Specifications

Length and Temperature specifications are provided in Metric and Celsius units

Input Types

DNL910, DNL920

4 to 20 mA
- Range: 4 to 20 mA
- Resolution: 4.76 µA
- Accuracy: ±0.5%
- Loop impedance: 21 Ω

0 to 50 mV
- Range: 0 to 50 mV
- Resolution: 3 µV, Accuracy: ±0.5 %
- Input impedance: 25 MΩ
- Maximum voltage: 3.2 V

0 to 1 V
- Range: 0 to 1 V
- Resolution: 200 µV, Accuracy: ±0.5%
- Input impedance: 25 MΩ
- Maximum voltage: 3.2 V

Temperature PT-100 (2-wires)
- Range: -200 to 400 °C
- Resolution: 0.1 °C
- Accuracy: -200 to -60 °C: ±0.5%
  60 to 400 °C: ±0.5%
  -60 to 60 °C: ±0.3°C

Temperature Thermocouple J
- Range: -200 to 1,000 °C
- Resolution: 0.1 °C
- Accuracy: -200 to -60 °C: ±0.5%
  60 to 1,000 °C: ±0.5%
  -60 to 60 °C: ±0.5°C
- Cold junction compensation error: ±0.3°C

Temperature Thermocouple K
- Range: -200 to 1,000 °C
- Resolution: 0.1 °C
- Accuracy: -200 to -60 °C: ±0.5%
  60 to 1,000 °C: ±0.5%
  -60 to 60 °C: ±0.5°C
- Cold junction compensation error: ±0.3°C

Temperature Thermocouple T
- Range: -200 to 400 °C
- Resolution: 0.1 °C
- Accuracy: -200 to -60 °C: ±0.5%
  60 to 400 °C: ±0.5%
  -60 to 60 °C: ±0.5°C
- Cold junction compensation error: ±0.3°C

Contact (for Switch/Door Position)
- Range: Open/Closed

Pulse Counter (input 4 only)
- Optocoupler input
- Range: 1 to 65,536 counts
- Resolution: 1 count
- Frequency range: 0 to 4,000 Hz
- Input signal: 0 to 5 V
- Input impedance: 470 Ω

Frequency (input 4 only)
- Optocoupler input
- Range: 20 Hz to 4 KHz
- Input signal: 0 to 5 V
- Input impedance: 470 Ω

Internal Temperature
- Type: DNL910: PT-100
  DNL920: Digital
- Range: -20 to 50 °C
- Resolution: 0.1 °C
- Accuracy: DNL910: ±0.3°C
  DNL920: ±0.5°C

Internal Humidity (for DNL920)
- Range: 5 to 95 %
- Resolution: 0.5 %
- Accuracy: ±3 % at 10 to 90 %
  ±5 % at 5 to 10 %
  and 90 to 95 %

Outputs

DNR900, DNL910, DNL920

External Power Excitation (transducers usage)
- 12 V DC @ 2 A
- Reset fuse overload

Dry Contact Alarm Output
- Open collector
- Close position resistance: 50Ω
- Max. Load: 50 mA, 3 V DC

Datanet Logger Sampling Features
- Memory capacity: ~59,000 samples
- Sampling rate: Once every second to once every 18 hours
- Sampling resolution: 16-bit
- Channel separation: 80 dB

Datanet Rf Network Communication
- Frequency: 2.4 GHz
- Units per network: 65,000
- Data rate: 250 Kbps
- Full mesh network architecture supported
- 128-bit network security encryption
- Worldwide license-free
- RF Transmission:
  DNL9xx: 4 dbm
  DNR900, DNL9xx-PA: 17 dbm
  DNR800: 20 dbm

Datanet Hardware Specifications

DNR900, DNL910

Display
- 2-row LCD
- 16 character display

Power Supply
- Internal rechargeable 4.8 V NiMH battery
- Built-in battery charger
- External 12 V DC input

Operating Temperature Range
- -20 to 50 °C for all models
- Water and dust proof: IP54

DNR900 PC Communication
- USB 2.0 compliance
- Mini USB type B cable

Casing
- Plastic ABS box
- Dimensions: 97 x 93 x 27 mm
- Weight: 200 gr
- Table and wall mounting

General Specifications

Man Machine Interface
- 2-button keypad

Standards Compliance
- CE, FCC, IC Canada
- Quad Band: GSM-850/EGSM-900/DCS-1800 PCS-1900 MHz
- Supports Open AT® software platform
- Internal Expansion Socket (AES) interface
- RS232 Serial Interface
- 12 V DC external power supply

