

BVU-06 Evaporation sensor



The **BVU-06** sensor is an electronic accessory of the evaporation pools used in meteorological measuring technology. The device can be universally used for pool types “A”, “G” and “U”.

For the minimal current usage, the device measures the water level with a pressure sensor. The BVU-06 has an additive temperature sensor, so the actual water temperature is registered with the required 0.2 °C precision along with the level measuring (the amplifier and digitalizing circuits supporting the temperature sensor are found inside the BVU-06).

The measuring doesn't cause water loss like manual measuring (no Piche-pipe) and measuring the temperature won't disturb the system, so beyond the electronic display and registration, the usage BVU-06 has the advantage that the water level of the vat can be asked with user-set frequency, so e.g. if asked hourly, the intensity of evaporation can be measured.

The device has built-in microcontroller to control the measures and to send the results to the data logger or PLC.

Each channel has an independent calibration table to store reference data for up to 10 calibration points. The microcontroller uses linear regression to convert the measured electronic signal to physical parameter.

The device has polyglot (multilingual) protocol to support Boreas' System-6 and the industry-standard MODBUS protocol simultaneously so the customer has the ability to use our latest development results with our BCU dataloggers or to implement industrial process control with MODBUS-compatible PLC. The serial interface has built-in over-voltage and lightning protection.

The BVUL-06 device implements our LogSense technology which implements the functionality of sensor and data logger with built-in solid-state memory. The stored data (with time stamp) could read out over the serial connector with our S6-ReadStation or MeteoLux program or can be transmitted over radio link or GPRS connection to our SocketServer. The LogSense device can control our ComBuoy communication device.

Technical Data

	Temperature	Water Level
Measuring Range	-4...+70 °C	0-200mm
Resolution	0.1°C	0.1mm
Accuracy	0.2 °C FSR	0.1mm
Settling Time	10 sec.	
Power	8-15 V / 10 mA max.	
Data Interface	Digital RS-485 or RS-232	
Communication	System-6 and MODBUS RTU protocol	
Overvoltage Protection	+/- 6,7V 600W@1msec (data line) +/- 17,1V 600W@1msec (power lines)	