# PS_BATT MODULE AS A BACKUP POWER SUPPLY IN THE DL2/DL7 DATA LOGGER

The PS_BATT battery module enables backup power supply of the DL2/DL7 data logger in the event of a power outage. The described application enables uninterrupted device operating and ensures the continuity of the archiving process. The module can also be installed in a portable case dedicated to the DL7 data logger (device operation in on-off mode). An example of using the PS_BATT module to supply the DL7 data logger in the event of a power outage is described below.
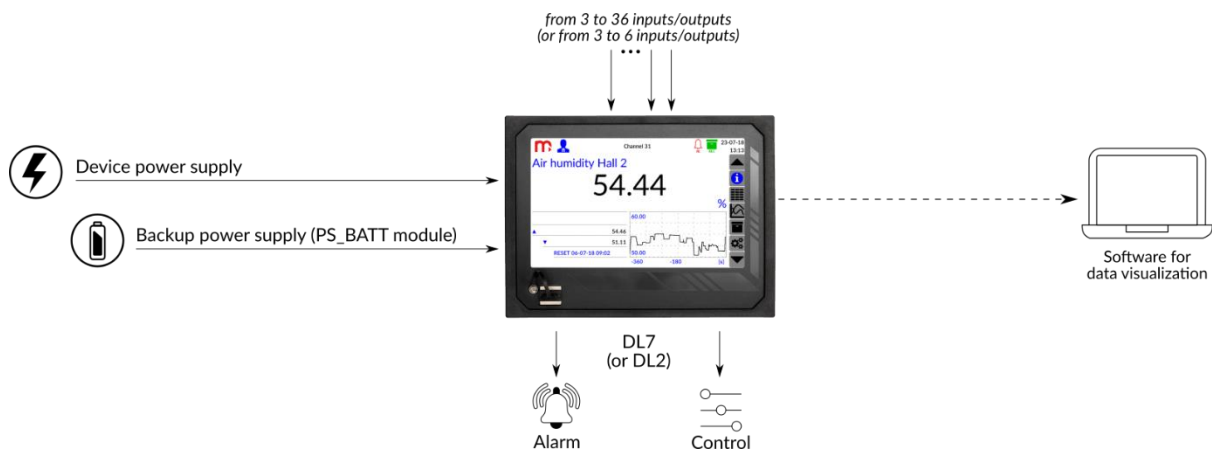
- **Description**

The DL7 data logger with the PS_BATT module installed is supplied by 24 VDC. In the case of a power outage, the device automatically switches to battery power supply. During the switching operation the device is not restarted and there is no interruption in archiving (the collected data will not be lost).

Operating time of the PS_BATT module depends on the number and types of I/O modules installed and is up to 20 hours.

Note: Maximum one PS_BATT module can be installed in the DL7/DL2 data logger (module occupy one slot). The installation of the PS_BATT module in the DL7 data logger reduces the maximum number of additional I/O modules to 6. Installation of the PS_BATT module in the DL2 data logger reduces the maximum number of additional I/O modules to 1.

- **Device configuration**

The data logger is delivered with the PS_BATT module installed, according to the order. In special situations, installation the module on a free slot by the customer is possible (according to the Service Manual). After receiving the device, the signals must be connected in accordance with the User Manual. Installation of the PS_BATT module does not require additional configuration of the module parameters in the device. If the module is correctly installed, its operation is signaled by an LED indicator.

- **LED signaling**

The two-color LED indicates the module operation status and battery status:
  - short pulses in green colour (pulse 0.5 s / 1.5 s) – charging with a small current,
  - pulses in green (pulse 0.5 s / 0.5 s) – normal charging,
  - green color of the diode (continuous signal) – the battery is fully charged,
  - no light – battery during unloading,
  - pulses in red (pulse 0.5 s / 0.5 s) – battery heavily discharged (required battery charging).

- **PS_BATT module technical data**

The module enables supplying the device from NiMH storage batteries:
  - 4x4.8 V NiMH (4000 mAh) – operating time from 3 to 20 hours,
  - 2x9.6 V NiMH (2000 mAh, 16 x 1.2 V AA type) – operating time in backup power supply mode from 1 to 5 hours.
The PS_BATT module can be delivered with NiMH storage batteries.

