

AUTOMATIC WATER LEVEL RECORDER

BE WLR-100-R700



AVAILABLE ON



Solusi Terdepan untuk Pengukuran Level Air yang Berkelanjutan

Perangkat ini dirancang khusus sebagai monitoring otomatis untuk **water level measurement** dan cocok digunakan dalam jangka panjang. Menggunakan **BE Data Logger**, produk unggulan dari Beacon Engineering, perangkat ini menyediakan pencatatan data yang sangat akurat dan otomatis. Kemampuan pengukuran data dari puluhan sensor secara simultan menjadikan perangkat ini solusi yang ideal. Perangkat ini juga menyediakan fleksibilitas untuk memperluas pengukuran sesuai kebutuhan. **Sensor water level** merupakan tipe ultrasonik dengan resolusi tinggi (kurang dari 0,2 mm) dan rating IP68 yang memastikan ketahanan terhadap debu dan kotoran, serta tetap beroperasi di bawah air untuk durasi tertentu. *Casing* sensor terbuat dari stainless steel 316, yang menawarkan daya tahan luar biasa terhadap lingkungan dan korosi.

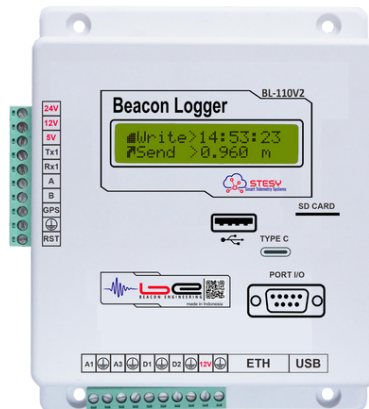


Benefits

- Easy to install, easy to use, and easy to maintain,
- Increase productivity and security for system monitoring,
- High reliability and accuracy,
- Technical support ready,
- Customized options are available (**please contact us**).



**Enclosure
BL-110 Series**

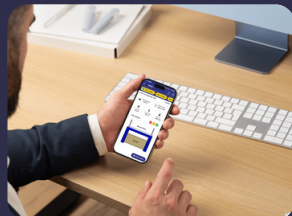


**Beacon Data Logger
BL-110 Series**



Power Supply Specifications

- 2x Solar Panel 12 Volt/ Power 100 WP
- Maximum current-power voltage (Vmp) 18.52
- Maximum power current (Ipm) 5.67 A/sheet
- Open circuit voltage (Voc) 22.94 V/sheet
- Short circuit current (Isc) 6.09 A/sheet
- Series resistance (Rs) 0.75
- Parallel resistance (Rsh) 128
- Fill Factor (FF) 0.7
- Efficiency (Eff) 15.3
- Type Cell Polycrystalline/ Mono-crystalline
- Solar cell mounting bracket included
- Deep Cycle Lid Acid Battery 12 Volt / 50 Ah



- Reliable for monitoring alerts of monitoring water level,
- Used to measure automatically and in real time,
- Long term for automatic monitoring, measurement and data recording,
- Remote monitoring water level data collection without visiting the location.

The **enclosure** of this device is made from ABS material with an IP65 rating, making it resistant to extreme weather and high temperatures. It is designed to protect the internal electronic components from damage caused by UV exposure, maintain internal humidity levels, and prevent corrosion, ensuring the device's durability and reliability.

The **data logger** uses a Lead Acid battery with Deep Cycle technology, enabling repeated charging and discharging cycles without compromising performance. This battery is built to withstand high temperatures and supports long-term usage.

Data communication for the data logger utilizes a cellular GSM modem, with an option to upgrade to VSAT data communication if needed. Additionally, the Beacon Data Logger features an Ethernet port, WiFi, and Bluetooth connectivity. It also includes a local web server accessible via WiFi or LAN, while Bluetooth connectivity allows for convenient device configuration.

Beacon Logger is compatible with a mobile application available for Android and iOS devices, called Beacon View. This application simplifies the configuration and monitoring of the data logger directly from the user's device.

