



Pressure sensor pneumatic gauge PS-Light-2

Compact bubble sensor for an exact water level measurement

Short description

- Economic measuring system acc. to the bubble principle
- Highly precise and robust by drift free sensing
- Compensation of temperature influence
- Processor supported sensor linearisation
- Low energy consumption thanks to intelligent pump control
- Modular system
- Optionally with RS485, SDI-12, 0/4...20mA, 0..1V, 0..5V, BCD-, Binary- or Gray-Code output

Pneumatic gauge



PS-Light-2



Building site



Easy installation



PS-Light Station



Installation together with Powerbox



Measuring site



Application at a river

Description

The SEBA-pneumatic gauge type **PS-Light-2** serves as a robust, economic and reliable measuring system for monitoring water levels in surface waters. 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.

The intermittent operation of the PS-Light-2 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** 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 can be connected to existing pressure tubes at any time.

Individually available as:

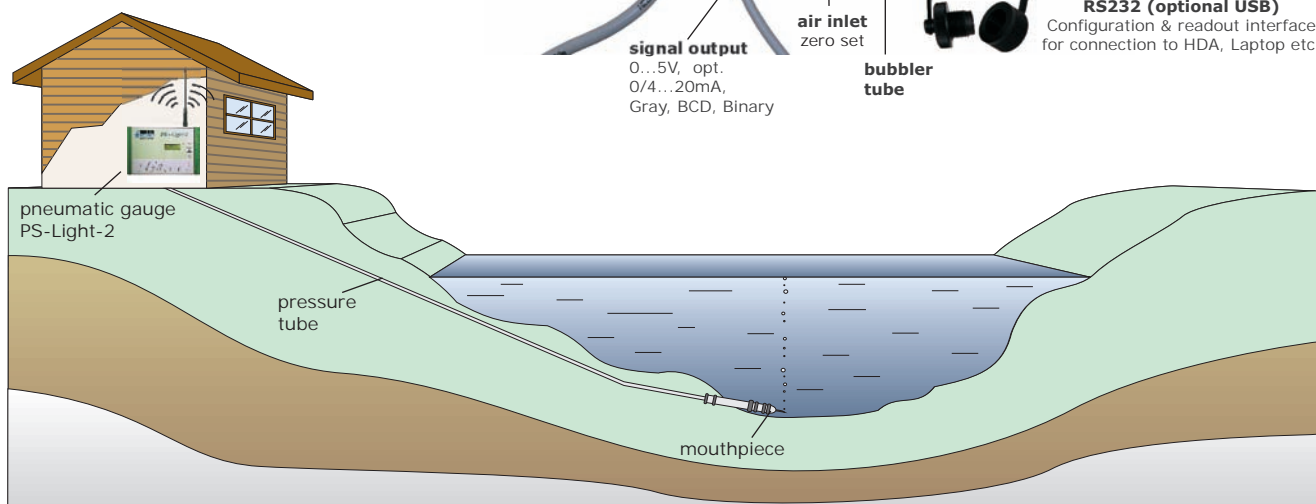
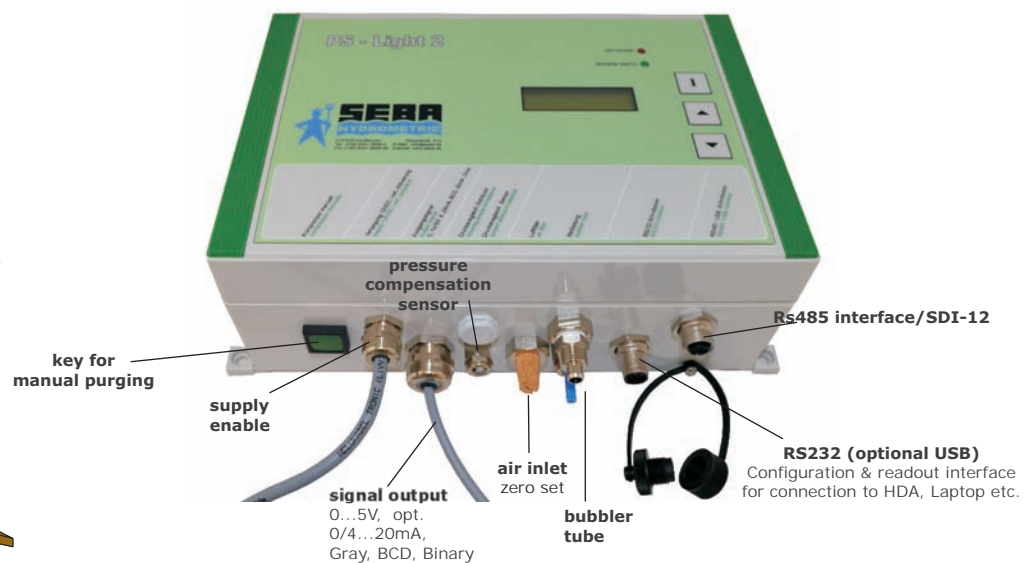
- sensor with analogue or digital output
- sensor with SEBA datalogger
- data transmission system with GSM/GPRS or telephone modem

