

Datasheet – Digital Dial Gauge



ECOROLL AG has developed the ECOSense technology for mechanical roller burnishing and deep rolling tools.

ECOSense monitors and documents the process rolling force with an adapted sensor technology. On the tool individual processes are detected and recorded autonomously. The force values are transmitted and copied in real time to a smart phone application via wireless connection. The critical rolling force is thus recorded for each processed workpiece.

Functional characteristics

Product characteristics and features

- Rolling force directly indicated on the display
- Force graph displayed on a connected smart phone
- Measuring frequency: 10 Hz
- Battery life: approx. 2-3 weeks in continuous use (display turned off)
- Saves process data to internal storage (storage sufficient for up to 10 years of non-stop recording)
- Forces evaluated for process documentation
- Status LED shows operating mode
- Creates and exports measurement records after downloading the process data to the smart phone
- Battery change without disassembling the tool (only short manufacturing interruption)
- Can replace the analog dial gauge on all mechanical tools

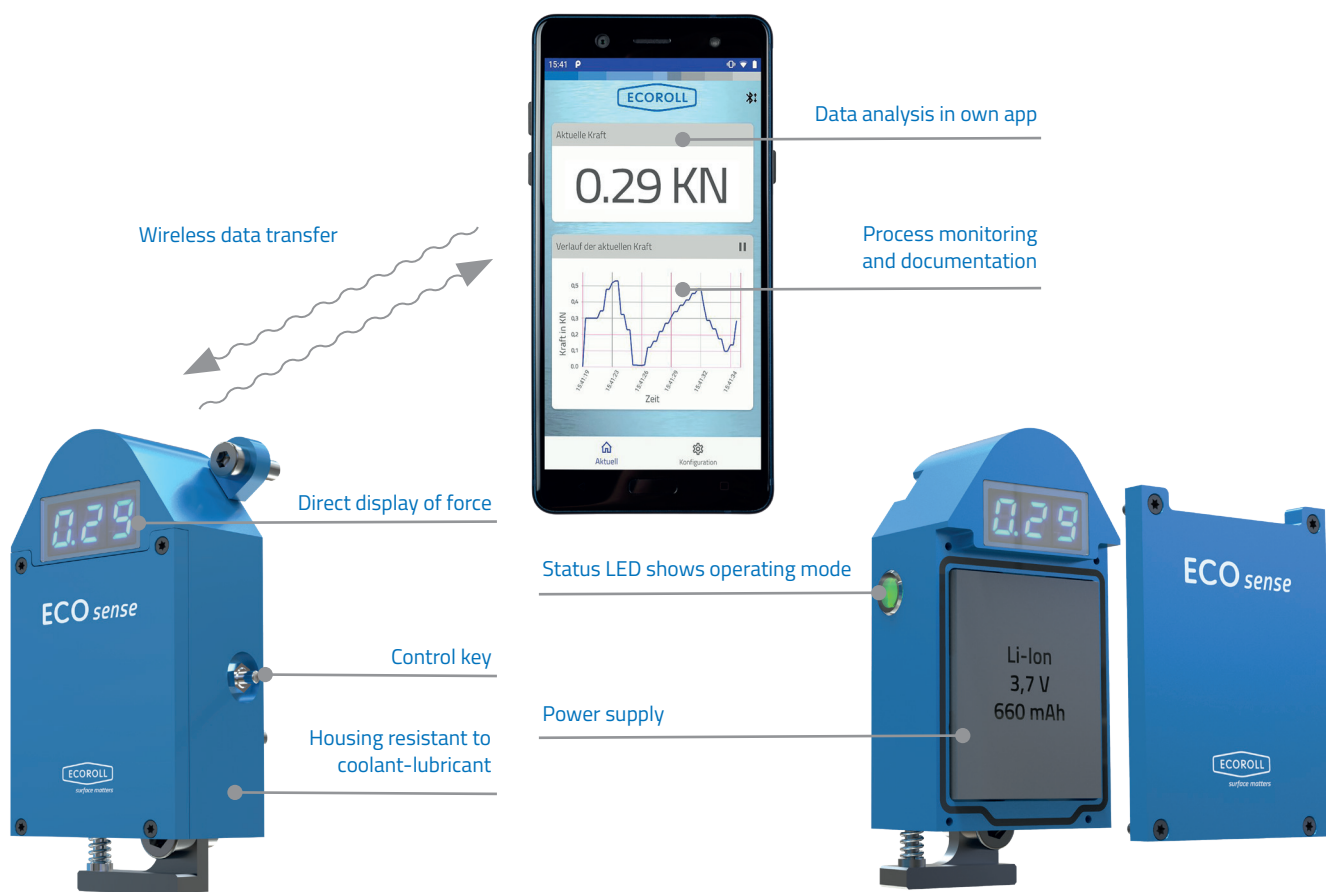
Advantages

- Simplified process set-up
- Displays force chart on connected smart phone
- Process force documentation for every process

