Specifications

Length and Temperature specifications are provided in Metric and Celsius units

Input Types

DNL910, DNL920

4 to 20 mA

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

0 to 50 mV

- 0 to 50 mV • Range:
- Resolution: 3 μV, Accuracy: ±0.5 %
- Input impedance: $25 M\Omega$
- Maximum voltage: 3.2 V

0 to 1 V

- 0 to 1 V • Range:
- Resolution: 200 µV, Accuracy: ±0.5%
- Input impedance: $25 M\Omega$
- Maximum voltage: 3.2 V

Temperature PT-100 (2-wires)

o Range -200 to 400 °C • Resolution: 0.1 °C -200 to -60 °C: ±0.5% • Accuracy: 60 to 400 °C: ±0.5% ±0.3°C

-60 to 60 °C:

Temperature Thermocouple J

0	Range:	-200 to 1,000 °C	
0	Resolution:	0.1 °C	
0	Accuracy:	-200 to -60 °C:	±0.5%
		60 to 1,000 °C:	±0.5%
		-60 to 60 °C:	±0.5°C
ο	Cold junction com	pensation error:	±0.3°C

Temperature Thermocouple K

0	Range:	-200 to 1,000 °C	-
ο	Resolution:	0.1 °C	
ο	Accuracy:	-200 to -60 °C:	±0.5
0		60 to 1,000 °C:	±0.5
ο		-60 to 60 °C:	±0.5
0	Cold junction com	opensation error:	±0.3

Temperature Thermocouple T

0	Range:	-200 to 400 °C	
0	Resolution:	0.1 °C	
0	Accuracy:	-200 to -60 °C:	±0.5 %
0		60 to 400 °C:	±0.5%
0		-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
- 0 to 5 V Input signal:
- Input impedance: 470Ω

Frequency (input 4 only)

- Optocoupler input
- 20 Hz to 4 KHz • Range:
- o Input signal:

o Input impedance: $470 \, \Omega$

- Internal Temperature DNL910: PT-100 Type:
 - DNL920: Digital

0 to 5 V

DNL920: ±0.5°C

±3 % at 10 to 90 %

- Range: -20 to 50 °C 0.1 °C
- Resolution: DNL910: ±0.3°C
- o Accuracy:

Internal Humidity (for DNL920)

- 5 to 95 % Range:
- Resolution: 0.5 %
- Accuracy:
- ±5 % at 5 to 10 % and 90 to 95 %

Outputs

DNR900, DNL910, DNL920

External Power Excitation (transducers usage)

o 12 V DC @ 2 A • Reset fuse overload

Dry Contact Alarm Output

- o Open collector
- o 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
- o Data rate: 250 Kbps
- o Full mesh network architecture supported
- 128-bit network security encryption
- Worldwide license-free
- o RF Transmission: DNL9xx: 4 dbm DNR900, DNL9xx-PA: 17 dbm
- DNR800: 20 dbm

Datanet Hardware Specifications DNR900, DNL910

- Display
- o 2-rowICD
- o 16 character display

Power Supply

- Internal rechargeable 4.8 V NiMH battery
- o 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

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

General Specifications

- Man Machine Interface o 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

12 V DC external power supply

• Windows® based software

• Definition of custom sensors

o Offline Receiver alarm indication

o Analytical functions, for professional

Manual backup of calibration settings

• Software integration with range of Fourtec

analysis of the collected data

• Over-the-air firmware update

display of all inputs

data in real-time

Full logger calibration

Documentation and filing

• Alarm levels on graphs

Export to spreadsheets

data loggers

Datasuite Software For Datanet

• Data displayed in numeric or graphical

• Online retrieval and display of the collected

- o Internal Expansion Socket (AES) interface
- RS232 Serial Interface

Temperature RF logger with 4 external inputs + universal power supply + calibration certificate

Temperature & Humidity RF logger with 4 external inputs + universal power supply + calibration certificate

PT-100 (-70 to 400 °C) 2-wire temperature sensor (2.5 m cable)
PT-100 (-70 to 400 °C) 2-wire temperature sensor (4 m cable)
PT-100 (-70 to 400 °C) 2-wire temperature sensor (6 m cable)
PT-100 (-200 to 400 °C) 2-wire temperature sensor (2.5 m cable)
Thermocouple Type K sensor, 500 mm cable with flat pin connector
Temperature (-40 to 60 C) and Humidity probe (3 m cable)

Mini USB	communication cable for DNR900 (3 m cable	e)

