



Certificate no.:
TAA00003GE

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **Network and Communication Components**

with type designation(s)
ALIoT - Field gateway

issued to

Alfa Laval Copenhagen A/S
Søborg, Hovedstaden, Denmark

is found to comply with

IEC 62443-3-3 Ed. 1.0 (2013-08) Industrial communication networks – Network and system security – Part 3-3: System security requirements and security levels

Application:

Product(s) approved by this certificate is/are accepted for installation on all land-based uses.

This type approval covers security capabilities for IEC 62443-3-3 security level 1 (SL1) and IEC 62443-4-1 for Secure product Development Life Cycle (SDLC) requirements including correct configuration of security capabilities and secure supply chain, i.e. SM-8, SUM-2/3/4, SG-1/2/3 as included in IACS UR E27 requirements, subject to conditions stated in this certificate.

Temperature
Humidity
Vibration
EMC
Enclosure

Issued at **Høvik** on **2024-10-24**

This Certificate is valid until **2026-10-23**.

for **DNV**

DNV local unit: **Denmark CMC**

Approval Engineer: **Qitao Gan**

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 USD 300 000.

Product description

Alfa Laval ALIoT Edge is a set of network and communication components, functioning as a gateway to collect field data from Internet of Things (IoT) devices on land based uses.

The following components of the Alfa Laval Field Gateway are covered:

Component Description	Type Designation /HW version	OS/Platform SW version	Application SW version
Field Gateway	B&R APC 2200 CompuLab IoT GATE-iMX8	Ubuntu (20.04, 22.04) Debian 11 (Bullseye)	2.0.z, 2.1.z (Gen.2) (2.1.0 or newer)
Alfa Laval ALIoT Portal interface	over cloud: https://aliotportal.com/ or https://v2.aliotportal.com/	-	Following info about Field Gateway can be viewed on the Alfa Laval ALIoT Portal: Field Gateway Software Version, Connection Status, Disk Usage

Application/Limitation

This type approval covers security capabilities for **IEC 62443-3-3 security level 1 (SL1)** and **IEC 62443-4-1** for Secure product Development Life Cycle (SDLC) requirements including correct configuration of security capabilities and secure supply chain (i.e., IEC 62443-4-1 SM-8, IEC 62443-4-1 SUM-2, IEC 62443-4-1 SUM-3, IEC 62443-4-1 SUM-4, IEC 62443-4-1 SG-1, IEC 62443-4-1 SG-2, IEC 62443-4-1 SG-3), in accordance with IEC 62443 3-3 and 4-1 for hardware and software listed in the Product description.

The verified security capabilities are implemented in the Field Gateway which provides services to Alfa Laval's customers. Customer data/application is not necessarily subject to the same security functions.

The approval is valid when the internal network interface is connected to a trusted zone. Only the external network interface may be connected to an untrusted zone.

If the Alfa Laval Field Gateway is to be used for applications subject to DNV rules for classification, documentation of the application is to be submitted in each case.

Changes affecting the type approved security capabilities shall be informed to DNV. Major modifications may require witnessing of type testing and update of this type approval certificate to reflect new products or versions listed in Product description.

Type Approval documentation

Tests carried out

Software was tested at Alfa Laval in accordance with requirements for

- DNV-RU-SHIP Pt.6 Ch. 5 Sec 21 (Ed. July 2024) for Cyber Secure (Essential),
- **IEC 62443-3-3 security level 1 (SL1)**
- IEC 62443-4-1 SM-8, IEC 62443-4-1 SUM-2/3/4, IEC 62443-4-1 SG-1/2/3

with the test report approved by DNV.

The Secure product Development Lifecycle (SDLC) requirements including correct configuration of security capabilities and secure supply chain requirement are in compliance with IEC 62443-4-1 (i.e. SM-8, SUM-2/3/4, SG-1/2/3).

Marking of product

The type designation and name and contact address of the manufacturer shall be affixed visibly, legibly and indelibly to the onboard product. In addition, the onboard product shall be marked with:

- manufacturer name
- model name
- serial number
- power supply rating

Version of Field Gateway can be viewed on the Alfa Laval ALIoT Portal over cloud: <https://aliotportal.com/> or <https://v2.aliotportal.com/> for the product.

Place of manufacture

- Alfa Laval, Copenhagen, Denmark.

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

A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE