

The NEXTSense NX7260 is an intelligent data logger that offers a complete set of acquisition, processing, logging and dissemination features. It is designed especially for automated weather stations – where system reliability and flexibility are important.

The NX7260 is compatible with most of the industry's leading weather sensors via its many built-in open and standard interfaces. It has been interfaced to anemometers (analogue, digital and intelligent), multi-element sensors, solarimeters, tipping bucket rainfall sensors, water-level and current profilers.

It is capable of reading data from intelligent sensors using RS232/RS422/RS485 streams with regular expression parsers and also MODBus Serial and TCP/UDP protocols. Analogue sensors are supported via its on-board voltage/current inputs and also digital counter/frequency/bit-series inputs.

Raw data from sensors can be converted to engineering values via linear, quadratic and mapping formulas.

Engineering values can be range-validated with bad data marked as invalid at source. Its processing engine is designed for meteorological use and features algorithms for wind averaging, determining directional span, pressure reduction, and deriving humidity products, in addition to standard aggregation features such as minimum, maximum, average and summation.

Results can be logged to an SQLite database that is stored on a removable SD Storage card. The processing engine can generate CSV and message files (SYNOP, CLIMATE Hourly/Daily) from the database and disseminate these reliably via a queue-based FTP agent. Data can also be streamed via TCP in real-time to other servers via WAN links.

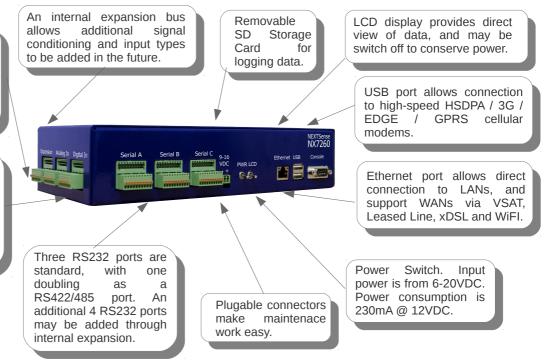
A C/C++ Software Development Kit allows userdefined algorithms and message formats can be be incorporated through modular plugins.

NX7560 Intelligent Data Logger for Aviation



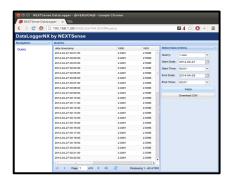
Eight on-board differential analog input ports that can be used to measure voltages and current signals.

Sixteen on-board digital digital inputs. All of these can return on-off states. Eight of them can be used as counter and frequency monitors. The other eight can be used used for gray-code or BCD inputs.



An HTML5 Web-sockets based interface allows data to be viewed as text, wind dials and charts live in real time, whether from a local PC or remotely, via WAN links. Mobile browsers are supported as well.

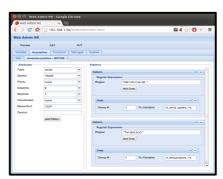
Configuration of the NX7560 can be done via a Web Based UI, PC-based configuration tool, or can be managed from a central configuration server.



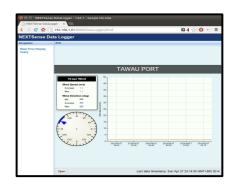








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Dealer/Distributor:



ARM9 CPU (200 Mhz ARM920T)

RAM: 64MB Flash: 32MB

External: SD Card Slot

Serial Ports: RS232/RS485: 3/1

Analog inputs:

Differential Voltage/Current: 8 Voltage Ranges: Voltage ranges supported are 0-5V down to 250millivolt ranges.

Digital Inputs:

DI: 16 USB: 2

Power Requirements:

6-20VDC 230mA @ 12V

Protocols:

Protocols Supported: Full Linux TCP/IP Stack, DHCP, FTP, HTTP, NTP, PPP, PPPoE, OpenVPN. TStream Protocol.

Software Features:

Data Logging: Configurable (minimum 1s)

Data Transmission: FTP, Streaming, SMS.

Data Formats: CSV, SYNOP, custom format. Compressed option available.

Conversion:

Linear/Quadratic/Map Calibration: Linear/Quadratic/ Directional

Calculation for Runway Visual Range.

Calculation for Head, Tail, Cross Wind For Aviation

NEXTsense Sdn Bhd (983385-D)

Web Support:

Real Time Display: Text, Wind Dial/Barb, Running Charts Data Ouery: Tabular, Paged Data Download: CSV, PDF

Health Monitoring:

Sensors: Input Power, Onboard Temperature Statistics: Memory Usage, Storage Card Usage, CPU Load

Configuration:

Methods: Web-Based Forms, Upload Download XML, Standalone PC tool, centralized configuration server.

Settings: Sensors, I/O, Data Conversion, Data Calibration, Data Validation, Derived Products, Logging, Dissemination.