

DW 728 LGR

DATA COLLECTION AND COMMUNICATION DEVICE

The DW 728 LGR is an autonomously operating monitoring device implementing field data collection and remote data transmission functions, which is widely applicable for the performance of data collection, registration and monitoring tasks of stations operating in a typically potentially explosive natural gas, natural oil or pharmaceutical area.

By employing the device, the analog and digital signals received from the field sensors, as technological and consumption data, can be logged in a high resolution, viewed on the integrated display, and sent to the dedicated central application. The integrated bus system renders the device capable of local communication with other devices as well.

CHARACTERISTICS

- Monitoring of analog and digital signals
- High-resolution data collection function
- GPRS based communication
- Event driven and cyclic communication
- Integrated serial bus RS485
- Bluetooth based data reading
- Local data reading through infrared port
- Maintenance mode
- Data viewing on local display
- Explosion-proof design in accordance with ATEX



FUNCTIONALITY

- receipt of 2 analog and 6 digital signals and their high-resolution storage for 1 year
- Autonomous operation with a battery of up to 140 Ah capacity
- Wireless communication
- Local graphic display
- Multi-language user interface
- Standard communication, local (optical connector) and remote communication
- The device includes the battery power source with intrinsically safe design required for operation
- The design of the device with explosion-proof protection enables operation in class 1 zones and zones with less severe classifications
- Display and logging of values outside the lower limit and the critical lower limit • Display and logging of values outside the upper limit and the critical upper limit
- Local display of the current pressure in a graphic form to the users
- Frequent logging of the period before and after the event in the case of the occurrence of an alarm event
- Digital pressure transmitters belong to the device, thus multiple transmitters can be connected to a single device
- Built-in modular modem, thus the device is compatible with multiple types of modems
- The integrated bus system enables the establishment of other communication interfaces
- Two physically separated memories in order for the alarm events not to influence the recording of pressure values
- Integration of all technological data received by the remote data transmission system
- Maintenance mode for the periods of maintenance (in this mode of operation, no alerts are generated, thus they are not communicated towards the center)



MULTI POWER

- Via the multi power solution, the devices are able to receive two modules (master-slave), along with an external power supply unit. The power supply unit can be using 230 VAC main supply or may be a solar cell solution.
- Thanks to the multi power solutions, the battery (or batteries) may be discharged completely, and replacements may be performed in a scheduled, plannable way.
- In the case of the 1-unit solution, usually a reserve of 10-15% remains during the planned replacements, or operational problems occur due to poor timing, caused by the demand for guaranteed operation (complete discharge cannot be waited for due to the shutdown of the device).
- Plannable battery replacements and complete discharge are significant advantages, as the availability of the system is increased, and by using the residual 10-15% of battery capacity, financial benefits can be realized as well.

MQTT PROTOCOL

- The device has been developed using an open industry standard, namely the MQ Telemetry Transport protocol, i.e. MQTT.
- Thus it is possible for all users, operators, and system integrators to use the devices in arbitrary software environments and to integrate them with their existing applications.

BLUETOOTH MODULE

- Typically a direct connection is required for the reading of the historical data of the field equipment, thus work is being performed in an explosive area.
- A Bluetooth module has been integrated into the device, using which no direct connection is required for the device and the laptop connected to it, thus work can be performed outside the explosive area as well, even from a vehicle. Communication is encrypted and is provided with reliable protection.

