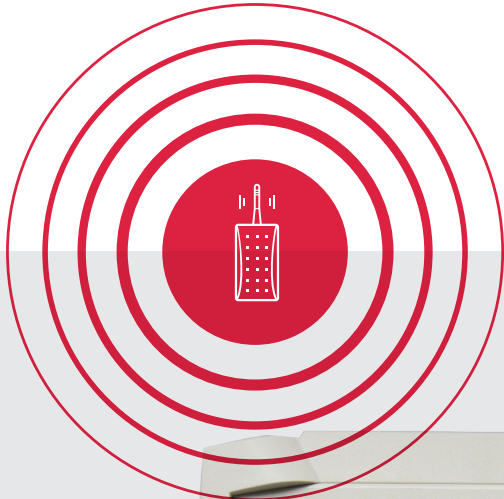


# COMBOX.L DLC

DIRECT LOAD CONTROL DEVICE



- Direct Load Control device
- Scheduling
- Control
- Internet of Things (IoT)
- Battery and External Powered
- LoRaWAN class c device
- Long range
- Powerful relay output (20A)
- Potential-free contact

ComBox.L DLC is innovative wireless direct load control device for today's energy management market. It is based on LoRaWAN, a Low Power Wide Area Network technology, which supports remote control of connected appliances to covers a wider range of innovative IoT applications for Smart Home / Smart Building / Smart Factory Energy Management, Smart Metering, Smart Grid and Smart Cities.

## MARKET OPPORTUNITY

LoRaWAN technology is ideal for battery operated sensors and low power applications. With LoRaWAN, entire cities or countries can be covered with just a few base stations; this has made IoT applications possible with minimal infrastructural investment.

## BATTERY AND EXTERNAL POWERED

ComBox.L DLC device is battery and external powered device and can be operated also by built-in batteries to provide uninterruptible power supply in case of some problems made on external power supplies.

## LONG RANGE

ComBox.L DLC devices use spread spectrum modulation allowing the coverage of up to 5 km in dense urban areas and up to 10 km for countryside applications.

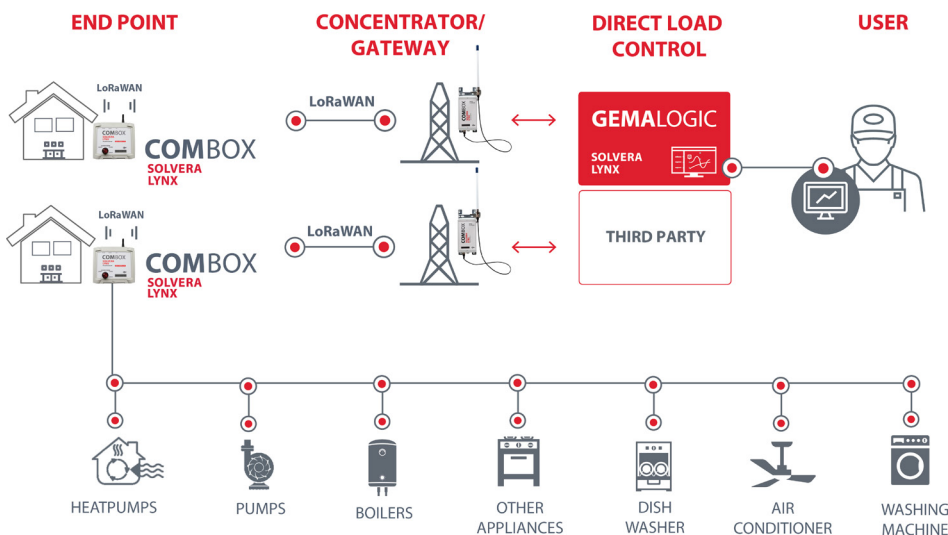
## CONNECTIVITY

LoRaWAN protocols are used to connect with the remote cloud. The devices have built-in data loggers and schedulers, which ensure that all relevant data is stored and transmitted securely.

## DIRECT LOAD CONTROL

ComBox.L DLC device can be used for any kind of purposes for remote activation / deactivation of electricity loads or any other controllable devices. Additionally ComBox.L DLC device 1x S0 pulse input is available to connect it to the electricity meter as data acquisition device. The data are transmitted to the cloud according to LoRaWAN protocol limitations in mode C.

## SYSTEM ARCHITECTURE



## FUNCTIONALITES

- Bi-directional functionalities
- Direct Load Control device
- LoRaWAN class C
- Real time data acquisition device
- Interoperability

## SOFTWARE SUPPORT

- Power management
- Remote parameterization
- Data logger
- Scheduler module
- Time synchronization
- Diagnostic

## ENVIRONMENT

- Modulation: LoRa
- MAC level: LoRaWAN
- Frequency: 868 Mhz
- TX power: 14 dBm (25 mW)
- RX sensitivity: -139 dBm
- Class: C
- Battery supply: 2xAA, 2600mAh
- External supply: 230 VAC
- Temperature range: from -20 to 60°C
- Protection class: IP65
- Housing: 195 x 177 x 109 mm