

# Endress+Hauser security certifications

## From field devices to the cloud

### Facilitate your cybersecurity compliance with a trusted partner:

Endress+Hauser measuring instruments and components ensure the reliable operation of process plants in countless facilities worldwide.

Cybersecurity in industrial plants and the Industrial Internet of Things is becoming increasingly important.

To provide proof of the quality of our products, we have tested our systems against some of the most well-known security standards in the IT and OT world and obtained the corresponding certification.

#### Contact

Please contact your local Endress+Hauser location  
[www.addresses.endress.com](http://www.addresses.endress.com)

More details on Netilion?



[netilion.endress.com](http://netilion.endress.com)



### Secure product development lifecycle requirements

In order to provide the best possible protection for customers' production facilities, Endress+Hauser lays the foundations for secure operation as early as the planning and development stage for its products and services.

TÜV Rheinland has confirmed that this product development process, as well as the lifecycle management of the products, meet the highest international standards with certification in accordance with IEC 62443-4-1.


**Information security** Endress+Hauser Digital Solutions is the competence center for IIoT and digitalization within the Endress+Hauser Group. This entity was granted ISO 27001 certification for information security. The system is built to ensure compliance to applicable regulation, like data protection regulations (DSMS, GDPR).


Fulfilling this international standard set a new landmark for the organization.


- Firstly, the security of the customer's information and data is ensured.
- Secondly, a third-party certification body confirmed that our system ensures the correctness, adequacy and continual improvement of our security measures.


**Cloud security for Netilion** A 3rd party certification body confirmed that the IIoT ecosystem Netilion fulfills the requirements of ISO 27017. This internationally recognized standard contains additional requirements for secure cloud platforms. Cloud-based services offer a high variety of useful functionality. At the same time, they can increase the attack surface of companies – which increases the fear of using them. Compliance with the requirements of ISO 27017 ensures that customers can trust the Netilion ecosystem to provide a secure harbor for their data.


**Functions and features** To comply with all requirements, it is necessary to have proper functions and features implemented in the software. The following outlines some of the security measures that we undertake.


 **Password Encryption** To provide user confidentiality of passwords we do not store them in plain text. At the user side passwords are encrypted with 'bcrypt + salt + pepper' and we just save the hash in our data base.

 **OAuth** To support safe user identification during the usage of the software, we use a tokenized process to identify users against our cloud service. User passwords are transmitted only for token generation. This complicates scamming attempts and guarantees a safe authorization.


 **Encrypted communication channels only** The communication channel to our cloud service is always established via a secure and encrypted https connection. Thereby all payload data are encrypted according to industry standards and our cloud computers are trustfully authenticated by a certificate issued by a worldwide renowned certificate authority.

 **User information** When accessing his or her account the user is able to see past activities. The same mechanisms are used for online banking to detect possible fraud usage or failed login attempts.

 **Processes** In the event of serious security incidents, which may occur in the safest environment, we have established internal processes to react as quickly as possible and to inform all affected parties to keep our customers safe from harm.


 **Server location** We use the strongest cloud hosting partners in the world and only use server locations in Europe. These servers are operated under European law


and jurisdiction, which is one of the most stringent in the world. Our customers can be sure that their data is subject to one of the highest data security standards worldwide.

 **Edge Device data security** An edge device is a critical point in the architecture because it represents the access point from and to the user's plant. A FieldEdge device records only data from the field and transmits these into the cloud. If a Netilion feature is used that requires writing to a field device, it is documented and needs to be acknowledged by the user beforehand.

A FieldEdge downloads its firmware updates from the Netilion cloud. Thus all incoming ports from the internet to the FieldEdge devices shall be blocked. To guarantee safe downloads, these updates are signed and checked against the original file to prevent manipulation.

IEC 62443 requirements served as a basis for the development of the FieldEdge devices from the beginning.

 **Customer data** All customer data used by us are solely owned by the customer. We reserve the right to access these data to deliver our service. If we share customer data with 3rd party service providers, we inform our customers about this cooperation prior to data exchange and assure that this service provider acts according the given terms and guidelines.

 **Governance** All activities and measures are taken to protect Netilion and the data within Netilion as part of a bigger system, where all processes are governed by detailed policies, standards, processes and instructions. This holistic approach ensures that all parts of the information value chain are clearly identified and protected according to their needs.

Eco-friendly produced and printed on paper from sustainable forestry.

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PU012725-04/EN/05-21