# Data logger REMOTE PROFI GSM

**Intelligent remote monitoring of up to 16 measuring points via Mobile and Web App**

## Your benefits

- Remote monitoring of up to 16 sensors, e.g. temperatures of the heating circuit, meter readings, tank levels, switch contacts, heating/system malfunction etc.
- 16 channels for local data acquisition from RCT radio transmitters (in radio range < 1,500 m) and wired sensors and contacts
- Transmission of all data and alarms via GPRS/4G/NB-IoT/Sigfox/LoRa to cloud server for data management via Mobile/Web App
- Quality „Made in Germany“

### Record 16 sensors/measuring points with one device

The data logger REMOTE PROFI GSM records and processes, depending on the version, the measured values, information and alarms of up to

- **8 RCT radio transmitters** (LEVELview.BASIC) within radio range (< 1,500 m), e.g. levels of external LPG, fuel, oil and water tanks,
- **4 wired impulse counters**, e.g. meters for gas, oil, water, electricity and time,
- **4 wired analog sensors 4-20 mA/ 0-24 V**, e.g. temperatures (supply and return flow, outdoor temperature), cooling systems, pressure probes,
- **4 wired switching contacts**, e.g. error output of the heating system.

The data of connected sensors and radio transmitters are stored in the data logger and sent to the RCT web server in intervals or on reaching definable limit values and alarms. The transmission is done via GPRS/4G/NB-IoT/Sigfox/LoRa depending on the type.

### Individual data management

The measured values, meter readings, consumptions, alarms and system messages can be monitored at any time via the Internet using the Mobile App or Web App.

Various interfaces (API, CSV, mail etc.) are available for external data processing. All these services are operated at Amazon Web Services. Optionally, an own URL can be set up. By connecting to additional services, an optimal working environment is created for administration, logistics and end users with separate access options.

In the Web App, direct and indirect alarms can be activated and forwarded, e.g. by mail/SMS/push notification, to responsible persons such as caretakers or emergency services. The Web App and Mobile App are available in RCT's standard design or personalized in your company's own corporate identity. Individual solutions can be realized quickly and easily.

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# Data logger
# REMOTE PROFI GSM

**ITEM INFORMATION**

| RCT Item | Name |
|---|---|
| 1000924 | Data logger REMOTE PROFI GSM (GPRS)<br>*230 V, 8 radio, 4 counters, 4 analog inputs 0-24 V/4-20 mA with adapter (GPRS)* |
| 1000823 | Data logger REMOTE PROFI GSM (SMS)<br>*230 V, 8 radio, 4 counters, 4 analog inputs 0-24 V/4-20 mA with adapter (SMS)* |
| 1000826 | Data logger REMOTE PROFI GSM (SMS)<br>*230 V, 12 radio, 4 counters, 8 switching inputs (SMS)* |
| other versions on request | |

Scope of delivery

- Data logger REMOTE PROFI GSM
- External radio receiving antenna 868.45 Mhz with magnetic base
- Connector plug 230 V / 50Hz ~
- Instruction manual

Optionally

- Various sensors and adapters
- External GSM transmitting antenna with magnetic base
- RS232 programming cable
- Configuration software „Config-Profi-8"
- USB to serial converter
- Preconfigured mobile phone card

## Technical specifications

**DATA LOGGER BASIC DEVICE**

| | |
|---|---|
| Sensors/channels | 16 channels for receiving transmitters type LEVELview.BASIC (868.45 Mhz) and connection of wired sensors/contacts |
| Connecting terminals | • 4 x 3-pole for analog inputs (0-24 V/4-20 mA)<br>• 4 x 4-pole for pulse counters and alarm contacts |
| Programming | • Initial configuration at factory or by means of PC and RCT software "Config-Profi-8"<br>• Configuration adjustments possible at any time via RCT Web App |
| Connection to PC | RS 232 cable via serial COM port (only necessary for initial configuration), USB adapter available as accessory |
| Data transfer | Depending on version GPRS/4G/NB-IoT/Sigfox/LoRa |
| Mobile phone card | Standard SIM card; mobile phone provider freely selectable or RCT contract card |
| Data reception | RCT web server (cloud), data management via Mobile App and Web App "RCT Monitor" |
| Cyclic messages | • Transmission interval freely selectable<br>• Continuous cyclic transmission of measured values, counter impulses, battery level (radio transmitter), signal strength and system messages |
| Alarms | • Reaching of definable limit values (exceeding/falling below)<br>• Event/fault (switching contacts)<br>• Empty battery (at radio transmitter)<br>• Further indirect alarms via the Web App: e.g. untypical consumption |
| Housing | ABS plastic housing with cover (4 screws) |
| Mounting | Wall mounting with 4 screws/dowels depending on wall surface conditions |
| Protection | IP 54, protective insulation (EU Protection Class II), for indoor use |
| Electronics | Microprocessor controlled |
| Power supply | 230 V/50 Hz |
| Power connection | Connector plug (2-pole) 230 V/50 Hz |
| Current consumption | At data transmission max. 400 mA per transmission cycle |
| Operating temperature | -20°C ... +40°C |
| Dimensions | 201 mm x 151 mm x 80 mm (LxWxH of housing) |
| Warranty | 2 years |