Replacement	universal	110V	//2201/	nower	sunnly	
Neblacement	universar	TTOA	I Z Z U V	DOWEL	SUDDIV	

Ordering Information

Product Description

Receiver/Repeater + universal power supply

Internal battery pack for DNL9XX loggers

USB over IP Ethernet adapter

Fourtec - Fourier Technologies is a recognized leader

in data-logging and monitoring solutions for controlled

industrial environments, such as food, pharmaceutical,

Our solutions enable our customers to deliver higher

quality products, ensure consumer safety, comply with

Innovation, expertise and a commitment to quality are

Fourtec – Fourier Technologies is a proven specialist in

cold chain management systems, we deliver end-to-end

the values that drive the development and production of

regulatory requirements and increase profitability.

medical, storage and transportation industries.

Part Number (PN)

DNR900A

DNL910A

DNL920A

Sensors

12753

12752

12751

50116

50165

DT043

13750

13248

11304

AD001

DataSuite-DN

DS-CFR-DN

our products.

FOURTEC

Accessories & Software

About Fourtec

Datanet Devices

DataSuite Installation + mini USB 3m cable + single user license

DatPass for DataSuite meeting 21 CFR Part 11 Compliancy. With DataSuite CFR and DatPass software + mini USB 3m cable

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
- O 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





FOOD & FOOE

PROCESSING



PHARMA **INDUSTRY**



QUACULTURE

36

HOSPITAL VIRONMENTS

LABORATORIES

WAREHOUSE STORAGE





TRSNSPORTATION



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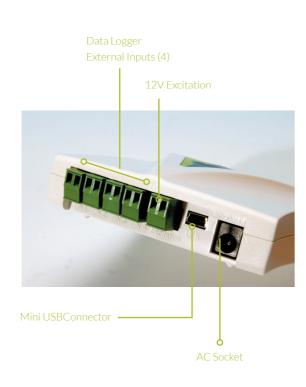
The DataNet solution comprises a range of loggers measuring a variety of inputs, including internal temperature and humidity sensors. From 5-6 input models down to the more cost-effective single or dual input Mini DataNet models, we offer a comprehensive solution for every application.



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 realtime 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.
- 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.

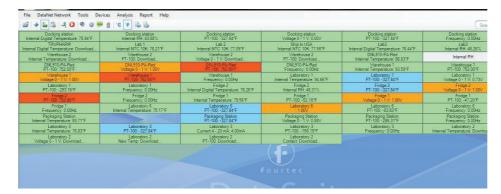
Data View Features

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

2		
Graph Table	Statistics	
index	Date and Time	Internal Digite 85014
► 1	12-07-11 10:40:00	
2	12-07-11 10:40:01	76.95°F
3	12-07-11 10:40:02	76.96°F
4	12-07-11 10:40:03	76.98'F
5	12-07-11 10:40:04	77.02'F
6	12-07-11 10:40:05	75.98°F
7	12-07-11 10:40:06	77.00'F
8	12-07-11 10:40:07	77.02'F
9	12-07-11 10:40:08	77.05'F
10	12-07-11 10:40:09	77.05'F
11	12-07-11 10:40:10	77.07'F
12	12-07-11 10:40:11	77.05'F
13	12-07-11 10:40:12	77.09'F
14	12/07/11 10:40:13	77.09'F
15	12-07-11 10:40:14	77.13'F
16	12-07-11 10:40:15	77.16'F
17	12-07-11 10:40:16	77.14°F
18	12-07-11 10:40:17	77.13'F
19	12-07-11 10:40:18	77.13'F
20	12-07-11 10:40:19	77.13%F
21	12-07-11 10:40:20	77.13'F
22	12-07-11 10:40:21	77.14°F
23	12-07-11 10:40:22	77.14°F
24	12-07-11 10:40:23	77.18'F

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

status



Map View

- International date format
- Ability to rename every logger and external input
- o Map View displaying unit location, signal path and signal strength to the PC

on, signa	I path
Device Setup Alarm Setup	0000000 (depends on the sampling interval)
Pre-slarm delay:	00.00.00 (depends on the sampling interval)
Alarm duration:	00.01.00 [4]
Sound alarm during	pre-slarm
	Low Alarm Pre-low Alarm Pre-high Alarm High Alarm
Internal Temperature	20.00 Z3.00 Z5.58 X 45.01



Device Setup Alam Setup



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 \bigcirc

Supported Operating Systems:

