

PRODUCT BASIC INFORMATION

LINKUP GATEWAYS

Marine Sensors for Today and Tomorrow





THE LINKUP SERIES

Single function gateways to integrate sensor readings to NMEA 2000®

The single-sensor **LINKUP GATEWAYS** provide an easy method to convert vessel and engine information to NMEA 2000®. Available in different variants: resistive, voltage, LIN, J1939, IBS and 2-in-1 those can be easily configured through either the embedded AirWave-based Airlink interface or NMEA 2000® by means of our Configuration Tool. The ISO 8846:1990 compliance completes the devices by allowing their installation into engine compartments

GENERAL FEATURES

- ▼ Save the money of an oversized NMEA 2000® converter
- ▼ Reduces the wiring, the gateway is installed where needed
- ▼ Contactless configuration with your smartphone, no expensive HW required!
- ▼ Powered by NMEA 2000® - no additional power supply
- ▼ Approved for engine compartment installation according to ISO 8846:1990



DOWNLOAD THE MOBILE APP



WIRELESS CONFIGURATION IN JUST 4 STEPS:



TECHNICAL DATA

Operating voltage	6 – 16.5 V
Protection class	IP X9/K
Nominal voltage	12 V / 24 V
Power consumption	≤ 15 mA (normal mode) ≤ 120 µA (sleep mode)
Output signal	NMEA 2000®
Operating temperature	-40° C to 115° C
Flammability	UL94 compliant
Compliance	CE, Reach, RoHS
Housing Material	PC-FR

SIMPLE AND EFFECTIVE

- ▼ **Fast:** no prior pairing is required
- ▼ **Powerless:** thanks to the passive RF tag you can configure the device without power!
- ▼ **Secure:** the configuration requires proximity to the device
- ▼ **Safe:** the passive receiver does not continuously emit RF frequencies in the engine room
- ▼ **Cost-effective:** no need for additional expensive HW



NMEA 2000®-SIDE WIRING

DeviceNet M12 connector 5 pins, 12 V power supply from the network!

LINKUP HOUSING

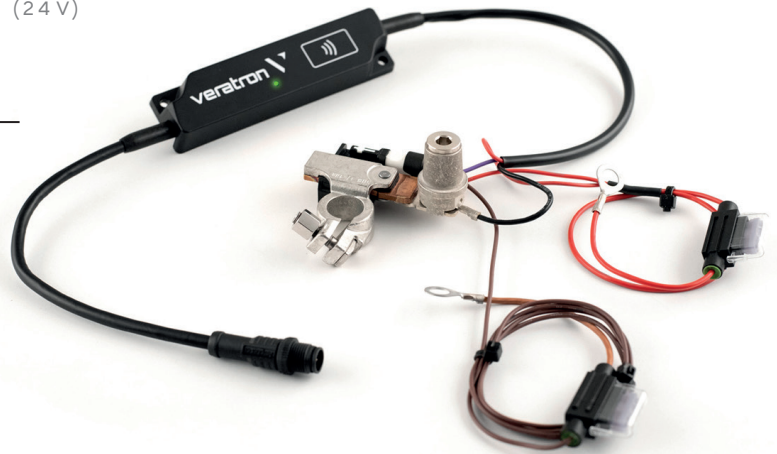
Contains the device electronics
Notification LED, Wireless interface

SENSOR-SIDE WIRING

Different depending on the sensor to interface

INTELLIGENT BATTERY SENSOR (IBS)

The **INTELLIGENT BATTERY MONITORING SYSTEM** informs you about the current energy status, allowing you to plan your energy supply making it the key element of the vessel's energy management. In order to carefully preserve the energy of the boat battery, it is necessary to know its State of Charge, the ageing status (State of Health) and any changes to the battery, as weak batteries are the main cause of trouble in the boat.



