Actisense®
Award Winning NMEA Specialists

W2K-1 NMEA 2000 to Wi-Fi

The W2K-1 is a compact and low-power NMEA 2000 to Wi-Fi Gateway with voyage data recording.

It transfers data from an NMEA 2000 backbone to any device (e.g. laptop, tablet or smartphone) connected to it via Wi-Fi.

It has built-in conversion of NMEA 2000 messages into NMEA 0183 sentences thus allowing a wide variety of vessel data (e.g. position, speed, course, wind speed, depth, engine data, AIS messages etc.) to be shared with NMEA 0183 compatible software applications running on connected devices.
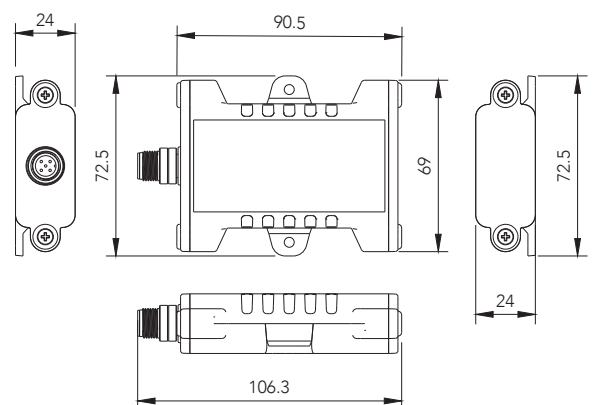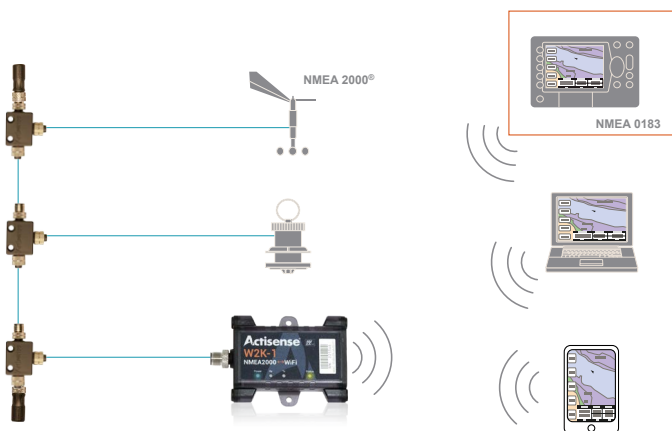
All the data received (or a selected subset) can be logged to its internal micro SD card for later downloading to use for analysing the voyage.

This is very useful for analysing race data, generating logbooks, diagnosing problems or even sharing your voyage details.

Approximately 16 days of data can be stored on the pre-installed industrial grade micro SD card, which can be upgraded should the user require more storage.

The W2K-1 has the legendary Actisense "Reliability Built In" along with useful diagnostic LEDs, internal antenna, enhanced password security, full certification and all packaged in an extremely rugged IP67 case.

Dimensions

GEEK MODE ON

Power Supply	
Supply Voltage (NMEA 2000 Port)	9 to 30V DC
Supply Current (NMEA 2000 Port)	70mA (avg.) @ 12V DC, 100mA (avg.) @ 9V DC
Load Equivalent Number (LEN)	2
Supply protection	Continuous reverse polarity protection and transient overvoltage protection to 40V
Wi-Fi Radio	
Compatibility	IEEE 802.11 b/g/n
Speed	802.11n up to 150Mbps
Frequency Band	Wi-Fi: 2412 -2472MHz
Max Output power	Wi-Fi: 17.56dBm (802.11b) 19.06dBm (802.11g) 18.69dBm (802.11n)
Antenna	Integrated internal antenna, 3.74dBi
Range (Open space)	approx. 30 meters
Security	WPA / WPA2 / WEP
Configuration	
IP support	Supports TCP and UDP broadcast
Data servers	Three separate data servers
Data protocols	NMEA 0183, Raw CAN, BST-N2K
Security	SSID and Password configurable (Unique defaults per device)
Diagnostics	
Power LED	Blue
NMEA 2000 Tx LED	Orange
NMEA 2000 Rx LED	Green
Status LED	Yellow
micro SD card	8GB Industrial Grade, FAT32
Mechanical	
Housing Material (body)	Polycarbonate
Housing Material (endcaps)	PBT
NMEA 2000 Connector	M12 Male (A polarised) connector moulded into case
NMEA 2000 Connector Material	Nickel plated brass
Weight	80g
Dimensions	106mm (L) x 73mm (W) x 24mm (H)
Environmental	
Environmental Protection	IP67
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +85°C

Recommended Humidity	0 - 93% RH
Approvals and Certifications	
NMEA 2000 Certification pending	
RoHS and REACH compliant	
RF Module certification	FCC / CE-RED / IC / TELEC / KCC / SRRC / NCC
EMC	EN 301489-1 V2.2.0:2017 EN301489-17 V3.2.0:2017 FCC part 15b, ICES-003 ANSI C63.4:2014, Class B
Radio	EN 300 328 V2.1.1:2016
Safety	EN 62368:2014
Guarantee	3 years (2 years on SD card)

Features

- NMEA 2000 to Wi-Fi Gateway and voyage data recording in one device

- Converts NMEA 2000 to / from NMEA 0183 (streamed over Wi-Fi)

- Supports both TCP and UDP and streams data using up to three separate data servers

- Compatible with a huge range of navigation software and Apps

- 8GB high reliability industrial micro SD card is pre-installed

- Approximately 16 days voyage data recording*

- Remote firmware upgradability

- Diagnostic LEDs for NMEA 2000 bus activity and Wi-Fi status

- IP67 rated ruggedized case

- Works as an access point and connects to existing Wi-Fi networks in client mode

- Low power – 70mA at 12 VDC (2 LEN) from NMEA 2000 bus

- 2.4GHz radio with integrated internal antenna (up to 150Mbps)

- Automatically measures and reports the NMEA 2000 bus voltage

- Embedded user manual – accessible via browser

- Unique default SSID and password for enhanced security

* between 4 days and 100 days dependent on number of devices on the network and filtering options selectedAll features and specifications are preliminary and may change without notice