



DanlexBox

A multi-purpose IIoT device for high profile monitoring of technical and environmental data

Product Brief

Put Data to Work for Operational Efficiency

Asset Performance Management

Improving the reliability and the performance of your assets has never been so easy. By harnessing the power of **Industrial Internet of Things (IIoT)** devices, data analytics and software programming you can join the new generation of Service 4.0 technologies, which are already a must-have standard in many industries like oil and gas, wind turbines, aircraft, and others.

Although the newly developed equipment is already built-in with Service 4.0 in mind, the older ones often lack such capabilities. Considering this, we have developed **DanlexBox** - our own proprietary IIoT device with an

integrated sensor network that can be fitted in a wide variety of industrial equipment and assets.

To offer a complete solution, **DanlexBox** is powered by real-time data transfer and analysis, enabling you to improve the way you manage assets, production, and to establish a new value chain.

With our solution, you do not have to worry about the long and painful transition and high costs typically associated with Service 4.0. It has a modular concept that allows it to scale and expand when needed.

Simple and Reliable IIoT Device

Connect anything, anywhere to get access to Real-Time Data Insights

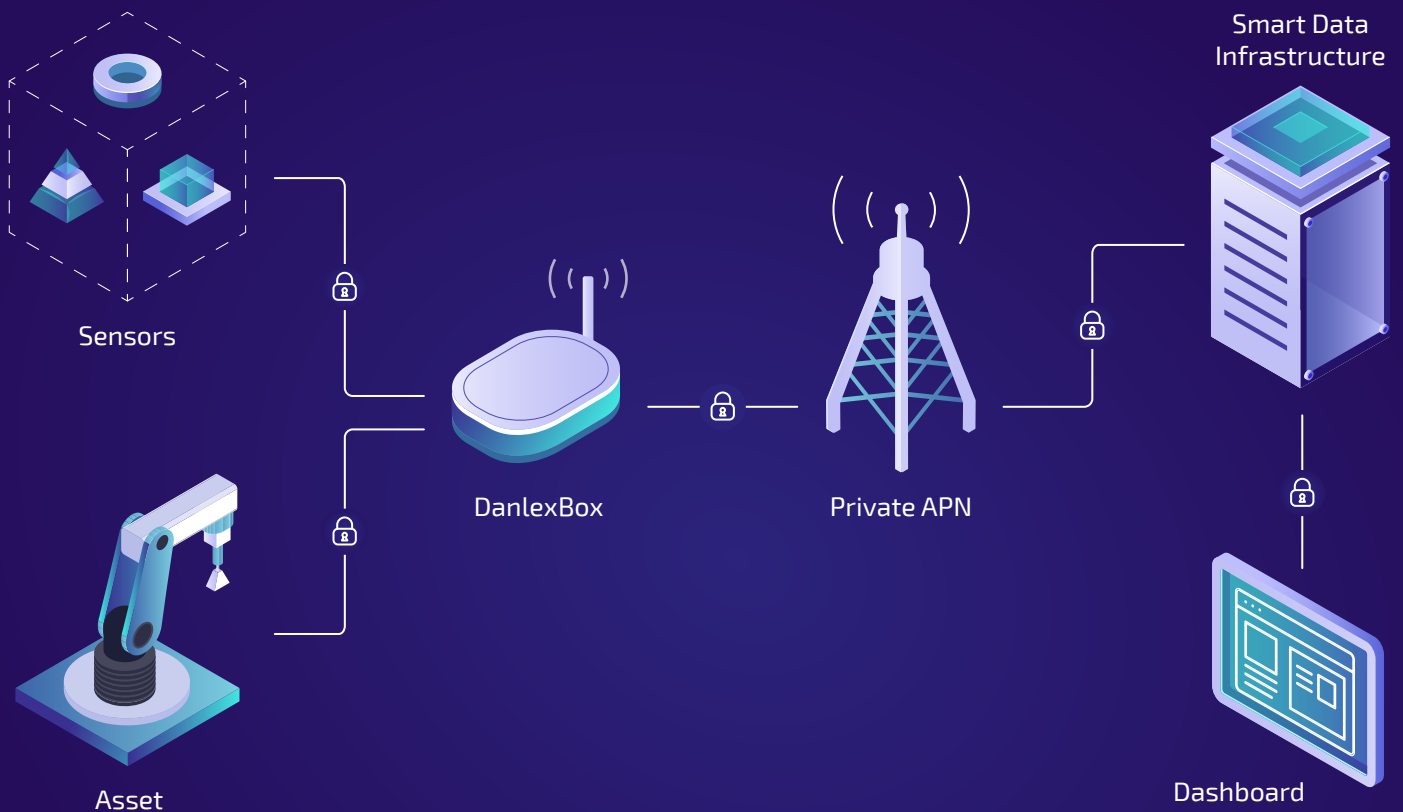
DanlexBox is a small single box device (approximately 15x20x15 cm), which is perfectly suitable for installation in the monitored asset or for placement near it. The only requirement is to have access to the main power supply of 230V.

