INTRINSICALLY SAFE WIRELESS ANEMOMETER

WS-E10 / WSD-E11

WS-E10
(Explosion-proof Wind speed meter)

WSD-E11
(Explosion proof wind speed + direction meter)

- **ATEX intrinsically safe certificated**
- **First of its kind in the world**
- **Wireless technology real time update**

- **Long transmission distance**
- **Long sensor battery life**
- **Industrial outputs integration**

Introduction

Scarlet Long Range Wireless Explosion Proof Anemometer Series provide two reliable solutions for hazardous area, WS-E10(Explosion-proof Wind speed meter) and WSD-E11(Explosion proof wind speed+direction meter). Both adopt state-of-art wireless technology and obtain ATEX certification. Scarlet WS-E10/WSD-E11 with high-end design and intrinsically safe feature, make it the ultimate solution to improve worksite safety.

Unlike the existing explosion proof anemometers in the market, Scarlet WS-E10/WSD-E11 stands out for its wireless technology. Operators can monitor the wind condition in safe distance without cable connection. Integration with your own safety system is also feasible via 4-20mA industrial output. Optional Bluetooth connectivity allows users to monitor wind condition in real time on their smartphones by using Scarlet Windsmart App. With all these unique features, Scarlet aims to improve operation safety in all kinds of harsh environment.

Features

- Certified as EX II 2 G EX ib IIB T4 . Monitor wind condition in hazardous area
- IP67 Water-proof. Withstands harsh environments.
- Smartphone connectivity via bluetooth and using Windsmart iOS/Android App
- Long wireless transmission range. Up to 400m/1300m(XB model only) (2000m with additional external antenna)
- 4 years sensor battery life.
- Integrated alarm & pre-alarm warning lights
- Build-in audible alarm
- 4 programmable contact relay outputs
- Backlighted graphic LCD with large digits

Functions

- Real time wind speed and direction
- Bar graph of wind gust in the last 2 minutes
- Temperature
- 4 programmable contact relay outputs
- 4-20 mA industrial outputs, allows external devices connectivity
- 8 hours of wind speed data on history graph
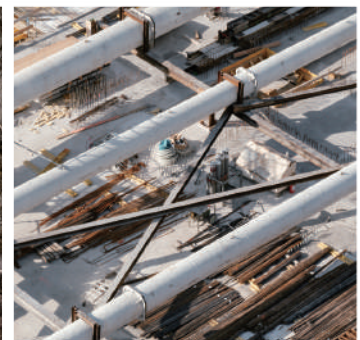- Multiple display units connect to one sensor, synchronized monitoring

Application Areas

Offshore/onshore platfrom
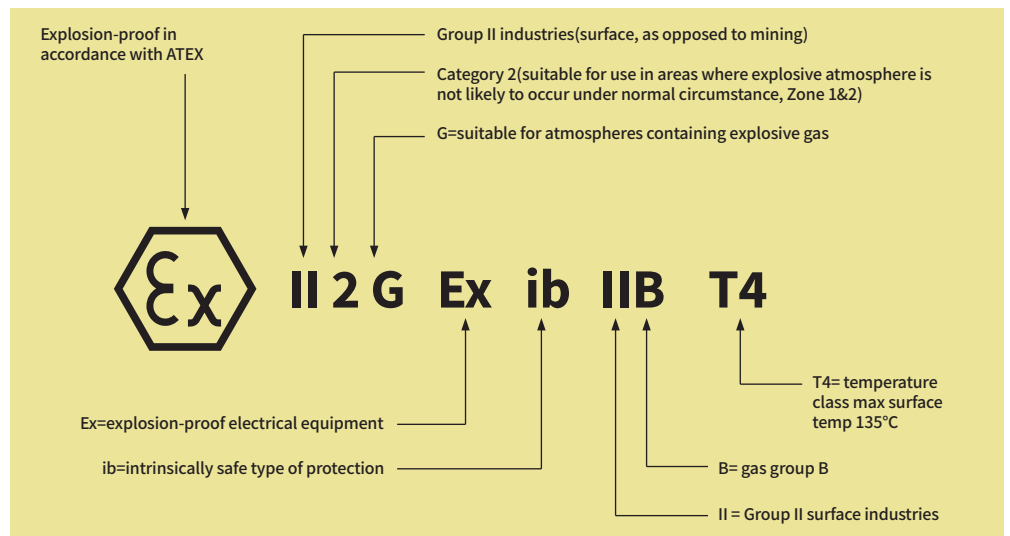
Oil & gas industry

Mining industry

Construction

Technical Specification

Item	Description
ATEX Explosion-proof Level	EX II 2 G EX ib IIB T4
Wind Speed Measurement Range	0.3...50 m/s
Wind Speed Accuracy	+/- 3 %
Wind Speed Resolution	0.1 m/s
Units of Measurement	m/s, km/h, knots, mph, Bf
Wind Direction Measurement Range	0-360°, no blank sector, contactless magnetic measuring principle
Temperature Measurement Range	-30...55°C
Temperature Resolution	0.5 °C
Dimensions - Sensor	height 210 mm; diameter (cup to cup) 120mm
Dimensions - Receiver	150 x 80 x 55 mm
Operating voltage	12...24 V DC
Antenna input (receiver)	50 ohm, SMA connector
Data transmission	every 2 seconds
Measurement interval	2 seconds
Transmission frequency	868 MHz/ +10 dBm(standard); 908 MHz, 922 MHz (customizable)
Battery - sensor	3.6V AA Lithium battery, Type:LS14500EX, Brand: SAFT
Audible alarm	85...90 dB
Relay Contacts Output	4 x relays, 2 A / 24 V
4-20 mA Outputs	4 mA=0 m/s, 20 mA=50 m/s (programmable)
Bluetooth	Optional. Range up to 40m
Mounting	Self-Leveling Mounting Bracket

Certificate

Explosion-proof in accordance with ATEX

Group II industries(surface, as opposed to mining)

Category 2(suitable for use in areas where explosive atmosphere is not likely to occur under normal circumstance, Zone 1&2)

G=suitable for atmospheres containing explosive gas

II 2 G Ex ib IIB T4

Ex=explosion-proof electrical equipment

ib=intrinsically safe type of protection

T4= temperature class max surface temp 135°C

B= gas group B

II = Group II surface industries

Instructions

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