

LPWAN KAMSTRUP Calorimeter

PRODUCT DESCRIPTION

LPWAN KAMSTRUP Calorimeter board has been designed as add on board for KAMSTRUP MULTICAL device and it's capable to interoperate with MULTICAL electronic to get all available registry content, wrap into LPWAN payload and send to application server.

LPWAN KAMSTRUP Calorimeter board takes power from built in MULTICAL device battery. Total battery lifetime is then influenced by number of data transmissions per day. We strictly follow low power approach and typical sleep current is max. 5uA. Desired registers can be selected by user and can be also reconfigured remotely over the downlink. The board is capable to work in 2 modes – so called Expert mode – then full register is wrapped to the payload or Optimal mode – then the payload contribution from selected register is shrunk to 7 bytes only to optimize payload length. Due to strict payload length limitations, Sigfox version is not available. Message sending can be invoked by magnetic contact.

USAGE

- Heating energy measurements
- Invoicing for heating energy consumption
- Critical heating energy consumption energy



FEATURES	PARAMETER
Protection	Transparent paint
Operating temperature	-40 to +85°C
Power supply	3.6V lithium battery, typically powered from MULTICAL device
Power consumption	<5uA in deep sleep/80mA transmission (Sigfox, LoRa) / 500mA (NBIoT)
Battery lifetime	Aprox. 30 000 transmissions
Supported LPWAN standards	LoRaWAN, NBIoT, GSM
Dimensions	90x44mm
Weight	20g
Protocol	KAMSTRUP MULTICAL
Accuracy	Defined by the calorimeter
Antenna/typical range	U-FL Connector – internal flexible antenna on a pigtail, 2dBi or pigtail with external SMA a external antenna from 3 to 5dBi