Datasuite Software For Datanet
- Windows® based software
- Data displayed in numeric or graphical display of all inputs
- Online retrieval and display of the collected data in real-time
- Definition of custom sensors
- Full logger calibration
- Documentation and filing
- Offline Receiver alarm indication
- Alarm levels on graphs
- Export to spreadsheets
- Analytical functions, for professional analysis of the collected data
- Manual backup of calibration settings
- Over-the-air firmware update
- Software integration with range of Fourtec data loggers

Ordering Information

Part Number (PN)	Product Description
Datanet Devices	
DNR900A	Receiver/Repeater + universal power supply
DNL910A	Temperature RF logger with 4 external inputs + universal power supply + calibration certificate
DNL920A	Temperature & Humidity RF logger with 4 external inputs + universal power supply + calibration certificate
Sensors	
12753	PT-100 (-70 to 400 °C) 2-wire temperature sensor (2.5 m cable)
12752	PT-100 (-70 to 400 °C) 2-wire temperature sensor (4 m cable)
12751	PT-100 (-70 to 400 °C) 2-wire temperature sensor (6 m cable)
50116	PT-100 (-200 to 400 °C) 2-wire temperature sensor (2.5 m cable)
50165	Thermocouple Type K sensor, 500 mm cable with flat pin connector
DT043	Temperature (-40 to 60 C) and Humidity probe (3 m cable)
Accessories & Software	
13750	USB over IP Ethernet adapter
13248	Mini USB communication cable for DNR900 (3 m cable)
11304	Internal battery pack for DNL9XX loggers
AD001	Replacement universal 110V/220V power supply
DataSuite-DN	DataSuite Installation + mini USB 3m cable + single user license
DS-CFR-DN	DatPass for DataSuite meeting 21 CFR Part 11 Compliancy. With DataSuite CFR and DatPass software + mini USB 3m cable

About Fourtec

Fourtec – Fourier Technologies is a recognized leader in data-logging and monitoring solutions for controlled industrial environments, such as food, pharmaceutical, medical, storage and transportation industries.

Our solutions enable our customers to deliver higher quality products, ensure consumer safety, comply with regulatory requirements and increase profitability. Innovation, expertise and a commitment to quality are the values that drive the development and production of our products.

Fourtec – Fourier Technologies is a proven specialist in cold chain management systems, we deliver end-to-end solutions that accompany products from the processing floor to the end user.

Fourtec – Fourier Technologies operates in over 50 countries, through local distributers / partners. Fourtec's trusted data acquisition solutions have been implemented globally by many leading organisations such as: Mylan, Pfizer, Teva, Schneider Electric, Vishay, airline catering companies and many others.

Fourtec – Fourier Technologies is a spinoff company based on the industrial division of Fourier Systems, a world leader with more than 30 years of experience in serving this market in the field of science education.

DataNet
Multi-point online wireless data monitoring

DataNet is an essential hardware and software solution that can empower any organization to monitor their environment using the ZigBee wireless network.

The DataNet comprehensive real-time data logging solution utilizes AES128 bit encryption with the trust center concept for authentication while leveraging the power of ZigBee wireless 2.1GHz telemetry protocol. Supporting up to 65,000 units per network with fast, cable-free installation for instant setup.

- Wireless data logging for processing and storage
- Multiple network management from single workstation or via LAN for long range monitoring
- Internal sensors for site-specific humidity / temperature monitoring
- Multiple models measuring 4 to 20 mA, 0 to 1 V, Pulse Counter, PT100 2-wires, NTC, Thermocouple J, K and T, Contact inputs
- Fully reliable real-time wireless monitoring network
- Multiple alarms via SMS, email and external siren
- Worldwide license-free 2.4 GHz band Operating keypad and LCD display

Solutions

- AGRICULTURE& AQUACULTURE
- FOOD & FOOD PROCESSING
- PHARMA INDUSTRY
- HOSPITAL ENVIRONMENTS
- LABORATORIES
- WAREHOUSE STORAGE
- MUSEUMS
- TRSNSPORTATION

Sense it. Manage it.

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FOURTEC

The DataNet solution comprises a range of loggers measuring a variety of inputs, including internal temperature and humidity sensors. From 5-6 input models down to the more cost-effective single or dual input Mini DataNet models, we offer a comprehensive solution for every application.

Menu Button

LCD Screen

Internal sensor housing

Data Logger External Inputs (4)

12V Excitation

Mini USBConnector

AC Socket

Scroll/On Button

The DataNet multi-unit data acquisition solution is geared towards 24/7 real-time data logging for mission critical organizations. The DataNet's comprehensive online solution is directed by event-driven security policies.

