WIRELESS WIND SENSORS FOR POTENTIALLY EXPLOSIVE ENVIRONMENTS

Wind speed: WS 011-1-EX
Wind speed & direction: WSD 011-1-EX

FEATURES

- ATEX II 2 G Ex ib IIB T4 proofed (for potentially explosive environments, zone 1 and 2)
- range up to 1300 m (up to 3 - 5 km with Yagi antenna)
- easy installation without running cables
- up to 3 years sensor battery life
- simple and robust design with replaceable parts
- replaceable cups, vane and bearings
- compatible with range of NAVIS display/receiver units
- simultaneously operates with multiple display/receiver units
INTRODUCTION

Navis WS 011-1-EX & WSD 011-1-EX feature state of the art low power wireless technology connecting sensor and displays, resulting in user friendly “plug and play” installation. Sensors are ATEX/IEC certified and provide reliable solution for wind monitoring in hazardous area.

Sensors can operate with wide range of NAVIS display/receiver units enabling a lot of additional functionality like alarming, history logging Wi-Fi and Bluetooth connectivity and outputs for integration into systems.

INSTALLATION AREAS

The ATEX proofed sensor can be mounted in hazardous zone (explosion zones 1 or 2), while the receiving display unit can only be used in safe zone away and/or separated from hazardous zones.

ORDERING

Sensors
1 WS 011-1-EX
2 WSD 011-1-EX

Sets with display unit included
3 W410XB/WSEX (W410XB/D display unit, WS 011-1-EX sensor)
4 W410XB/WSDEX (W410XB/D display unit, WSD 011-1-EX sensor)

Options
- Individually wind tunnel tested sensors with calibration report

SPARE PARTS

1 Spare anemometer cups
2 Spare wind vane
3 WS sensor head with bearings
4 WSD sensor head with bearings

COMPATIBLE WITH RANGE OF NAVIS DISPLAY/RECEIVER UNITS

W410/W410BAT  WL12  WR3-B  W301  W110
TECHNICAL DATA

Wind speed measurement range: 0.6 - 50 m/s
Temperature measurement range: -30 °C - +55 °C
Data transmission rate: every 2 seconds
Wind speed resolution: 0.1 m/s
Temperature resolution: 0.5 °C or 1 °C (depends from display unit)
Accuracy wind speed: +/- 2.5 %
Accuracy temperature: +/- 1 °C
Operating Frequency: 868 MHz
Output power: +15 dB (32 mW)
Temperature operating range: -30 °C - +55 °C
Battery (included): 3.6V AA Lithium battery, Type: LS14500EX, Producer: SAFT
Battery life time: up to 3 years
Bearings (replaceable): 2 x precision stainless steel Ball bearings
Material - cups (replaceable): PA (Polyamide)
Dimensions: height 210 mm, overall diameter cup to cup 120 mm
Mounting: sensors to be mounted on a vertical pipe with 20 mm diameter

ADDITIONALLY FOR WSD 011-1-EX SENSOR

Wind direction measurement range: 0 - 360 °, no blank sector, contactless magnetic measuring principle
Wind direction resolution: 1 °
Accuracy wind direction: +/- 2.5 °
Material - vane (replaceable): Carbon/AL
Dimensions (without holder): height 240 mm

CERTIFICATE MARKINGS

Ex II 2 G Ex ib IIB T4

Ex = explosion-proof electrical equipment
II = group II industries
2 = category 2 (suitable for areas where explosive atmosphere is not likely to occur under normal circumstances)
G = suitable for atmospheres containing explosive gas
ib = intrinsically safe protection type ib = zone 1 & 2
IIB = gas group II B
T4 = temperature class max surface temp 135 °C