



Starter Kit Maxi



QUICK START GUIDE



Welcome

The Starter Kit Maxi contains the Perinet Smart Components and a periMICA modular edge computer and provides a proof of concept of an IoT application running with our solution.

The Smart Components are electronic components that can establish seamless communication - with no gaps and protocol conversions - between field devices (i.e. sensors and actuators) and any IT-system or edge device within the local network they are connected to.

Discover Seamless IoT Connectivity with your Starter Kit!



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1 Package content

1.1 Item list

Item	Description	Product
1	1 pc. periNODE smart adapter 0-10V Article no. PRN.000.002	 A black cylindrical smart adapter with a silver metal mesh on one end and a BNC connector on the other. The label includes 'periNODE-sab5k', '0-10V Input', 'PRN.000.002', and a CE mark.
2	1 pc. periNODE smart adapter Pt100 Article no. PRN.000.006	 A black cylindrical smart adapter with a silver metal mesh on one end and a BNC connector on the other. The label includes 'periNODE-cyghy', 'Pt100', 'PRN.000.006', and a CE mark.
3	1 pc. periSWITCH 3-port Article no. PRN.000.008	 A black T-shaped 3-port adapter with three BNC connectors. The brand name 'Perintec' is embossed on the top surface.
4	1 pc. periSTART media converter Article no. PRN.000.003	 A black rectangular media converter with three BNC connectors. The brand name 'Perintec' is embossed on the top surface.



1 Package content




1.1 Item list

Item	Description	Product
5	3 pcs. periLINE hybrid SPE cable Article no. PRN.000.017	
6	1 pc. periSTART power supply 24VDC Article no. PRN.000.035	
7	1 pc. periMICA modular edge computer Article no. PRN.000.025	
8	1 pc. PoE injector incl. power supply & Ethernet cable (RJ45// RJ45) Article no. PRN.100.347	



1 Package content

1.1 Item list

Item	Description	Product
9	1 pc. M8 A-coded Fast Ethernet cable Article no. PRN.100.362	
10	1 pc. M12 X-coded Fast Ethernet cable Article no. PRN.100.003	
11	1 pc. Temperature sensor	
12	1 pc. Distance sensor	
13	1 pc. Reset cable Article no. PRN.100.437	



1.2 Assembling

1.2.1 Prerequisites

- PC / Laptop
- Network ports (e.g. ethernet switch)
- Power sockets

1.2.2 Setup the Starter Kit Maxi

Please connect all components like in the image below (Figure 1). Make sure the Ethernet switch is connected to the local network and to a power outlet.

Please connect each power supply to a power outlet (100V...240V).

The Starter Kit Maxi is now ready for login.

