



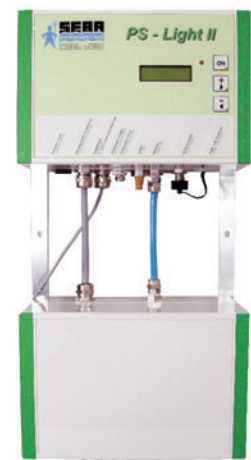
## Multilevel pressure sensor pneumatic gauge PS-Light-2-ML

Compact bubble sensor for an exact water level measurement  
at up to four different orifice levels

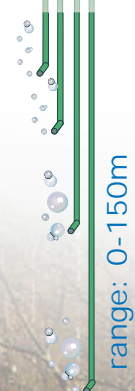
### Short description

- Economic measuring system acc. to the bubble principle
- Highly precise and robust by drift free sensing
- Processor supported sensor linearisation
- Low energy consumption thanks to intelligent pump control
- Modular system
- Optionally with 0..1V, 0..5V, 0/4..20mA BCD-, Binary- or Gray-Code output
- Measuring ranges: 30, 40, 50, 60, 70, 110, 150 m
- Higher accuracy due to automatic range detection
- Pressure tubes with automatic switches

### Pneumatic gauge



PS-Light-2



range: 0-150m



Building site



Easy installation



PS-Light-2 station



Measuring site



Application at a river



## Description

The SEBA-pneumatic gauge type **PS-Light-2-ML** serves as a robust, economic and reliable measuring system for monitoring water level in surface waters with high fluctuation. To increase the accuracy, the system is connected to a multilevel orifice arrangement. The sensor always detects the valid pressure pipe automatically and therefore can produce a very precise measurement. The measuring principle is the proportioning or bubbler system, based upon the other well-known SEBA instruments in the PS-series.

An integrated, highly efficient mini compressor, bubbles air through the pressure tube into the water at adjustable intervals. The resultant pressure in the tube corresponds exactly to the hydrostatic pressure above the mouthpiece. This tube pressure is then

measured by a very accurate pressure sensor in the PS-Light-2-ML. The intermittent operation of the PS-Light-2-ML allows low energy consumption, and enables operation with batteries or solar panels, without the need for mains power supply.

