

WiSensys® Base Station WS-BU

Overview

WS-BU is the base station that receives the data from all WiSensys® sensors. The received data is forwarded to a connected PC (WS-BU-rs232 or WS-BU-ethernet-01), data logger (WS-BU-rs485) or PLC system (WS-BU-ana). In addition to this, data can also be forwarded to an internet application and database using TCP/IP or GPRS (WS-BU-ethernet-03, WS-BU-gprs).

The distance between sensor and base station can be up to 1000 meters in case of free line-of-sight. Characteristic in-building range values are between 50 and 80 meters. If the coverage area of 1 base station is not enough, additional base stations can be used to increase the coverage area. Base stations can be networked to collect all measurement data on 1 location. Several WS-BU-ethernet-01 base stations can be connected to a PC directly or over the LAN. Several WS-BU-rs485 base stations can be networked on the same RS485 bus. The internet application offers the possibility to connect base stations on different sites

WS-BU is also used when installing and changing the WiSensys® network. The base station receives settings for the sensors from the SensorGraph program running on a connected PC and forwards these settings to all sensors in the network. Newly added sensors receive the current network ID.

When sensors are configured with alarm thresholds, the WiSensys® base station can power a switched relay to activate a system alarm. Detailed information has to be obtained via SensorGraph. This option is available on WS-BU-rs485, WS-BU-ana, WS-BU-ethernet-01 and WS-BU-ethernet-03.

WS-BU can optionally store measurement values on an SD card. This storage can be used for logging values when a PC or data logger is not connected. This option is available on WS-BU-rs485, WS-BU-ethernet-01 and WS-BU-ethernet-03.

Features

- Receiving data from WiSensys® sensors
- Forwarding data to connected PC, data logger, PLC system or internet
- Optional SD card storage; overwrites oldest data when full
- Wall mounting possibilities included in enclosure
- Range: 1000m free line-of-sight
- Analog and digital interface possibilities
- Up to 100 sensors can be connected

Specification WS-BU-rs232

Function	Base station
Operating temp. range	0°C - +60°C
Power	8V – 30V DC
Radio standard	ETS 300 220
Frequency	868 – 870MHz (915MHz US)
Range	1000m free line-of-sight
Housing	IP40. Other classes upon request.
Color	RAL 7035, Light grey
Dimensions	130(w) x 180(h) x 60(d) mm
Communication	RS232 @ 115.200 kbps
Network size	100 sensors
Antenna	External antenna
Configuration	Through SensorGraph on PC
Regulatory	R&TTE, CE

Additional specification WS-BU-rs485

Function	Base station, RS485 output
Protocol	MODBUS @ 110 bps – 230 kbps
Memory	Optional on SD card
Alarm relay	Available. 2A 30V; 0.5A 100V

Additional specification WS-BU-ana

Function	Base station, analog output ,4 channels
Range	0 – 25mA or 0 – 10V; selectable
Accuracy	+/- 0.5% of range
Load resistance	250 Ohm max. for 0-25 mA; min for 0-10V (per channel)
Memory	Not available
Alarm relay	Available. 2A 30V; 0.5A 100V

Additional specification WS-BU-gprs

Function	Base station, GPRS modem
Data destination	Programmable internet address
GPRS link	Programmable APN, username, password
Memory	Not available
Data usage (sensors sample every 200sec)	1 sensor: 2 MB / month 10 sensors: 6 MB / month 20 sensors: 10 MB / month

Additional specification WS-BU-ethernet-01

Function	Base station, Ethernet output
Alarm relay	2A 30V; 0.5A 100V
Ethernet	Auto-detect 10/100Mbps, RJ45
Data destination	PC with Sensor Graph
Memory	Optional on SD card
IP configuration	Static, DHCP
Net mask	Configurable from SensorGraph
Gateway	Configurable from SensorGraph
DNS server	Configurable from SensorGraph

Additional specification WS-BU-ethernet-03

Function	Base station, Ethernet output
Alarm relay	2A 30V; 0.5A 100V
Ethernet	Auto-detect 10/100Mbps, RJ45
Data destination	Programmable internet address
Memory	Optional on SD card
IP configuration	Static, DHCP
Net mask	Configurable from SensorGraph
Gateway	Configurable from SensorGraph
DNS server	Configurable from SensorGraph

The specification is subject to change without notice.

WiSensys® is a registered trademark of Wireless Value.