- **Reading and recording results**

The DL7/DL2 data logger archives values of channels and values of totalizers, according to the entered settings. The use of power backup implemented using a PS_BATT battery module ensure archive continuity in the event of a power outage. Archive files can be downloaded from the device using a portable memory (USB key) or using an Ethernet cable and a web server. Additional software on the PC enables visualization of archived data or current values (DL7-RP/DL7-RPplus, DL2-RP/DL2-RPplus, mLog). The data logger enables alarm signaling and control. The DL2/DL7 data logger can be connected to the SCADA master system.
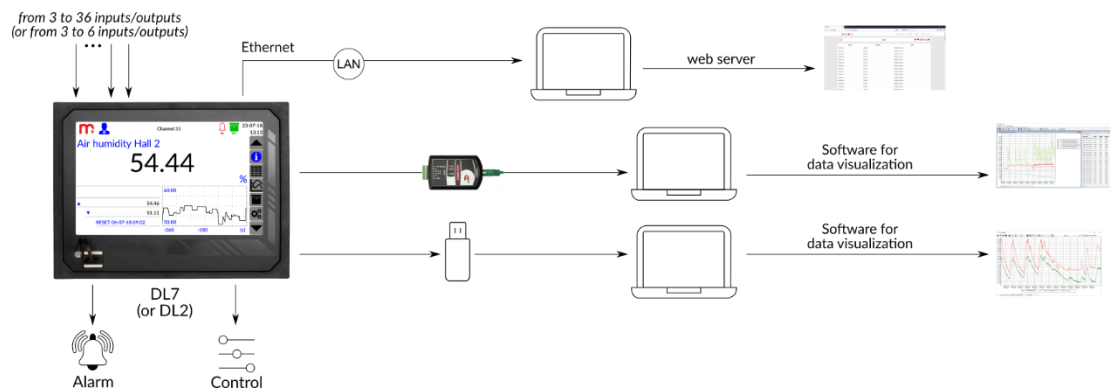
- **Wall enclosure for DL7/DL2 data logger**

It is possible to order the DL7/DL2 device in the DL7W KIT/DL2W KIT set containing the power supply and a housing with a high degree of protection against water and hazardous parts (IP65). The set is dedicated for wall mounting. If additional protection against atmospheric precipitation is provided (roofing), the device can be installed outdoor.

- **Application example**

In the presented application, 2 x 9.6 V/2000 mAh batteries were used (2 sets of 8 x 1.2 V AA batteries).
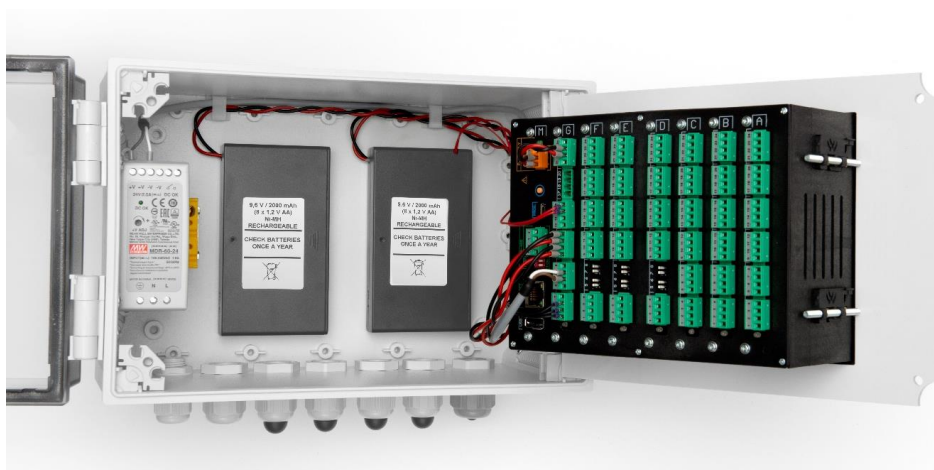
- **Information from the Manufacturer**

All functions of the recorder are subject to modifications for the benefit of technical progress.

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