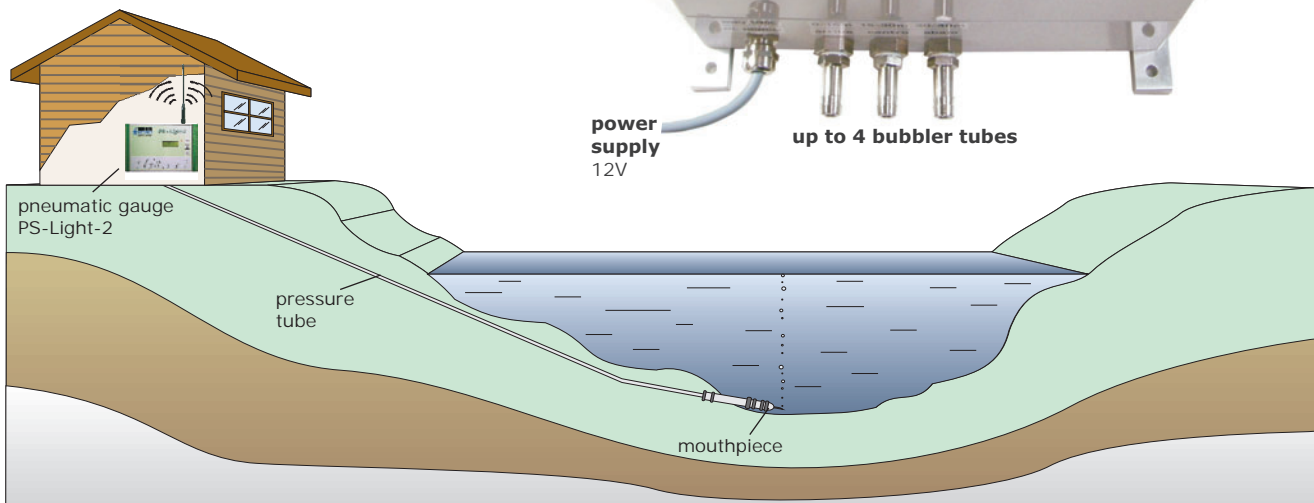
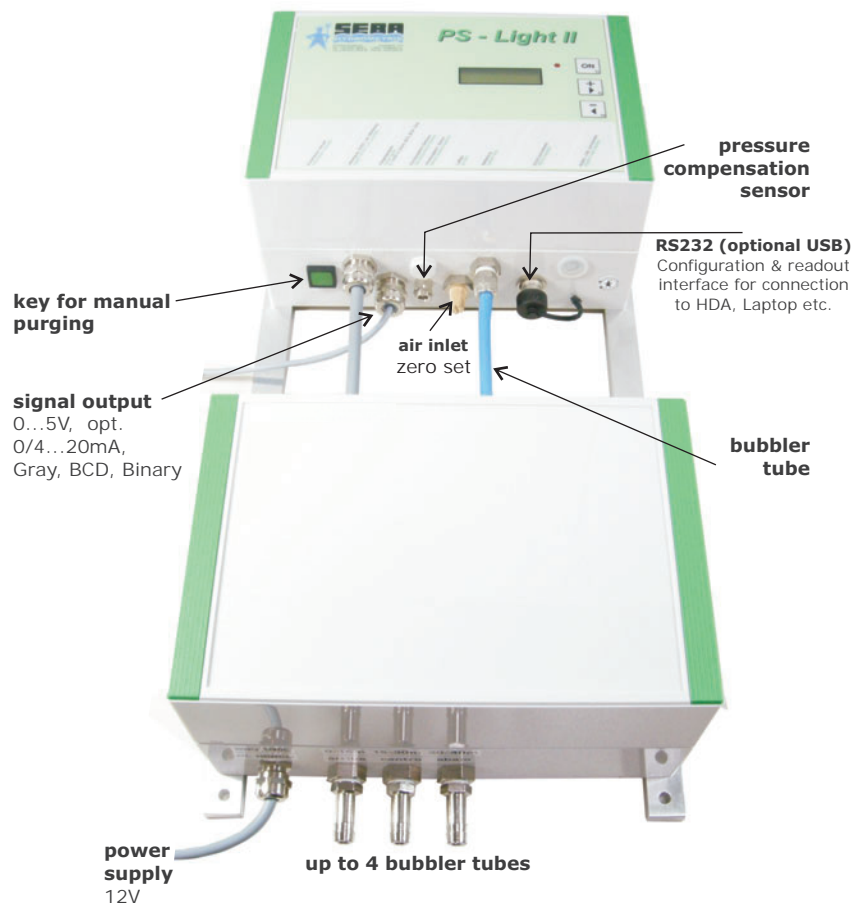
The basic version of the PS-Light-2-ML is a sensor with optional output. However it can be equipped with LC-display, datalogger or remote data transfer via GSM/GPRS. The basic version is delivered in a robust protective housing (IP65) suitable for wall or desk mounting. SEBA PS-Light-2-ML can be connected to existing pressure tubes at any time.

