 September 2026. Description of the Change(s): 1. Electronics updates 2. Addition of Density calculator QML51 3. Removal of NXF80

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1165 Boston-Providence Turnpike, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com