Logging units function in a wireless mesh network configuration, allowing for 65,000 units in each network. This enables real-time monitoring of multiple test points in a single operation.

The DataNet product family supports onboard temperature and humidity sensors, as well as the following industry standard inputs: 4 external channels for 4 to 20 mA, 0 to 50 mV, 0 to 1 V,PT-100, Thermocouple, Contact, Pulse Counter and Frequency.

DataNet system offers a selection of logger models meeting a wide variety of industry applications needs.

o **DNR900 Receiver/Repeater** – the heart of the system controls and collects the data from the end units. Also suitable for extending the system range.

o **DNL910 and DNL920** – loggers with internal temperature and/or humidity. Supports four external inputs: 4 to 20 mA, 0 to 1 V, 0 to 50 mV, PT-100 2 wires, Thermocouples (J, K and T), Contact, Pulse Counter and Frequency
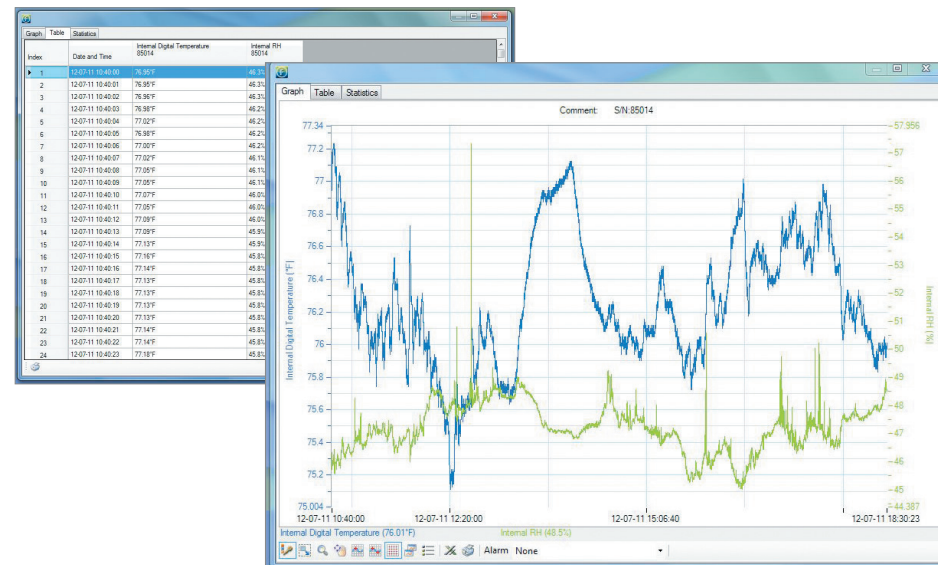
DataSuite Software for DataNet

The DataSuite Software provides security for your products with online monitoring and control of multiple networks supporting the entire intelligent DataNet data logging solution via LAN.

Supported Operating Systems:
Windows® XP SP3/ Vista/ 7/8/8.1/10 (32 and 64 Bit)

Minimum Hardware Requirements:
Pentium 4, 2 GHz Processor or better, 512 MB RAM, 250 MB available disk space

