Long Range Wireless Wind Speed and Direction Sensors

with 4...20 mA or pulse output

W110
W110L

FEATURES

- easy installation without running cables
- long range: up to 1300 m (400 m at W110L model)
- up to 3 years sensors battery life
- 4-20 mA or pulse output
- instant wind data – data transmission each 2 seconds
- durable and shock proof anemometer cups
- optional individual calibration certificate
MODELS

Up to 1300 m range (external antenna):
W110-4-20/WS - wind speed sensor, 4-20 mA output
W110-4-20/WSD - wind speed and direction sensor, 2 x 4-20 mA output
W110-PULSE/WS - wind speed sensor, frequency output

Up to 400 m range (internal antenna):
W110L-4-20/WS - wind speed sensor, 4-20 mA output
W110L-4-20/WSD - wind speed and direction sensor, 2 x 4-20 mA output
W110L-PULSE/WS - wind speed sensor, frequency output

OPTIONS

Sensors options:
- 50 Ohm antenna SMA connector for external antenna
- individual wind tunnel certificated wind speed sensor

Receiver options:
- custom modified outputs

ACCESSORIES

- sensor magnetic mounting assembly
- self levelling sensor mounting assembly
- magnetic self levelling sensor mounting assembly
- directional 9 db yagi antenna, SMA connector
- external omnidirectional antenna with 3 m cable, SMA connector

SPARE PARTS

- spare anemometer cups
- spare wind vane
TECHNICAL DATA

WIND SENSORS
Wind speed measurement range: 0,6 ... 50,0 m/s
Wind speed resolution: 0,1 m/s
Wind speed accuracy: +/- 3 %
Wind direction measurement range: 0... 360° , no blank sectors
Wind direction resolution: 1°
Wind direction measurement principle: magnetic, contactless
Wind direction accuracy: +/- 2,5°
Data transmission rate: every 2 sec.
Battery: 3,6V AA Lithium battery (enclosed)
Battery life: up to 3 years (W110), up to 4 years (W110L)
Bearings: precision stainless steel Ball bearing
Dimensions - WS sensor:
- Height 210 mm, overall diameter cup to cup 120 mm
Dimensions - WSD sensor:
- Height 290 mm, overall vane diameter 220 mm
Material - sensor housing:
- cups (replaceable): Anodized Aluminium, PVC
- vane (replaceable): PA (Polyamide), Carbon
Mounting: the sensor mounts on a pipe with ø 20 mm outside diametre
Options: wind tunnel certificated version available

RECEIVER
Transmission distance: type W110L up to 400 m
Operating Frequency: type W110 up to 1300 m
Operating Frequency: 868 MHz, optionally 908 Mhz
Operating voltage: 12...30 V DC
Power consumption: max. 60 mA
Reverse polarity protection: YES
Transient voltage protection: YES
Temperature Operating Range: -30 ... +60 °C
Signal output - Wind speed:
W110-4-20 4...20 mA, 3 wire
- 4 mA = 0 m/s
- 20 mA = 50 m/s
output at no signal = 3,6 mA
W110-PULSE PULSE, Hi SIDE
- 0 m/s = 0 Hz
- 50 m/s = 500 Hz
Signal output - Wind direction:
W110-4-20 4...20 mA, 3 wire
- 0° degree = 4 mA
- 359° degree = 20 mA
output at no signal = 3,6 mA
Cable connection: internal PCB terminals
Antenna input: W110 50 Ohm, SMA connector
W110L internal antenna
Casing: ABS, IP68, 120 x 65 x 42 mm