Vaisala Nomad® 2 Wind Resource Data Logger

/ The Wind Industry’s Most Flexible Data Logger

Vaisala Nomad 2 Wind Resource Data Logger is a flexible data logger specifically designed for the wind industry.

Field Proven and Flexible
The Vaisala Nomad 2 logger offers advanced functionality and simplified installation while reducing system costs. The Nomad 2 can be used with all market-leading wind sensors, and has more sensor inputs to connect up to 12 anemometers and 8 analog devices. It easily connects to SCADA systems and other Modbus-enabled networks and servers to integrate data into your operations.

Remote Communications Options
With the Nomad 2 Wind Data Logger, you can choose from three different communications options: the SkyServe secure web portal; cellular communications; or satellite communications.

Benefits of Vaisala Nomad 2
- More sensor choices - use Nomad 2 with all market-leading wind sensors
- More sensor inputs - connect up to 12 anemometers and 8 analog devices
- Field friendly features simplify installation and maintenance
- Smart power management extends battery life and optional solar packages are available as well
- Remote communications options offer you many ways to access your data
- Easily connect to SCADA systems and other Modbus-enabled networks and servers
Technical Data

Sensor Inputs

12 COUNTER INPUTS
Configurable for AC & pulse anemometers, other frequency-output devices, and high/low digital or relay state signaling
Frequency range DC to 2 kHz
High display resolution with low frequency anemometers
Input high/low threshold configurable for 0V or 3V
Configurable filtering for low frequency devices
1-second count integration, ±0.02% accuracy

8 ANALOG INPUTS
Configurable range of 0 to 2.5V or 5V
12-bit analog to digital conversion
1-second sampling, ±0.02% accuracy
Direct interface to potentiometer wind vanes, 10k thermistors, and analog-output transducers

Fault Detection
Feedback input from 2.5V+ excitation output for wiring and device fault detection

Internal Temperature
1-second sampling, ±2°C accuracy

Power Supplies
Measurement of two 9V batteries and 12V power

Outputs

2.5V+ Excitation
2.5V+ smart-switched excitation distributed to all input terminal blocks for energy-conserving measurement of potentiometers and thermistors
Calibrated to ±5mV, 25 ppm/°C, 250 mA max

12V Transducer Power
12V+ smart-switched transducer power output distributed to all input terminal blocks for energy-conserving operation of electronic transducers
1 Amp maximum

12V Modem Power
12V+ configurable switched modem power output for energy-conserving operation of cellular & other modems
1 Amp maximum

Relay Output
For de-icing or other control applications
SPST dry contact, 1 Amp maximum, AC or DC
Modbus-controlled

ESD Protection
All inputs, outputs, and serial port signaling transient and fault protected
No additional lightning protection needed

Power Supply

9 Volt Batteries
2 parallel standard 9V batteries in sliding receptacles
Up to 6 months operation with alkaline, up to one year with lithium (-40°C) batteries that have no shipping restrictions

12 Volt Power
12V (10–18V DC) input for internal primary or rechargeable batteries, external DC power supply, or regulated solar panel
Two-screw removable internal mounting for lead-acid batteries for higher power transducer, controls, and communication gear, standard sizes up to 20 AH, extreme environment sizes up to 8 AH

Solar
Optional on-board solar charging regulator/controller

Serial Ports

3 independent RS232C serial ports, up to 115 kBaud

Local Port
Direct straight-cable connection to laptop or PC
Standard pinout DB9, DCE

Remote Port
Connects to modem, radio, or async network adapter
Auto-wakeup Rx input
Internally connected for SWI-supplied modem options
Field-wireable terminals for customer-installed devices

Device Port
Connects to and logs from communicating transducers including ultrasonic anemometers
Pollable Modbus RTU for SCADA and other general applications

User Interface

Local Display
4 x 20 alphanumeric character display, LCD or VFD
Configurable smart-switched power
Automatic temperature-compensating LCD contrast

Keypad
7-key sealed membrane keypad

Remote Interface
Full display, configuration, data transfer, and firmware upgradability by local port or modem connection to any PC via Vaisala Nomad Desktop software

Status Light
Heartbeat LED indicates operational status independent of display
Through the combined expertise of Vaisala, a global leader in atmospheric observation, and Second Wind, a global leader in remote sensing technology and data services for the wind energy industry, we offer an integrated suite of wind measurement solutions.