

WIRELESS UART GATEWAY

W110 USB

Wireless UART gateway provides data reading from Navis wireless wind speed and direction sensors over USB (virtual COM port) connection. UART gateway is used for developing custom wind measuring applications on multiple platforms (PC, Raspberry pi, ...). Drivers for virtual COM port are available for Windows, Linux or OS X.

FEATURES

- Long range - up to 1300 m in an open field site.
- Powered form USB.
- Easy to setup on multiple development platforms:
install virtual COM port drivers, connect UART gateway to USB port, receive data from wireless wind speed and direction sensors on your system.
- Output data packet is ASCII coded string.
- Receive data from multiple sensors simultaneously.



COMPATIBLE SENSORS:



WS 010-1 (standard range WS sensor)
WS 011-1 (extended range WS sensor)



WSD 010-1 (standard range WSD sensor)
WSD 011-1 (extended range WSD sensor)

ORDERING:

Receiver unit

- 1 **W110 USB** receiver unit

Sets with sensors included

- 2 **W110 USB/WS** receiver unit, extended range WS sensor
3 **W110 USB/WSD** receiver unit, extended range WSD sensor



1



2



3

OPTIONS

Wind tunnel certificated version available

OPTIONAL ACCESSORIES

- 1 External antenna with 4 m cable, magnetic mounting
2 YAGI antenna



1



2



NAVIS

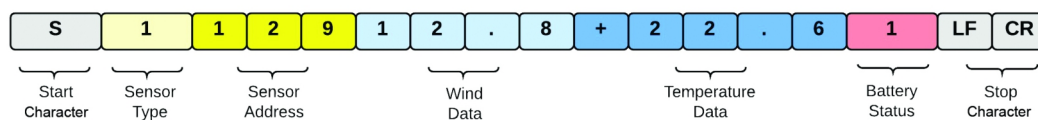
TECHNICAL DATA

Interface:	USB (Virtual COM port)
USB bus powered operational current:	30 mA
USB cable:	type »A«, lenght 1.5 m
Available drivers for Windows, Linux and OS X	
UART Communication:	9600 BPS, 8 Bits of Data, 1 Stop Bit, No Parity
Output:	data packet of ASCII coded string
Wind speed measurement range:	0,6 m/s - 50,0 m/s
Wind speed resolution:	0,1 m/s
Wind direction measurement range:	0° - 359°
Wind direction resolution:	1°
Temperature measurement range:	-30°C...+60 °C
Temperature resolution:	1 °C
Receiving data distance:	up to 1300 m
Operating Frequency:	868 MHz
Dimensions:	120x 65 x 42 mm

UART OUTPUT DATA PACKET STRUCTURE

B1: Start character	B10 - B14: Temperature data
B2: Data Type [1 - Wind speed, 2 - Wind direction]	B12: Sensor Battery Status
B3 - B5: Sensor address	[0 - Batery OK, 1 - Battery Low]
B6 - B9: Wind data	B16 - B17: Stop character

Data packet example: sensor address 129: Wind speed 12.8m/s, Temperature +22.6°C, Sensor battery low.



Data packet example: sensor address 129: Wind direction 218°, Temperature -2.6°C, Sensor battery OK.