Projected enhancements

- Process statistics across a selected time period
- Raw data export

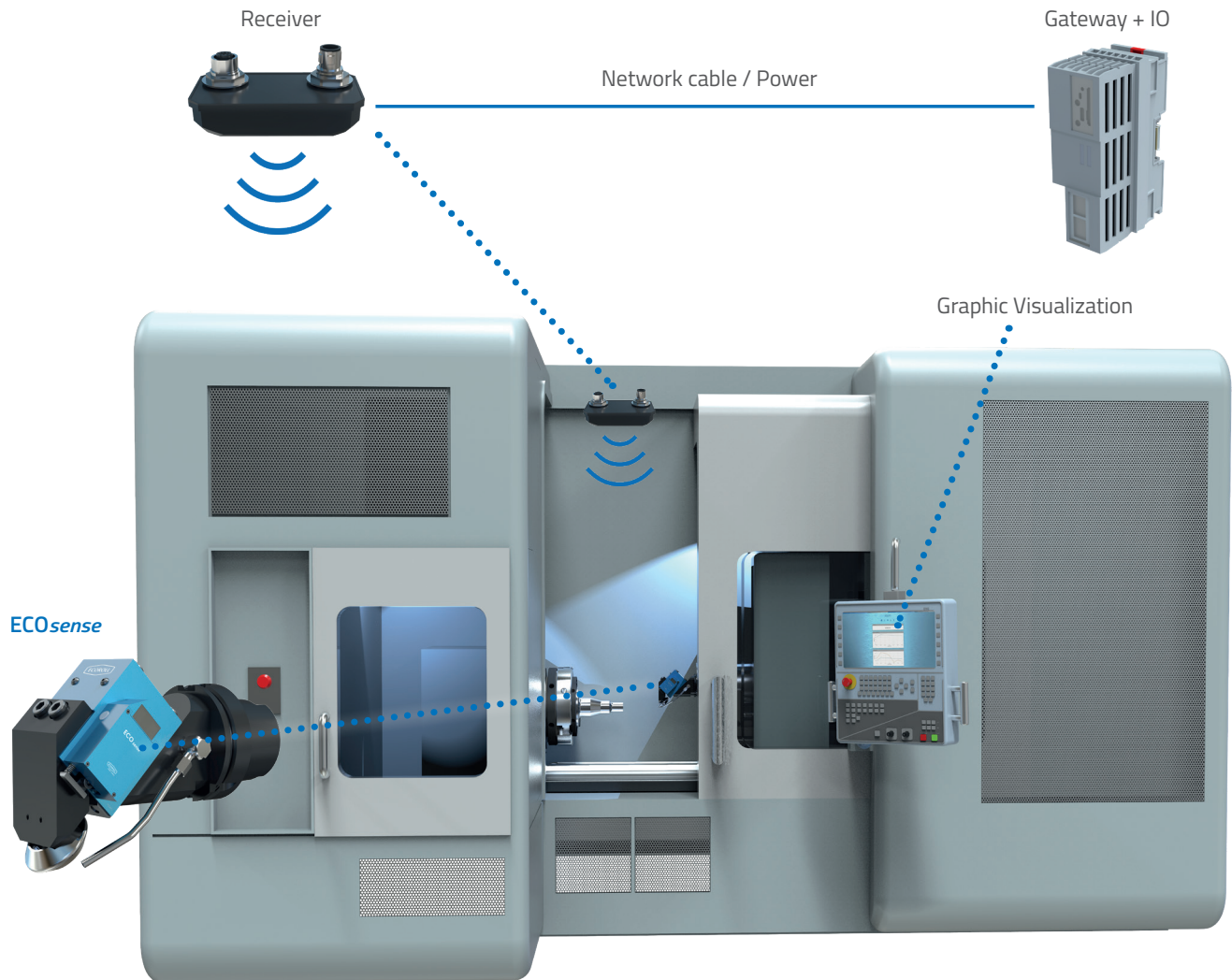
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App Functions

Function	Basic	Process documentation
Transmits real time force values	●	●
Force graph in active window	●	●
Automatically detects overload	●	●
Controls dial gauge functions	●	●
Automatically detects processes		●
Transfers data of individual force graphs		●
Creates measurement records with process information		●
Possible to select multiple processes and create process information		●

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Ecoroll tools with the ECOsense module can be integrated into any machine to enable fully automated process monitoring and data logging of your burnishing process. The ECOsense module comes standard with Bluetooth connectivity that guarantees a solid and reliable connection between your Ecoroll tool and machine. The customized Interface and software solution ensures a robust communication and data export from the Ecoroll tool to your machine, personal computer, or network.

Features

- Real Time Process Reporting
- Available Alarms for "Out of Parameter" Process Monitoring
- Automatic Data Transfer and Logging for Analysis of Process Data and Statistics
- Bluetooth Enabled for Data Transfer
- Connectivity to Machine / Computer / Personal Device
- Network Integration with ECOsense
- Compatible with ANY Platform Including ERP System (OPC, UA, MQTT)
- Graphic Visualization for Rolling Forces / Process Data on Machine / HMI

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