W50.Wireless

- **Recording of wind speed, wind direction and weather data**
- **Wireless data download to PC**
- **Real-time clock for date and time-stamping of data with battery backup**
- **WindSonic sensor compatible**
- **MaxiMet & MetPak Weather Station compatible**
- **Raw data logged to .CSV file**
- **Ten minute averaged data logged to .CSV file**
- **Compact, economical and robust design**

Overview

The SpaceLogger.W50.Wireless data logger is optimised for logging real-time wind speed and direction data when using Gill Instruments' WindSonic & WindObserver ultrasonic wind sensors and for logging full environmental data from MetPak weather stations.

Data is stored on a removable SD or SDHC memory card. Current and historic data files may be accessed wirelessly using the SpaceLogger Real-time Communicator Software.

Data is sampled at 1Hz from the connected sensor. Each data record is date and time-stamped when it is stored. A new file (.CSV) is generated for each day's worth of data.

Raw wind & weather data is processed by the logger to calculate 10 minute averaged values with min and max readings during that period. This data set is recorded every 10 minutes in a separate daily .CSV file.

A Wi-Fi wireless local area network (WLAN) is required for remote access to the data stored on the logger. If this is temporarily unavailable, data may be downloaded directly from the SD card to a PC if it is removed from the SpaceLogger.

The SpaceLogger Real-time Communicator Software may connect to multiple loggers within the same WLAN at any time.

The SpaceLogger.W50.Wireless logger requires RS232 input; this may be direct from the sensor or via a WS-15A Display Unit for local display of live weather data. When long cable runs dictate use of RS485, a WS-15A Display or RS485 to RS232 converter enables connection to the logger.

Configuration of the SpaceLogger for the WLAN is via a simple set-up file written to the SD card.

Applications

Weather, wind speed and wind direction data collection for:

- ✓ Weather monitoring and warning
- ✓ Wind farm surveying and operations
- ✓ Construction industry, including crane operations
- ✓ Education and research projects
- ✓ Aviation operations
- ✓ Health and safety
- ✓ Sports and outdoor activities
- ✓ Agriculture and Horticulture
- ✓ Roads, bridges and tunnels
- ✓ Marine and offshore

Wind Systems

Richard Paul Russell Ltd offers a range of wind systems, weather instrumentation and data loggers. Please contact us for more information.

Contact Us

e-mail: sales@r-p-r.co.uk
Tel: +44 (0)1590 641223
Fax: +44 (0)1590 688577
Website: www.r-p-r.co.uk

Richard Paul Russell Ltd
The Lodge, Unit 1 Barnes Farm Business Park
Barnes Lane, Milford on Sea, SO41 0AP UK

SpaceLogger.W50.Wireless Specification

Physical	Dimensions	Width: 67 mm Depth: 92 mm Height: 28 mm (excluding optional rubber feet)
	Weight	100g
	Enclosure material	GP ABS (UL94-HB) plastic and acrylic
RS232 Input	Sensor type	Gill Instruments' WindSonic, WindObserver II and WindMaster ultrasonic wind speed and direction sensors. MaxiMet GMX, MetPak, MetPak RG and MetPak Pro weather stations.
	Transmission standard	RS232, 8 bits and no parity
	Sensor output format	Continuous mode: ASCII UV (or UVW), Polar or Tunnel from all sensors
	Transmission speed	9600 Baud
	Connection	9-way D-type connector, male
Wireless Connectivity	Wireless module	Wi-Fi Certified 2.4GHz IEEE 802.11b/g 802.11i Security WPA2-PSK, WPA, WEP
	Aerial	Circuit board mounted
Data Storage	Data Storage Card	Removable SD or SDHC card
	Data Capacity	4GB (standard) or as per memory card capacity
	File System	FAT16 or FAT32 with 8.3 file names. Sector size 512 Bytes
	Data logging interval	1Hz
Audible / Visual Indicators	LED Indicators	SD card status: Green: Ready to record data | Red: Writing data to SD card Wireless Connectivity Status: Green: Connected to wireless network
	Audible Bleeper	Status alert
Real Time Clock	Accuracy	±40 ppm at 25 ºC
	Backup battery	CR2032
Power	Power requirement	5 Vdc ±10%
	Current at 5Vdc	200 mA typical
	Connection	Micro USB connector
Environmental	Temperature Range	Operating: -25 ºC to +70 ºC Storage: -40 ºC to +70 ºC
	EMC	CE marked - EMC directive 2004/108/EC [Emissions: EN 61326-1:2006 | EN 301 489-1 | EN 55022:2010 | EN 55022:2006 Immunity: EN 61326-1:2006 | EN 61000-4-2:2009 | EN 61000-4-3:2006] FCC/CFR 47: Part 15:2004
Guarantee	Period	1 year

The manufacturer reserves the right to amend the specification and therefore the information in this document may be subject to change.

Example of SpaceLogger.W50.Wireless Application