



HarvyLR

Self-powered LoRaWAN IoT sensor for AC and DC currents (battery-free)



Application

HarvyLR is a LoRaWAN sensor for two major areas of application:

- comfortable acquisition of RMS currents in any electrical main and sub-distribution or directly at the plant; the deZem current transformers with a suitable plug-in contact are used for this purpose;
- easy acquisition of 4–20 mA analog signals from any source, perfect for widely distributed factory halls, building complexes or outdoor areas.

Unlike conventional IoT sensors, the HarvyLR **does not require any battery** or external power supply. The highly innovative electronics of this special deZem development feeds the sensor from the measurement signal without any impact on the measurement.

A signal current (AC or DC) of only 0.15 mA on average is sufficient to record and send metering values of 10-minute intervals. With higher input currents, even higher data rates are possible.

Two HarvyLR variants

- **HarvyLR-36:** for deZem clamp-on current transformers (max. 25 mA) and 4–20 mA DC input signals
- **HarvyLR-360:** as HarvyLR-36, but for max. 250mA AC or 360 mA DC

Even several converters can be combined with a single HarvyLR, e.g. for parallel cores of an electrical phase. We gladly assist you!

Advantages

- compatible with deZem current transformers for up to 500 A
- also suitable for any 4–20 mA DC output signal
- very easy set-up; no wired installation
- no external power supply or integrated battery required
- compact design
- completely maintenance-free
- can be used with deZem IoT platform or any other platform
- intelligent event filter integrated, which leads to second-accurate metering series (inrush currents, etc.) at a defined maximum rate
- configuration and updates via Bluetooth

Combined with an LTE router and a LoRaWAN gateway (see also [LoRaWAN Flyer](#)), an entire building or site can be equipped with a variety of different sensors in a very short time. With the optional deZem IoT platform, their metering series are immediately available online for all further purposes.

Download the HarvyLR JS decoder for free:

[Download \(.txt\)](#)

Technical Data

Power supply
Self-powered

Max. Input currents
HarvyLR-36: 36 mA DC, 25 mA AC
HarvyLR-360: 360 mA DC, 250 mA AC

Connection
1x JST-socket, suitable for deZem clamp-on current transformers

IoT protocol
LoRaWAN v1.03, Class A Device, EU863-870 Mhz

Dimensions
HxWxD: 22x69x49 mm
Weight: 50 g
Mounting: freely suspended or fixed by cable tie

Operating conditions
Temperature: 0–55 °C
Humidity: 30–60 %
Protection type: IP 20

Transport conditions
Temperature: -10–55 °C
Humidity: 20–70 %

Required software
HarvyLR JS decoder, free of charge

Subject to technical changes
Version 1.4, May 2022

deZem
sense | check | act

deZem GmbH

Wilmsdorfer Str. 60 · 10627 Berlin
phone: +49 30 31 800 730
fax: +49 30 31 800 731
contact@dezem.de · www.dezem.de