tekSolve

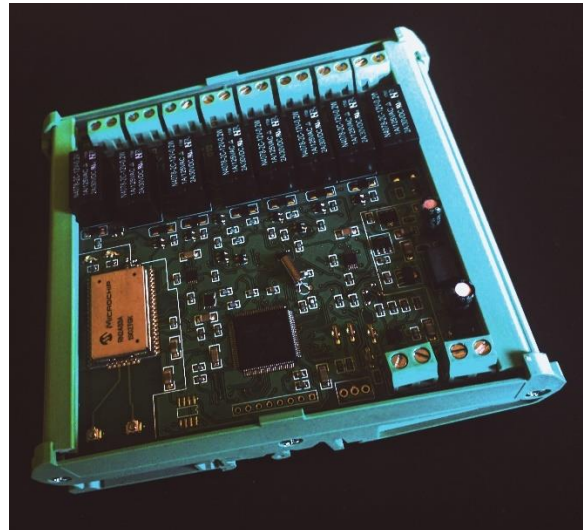# senseIQ

Version 1.0

Description

The unit supports 4-20 mA inputs, 2 wire interfaces for RS485-Modbus, a power supply and a connector for an external antenna. The raw analogue readings are firstly digitised and then transmitted using LoRa™ radio frequency technology to a gateway device at a periodic frequency. The device supports the LoRaWAN specification. Connection to the network is by default via Over-the-Air Activation (OTAA). A UART based user interface allows for device configuration.

Variants

4 analogue channel input (4A)

8 analogue channel input (8A)

4 analogue channel input and RS485 interface using Modbus-Master/Slave configuration (M-M/M-S)

Features

Easy to connect probes/sensors.

Holders and brackets suitable for DIN rail mounting.

Radios available: LoRa using the 863-870 and 915-923MHz spectrum.

Radio interface

Technology

LoRa® Technology Modulation using Adaptive Data Rate (ADR).

Class

Class A protocol supported.

Frequency

Supports EU 863-870 and US 902-928 regions:

Version 1.0
Europe 868
US 915

Transmit power

Transmitter power: +14dBm 868 MHz band, +18.5dBm 915 MHz band

Sensitivity

-146dBm

Range

Up to 15 km Coverage at Suburban and up to 5 km Coverage at Urban areas.

Hardware

Specifications

Dimensions	100 x 103 x 45 mm, 35 mm DIN rail
Enclosure	Polycarbonate
External antenna	Yes
Temperature Range	-20ºC, 85ºC
Inputs	4-20mA outputs channels RS485 channels

Electrical Characteristics

Board Power Voltages	24V DC
Board max current	150 mA