

GridDuck Hardware Specifications

GridDuck has integrated wireless gateways, ZigBee plugs, relay switches and sensors from a range of OEM (Original Equipment Manufacturer) partners, including Develco and Owon.

All of these devices are accessible via our dashboard and API.

Wireless Hub

GridDuck's wireless hub connects your appliances to our dashboard via Wi-Fi or Ethernet.

Specifications and Features

- Dimensions: 102 x 102 x 28 mm
- Wall/table mount
- External adapter 5V DC, 2 Amp
- Ethernet connection
- ZigBee 2.4 GHz
- Wi-Fi 2.4 GHz



3G Wireless Hub

GridDuck's wireless hub connects your appliances to our dashboard via Wi-Fi, Ethernet or mobile network (if ethernet or Wi-Fi is unavailable).

Specifications and Features

- Dimensions: 102 x 102 x 28 mm
- Wall/table mount
- External net adapter 5V DC, 2 Amp
- Ethernet connection
- ZigBee 2.4 GHz
- Wi-Fi 2.4 GHz
- Cellular 2G/3G (EU)
- Backup battery



Smart Plug

GridDuck connects your appliances to our Wireless Hub, measures electricity consumption and automatically switches appliances on/off to save energy.

Specifications and Features

General

- Dimensions: 41mm diameter, 45mm height
- Colour: white
- Plug types: Schuko, French, British
- Power consumption: 230V +/-10%; 0.4 W
- Operation temperature 0 to +40°C
- IP class: IP40

Radio features

- Radio Sensitivity: -101 dBm @ 1% PER
- Radio output power: +8 dBm

Power metering

- Voltage range: 207 to 253 VAC
- Accuracy: Typ +/- 2 %
- Reported resolution: 1W

Remote control

- Max. switch voltage: 250 VAC
- Max. load: 16 A
- Max. continuous load: 10A (UK version 13A)
- Overload and over temperature protection

Communication

- Wireless protocol: ZigBee Home Automate

Certifications

- Conforming to CE, RoHS and REACH directives
- ZigBee Home Automation 1.2 certified



Inline Smart Cable

Our Inline Smart Cable measures the consumption of appliances that are wired into the wall, and switches them on/off to save energy. This cable can be used as an alternative to smart plugs.

Specifications and Features

General

- Dimensions (W x D x H): 108 X 36 X 24 mm
- Colour: White
- Acceptable cable size: Maximum: outside diameter 11.8 mm
- Power supply: 230 V
- Power consumption: 0.4 W

Environment

- Operation temperature: 0 to +40°C
- IP class: IP30

Radio features

- Sensitivity: -100 dBm at 1% PER
- Output power: +8 dBm

Power meter

- Voltage range: 207 to 253 VAC
- Current range: 16A continuous
- Accuracy: Typ +/- 2.0%
- Optimum: 1%
- Reported resolution: 1 W

Remote control

- Max. switch voltage: 250 VAC
- Max. switch current: 16 A

Certifications

- Conforming to CE, RoHS and REACH directives
- ZigBee Home Automation certification



16A DIN Rail Relay

This relay is for the distribution board. It measures consumption and can be used to switch a whole circuit on/off.

Specifications and Features

General

- Dimensions: 90 x 58 x 17.5 mm
- Power supply
- Supply voltage: 230 V
- Power consumption: 0.4 W

Environment

- IP class: IP30
- Operation temperature 0 to +50°C
- Relative humidity 5% - 85%, non-condensing
- Storage temperature -40°C to +85°C

Power meter

- Voltage range: 207 to 253
- Current range: 16 A
- Accuracy: Typ +/- 3.0%
- Optimum: 1%

Radio features

- Sensitivity: -101 dBm @ 1% P
- Output power: +8 dBm

Remote control

- Max. switch voltage: 250 VAC
- Max switch current: 13 A

Phase dropout alarm

- Via Zigbee
- Conforming to CE, RoHS and REACH directives
- Zigbee Home Automation 1.2 certified



32A Smart Relay

This relay is for the distribution board. It measures consumption & switches circuits on/off.

Specifications and Features

General

- Dimensions: 90.2mm x 53mm x 57.5mm
- Operating temperature -10°C - +45C
- Operating Humidity: up to 85% non-condensing

Communication

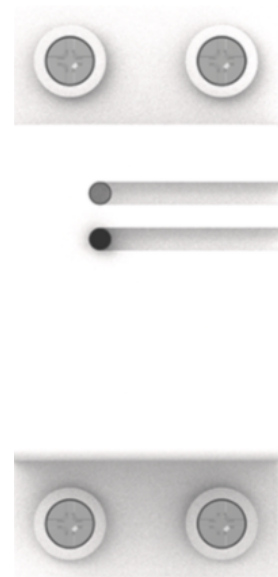
- ZigBee Pro HA 1.2
- Receiver Sensitivity -101dBm

Power Metering & Control

- Power Supply 110V and 230V
- Maximum Load 6900W 30A/230V
- Accuracy +/-5%

Certifications

- ZigBee Pro HA 1.2
- Conforming to CE and RoHS directives



Smart Relay 30A, Outdoors

This relay is for outdoor appliances. It measures consumption & switches circuits on/off.