Incorporated in **DanlexBox** are a computer, UPS functionality to guarantee continuous operation and a cellular network modem to secure a reliable internet connection, even at remote locations where another type of connectivity is not available.

The computer is capable of collecting, processing, and consolidating data from

a wide range of industrial assets using industry-standard communication buses and protocols. To extend the functionalities, **DanlexBox** can be combined with a customised network of external sensors, which is able to monitor a large variety of environmental, electrical, and physical parameters.

To offer you a complete solution, which enables you to have a more direct and streamlined approach to asset monitoring, process optimisation and analytics, all the data is structured and visualised in a tailored Dashboard.



Key Features

- | Single box design
- | Quick and easy deployment
- | Well suited for mobile assets
- | Easy to integrate with your IT infrastructure
- | Secure connection
- | High frequency of real-time data transmission
- | Capture asset-generated technical data
- | Customisable sensor network
- | Flexible connectivity
- | Autonomous power supply
- | Fully autonomous operation
- | Small, versatile, scalable, extendable

Connectivity to Your Asset

Based on proven security standards

While the main drive force behind digital transformation and Service 4.0 is data availability, two challenges must be kept in mind: what is the most efficient way to collect the data from the assets and how to avoid the possible security risks.

To address them, from concept to implementation, **DanlexBox** is designed to be flexible and be able to adapt to the customer's needs and, at the same time, to meet the strictest cybersecurity and data protection requirements.

The connectivity of multiple assets can be standalone using one **DanlexBox** for

each asset or through an intranet, in which a group of assets are connected via single **DanlexBox**. The outer network connectivity from **DanlexBox** to our Smart Data Infrastructure is through a secure network tunnel of a local cellular operator. Using this approach, it is not required to have any network connectivity at the premises as everything is bundled with the **DanlexBox**. However, if an IT network infrastructure is already available on-site, **DanlexBox** can be easily integrated into it.