Options:

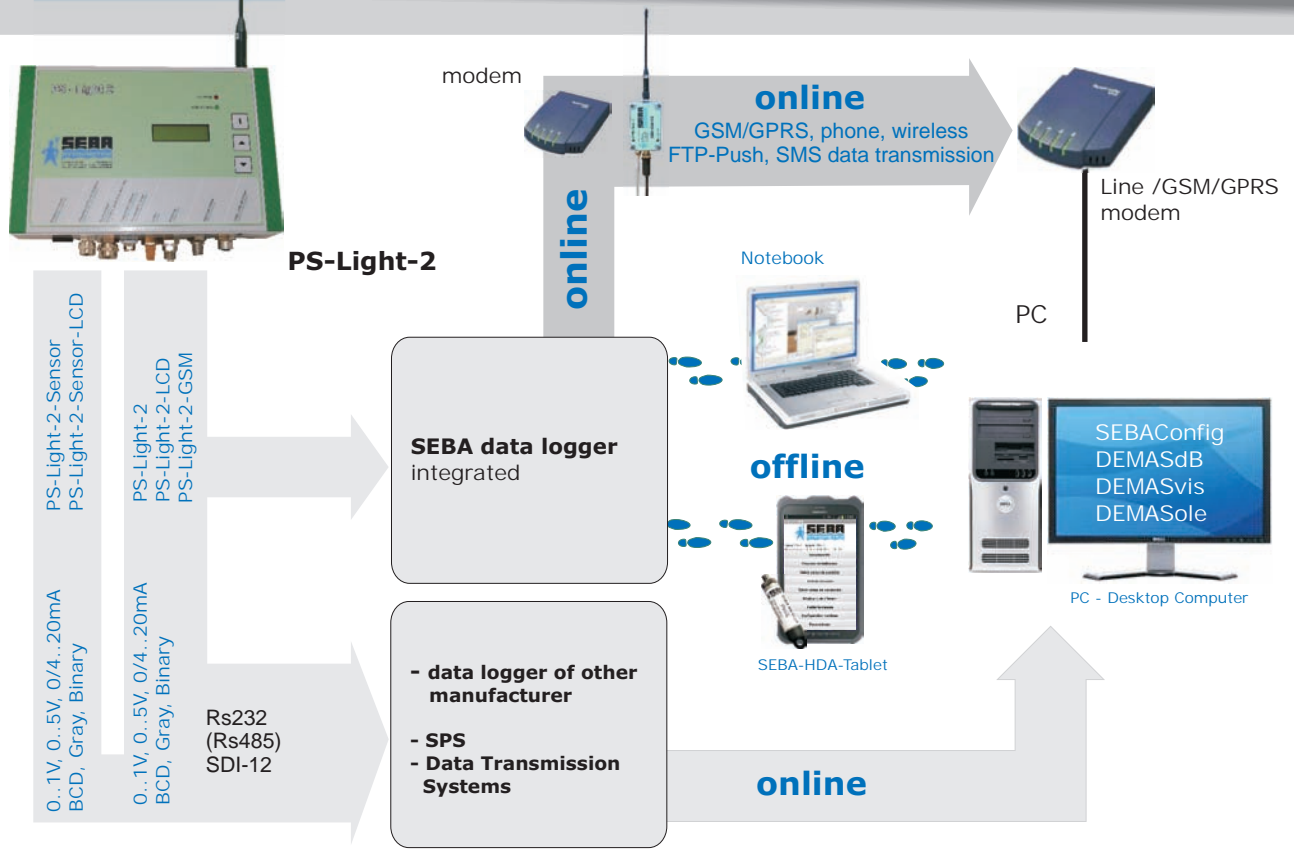
1. LC-display
2. output signals: galvanically separated
 - Rs485, SDI-12
 - 0/4...20mA
 - 0..1V, 0..5V
 - BCD-Code, Gray-Code, Binary-code