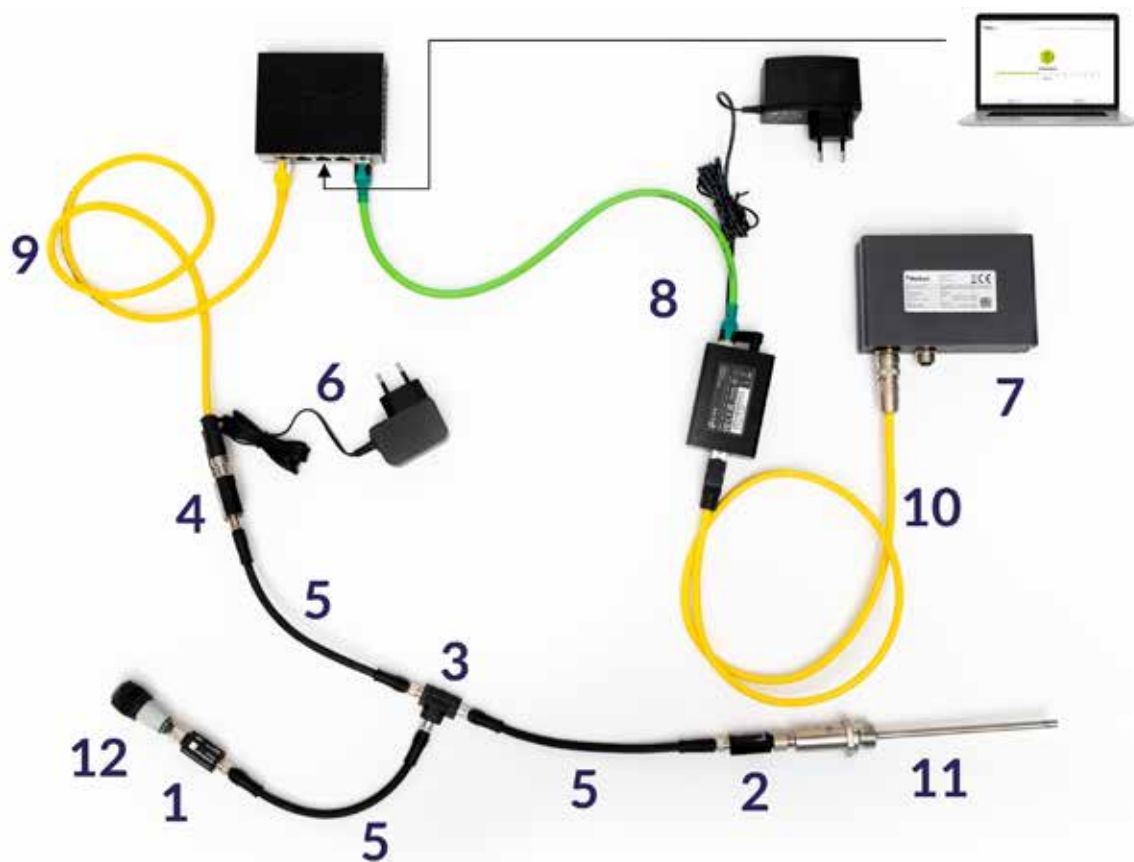


Figure 1: Starter Kit Maxi setup



2 IoT application setup

2.1 periMICA system login

The access credentials of the periMICA – **device name and password** – can be found in the back panel of the device, as Figure 2 shows:



Figure 2 periMICA back panel

Open a web browser and enter the URL of the periMICA in its address bar. The URL is determined by the “**device name**”, as follows: “**https://<devicename>.local**”.

A security warning may display, please ignore it and continue.

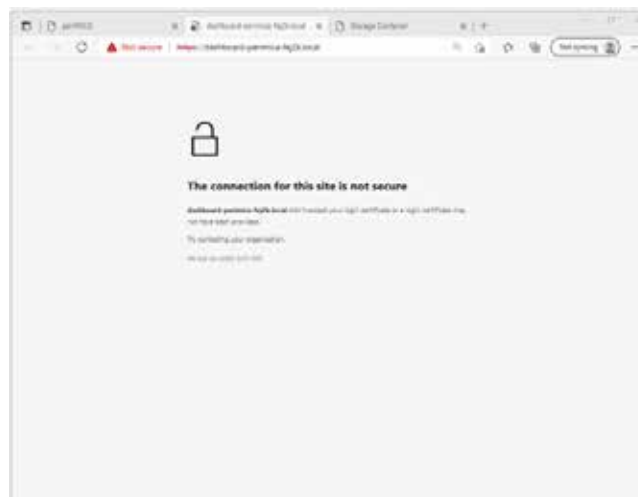


Figure 3 Browser security warning



2 IoT application setup

2.1 periMICA system login

In the example in Figure 2, the device name is **perimica-khnup**, thus the URL for this periMICA is **https://perimica-khnup.local** and the password is **fWxQbCox**.

After the System Login tab appears (Figure 4), please enter the device credentials.