**EXTERNAL RADIO RECEIVING ANTENNA**

| | |
|---|---|
| Function | Improved signal reception from RCT radio transmitters 868.45 Mhz (amplification with 30 dB) |
| Cable length | Approx. 1,5 m (can be extended optionally 3m/5m/10m) |
| Mounting | Flexible by magnetic base on metal surfaces (the larger the metal surface, the better the transmitting power) |
| Field of application | Suitable for outdoor mounting |

**EXTERNAL GSM TRANSMITTING ANTENNA (optional)**

| | |
|---|---|
| Function | Improved transmission performance in poor mobile network and unfavorable operating conditions |
| Cable length | Approx. 1,5 m |
| Mounting | Flexible by magnetic base on metal surfaces (the larger the metal surface, the better the transmitting power) |

**SENSORS AND ADAPTERS FOR DIFFERENT APPLICATIONS (optional)**

Combinable sensors and adapters are listed on the following page. On request, also individual customer-specific sensors and contacts can be connected.

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# WIRED SENSORS AND ADAPTERS

Adapter 0-5V to 24V

Pressure probe, 1" plug and cable gland

Temperature sensor Immersion probe with adapter

Capacitive flex probe

Temperature sensor Contact probe with adapter

Impulse counter "Elster" to diaphragm gas meter

LEVELview.BASIC.LPG with Hall effect sensor

LEVELview.BASIC.OIL / AQUA with pressure probe

## LEVEL MEASUREMENT OIL AND DIESEL

**Adapter for connection to analog input 0-24 V:**

1000877 **Adapter single 0-5V to 24V**

**Plus following level probes:**

1000745 **KELLER Pressure probe Standard 0.25 bar/5 m**
Measuring range oil 290 cm; cable length 5 m;
incl. 1" plug and cable gland

1000746 **KELLER Pressure probe Standard 0.50 bar/5 m**
Measuring range and cable length 5 m;
incl. 1" plug and cable gland

1001043 **Capacitive Flex probe**
Standard cable length: 1.80 m for self-assembly;
incl. counterweight

1000595 **Radar probe VegaPuls 21 without explosion protection**
Non-contact level measurement up to 15 m; tanks > 40,000 L

## LEVEL MEASUREMENT WATER/GREY WATER

**Adapter for connection to analog input 0-24 V:**

1000877 **Adapter single 0-5V to 24V**

**Plus following level probes:**

1000745 **KELLER Pressure probe Standard 0.25 bar/5 m**
Measuring range water 250 cm; cable length 5 m;
incl. 1" plug and cable gland

1000746 **KELLER Pressure probe Standard 0.50 bar/5 m**
Measuring range and cable length 5 m;
incl. 1" plug and cable gland

1001043 **Capacitive flex probe**
Standard cable length: 1.80 m for self-assembly;
incl. counterweight

1000991 **Pressure probe Reducing Ø 1½" to 1"**

1000992 **Pressure probe Reducing Ø 2" to 1½"**

1000595 **Radar probe VegaPuls 21 without explosion protection**
Non-contact level measurement up to 15 m; tanks > 40,000 L

## TEMPERATURE MEASUREMENT

1000875 **Immersion probe PT100**
Temperature sensor with adapter 24 V

1000874 **Contact probe PT100**
Temperature sensor with adapter 24 V

## METER READINGS / IMPULSE COUNTERS

Direct connection of up to 4 on-site meters to impulse inputs possible; various impulse counters depending on meter type available on request (e.g. gas, oil, electricity, water, time recording).

## SWITCH CONTACTS / ALARM CONTACTS

Direct connection of on-site existing switching contacts possible (e.g. fault contact of the heating system).

