



# IoT Node - Controller ECO 1000 LORAWAN

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## Product description

The ECO 1000 Node - Controller is a high performance sensor interface of the latest generation for system and infrastructure monitoring.

Up to 30 sensors can be connected to the ECO 1000 fully automatically via Industrial 1-Wire Bus and Auto-E-Connect Plug and Play System.

The ESERA Auto-E-Connect system, which is an extension of the 1-Wire Bus standard, has been registered by ESERA GmbH as a German and European Patent.

A wide range of sensors is available, such as for temperature, humidity, dew point, air quality (CO<sub>2</sub>, VOC or fine dust), digital alarm signalling contacts, glass breakage and smoke detectors. Each of the maximum 30 sensors can provide up to 5 data values. This means that the ECO 1000 controller can supply up to 150 sensor data to your control system.

The ECO 1000 device has a convenient WLAN web interface for configuring the device and software updates. Furthermore, live and production data of all connected sensors can be read out via the WLAN interface.

The ECO 1000 is equipped as standard with an enclosure interior temperature and humidity sensor with dew point monitoring. This allows reliable monitoring of the risk of dew formation, leaks in the cover screw connection or cable entry. This enables early maintenance planning and prevents unexpected system failures

To ensure permanent and reliable operation in an industrial environment, the ECO 1000 is supplied by mains voltage (85V - 260VAC). The LoRa and WLAN radio interfaces have protected antennas inside the housing.

## Highlights

- 4x digital inputs
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- LoRa WAN connection 868 MHz or WLAN operation
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- Plug and Play interface for up to 30 sensors (e.g. temperature-, humidity-, air quality-, gas sensors)
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- Integrated temperature- and air humidity sensor
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- WLAN web server for configuration, debug and Firmware Updates
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- IP67 tightness class
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- robust Industrial design
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- electronics with corrosion protection
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- easy mounting
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- power supply 85-260VAC
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- connection via push In terminals
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- integrated temperature- and humidity sensor



## Optional equipment

- Ultrafast iButton or RFID Read function for access or security authentication.
- Painted electronics (conformal coating) for high operational reliability under permanently high or highly fluctuating humidity conditions.
- Data logger function for long-term measured value recording or logging
- Mains failure bridging or UPS function via rechargeable battery for 10 minutes to 2 hours of operation. this means that any power failure can be detected and reported, and the sensor data can continue to be read in and sent to the higher-level control system.
- Vandalism protection for detection of enclosure openings
- External antennas for the WLAN and/or LoRaWAN interface possible

## Key Features (Basic unit)

<b>IoT interface</b>	LORAWAN Low Power
<b>radio frequency</b>	868 MHz for Europe
<b>range</b>	up to 8 km range
<b>protocol</b>	LORAWAN
<b>digital inputs</b>	4 x Digital inputs for 230VAC
<b>WLAN interface</b>	802.11 b/g, up to 16 dyn. Connections, up to 5 static connections
<b>protocols</b>	WLAN, Modbus/TCP and ASCII text interface (ESERA Protocol)
<b>operating modes</b>	AP, Client
<b>sensors integrated</b>	temperature +/- 0,3°C
	air humidity sensor 3% rel.
<b>power supply</b>	85 – 260VAC
<b>power consumption</b>	5 Watts at 85-260VAC
<b>connection</b>	screwless terminals, push In terminals
<b>dimensions</b>	120 x 80 x 57mm
<b>housing: (colour)</b>	light grey
<b>enclosure material</b>	ABS plastic
<b>protection system, protection class</b>	IP67 / protection class II
<b>temperature, operation</b>	-25°C to +70°C
<b>air humidity, operation</b>	10-92%

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