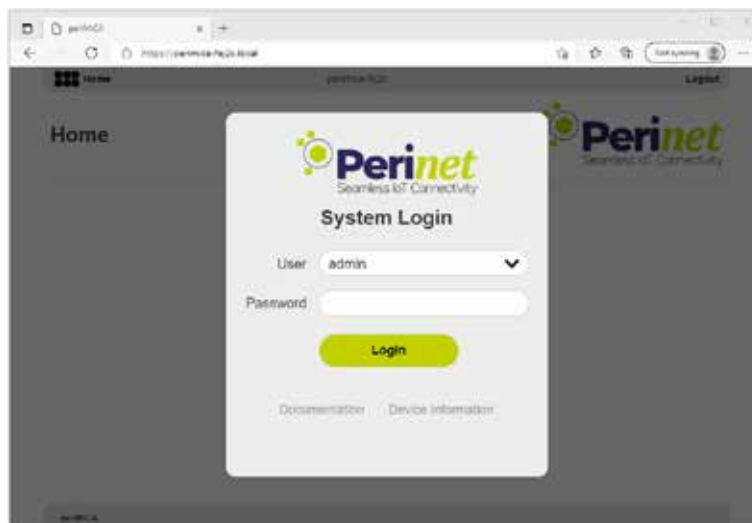


Figure 4 System login



2 IoT application setup

2.2 Security certificate installation

Please click on the “GettingStarted” container and follow the instructions (Figure 5).

You may receive a security warning as previously. Please ignore it for now and follow the instructions.




Figure 5 periMICA homepage



2 IoT application setup

2.2 Security certificate installation

Getting Started

 Perinet
Seamless IoT Connectivity

Welcome to the Perinet Starter Kit maxi

This is the starting point in your journey for discovering the Perinet Starter Kit maxi, using the Perinet PKI (public key infrastructure) for your security. Our demo application is already configured. You only need to download the certificate bundle on this page to get started.

Download certificates

Please download the certificate bundle for your browser:

[Download](#)

and follow the instruction from the **Security Certificates Installation Guide**.

After installing the certificates, please go to the Dashboard container (accessible from the Home page). To view the sensor data, simply click on **Open dashboard**. Have fun!

Please note that the pre-configured application is for demonstration purposes only. More detailed documentation can be found online: [Perinet Starter Kit maxi](#)

Figure 6 Getting started

Perinet kindly recommends following the instructions step by step. Trying to access the containers or periNODEs without installing the client certificate first may lead to access denied security messages.

After installing the certificates, all the pre-installed and pre-configured containers, as well as the periNODE smart adapters functionalities are available for exploration.



2 IoT application setup

2.2 Security certificate installation

The message in Figure 7 will be displayed at the first access of each container/periNODE. Click „OK“ to continue.

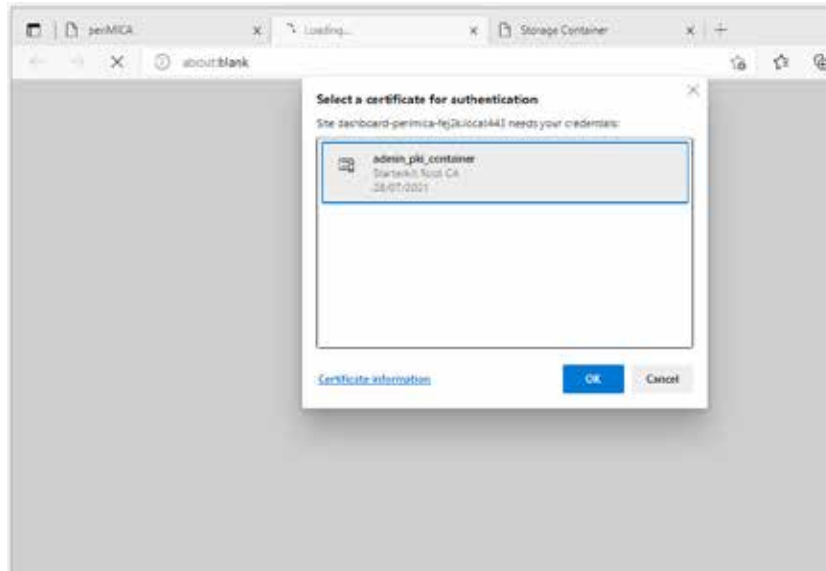


Figure 7 Client authentication



2 IoT application setup

2.3 Dashboard

The periMICA has a built-in Grafana dashboard that shows live sensor data. Please click on **“Open dashboard”** (Figure 8) to see the temperature and distance values coming from the sensors included in the Starter Kit (Figure 9).