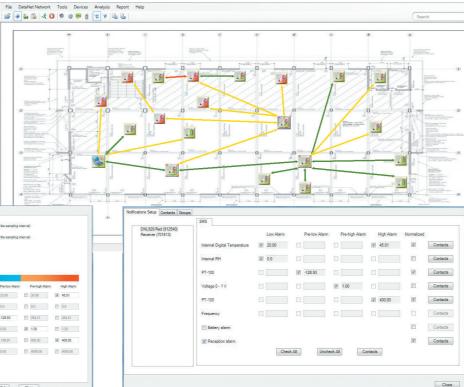
Windows® XP SP3/ Vista/ 7/8/8.1/10 (32 and 64 Bit)

Minimum Hardware Requirements:

Pentium 4, 2 GHz Processor or better, 512 MB RAM, 250 MB available disk space







Analysis Features

Report Module

format

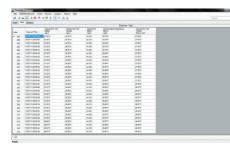
Dew point analysis, FO Pasteurization, histogram, MKT, statistics with export to Excel and CSV formats

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







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).

ID .	UserName	DateTime	Action Type Name	ActionName	ApplicationName	Reapon	Logger S/N	File Name	Comment
189	Admin	29-Mar-12 5:20 PM	Security	Login successful	DataSuite				
190	Admin	29-Mar-12 5:25 PM	Security	Exting application	DataSuite				
191	Admin	29-Mar-12 5:26 PM	Security	Login successful	DataSuite				
192	Admin	29-Mar-12 5:27 PM	Application Activity	Lock Map Vew	DataSute				Unlock
193	Admin	29-Mar-12.6:17 PM		Login successful	DataSute				
194	Admin	29-Mar-12-6:17 PM	Application Activity	Change Software Alam Mode	DataSute				Audible alarm deactivated
195	Admin	29 Mar 12 6:18 PM	Data Management	Open Data File	DataSuite		1		Device Name: a : 29 Mar 12 12:00.0
195	Admin	29-Mar-12 6:18 PM	Application Activity	Look Map Vew	DataSuite				Unlock
197	Admin	29-Mar-12 6:21 PM	Data Management	Open Data File	DataSuite		123		Device Name: Comment : 29-Mar-12
198	Admin	29-Mar-12 6:21 PM	Data Management	Open Data File	DataSuite		1		Device Name: a : 29-Mar-12 12:00
199	Admin	29-Mar-12 6:21 PM	Data Management	Open Data File	DataSute		9101		Device Name: pico1 : 29-Mar-12 12
200	Admin	29-Mar-12-6-25 PM	Data Management	Save Project As	DataSute			C:\Users\lanctm\Deaktop\PicoLite_10to40C_test.dnp	
201	Admin	29-Mar-12-6-25 PM	Security	Exting application	DeteSute				
202	Invalid uper	29-Mar-12-6-29 PM	Security	Login fel	DetaSute	Incorrect Password			
203	Admin	29 Mar 12 6 29 PM	Security	Login successful	DataSute				
204	Admin	29 Mar 12 6 29 PM	Application Activity	Change Software Nam Mode	DataSuite				Audble alam deactivated
205	Admin	29-Mar-12 6:29 PM	Data Management	Open Project File	DataSuite			C.\Users\Vanotrin\Desktop\PicoLite_10to40 C_test.dnp	
205	Admin	29-Mar-12 6:35 PM	Data Management	Export to Excel	DataSuite				
207	Admin	29-Mar-12 G:38 PM	Security	Exting application	DataSute				
208	Admin	01-Apr-12 10:06 AM	Securty	Login successful	DataSute				
209	Admin	01-Apr-12 10:08 AM	Application Activity	Lock Map Vew	DetaSute				Unlock
210	Admin	01-Apr-12 10:09 AM	Security	Exting application	DeteSute				
211	Admin	01-Apr-12 10:09 AM	Security	Login successful	DataSute				
212	Admin	01-Apr-12 10:11 AM	Application Activity	Lock Map Vew	DataSuite				Unlock
213	Admin	01-Apr-12 10:11 AM	Device Control	Setup	DataSuite	000	803891		Device Name: Fourier Systems LTD.
214	Admin	01-Apr-12 10:11 AM	Device Control	Stop	DataSuite		803891		Device Name: Fourier Systems LTD
215	Admin	01-Apr-12 10:20 AM	Security	Exting application	DataSuite				
216	Admin	01-Apr-12 12:06 PM	Security	Looin successful	DetPass				



