SCARLET | TECH

Web-based Online Wireless Wind Monitoring System
WindPro™

WiFi

Sub-1GHz

For Professional / Industrial / Construction / Marine / HSE use

- • WiFi Industrial Internet of Things(IIOT)
- • Wireless technology real time update
- • Ultra transmission distance
- • 4 Years Sensor Battery Life
- • Integration via industrial output

Introduction

Scarlet WindPro™ is a stand-alone system that helps users get real time site wind information, anywhere, from any smart device by simply logging into Scarlet web portal. The novel Smart Wind Monitoring System perfectly solves the spatial limitation that has long troubled users from large-scale constructions, marine ports and offshore sites.
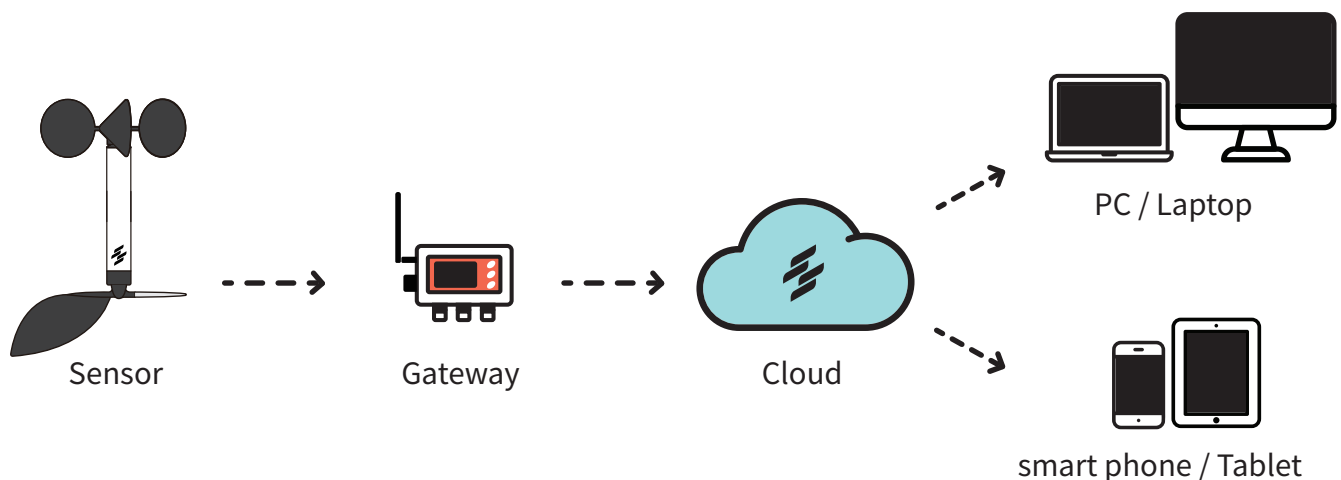
The Scarlet Wind Pro™ cloud-based web hub supports unlimited data storage of 24/7 wind conditions and auto report generation. Multiple users can acquire synchronized live wind data from individual smart device at the same time regardless where they are through this smart system.

By using Scarlet Wind Pro™, users are no more restricted to monitor wind on site in person but can freely observe wind either from PC, laptops, smartphones or tablets in remote distance. It helps you to deliver the best operation strategy for your project. Scarlet Wind Pro™ is the optimal savior to users who wants to manage worksite smartly, reduce costly accidents and risks in team.

Framework

Scarlet WindPro™ applies state-of-art proven radio frequency wireless technology and WIFI. The robust wind speed, direction and temperature sensor collect and push real-time data to internet for further analysis. The system consists of 3 components: wind sensor, gateway and web service.

Sensor	Gateway	Web service
Detect wind speed, direction and temperature. Transmit data to Scarlet wireless gateway.	Connect local WIFI network and transmit data to the web.	Online service allows user to monitor data 24/7 in multiple platforms including PC, laptops, smartphones and tablets.

Sensor → Gateway → Cloud → PC / Laptop

smart phone / Tablet

Application Areas

Offshore platfrom

Construction

Agriculture

Extreme sport

Features

- Synchronized data on monitor display and web portal
- Long range transmission distance. Up to 1300m
- Extremely easy mounting with magnetic & self-leveling mounting
- 4 years sensor battery life.
- Integrated alarm & pre-alarm warning lights
- Built-in audible alarm
- 4 programmable alarm relay outputs
- Backlighted graphic LCD with large digits

Functions

- 24/7 Online Wind Monitoring
- Historical Data Analysis
- Cloud-based Platform with Unlimited Data Storage

- Manage Worksites Smartly and Safely
- Automatically Data Logging by User Default

Technical Data

Wind speed measurement range:	0.1 - 50.0 m/s
Wind direction measurement range:	0° - 359°
Temperatutre measurement range:	-60...85 °C
Wind speed units:	m/s, km/h, knots, mph
Temperature units:	°C, °F
Wind speed averaging period:	selectable 2 s, 10 s, 30 s
Wind direction averaging period:	10 s
Wind speed resolution:	0.1 m/s
Wind direction resolution:	1°
Temperature resolution:	1°C
Wind speed accuracy:	typ. +/- 2 %
Wind direction accuracy:	+/- 2°
Temperature accuracy:	+/- 1°C
Operating voltage:	12-24 V DC
Power consumption:	max 300 mA
Operating range:	up to 1300 m
Operating Frequency:	868 MHz
Temperature operating range:	-30 ... +60 °C
Outputs: Relay	4 relays, contact rating 2 A / 24 V
Sound signal (integrated):	85 dB
Antenna input:	50 Ohm, SMA connector
Measuring rate:	every 2 sec
Wi-Fi Module:	ESP-WRO OM-02, 802.11 b/g/n
Wi-Fi Frequency range:	2.4 GHz ~ 2.5 GHz
WiFi Output power:	Min 13dbm,Max 15dbm
Material casing	PC (Polycarbonate)
Dimensions receiver:	130 × 80 × 36 mm
Weight:	320 g

Subject to technical modification without notice

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)