

## BSM-06 Soil Moisture Sensor

The BSM-06 measures soil moisture in different depths. The device is able to receive and sense up to six moisture-sensing blocks (e.g. Delmhorst, Watermark etc.). The BSM-06 device has an own microcontroller, it calculates the processing circuits values to mass percent, moisture tension (bar) and used water (%) units by internal calibration tables, than sends the results to the data logger or PLC.



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 BSML-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.

The physical interface of the device is either RS-485 or RS-232 compliant. The RS-232 is recommended to use as LogSense device. The data and power lines are protected against overvoltage.

### Technical Data

	Soil Moisture
<b>Measuring Range</b>	0 - 100 %/-37 - 3050 hPa
<b>Resolution</b>	0.1 % / 0.1 hPa
<b>Accuracy</b>	4 % FSR
<b>Settling Time</b>	30 min
<b>Power</b>	8-15 V / 4mA average, 10 mA max.
<b>Data Interface</b>	Digital RS-485 or RS-232
<b>Communication</b>	System-6 and MODBUS RTU protocol
<b>Overvoltage Protection</b>	+/- 6,7V 600W@1msec (data line) +/- 17,1V 600W@1msec (power lines)