1.1 Principle of operation

Hardware manual

www.pinetek-networks.com

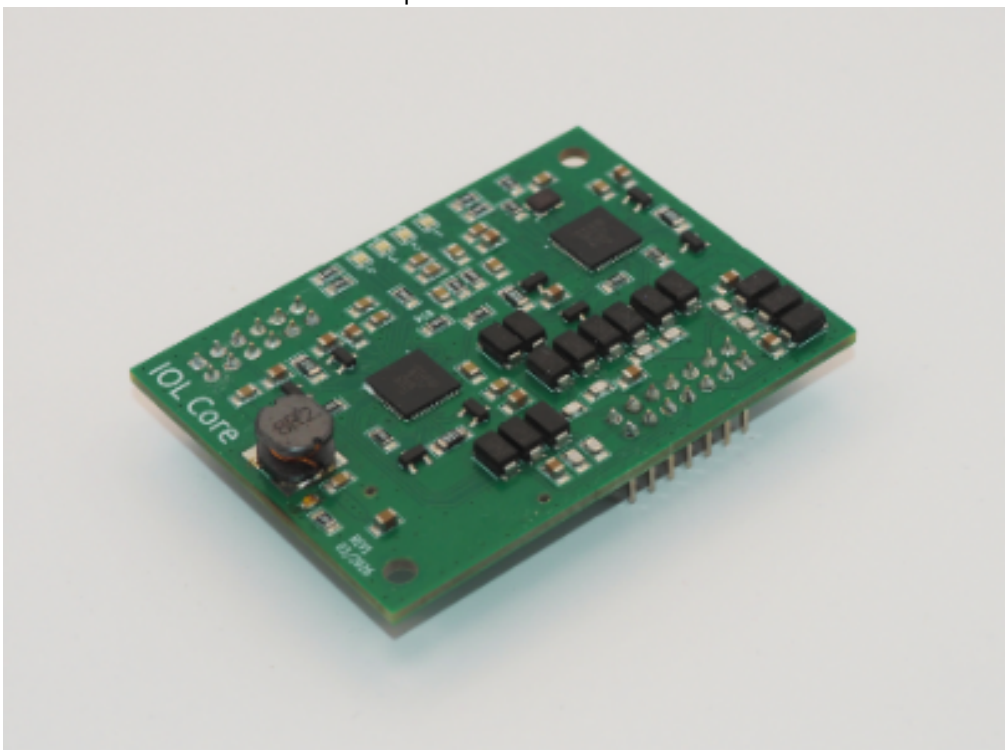


Table of Contents

1.1 Principle of operation 5

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The **Pinebox **is a smart gateway for IO-Link® sensors and devices. It can process the acquired data directly on the device with the integrated Node-RED® with Node-RED flows and JavaScript . The **Pinebox** forwards the pre-processed data to

- **Databases **(e.g., MySQL®, Amazon S3, InfluxDB®, PostgreSQL®, MongoDB®, MS SQL and others) through Node-RED connectors or to the integrated SQLite database,
- **Messages **(e.g., email, Signal® message, SMS, WhatsApp®) through Node-RED connectors,
- **Dashboads **as integrated Node-RED dashboards,
- **Communication **(e.g., MQTT, HTTP, Websocket, TCP, UDP, Modbus TCP, OPC/UA) through Node-RED connectors.

An SQLite database including a web interface is pre-installed on the device.

Alternatively the **Pinebox **works as an IO-Link interface and provides the data via the Ethernet interface using JSON.

The **Pinebox** is versatile tool for the fast and easy creation of various applications, like Smart Metering (using IO-Link current sensors), machine commisioning (using e.g., distance sensors), machine smartification for parameters like up-time or output rate.

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SQLite®	Hipp, Wyrick & Company, Inc.	https://www.sqlite.org
Amazon S3	Amazon Web Services, Inc.	https://aws.amazon.com
InfluxDB®	InfluxData Inc.	https://www.influxdata.com
PostgreSQL®	PostgreSQL Global Development Group	https://www.postgresql.org
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WhatsApp®	WhatsApp LLC	https://www.whatsapp.com
Node-RED®	OpenJS Foundation	https://nodered.org
IO-Link®	PROFIBUS Nutzerorganisation e.V.	https://www.io-link.com

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