mouth piece / orifice



Data flow



PS-Light-2 Variations

PS-Light - 2 Sensor

consisting of:

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

PS-Light- 2 (-Logger)

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

- **Data Logger**
with RS232 interface

PS-Light - 2 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 Sensor LCD

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

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

PS-Light - 2 (-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 for measuring range:			Weight:
PS-Light-2:	plastic material (Ip65),	0-10 m	240(W) x 160(H) x 94(D) mm	1,6kg
		0-20 m	240(W) x 160(H) x 124(D) mm	2,0kg
		0-40 m	250(W) x 410(H) x 100(D) mm	4,5kg

PS-Light-2 (for all types):

Measuring Range:	0 - 10m, 0 - 20m, 0 - 40m, 0 - 70m
Sensor linearity:	0,05% of the measuring range
Total Accuracy:	Linearity + Hysteresis + Repeatability < 0,1%
Digital resolution:	16Bit = 0,002%
Analog resolution:	14Bit = 0,008%
Outputs:	0-1V or 0-5V or 0/4...20mA, optional: Rs485 Modbus, SDI-12, BCD-, Binär-, Gray-Code
Measuring Interval:	freely programmable from 1 minute via software SEBAConfig
Interface:	RS232, Rs485, USB, Bluetooth
Operation Temperature:	-20°C to +60°C

SEBA - Data Logger (for types PS-Light-2 Logger and PS-Light-2 Logger LCD):

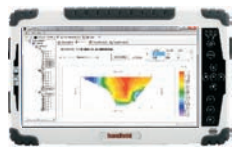
Microprocessor:	32Bit
Measurement storage:	Ring storage, 16-bit resolution, storage of check values. Clock-, average- and eventmode are freely programmable max. 32 channels (water level, battery voltage, external channels RS485)
Flash-Memory:	8 MB for approx. 560.000 measuring values
Power Supply:	11...15 VDC
Measuring Interval:	freely programmable from 1 minute via software SEBAConfig
Option:	LC-Display for instant indication of water level

GSM/GPRS Modem(for type PS-Light-2 GSM):

Frequency:	850/900/1800/1900MHz (EGSM, Quadband)
HF output max.:	2W 850/ 900MHz ; 1W 1800/1900MHzA
Antenna impedance:	50 Ohm
SIM-card:	1.8V / 3V
Power consumption:	30mA (receiving); 0.5A (transmitting)



HDA-Tablet



HDA-Pro
robust tablet-PC

Transfer of Measuring Data to PC

Offline:	via HDA-Tablet or via Notebook with SEBA Config or via HDA-Pro
Online:	analogue, via 0...5V resp. 0/4...20mA output signal digital, via GSM/GPRS network or via fixed network telephone communication

technical data for HDA and HDA-Pro pls see separate brochure

Power Supply

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

Software

Readout & Configuration :	SEBAConfig and DEMASole
Management /Evaluation Software:	DEMASdb / DEMASvis



SEBAconfig

DEMASvis

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



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