FACTS AND BENEFITS

- ▶ **12V and 24V** Intelligent Battery Sensors (IBS)
- ▶ Determines the current status of your battery to support energy management planning
- ▶ Helps to preserve battery life by reporting its State of Health
- ▶ Delivers **real-time measurements** preventing overcharging and overheating which can shorten battery life

	12 V B00042501	12 V II B00042502	24 V B00070401
Operating voltage	6 - 16.5 V	6 - 18 V	7.5 - 32 V
Permanent load current	± 155 A	± 200 A	± 200 A
Max current	± 1500 A	± 1500 A	± 2000 A
Threaded GND bolt (Battery pole adapter included)	M8	M6	M8
Max battery capacity	249 Ah	500 Ah	255 Ah

DESIGN AND FUNCTION

The **IBS** is attached directly to the negative pole of the battery via its pole terminal.

Alongside the terminal, the mechanical portion of the battery sensor consists of the shunt and grounding bolt.

DELIVERED DATA

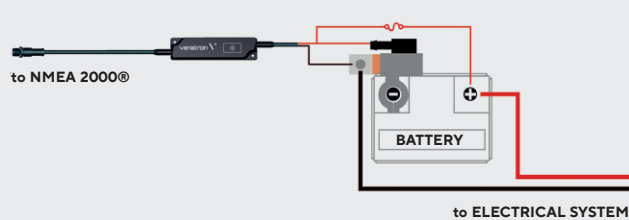
- Battery Voltage**
- Battery Current**
- Battery Temperature**
- State of Charge (SOC):** Current charge status of the battery, defined in percentage
- State of Health (SOH):** Ageing status of the battery, loss of capacity over time
- Autonomy:** Estimated battery duration based on the instantaneous current consumption of the system

NMEA PGNS

DC Detailed Status	127506
Battery Status	127508
Battery Configuration Status	127513

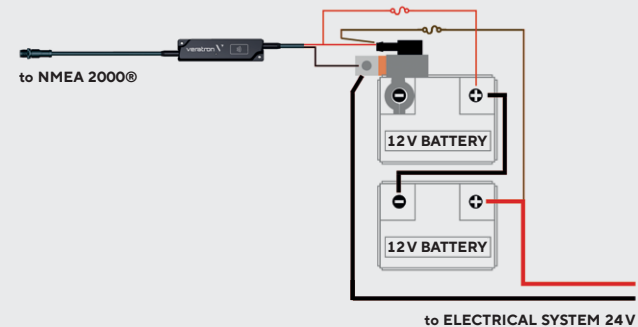
12 VOLT SYSTEMS

- ▶ Two sensors available for 12V batteries
- ▶ IBS is connected to the battery negative pole
- ▶ Measuring line to the positive pole



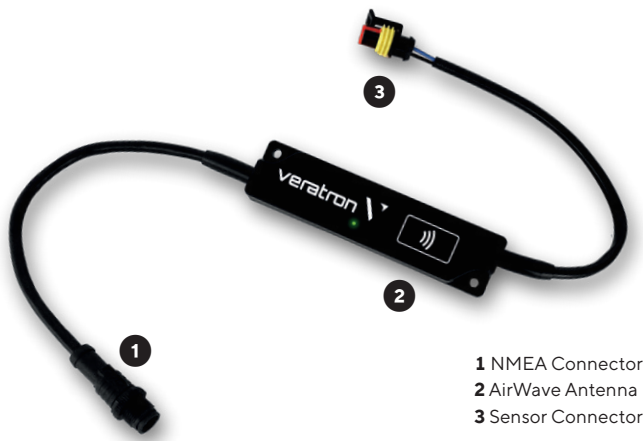
24 VOLT SYSTEMS

- ▶ Series of two 12V batteries
- ▶ IBS is connected to the battery neg. pole of one 12 V battery
- ▶ Fused connections to the 12V and 24V positive poles





LinkUp reduces wiring, is fast, powerful and costeffective



- 1 NMEA Connector
- 2 AirWave Antenna
- 3 Sensor Connector

ART. NR. B00042201

RESISTIVE

The **RESISTIVE LINKUP** gateway is designed to interface and convert resistive sensors measurements – such as Level, Temperature, or Pressure sensors – to the NMEA 2000® digital era. Optimized for a 0–2000 ohm range, it can be configured with predefined sensor curves as well as with a customized characteristic to ensure compatibility with most of the sensors in the field.