### Individually available as:

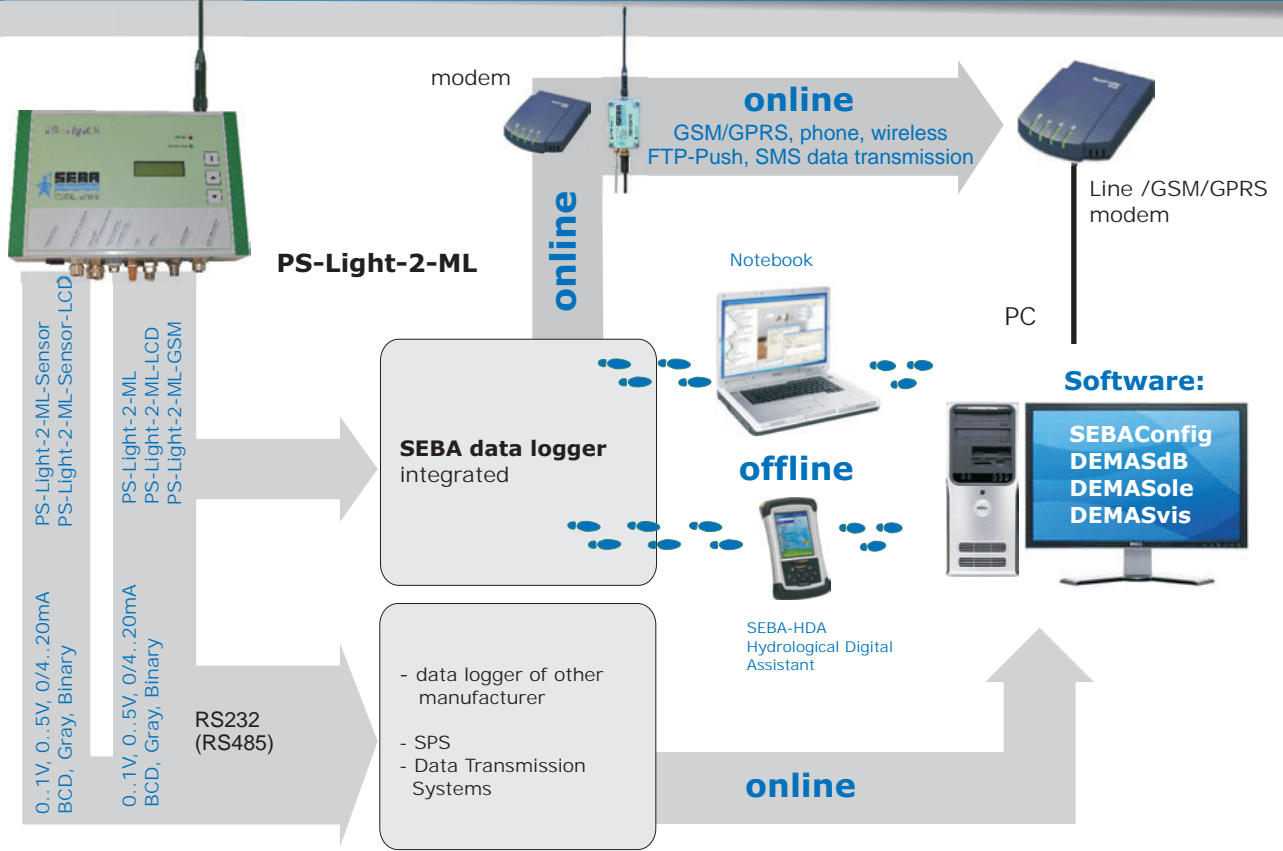
- Sensor with analogue or digital output
- Sensor with SEBA datalogger
- Data transmission system with GSM/GPRS or telephone modem

### Options:

1. LC-Display
2. Output signals: galvanically separated
  - 0..1V, 0..5V
  - 0/4..20mA
  - BCD-Code, Gray-Code, Binary-code



## Data flow



## PS-Light-2-ML Variations

Versions with 1 to 4 tubes are available.

### PS-Light-2-ML Sensor

consisting of:

- Highly accurate pressure sensor for measuring the water level
- Miniature compressor
- Output: can be chosen
- Plastic Protection Housing

### PS-Light-2-ML (-Logger)

same as PS-Light-2 Sensor but additionally with:

- **Data Logger**  
with RS232 interface

### PS-Light-2-ML GSM

same as PS-Light-2 Sensor but additionally with:

- **Data Logger**  
with RS232 interface
- **LC-Display** for digital indication of current water level
- with integrated **GSM/GPRS-MODEM**
- for online- and offline operation

### PS-Light-2-ML Sensor LCD

same as PS-Light-2 Sensor but additionally with:

- **LC-Display** for digital indication of current water level

### PS-Light-2-ML (-Logger) LCD

same as PS-Light-2 Sensor but additionally with:

- **Data Logger**  
with RS232 interface
- **LC-Display** for digital indication of current water level

### Optional:

MODEM for PS-Light-2  
MODEM for PS-Light-2 LCD  
Puck antenna  
Directional Antenna (for mast mounting)  
bubble mouth piece (orifice)  
pressure tube\*\*

\*\*Pls specify length of tube when ordering!