Beacon Smart Telemetry Features :

- The data logger is designed to transmit data to the monitoring server every minute, which is then displayed on the dashboard with average updates every hour. The dashboard is equipped with maximum and minimum pointers to facilitate data analysis.
- Users can download the data directly through the website or mobile application in .CSV file format. Alternatively, data can also be retrieved from the SD card installed in the data logger.
- The data logger features an automatic backup system, where data is stored on the SD card in case of an internet connection disruption to the server. Initial configuration of the data logger can be performed via a USB port or Bluetooth connection using the Beacon View application on a smartphone.
- The device programming is managed through a Command Line Interface (CLI) and is supported by onboard data processing. To ensure stable device operations, the data logger is equipped with an external watchdog timer.
- Additionally, the device has internal sensors to monitor battery voltage, temperature, and humidity, with data sent to the monitoring server for device stability analysis. A high-precision Real Time Clock (RTC) is integrated into the device and displayed on the LCD screen.
- This data logger is certified as Made in Indonesia and complies with **ISO 9001:2015, ISO 27001:2013, and ISO 30141:2018**



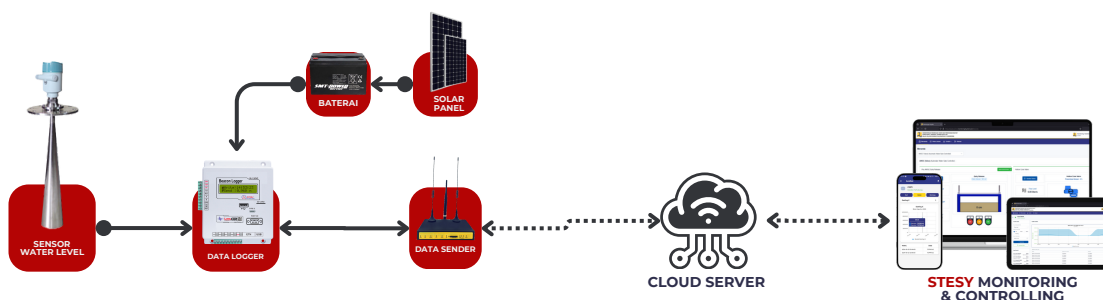
Beacon Logger BL-110 Specifications

- Internet connection using 4G Wireless Router, LAN ports, and WIFI transmission channel
- STM32F407xx: Arm Cortex Core 32-bit, Clock Speed Up to 168 MHz, SRAM 192 KB, back up SRAM 4 KB, Flash Memory up to 1 MB (full SMD single on-board using industrial PCB)
- Analog Input 8 channels, Digital I/O 4, 16-Bit ADC resolution
- Operating input voltage 10 - 24 VDC
- Built-in DC regulator output 5VDC, 12 VDC and 24VDC for various sensor power supply
- Communication ports 1x Serial Data RS232, 1x Modbus RS485, 1 x USB Port, 1 x Ethernet port TCP/IP, 2, BLE Bluetooth low Energy
- DB9 Serial Port, Type C Port, USB Port, SD Card up to 16 GB dan SD Card Slot
- Average operating temperature -40 to +85°C, Dimensions 125.6 x 45 x 155.6 (mm) and use Flame-resistant ABS
- Support Download data using local wifi connection
- Data measurement format Excel (CSV File)
- LCD display 16x2 character with green LED background



Water Level Sensor Specifications

- Adopted 26GHz high frequency radar sensor, small antenna size, non-contact radar
- No wear, no pollution, almost no corrosion, bubble effect almost not affected by water vapor in atmosphere
- Shorter wavelength, small beam angle, application is for liquid surface, Measure on pool or free running
- Rugged packaging for reliable performance in wet or dirty environments
- Serious dust environment on the high level meter work has a little effect
- Range maximum 70 meters with accuracy ± 15 mm, process connection using universal flange
- Medium temperature -40 to 250 C, process pressure -0.1-0.1 MPa
- Protection grade IP67, explosion-proof grade Exia II C T6 Ga
- Data Output Modbus, ASCII streaming, Humidity 0 to 100% operating
- 9600 to 115200 baud, 8 data bits, 1 stop, no parity
- High signal-to-noise ratio, the level fluctuation state can obtain better performance
- High frequency, measurement of solid and low dielectric constant of the best choice



KETERANGAN :

- WIRELESS - - - - -
- NON WIRELESS —————