FACTS AND BENEFITS

- ✔ Customizable sensor curves
- ✔ Approved for engine compartments
- ✔ Alarms setup + transmission on NMEA 2000®
- ✔ Plug-and-play installation with Veratron Dip-pipe level sensors

NMEA PGNS

Rudder	127245
Fluid Level	127505
Engine Parameters, Rapid Update	127488
Engine Parameters, Dynamic	127489
Transmission Parameters, Dynamic	127493
Trim Tab Status	130576

SUPPORTED CONFIGURATIONS

Fuel Level	Coolant Temperature
Fresh Water Level	Boost Pressure
Waste Water Level	Oil Pressure
Trim Position	Oil Temperature
Trim Tabs	Gear Oil Pressure
Rudder Angle	Gear Oil Temperature

SETUP

SENSOR-SIDE CABLE	PLUG-AND-PLAY CONNECTION TO VERATRON DIP-PIPE LEVEL SENSORS	CONFIGURABLE PARAMETERS
25 cm cable pigtail		Sensor type
Watersealed AMP Super-Seal connector 2 pins		Sensor characteristic
		Sensor instance
		Alarm threshold

ART. NR. B00042301

PYROMETER

Specific **LINKUP** variant designed to interface the Veratron Pyrometer thermocouple (N03-320-264)

FACTS AND BENEFITS

- ✔ High precision probe for exhaust gas temperature (EGT) measurement
- ✔ Electrically compensated wires
- ✔ Extremely high temperature resistance
- ✔ Early warning of situations that are potentially dangerous for the engine!
- ✔ Helps preventing severe damages to the engine
- ✔ Can also be used as a guide for optimizing fuel economy



THE KIT INCLUDES

1 / Link-Up Pyrometer	B000423
2 / 6 m extension cable with high temperature resistance included	B000632
3 / Pyrometer thermocouple	N03-320-264

NMEA PGNS

Exhaust Temperature	130316
---------------------	--------



ART. NR. B00070501

2-IN-1 (PRESSURE + OIL TEMPERATURE)

This sensor measures pressure or temperature of transmission or engine oil while providing the data to the **LINKUP**, which translates it to the NMEA 2000® standard.

FACTS AND BENEFITS

- ▼ Interface to the new electronic 2-in-1 sensor
- ▼ Oil Temperature and Pressure in a single sensor
- ▼ Rugged and reliable design derived from the automotive field
- ▼ ASIC-controlled sensor
- ▼ PWM output to transmit both pressure and temperature



NMEA PGNS

Engine Parameters, Dynamic	127489
Transmission Parameters, Dynamic	127493

TECHNICAL DATA

M12 mounting thread

IP 69/K protection class

5V power feed provided by the LinkUp

Temperature accuracy $\pm 1^\circ\text{K}$ in the $135^\circ\text{C} - 160^\circ\text{C}$ range

Pressure accuracy ± 0.2 bar (range 0.5 -3 bar), ± 0.1 bar below and ± 0.3 bar above

Temperature range: $-40^\circ\text{C} + 160^\circ\text{C}$

Pressure range: 0.5 to 10.5 bar

1 m cable length



ART. NR. B00042401

J1939 GATEWAY

The **LINKUP J1939** will bridge all your CAN engine data, transmitted on the CAN-J1939-Bus, to the NMEA 2000® standard, making all the engine and diagnostic information available for any NMEA 2000®-capable display.

FACTS AND BENEFITS

- ▼ J1939 to NMEA 2000® gateway to bring engine data to your boat network
- ▼ Delivers engine diagnostic to your MFD or smartphone in conjunction with a Veratron GO device
- ▼ Galvanic isolation between J1939 and NMEA 2000® networks
- ▼ Optional Y-shaped adapter cables to interface specific engines

SUPPORTED DATA

Engine Speed	Transm. Oil Temp
Engine Hours	Exhaust Temp
Engine Load	Fuel Level
Engine Oil Temp	Fuel Press
Engine Oil Press	Fuel Rate
Coolant Temp	Inst Fuel Economy
Coolant Press	Alternator Current
Boost Press	Alternator Potential
Percent Torque	Battery Potential
Transm. Oil Press	Transmission Gear

SUPPORTED ALARMS

Low Fuel Press	Low Battery Voltage
Water In Fuel	Engine Overspeed
Low Engine Oil Level	High Gear Oil Temp
Low Engine Oil Press	Low Gear Oil Press
High Boost Press	Low Oil Level
High Coolant Temp	High Oil Temp
Low Coolant Level	Lamps' Status



ART. NR. B00059201

0-5 VOLT

The voltage-type LinkUp gateway provides an easy method to convert vessel and engine information to NMEA 2000®.