Data View Features
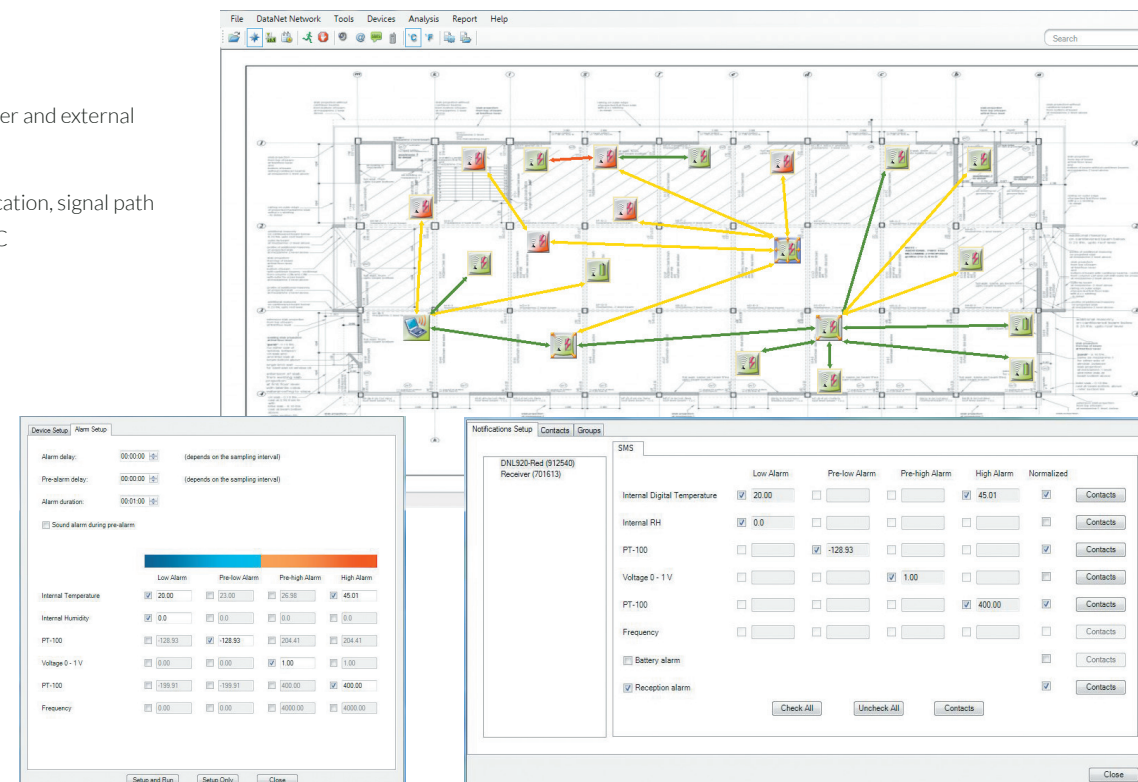Real-time data in multiple displays (Graph, Table, Statistics)

Sensor View
Real-time sensor- specific data view with alarm status

Map View
o International date format

o Ability to rename every logger and external input

o Map View displaying unit location, signal path and signal strength to the PC

Report Module
The Report module provides the DataSuite user with an intuitive interface for creating and generating reports which have many parameters garnered from the DataNet units and software. Each report can be emailed to a selected distribution list, at pre-defined time intervals, in PDF and Excel format
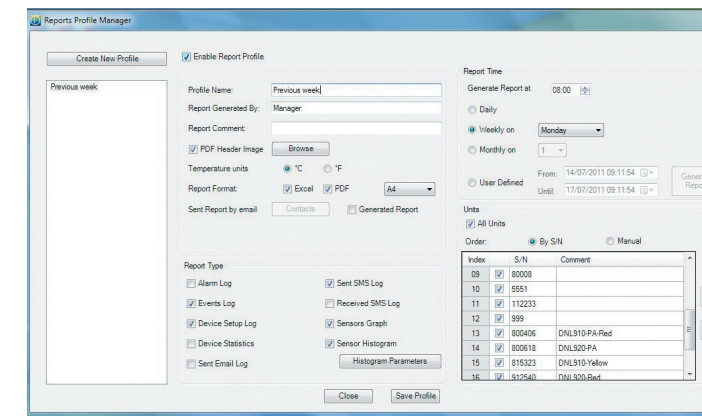
Analysis Features
Dew point analysis, FO Pasteurization, histogram, MKT, statistics with export to Excel and CSV formats
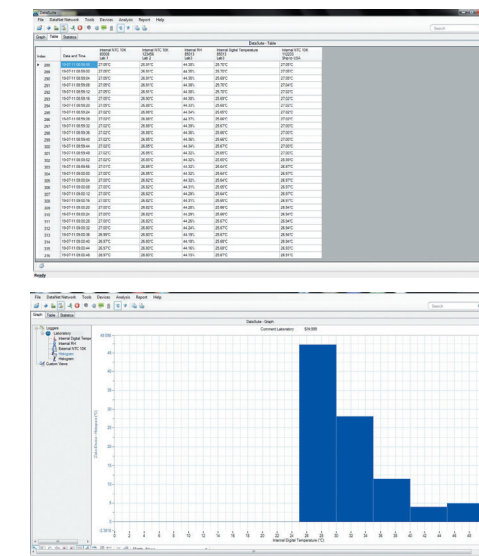
FDA Title 21 CFR Part 11 Compliant

DatPass
DatPass is a user administration software which supports the assignment of passwords and operating privileges for all fourtec industry application software ensuring CFR compliancy. CFR is a Food and Drug Administration (FDA) issued regulation (Title 21 Code of Federal Regulations, Part 11).

Application Example – Medical Center

Receiver

CONTROL CENTER