# COMBINABLE RCT RADIO TRANSMITTERS

**(868.45 Mhz, < 1,500 m in free field)**

Detailed information on the individual radio transmitters can be found on the corresponding data sheets

**LEVELview.BASIC.LPG**
Level measurement on liquified gas tanks (ATEX zone 0/1);
available with various Hall sensors and adapters

**LEVELview.BASIC.OIL**
Level measurement on oil, diesel, fuel tanks (ATEX zone 0/1);
available with different pressure probes or capacitive sensor

**LEVELview.BASIC.AQUA**
Level measurement on water tanks;
available with different pressure probes or capacitive sensor

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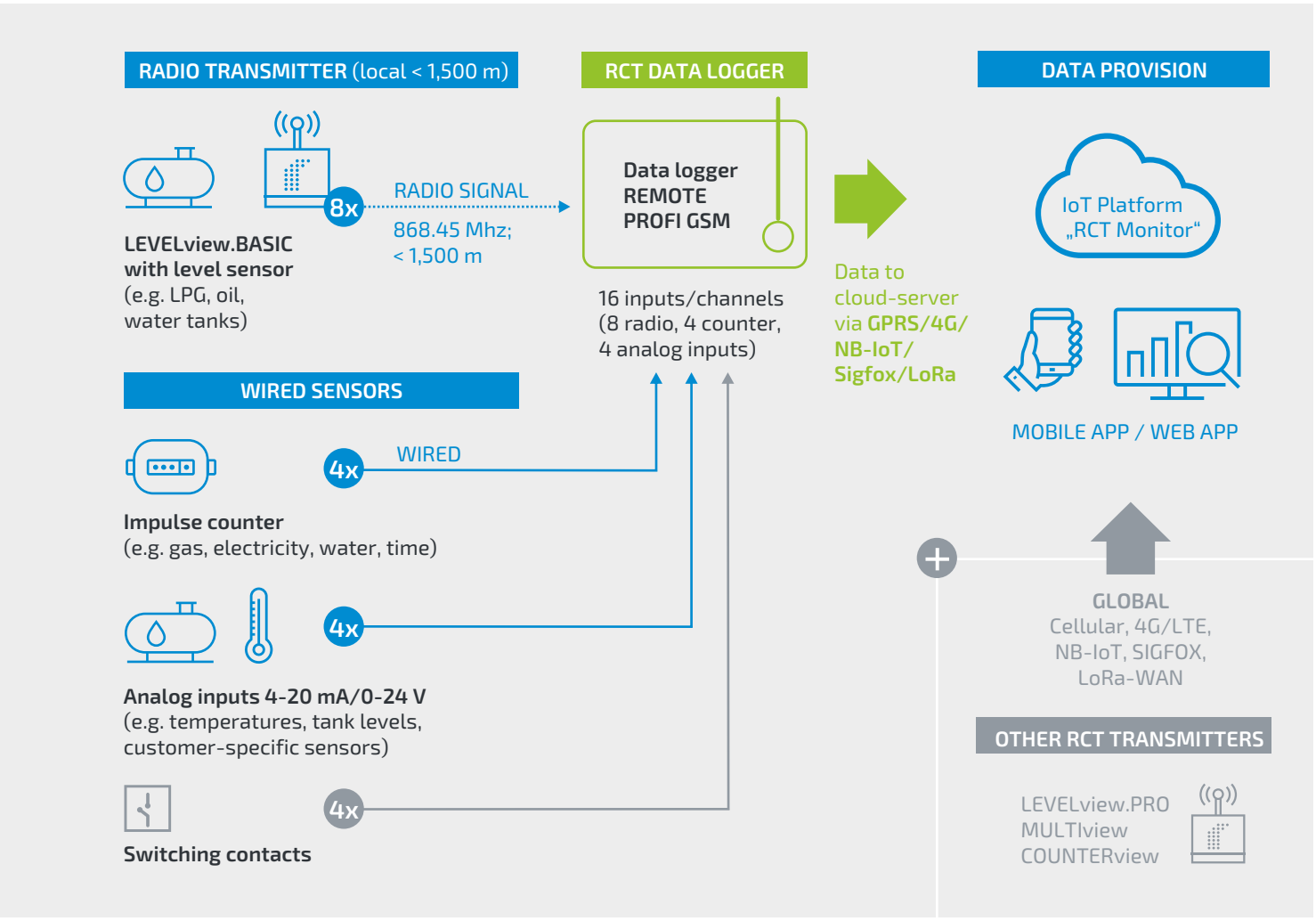


## Customized solutions

Depending on the area of application and requirements, further customer-specific solutions can be realized and external sensors can be adapted on the base of the described data logger. Also an automatically or manually performed remote control, i.e. a remote access, can be implemented.

Ask us and tell us your ideas! We will be pleased to advise you comprehensively about your possibilities.

## Installation service

Within Germany, our RCT service technicians will be pleased to take over installation and configuration of the complete systems for you. You do not need to care about anything and receive all data directly on your screen.

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