

SenseCeiver 4-20mA

Low Power Sensor Gateway for 4-20mA Industrial Sensors



Round Solutions Design Team

Designed and manufactured in Germany

Product Description

The SenseCeiver 4-20mA Gateway has been developed specifically for **industrial 4-20mA sensors**. An excellent **energy efficiency** is achieved by using energy-saving components. It has, thanks to its optimized hardware and software, a particularly low power consumption and can also be run by battery. Measure and monitor via the **galvanic isolated electrically input** for sensors everything you need for your IoT applications. The SenseCeiver 4-20mA Gateway is **preconfigured** from Round Solutions, to ensure direct and pleasant start to the 4-20mA Sensor Applications. Data can be sent by SMS or GPRS to a device of your choice or to a **cloud**. The SenseCeiver 4-20mA Gateway uses a cellular modem available with **4G, 3G or 2G** standard. After sending data it switches automatically to **sleep mode** which is controlled by a Microchip PIC microcontroller. The data are sent at preset intervals via HTTP, SMS and/or email. The SenseCeiver 4-20mA Gateway can be fully configured and diagnosed via SMS.

Additional Services

Round Solutions also offers optional **software development kits** for SenseCeiver 4-20mA Gateway with Python* that allows software developers to create custom firmware for the device quickly, resulting in the **acceleration of launch time**.

The collected data can easily be sent to an **IoT cloud** which allows a rapid establishment of the metering platform.

The GUI for the IoT cloud is available from any web browser or mobile via a smartphone or tablet.

With the **IoT SIM Card** from Telit, a stable data transfer between the SenseCeiver 4-20mA Gateway and cloud can be achieved. Through global automatic roaming, it is always active in the best network.

The SenseCeiver 4-20mA Gateway may be used in all IoT applications such as Monitoring and measuring.

Interfaces

- 2x Galvanic isolated current inputs 4-20mA (analog inputs)
- 1x USB Connector
- GPIO interface (2x Analog Inputs, 2x Digital Inputs, 2x Digital Outputs)
- 1x UART interface (with hardware flow control)

Attributes

- Power management for low power consumption
- Configurable transmission interval
- Optimized for battery operation
- Power Consumption
 - Sending Data 230 – 360mA
 - Active mode 1.5mA
 - Sleep mode <230µA
- 1KB EEPROM memory
- 64 KB Program Flash memory
- 3896 bytes RAM
- Python Memory: 1 MB of NV memory for the user scripts and 2 MB RAM for the Python* engine usage (only 2G + 3G)
- Cloud ready
- Optional with GNSS
- Extended temperature range -40°C to +85°C
- Dimensions: 75 x 50 x 27mm
- Nano-SIM-cardholder
- Watchdog through Microchip PIC 18LF46K22
- Phyton* Script Interpreter, preprogrammed
- Data Communication via:
 - GPRS / HSDPA / LTE (xE910 module family)
 - SMS
- Certification: CE

Available for

- EMEA
- North America
- Latin America
- APAC
- Australia

Complete, Ready to Use Access to the Internet of Things



Scope of Supply

- SenseCeiver 4-20mA Gateway
- Integrated Antenna
- Power Supply 5-28V
- LI-Po battery only gateway operation
- Micro USB cable
- Starter SIM
- Cloud access, free up to 10 devices

Optional Accessories

- 12V battery pack for sensor and gateway-operation
- Housing IP65



Order Code

- 2G Variant: **TER-SC_420-2G-KIT**
- 3G Variant: **TER-SC_420-3G-KIT**
- 4G Variant: **TER-SC_420-4G-KIT**