From Raw Data to Actionable Insights

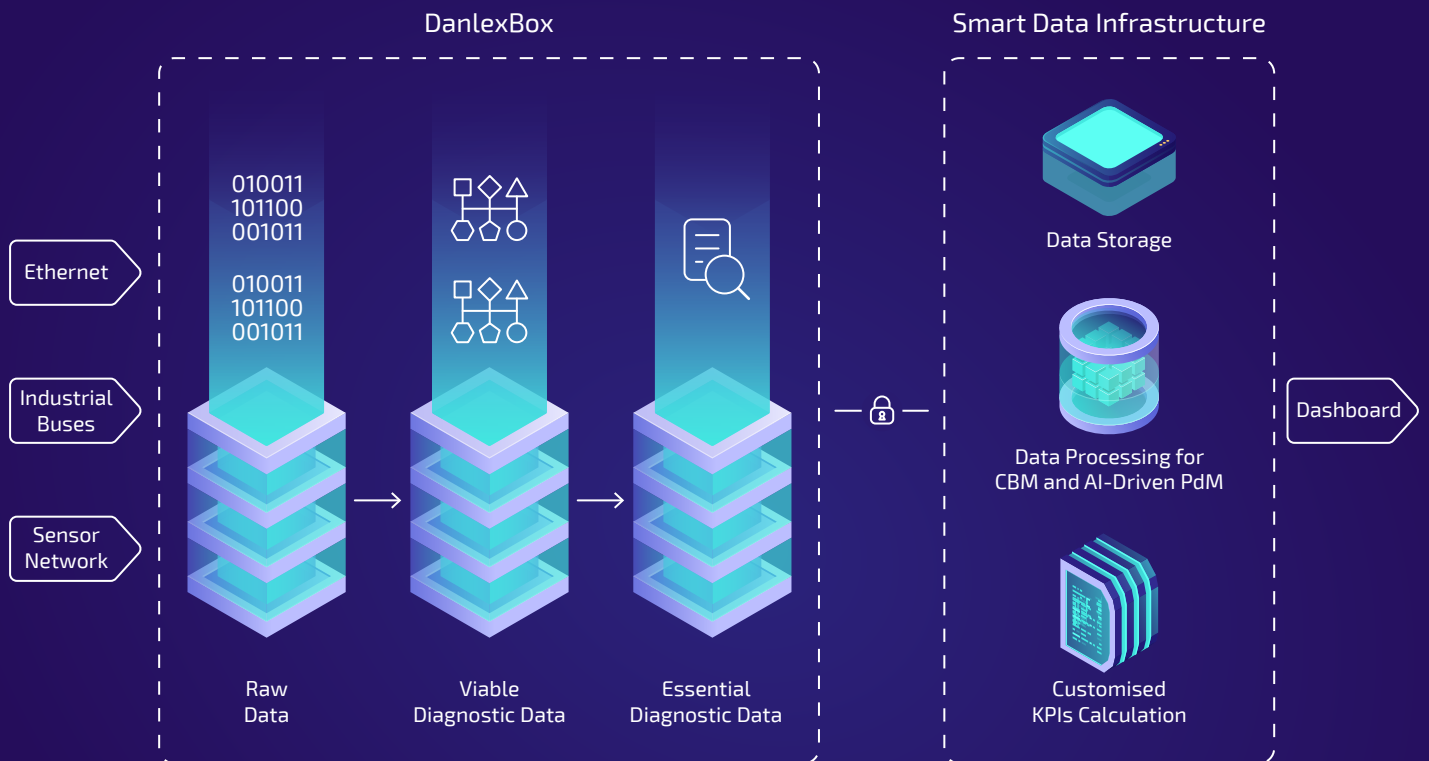
Delivers sustainable customer value

DanlexBox allows you to collect raw data from your assets as well as parameters from the sensor network. However, to deliver valuable insights related to maintenance services optimisation and increase in operational efficiency, the data must be presented in a way, that supports you to make informed decisions and react quickly upon assets health deterioration or given key performance indicators (KPIs) have been reached.

To address this issue the collected raw data is processed in our Smart Data Infrastructure via statistical, condition-based or AI models to deliver

an easy to interpret visualisation and generate early-warning alerts based on pre-defined KPIs. To assure that the indicators will meet your needs and requirements, our interdisciplinary team can join and help in the process of their definition.

The monitored information of your assets is available to you via a web-based tailored Dashboard, which is remotely accessible from anywhere. It gives you an at-a-glance view to identifying trends and correlations. In addition, when a given KPI is reached you will be automatically notified via SMS and e-mail.



Customer Centric Approach

From initiation to implementation



Asses your needs and problems

- Recognise your business case
- Define the project scope



Brainstorm with our interdisciplinary team

- Analyse and discuss the main issues
- Evaluate the requirements
- Specify the parameters that need to be monitored and controlled



Develop and Implement

- Provide you a customised solution
- Install, congfigure and test
- Live Training how to use it



Support

- Continual improvement of our solution
- AI and machine learning models
- Provide remote monitoring
- Resolution management of events/incidents/problems

Proven Solution

We have already put DanlexBox into operation as an autonomous AI-driven function for data processing and transferring. It is an integral part of our Augmented Analytics platform and Service 4.0 solution for Real-Time Monitoring, Condition-Based and Predictive Maintenance of X-Ray Security Systems, codenamed **PM4X LPR**.

PM4X LPR introduces a next-generation maintenance approach for X-Ray Security Systems with enhanced capabilities such as decision support and resolution management of events, incidents and problems that may occur in the most critical X-Ray System components.

Use Cases

Wide range of applications

- | Real-time monitoring
- | Condition-based maintenance
- | Predictive maintenance
- | Asset tracking
- | Process optimisation
- | Production decentralisation

Key Services

To implement our solution

Monitoring Solution consulting

We analyse your individual case and specific requirements, estimate your sensor needs and answer the question of what parameters should be monitored to identify potential faults and reduce risks associated with equipment operation and maintenance.

Integration

We install and configure DanlexBox, the sensor network and the software system for data transfer and visualisation based on the characteristics of the assets and the specific monitoring needs.

Extended Services

To help you drive timely and critical operational decisions

Outsourced Monitoring

We provide remote monitoring of asset performance and notifications based on parameters and triggers pre-defined by the customer.

Analytics Consulting

We monitor your asset health and provide valuable insights on how to increase its operational efficiency.

Data Science Consulting

We develop custom condition-based and AI-powered predictive models using the collected data and maintenance history of the assets.

Your Benefits



Increased Productivity

- Maximised asset availability
- Reduced unplanned downtime
- Process optimisation



Reduced Maintenance Costs

- Maintenance on demand only
- Optimised maintenance cycle
- Extended lifetime of the equipment



Enhanced Internal Cohesion

- Augmented inter-department communication
- Process insights
- Facilitated decision making

*Minimise your carbon footprint, thus contributing to SA 3rd priority for climate-neutral, green, fair and social Europe and SDG13 Climate Action.

Ready to Learn More and Discuss Your Set-Up With Our Digital Solutions Team? Get in Touch:

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Developed by Danlex

With 24+ years of experience in delivering and maintaining world-class detection and security screening technology for the aviation, ports and borders, urban security, and defence markets, we have developed significant competencies in providing excellent customer service.

At Danlex, we are combining innovation culture and Industry 4.0 technologies to deliver sustainable customer value. Our profound industry knowledge and interdisciplinary team of high-profile experts with core capabilities in data science and digital technologies, allow us to approach transformation and provide next-generation service excellence with AI and IIoT-driven features.

Danlex operates in compliance with ISO 9001, ISO/IEC 20000 and ISO/IEC 27001.



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