

DL220

Battery-operated Data Logger with integrated GSM Data Radio Modem



Applications

Automatic remote data readout is increasingly gaining in importance.

It is often the case, especially in substations, that there is no power supply or telecommunication links available. In conditions like these, the battery-operated DL220 data logger with an integrated GSM data radio modem makes it possible to transmit data to a control centre.

Brief information

Installation

The DL220 is designed to be mounted on a wall. It is, however, also possible with the aid of additional accessories to fit the data logger onto a meter or onto a pipe.

The installation in the station consists only of connecting the pulse cable of the pulse-emitting device (gas meter, volume corrector or another metering device with a low-frequency pulse output). The reception strength of the GSM modem can be checked on the display of the device. The installation can, therefore, be carried out without the need for any special tools.

Operation

All current data and parameters can be shown on the display and can be changed when necessary. The data is organised in lists and is easily accessed via the arrow keys. Every value is described clearly and includes the relevant unit of measurement.

Archiving

The meter readings are stored according to specific events. They are registered and stored together with a time stamp either at the pre-defined time intervals or in the case of any special events (e.g. when limits have been exceeded). Every recorded meter reading and all consumption data can be displayed on the data

logger. This means that the customer can check the raw data necessary for billing purposes on site without the need for any additional devices.

Data communication

Providing a data communication link for stations which have no existing power supply or telephone connection is the main feature of the device. The GSM data radio modem necessary to transmit the data via a public mobile telephone network is fully integrated into the device.

In order to optimise the operational life of the batteries, the modem is only activated within a programmable cyclical time span and the data is called up within this period.

On top of this, the DL220 includes a message function. When necessary, a warning or message can be sent in the form of an SMS.

Alternatively, the data logger can be used without a modem. In this case, the optical interface is used to read out the archived data.

Setting parameters

The Windows program WinPADS DL200 is available together with the corresponding connection cable in order to make setting the parameters and reading out the data as easy as possible. Alternatively, the parameters can also be set via the keypad.

Power supply

In the DL220 one battery is used for the data logger (for counting and archiving) and one separate battery for the GSM modem. These batteries come as standard. This means that the data logger functions are carried out regardless of what state the modem battery is in.

The battery for the DL220 guarantees an operational life of over 8 years and the standard battery for the GSM data radio modem has an operational life of 4 years given a time span of one hour per week and assuming the reception level is normal. A further battery can also be included to increase the operational life of the device.


Main features

- Data registration for use in the supply of gas, water, district heating and electricity
- Associated apparatus
II (2) G [E Ex ib] IIC
- Integrated GSM Modem for data communication without mains power supply
- Station monitoring including spontaneous message function via GSM Modem
- Event-oriented storage of meter readings
- Two pulse inputs (intrinsically safe)
- Two pulse outputs
- Simple installation
- Simple operation

Options:

- Second battery for GSM Modem
- Data Logger without GSM Modem (not retrofitable)

Technical Data

<i>Order number</i>	83480060 version with GSM data radio modem 83480060 version without modem
<i>Housing</i>	Wall housing, ABS synthetic material
<i>Dimensions</i>	120 mm x 120 mm x 90 mm (height, width, depth) including cable screws
<i>Weight</i>	Approx. 0.7 kg
<i>Protection class</i>	Protection class IP 65 in accordance with EN 60529
<i>Ex-Protection</i>	Associated apparatus for Ex-Zone 1, identification:  II (2) G [E Ex ib] IIC
<i>Ambient conditions</i>	Temperature: -10 °C to +50 °C Humidity: max. 93%, non-condensing
<i>Power Supply</i>	Data logger: Li-Battery 3.6 V, 16.5 Ah GSM Modem: Li-Battery 3.6 V, 13 Ah (optional 2 batteries)
<i>Pulse input</i>	Two inputs (intrinsically safe), individually sealable, input frequency max. 10 Hz freely definable as: - Pulse input - Message input
<i>Signal output</i>	Two outputs, output frequency max. 4 Hz freely definable as: - Pulse output - Warning/alarm output - Message output
<i>Memory</i>	Event-oriented recording of meter readings including time stamp Capacity 6 months per input channel with a time interval of 60 minutes. Alternatively the whole storage can be used for one impulse input (this option has to be specified when ordering). In this case the storage capacity is 15 month with a time interval of 60 minutes.
<i>Measuring error</i>	No loss of pulse Actual display of flow rate 5 %
<i>Data interface</i>	Optical interface in accordance with IEC 1107 for setting parameters and reading out archive
<i>Modem</i>	Integrated GSM Modem, Dual band, CL2

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