



SCARLET | TECH

Smart Wireless Wind Speed & Direction Warning & Control System

WL-410SD



- Extremely Easy Mounting
- Long Range Transmission
- Audible Alarm

- Programmable Relays
- Bluetooth™ Output for Smartphone

Introduction

Operating a crane in windy conditions can create a potentially dangerous situation. The wind forces imposed on both the crane and the load, which can affect the strength and stability of the crane. To ensure everyone's safety during lifting operations, it is imperative that all members of the lifting team knowing the wind speed and the wind resistance.

The challenge of knowing the wind speed is the connection between sensor and display. Traditional cable solution wouldn't work well. Scarlet Wireless Anemometer Series provide elegant solutions ranges from standard display (WR-3), data logger (WL-11) and full-fledged wireless alarming system (WL-410).

The beauty of Scarlet's solution is one sensor, connect to any number & type of displays to notify anyone who cares about the safety. All are wireless.

Features

- **Extremely easy mounting due to the essence of wireless and magnetic self-leveling mounting**
- **Long range. Up to 400m**
- **4 years sensor battery life.**
- **Integrated alarm & pre-alarm warning lights**
- **Build in audible alarm**
- **4 programmable alarm relay outputs**
- **Backlighted graphic LCD with large digits**
- **Bluetooth™ 4.0 in WL-410XB transmit measured data to smartphone**
- **Free app for iOS and Android devices**



Functions

- **Real time wind speed & bar graph**
- **Wind gust in last 2 min & bar graph**
- **Temperature**
- **4 Programmable alarm relays with adjustable ON & OFF delay**
- **Wind speed & alarm history graph in 8 hr**



Application Areas

- **Mobile/Tower/Bridge Cranes**
- **Lifting Equipment**
- **Offshore Oil Platform**
- **Marine Application**
- **Aviation Industry**
- **Agriculture Field**



Models

Model XB is with high sensitivity transceiver to extend transmission range. Also, Bluetooth LE was built-in to enable the connectivity to Smartphone. With YAGI antenna, the range could be extended further. Model with 4-20 mA output module provide more flexibility for user to build the instrument into the working infrastructure.

	WL-410SD	WL-410XB	WL-410XB/ 4-20 mA
4 Relays	✓	✓	✓
Extended Transmission	-	✓	✓
Smartphone Compatibility	-	✓	✓
4-20mA outputs Transmission	-	-	✓

Accessories

- Power adaptor (input:100-240V, 50/60Hz, 1.5A; output:25V, 2.5A)
- External antenna
- 3.6V AA lithium battery
- IP67 waterproof carrying case
- Wind sensor range extender(Optional)

Anemometer Installation Kit

- Magnetic self-leveling sensor mounting bracket
- Display holder

Spare Parts

- Wind cups
- Battery(3.6V AA)



Magnetic self-leveling sensor mounting bracket



Wind cup



Adaptor

Technical Specification

	WL-410/SD	WL-410XB/SD	WL-410XB/4-20mA/SD
Sensor & receiver			
Wind direction sensor	Range: 0...359° no blank sector		
	Resolution: 1°		
	Accuracy: +/- 2°		
Measurement range	0.6...50.0 m/s		
Unit	m/s, km/h, knots, mph		
Resolution	0.1 m/s		
Accuracy	+/-2%		
Averaging period	Selectable 2 s, 10 s, 30 s		
Operating voltage	12...24 V DC		
Power consumption	300 mA (max.)		
Transmission distance	400 m	1300 m	
Distance with YAGI antenna	1.5...2.4 km	6.5...10.0 km	
Relay contact rating	1 A/12 V DC; 1 A/24 V DC		
Temperature operating range	-25...60° C		
Sensor battery	3.6 V AA Lithium batteries		
Sensor battery life	5 years	3 years	
Audible alarm	85...90 dB		
Antenna input (receiver)	50 ohm, SMA connector		
Output			
Relay	4 x relays, 2 A / 24 V		
Output	-	-	4...20 mA 4 mA=0 m/s 20 mA=10...50 m/s (programmable)
Mechanical			
Bearings	2 x precision stainless steel ball		
Sensor housing	AL/PVC		
Sensor cups (replaceable)	PA (Nylon)		
Receiver housing	ABS, IP65		
Sensor dimension	Height 300 mm, diameter 225 mm		
Receiver dimension	150 x 100 x 55 mm		
Mounting	Mounts on a pipe with ø20 mm outside diameter		
Bluetooth LE	-	Yes. Range is up to 40 m.	



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