# Technical Data

## housing material:

**PS-Light-2:** plastic material (IP65), ca. 240(w) x 410(h) x 94(d) mm 3,0kg  
 ca. 240(w) x 410(h) x 124(d) mm 4,5kg  
 ca. 250(w) x 660(h) x 100(d) mm 6,0kg

## housing dimensions:

## weight:

## PS-Light-2

**resolution:** 1mm  
**sensor linearity:** 0,05% of the measuring range  
**measuring ranges:** 0 - 20, 30, 40, 50, 60, 70, 110, 150m  
**number of orifices:** 2/3/4  
**operating temperature:** -20°C up to +50°C/-40°C up to +60°C (optional)  
**outputs:** RS232, 0-1V or 0-5V or 0/4...20mA,  
 optional: USB, RS485, BCD-, Binary-, Gray-Code  
 free programmable (from 1 Minute with SEBAconfig)  
**measuring interval:** linearity + hysteresis + repetition accuracy  
**total accuracy:** < 0,05%/number of orifices  
 example: 70m / 4 x 0,05% = 0,00875m

## SEBA-datalogger:

**microprocessor:** 32bit  
**storage of measuring values:** in real time  
**Flash-memory:** 8MB for approx. 560.000 measuring values  
**serial communication interface:** RS232 (RS485, USB)  
**power supply:** with 12V battery  
**mean values:** free programmable  
**measuring interval:** from one minute (free programmable)  
**option:** LC-Display for the indication of water level (option)  
**option:** integrated GSM/GPRS modem

## Transfer of measuring data to PC



**HDA**  
hydrological  
digital assistant



**HDA-Pro**  
robust tablet-PC

**offline:** via HDA with SebaConfigCE  
 or via Notebook or HDA-Pro with SebaConfig  
**online: analogue** via 0...5V resp. 0/4...20mA  
 output signal  
**digital** via GSM/GPRS-network or  
 via fixed network telephone  
 connection

## Power supply & Software

- PS-Light-power-supply, 220VAC/12VDC
- PS-Light-power-supply, buffered with 100Ah
- PS-Light-power-supply, buffered with 7,2Ah
- Battery 100Ah
- **Solar power supply is possible**

**Readout Software:** SebaConfig and DEMASole

**Management/Visualization Software:** DEMASdb / DEMASvis

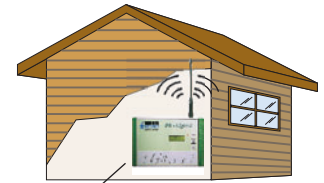


SEBAconfig

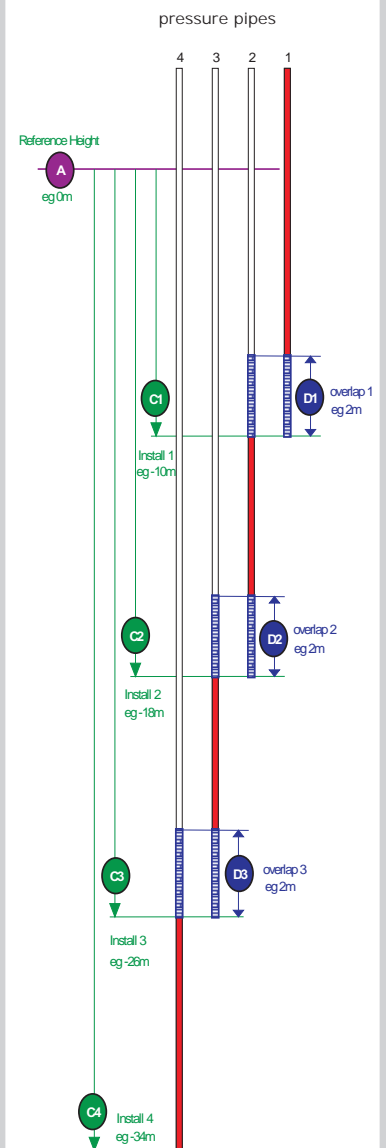


DEMASvis

## Example



**PS-Light 2** with pressure sensor  
 eg. range 10 m



The right is reserved to change or amend the foregoing technical specification without prior notice.



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