FACTS AND BENEFITS

- ▼ 5 V output for sensor feed
- ▼ Designed for electronic sensors
- ▼ Customizable sensor curves
- ▼ Approved for engine compartments
- ▼ Alarms setup + transmission on NMEA 2000®

SUPPORTED DATA

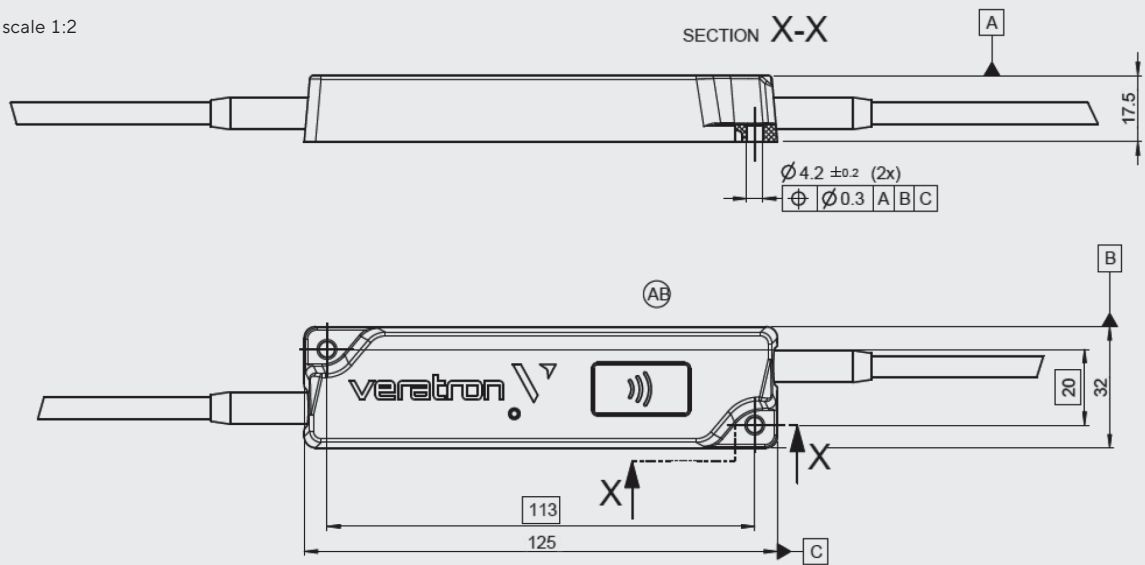
Fuel Level	Boost Pressure
Freshwater Level	Oil Temperature
Wastewater Level	Oil Pressure
Trim Level	Gear Oil Pressure
Rudder Angle	Gear Oil Temp
Coolant Temp	Trim Tabs

SUPPORTED ALARMS

Coolant Temperature
Boost Pressure
Oil Temperature
Oil Pressure
Gear Oil Pressure
Gear Oil Temperature
Low Coolant Level

DIMENSIONS

Illustration in scale 1:2



LINKUP VARIANTS

LinkUp Resistive B00042201	LinkUp IBS 12 V / 12 V II B00042501 / B00042501	LinkUp 2-in-1 B00070501	LinkUp 0-5 Volt B00059201
LinkUp Pyrometer B00042301	LinkUp IBS 24V B00070401	LinkUp J1939 B00042401	

**OUTDOOR INSTRUMENTATION
ENGINEERED IN SWITZERLAND**



Veratron AG / Industriestrasse 18 / 9464 Rüthi / Switzerland
 T +41 71 7679 111 / info@veratron.com / veratron.com

The information provided in this brochure contains only general descriptions or performance characteristics, which do not always apply as described in case of actual use or which may change as a result of further development of the products. This information is merely a technical description of the product. It is not meant or intended to be a special guarantee for a particular quality or particular durability. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. We reserve the right to make changes in availability as well as technical changes without prior notice.

Veratron AG / English © 2025