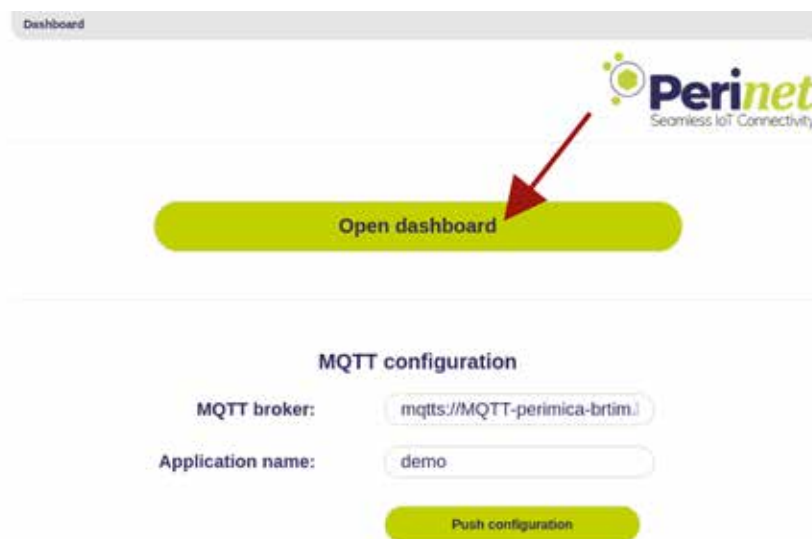


Figure 8 Dashboard container

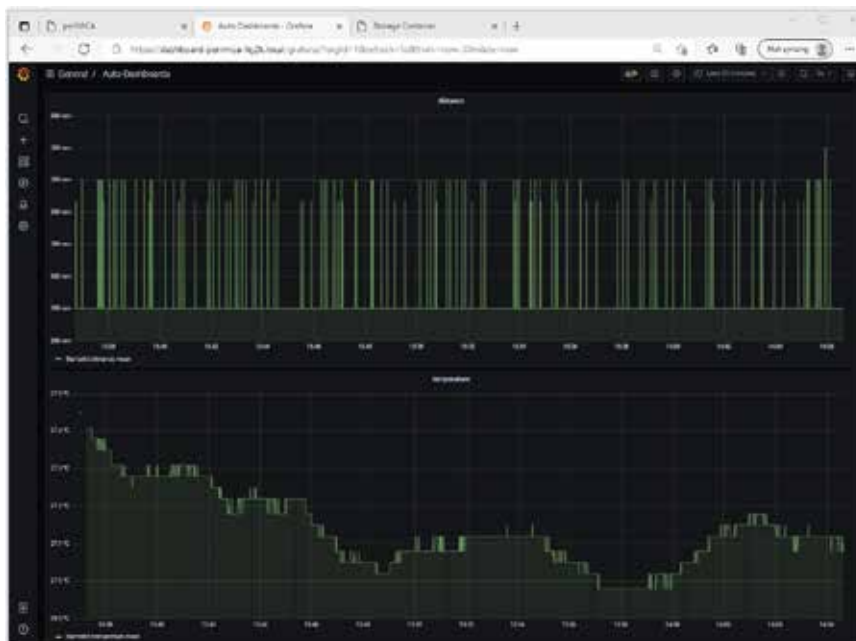


Figure 9 Grafana Dashboard



2 IoT application setup

2.4 periMICA containers

A detailed description of each periMICA container can be found in the corresponding **Container User Guide**, available on

<https://docs.perinet.io/>

3 Access the periNODE Web UI

The periNODE smart adapters have a friendly Web User Interface (UI) for device management and configuration.

To access the Web-UI, open your browser and enter the URL of the node in its address bar. The URL is determined by the node name, written on the device, as follows: “<https://<nodename>.local>”

Figure 9 shows a periNODE smart adapter for 0-10V signal type. In this case the node's name is **perinode-aab8k**, thus the URL for this periNODE is: “<https://perinode-aab8k.local>”



Figure 10 periNODE 0-10V

Based on the above, use the node name corresponding to the device in your kit.



