## Electronic Data Logger LDL 540 and LDL 550

LDL 540

The data loggers **LDL 540** and **LDL 550** enable the measurement and recording of various physical measurands, e.g. pressure, temperature and many more, even under extreme environmental conditions. The robust aluminum housing protects the **LDL** data loggers from dust, splash water and mechanical damage.

The devices are operated via the keypad, menu-driven. The start of a data recording can be pre-programmed at a certain time or by pressing a button on the device. Important settings can be made on the **LDL** data logger without a connected computer.

The measurement data are stored with date and time in the **LDL** data logger. In addition to the built-in memory, the **LDL 540** type can be optionally equipped with an MMC memory card slot (up to 256 MB), for automatic backup of the measurement data or for reading out the internal data memory.

For configuration and evaluation of the measurement data, the **LDL** data loggers are connected to your computer with the supplied connection cable. An infrared interface (IR) is optionally available.

The configuration is done with the software PWB-Soft for Windows. The display shows the measurement data, as well as min/max values and limit violations, and other status information.

LDL 550

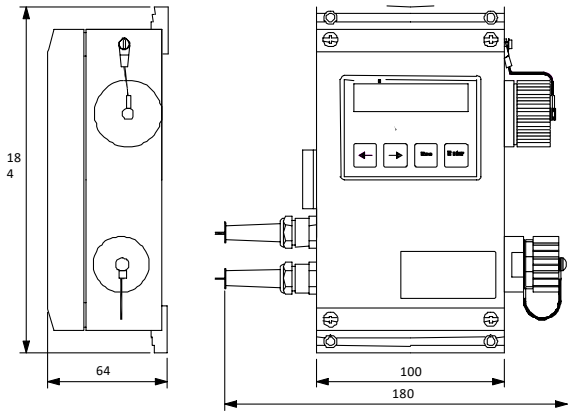
**Technical Data:**

| | |
|---|---|
| Housing: | Aluminium, protection degree IP 65 |
| Resolution: | 12 bit |
| Memory: | 1 MBB (for approx. 500,000 measured values) |
| Interface: | Special port, suitable to supplied connection cable (length 2 m) to USB port of your computer |
| Display: | LCD, 2 x 16 letters/numbers (alphanumeric) |
| Keyboard: | 4 membrane keys |
| Supply: | Built-in Lithium Battery<br>Type **LDL 540**: 16500 mAh; type **LDL 550**: 4200 mAh |
| Real time clock: | deviation ±10 ppm at 25°C |
| Temperatures: | Operation -20...+70°C, storage -40...+85°C |
| Storage mode: | Ring buffer or linear buffer (selectable) |
| Inputs: | Type **LDL 540**: 4 inputs (analogue or digital)<br>Type **LDL 550**: 2 inputs (analogue or digital) |
| Dimensions: | See next page |
| Weight: | Type **LDL 540** approx. 1050 g; type **LDL 550** approx. 400 g (incl. battery) |

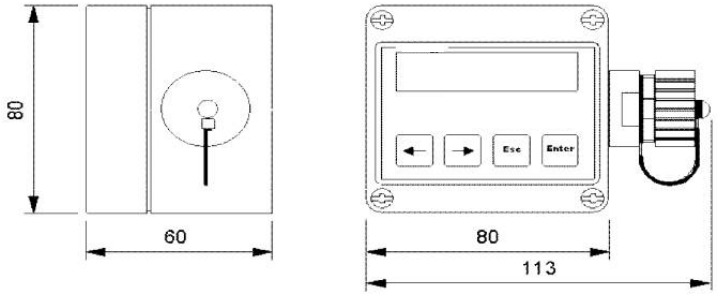
**Data acquisition:**

- Acquisition of analog signals or pulse signals (evaluable).
- Pulse signals can be recorded as flor rate and/or meter reading.
- Sampling rates adjustable between 1 second and 1 hour.
- Limit setting for analog and pulse channels with adjustable hysteresis.
- Alarm signal when limit value is exceeded (seperate for MIN and MAX).
- Adjustable storage mode: save all values or save data only in case of alarm.

## Dimensions (without ports and without sensors)




Type **LDL 540**: 100 x 160 x 60 mm




Type **LDL 550**: 80 x 80 x 60 mm

## Measuring sensors for LDL data logger: (other sensors, e.g. for humidity, and much more, on request)

**Temperature:**

Ranges: -20/+60°C; -30/+50°C; -10/+70°C; -20/+100°C (other on request)
Accuracy ±1K
Electrical connection: 1 m cable, pluggable, IP 67, with protection cap
Dimension: Probe diameter 6 mm x length 35 mm, brass

**Pressure:**

Ranges: 0/1,6 bar; 0/2 bar; 0/4 bar; 0/6 bar; 0/10 bar; 0/16 bar; 0/20 bar;
0/25 bar; 0/40 bar; 0/70 bar abs.; 0/100 bar; 0/160 bar; 0/200 bar
0/50 mbar; 0/100 mbar; 0/160 mbar; 0/250 mbar; 0/400 mbar;
0/600 mbar; 0/1000 mbar (other on request)
Accuracy ±1% v.E.
Electrical connection: 1 m cable, pluggable, IP 67, with protection cap
Pressure port: 1/2" BSP male

**Pulse:**

For potential free contact, range <15 Hz, max. 9999 pulses/sampling
Electrical connection: 1 m cable, pluggable, IP 67, with protection cap
Process connection: free cable ends

**Digital:**

For potential free contact
Electrical connection: 1 m cable, pluggable, IP 67, with protection cap
Process connection: free cable ends

**Software PWB-Soft "plus"** for Microsoft®-Windows®

- The software PWB 3.0 is used for readout, representation of performance data and configuring the data measurement and storage system LDL 540 and LDL 550.
- Using the online interface of the data logger, relevant settings on measurement and storage can be adjusted.
- The device can also be configured via connected modem by remote data transmission.
- Data stored in the data logger are transmitted to PC and stored checksum protected by the readout function.
- This can be done via device's online port or via connected modem.
- The software provides the feature of visualising measured data which have been read out, ie. readings can be shown tabularly or as chart.
- Furthermore, data recording can also be monitored online.
- Any measured data and charts can be printed out.
- To make data available to other PC programs, there is the option to export them to an MS-Excel or ASCII file.