Specifications and Features

General

- Dimensions (W x H x D): 115 x 90 x 55 mm
- Power supply: 230 V +/- 10%
- Power consumption: Idle transceiver: 0.4 W, active transceiver: 0.4 W
- Operation temperature 0 to +50°C
- Storage temperature: -20°C to +50°C
- IP class: IP 55

Power metering

- Voltage range: 210-250 VAC
- Current range: 30 A
- Frequency range: 47-53 Hz

Remote control

- Max. switch voltage: 250 VAC
- Max. switch current: 30 AAC
- Phase dropout alarm via ZigBee

Communication

- Available in ZigBee HA and SE 1.1

Certifications

- Conforming to CE, RoHS and REACH directives
- ZigBee Smart Energy 1.1 certified



Wireless Humidity/Temperature Sensor

GridDuck's sensors are battery-powered and can be used indoors and outdoors. Sensors connect to the Wireless Hub and act as a trigger for automations e.g. on/off.

Specifications and Features

General

- Dimensions: 70 x 70 x 21 mm
- Color: White
- Power supply
- Battery: 2 x AA, exchangeable
- Battery life: 5 years, reporting every 5 minutes
- Resolution: 0.1 Volt
- Battery Warning: $V < 2.2V$

Radio features

- Sensitivity: -92 dBm
- Output power: +3 dBm

Environment

- IP class: IP20
- Operation temperature: 0 to -

Temperature sensor

- Range: 0 to +50°C
- Resolution: 0.1°C (accuracy $\pm 0.5^\circ\text{C}$)
- Reported every second

Humidity sensor

- Range: 0 to 100% RH
- Resolution: 1% RH (accuracy 3%, 20-80% RH)
- Reported every second

Certifications

- RoHS compliant according to the EU Directive 2002/95/EC
- ZigBee Home Automation 1.2 certified

More sensors available

- Movement/Light, Air Quality, Smoke Alarm, Water Leak Detector



External Meter Reader

GridDuck's meter reader counts the LED or infrared pulses from your main meter.

Specifications and Features

General

- Dimensions: 115 x 35 x 70 mm

Power supply

- Battery: 3 x AA alkaline batteries, exchangeable
- Battery life: 2 years, updating every 5 seconds, at room temperature
- Battery level and low battery warning are reported

Radio features

- Sensitivity: -98 dBm
- Output power: +8 dBm

Environment

- Operation temperature: -20 to +60°C
- IP class: IP22
- Relative humidity 5% - 85%, non-condensing

Certifications

- Conforming to CE, RoHS and REACH directives



Wireless CT Clamp 3-Phase

GridDuck's 3-Phase CT clamp measures the current of a single or 3-phase device. We offer a choice of 80A up to 500A and above..

Specifications and Features

General

- Dimensions: 86(L) x 86(W) x 37(H) mm
- Weight: 415g
- ZigBee HA 1.2 compliant
- Single/3 phase electricity compatible
- Three current transformers for single phase application
- Measures real-time and total energy consumption
- Suitable for both residential and commercial application
- Optional antenna to enhance the signal strength
- Lightweight and easy to install

Power Supply

- Output Power: Up to +20dBm
- Operating Voltage: 100-240 Vac 50/60 Hz

Radio Features

- Internal Antenna (default)
- External Antenna (optional)

Interfaces

- CT 75A, accuracy <2% (default)
- CT 100A, accuracy <2% (optional)
- CT 200A, accuracy <2% (optional)



Wireless Gas Pulse Meter Reader

GridDuck's wireless gas pulse meter reader allows you to monitor gas consumption through regular pulse counting. Consumption figures are provided every 10 minutes.

Specifications and Features

General

- Pulse counter simultaneously works with up to 3 device with a standard output (SO)
- Measurement period: 1 minute – 10 days (configurable by the user)
- Battery ensures up to 5 years of maintenance-free operation
- The device stores 40,000 measurements in its memory, when the memory is full, the oldest measurements are overwritten



Power Supply

- *Battery: 3,6 V, size AA, capacity 2 700 mAh (replaceable)*
- *Battery operating time: at least 5 years (measurement interval: 15 min)*

Radio Features

- *Power: 2,5 mW (4 dBm)*

Dimensions

- 27 x 71 x 71 mm
- Weight: 80 g