3 Access the periNODE Web UI

Figure 11 shows the homepage of the periNODE that displays the live sensor values.

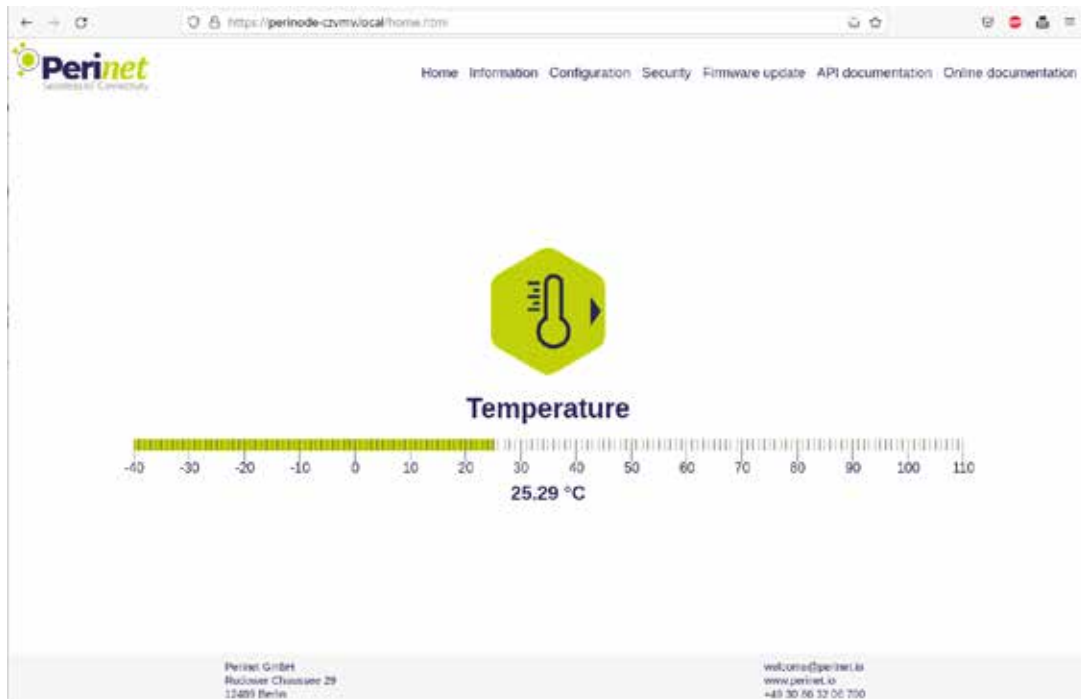


Figure 11 periNODE homepage


Please note that the temperature sensor you received is intended for fluids. It might show higher values if used in the air.

Since the periNODEs in the Starter Kit are bound to the periMICA application, Perinet suggests to not change the configuration.

Please consult the **Starter Kit Maxi User Guide** for more information (available on <https://docs.perinet.io>).



4 Troubleshooting

Problem	Solution
Client certificate to access a periNODE is lost	Please consult the Smart Components Datasheet to reset the periNODE with the reset cable (https://docs.perinet.io)
“Your connection is not private” warning in browser	Please ignore this warning, and continue by choosing “advanced” and “Proceed to domain”
<p>The green LED of the I/O connector is on solid, but periMICA is not accessible</p> 	<p>Check if the orange LED besides the PoE connector is flashing. If this is not the case, the M12 X-coded push-pull was connected wrongly.</p> <p>Unplug the connector and check if the plastic around the socket is deformed (see picture). Insert a pointy object (such as a ballpoint pen) into the hole to carefully remove the deformation, then plug the M12 X-coded push-pull safely back into the PoE connector.</p>

5 Contact and support

For customer support, please call us at **+49 30 863 206 701** or send an e-mail to support@perinet.io.

For complete contact information visit us at www.perinet.io.

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