

BHS-06 Temperature-Humidity sensor

The device contains a temperature sensor together with a humidity sensor. The anti-radiation shield (shelter) is made from UV-resistant polycarbonate to keep the bright white color after years. The bottom side of the plates are painted to dead black to keep the radiation error below 0.2°C. The thermal drift of the moisture sensor is uniquely calibrated and stored by the internal microcontroller as a calibration table. The microcontroller makes automatic software thermal compensation of the natural measured moisture values, so the output of the device is a temperature-independent compensated, accurate value.



Besides the basic parameters, the instrument also provides some important data such as dew point of air, partial pressure of water vapor, calculated wet temperature, etc.

The device has built-in microcontroller to control the measures and to send 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 BHSL-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.

For particular demands the following sensors are available:

Sensor	Data Interface
BHS-06, BHSL-06	Digital RS-485
BHS-06/232, BHSL-06/232	Digital RS-232
BHS-06/AU, BHSL-06/AU	Analog 0-10 V (different ranges are available as well)
BHS-06/AI, BHSL-06/AI	Analog 4-20 mA (different ranges are available as well)

Technical Data

	Temperature	Humidity
Measuring Range	-50...+70 °C	0...100 %
Resolution	0.1°C	0.1%
Accuracy	±0.1 °C FSR	±1 % FSR
Power	8-15 V / 2mA avg, 7 mA max.	
Data Interface	Digital RS-485 or RS-232	
Optional Data Interface	Analog 0-10 V, 4-20 mA	
Communication	System-6 and MODBUS RTU protocol	
Overvoltage Protection	+/- 6,7V 600W@1msec (data lines) +/- 17,1V 600W@1msec (power lines)	

PRELIMINARY