

Specifications

INPUTS

- 4 channel inputs
- Selectable type for each input: 4 to 20 mA, 0 to 50 mV, 0 to 1 V, PT-100, Thermocouple, Pulse counter (Input 4 only), Channel 4 - frequency (Input 4 only) and user defined sensors

INPUT TYPES

4 to 20 mA

- Range: 4 to 20 mA
- Resolution: 0.47 μ A
- Accuracy: $\pm 0.5\%$
- Loop impedance: 21 Ω
- Maximum load: 30 mA, 5.2 V

0 to 50 mV

- Range: 0 to 50 mV
- Resolution: 3 μ V
- Accuracy: $\pm 0.5\%$
- Input impedance: 25 M Ω
- Maximum voltage: 5.2 V

0 to 1 V

- Range: 0 to 1 V
- Resolution: 200 μ V
- Accuracy: $\pm 0.5\%$
- Input impedance: 25 M Ω
- Maximum voltage: 5.2 V

Temperature PT100 (2 wires)

- Range: -200 to 400 $^{\circ}$ C
- Resolution: 0.1 $^{\circ}$ C (7 m Ω)
- Accuracy: -200 to 60 $^{\circ}$ C $\pm 0.5\%$
60 to 400 $^{\circ}$ C $\pm 0.5\%$
-60 to 60 $^{\circ}$ C $\pm 0.3\%$

Temperature Thermocouple J

- Range: -200 to 1,000 $^{\circ}$ C
- Resolution: 0.1 $^{\circ}$ C (1 μ V)
- Accuracy: -200 to 60 $^{\circ}$ C $\pm 0.5\%$
60 to 1,000 $^{\circ}$ C $\pm 0.5\%$
-60 to 60 $^{\circ}$ C $\pm 0.3\%$
- Cold junction compensation: $\pm 0.3\%$

Temperature Thermocouple K

- Range: -250 to 1,000 $^{\circ}$ C
- Resolution: 0.1 $^{\circ}$ C (1 μ V)
- Accuracy: -250 to 60 $^{\circ}$ C $\pm 0.5\%$
60 to 1,000 $^{\circ}$ C $\pm 0.5\%$
-60 to 60 $^{\circ}$ C $\pm 0.5\%$
- Cold junction compensation: $\pm 0.3\%$

Temperature Thermocouple T

- Range: -200 to 400 $^{\circ}$ C
- Resolution: 0.1 $^{\circ}$ C (1 μ V)
- Accuracy: -200 to 60 $^{\circ}$ C $\pm 0.5\%$
60 to 400 $^{\circ}$ C $\pm 0.5\%$
-60 to 60 $^{\circ}$ C $\pm 0.3\%$
- Cold junction compensation: $\pm 0.3\%$

Pulse Counter (input 4 only)

- Zero crossing detector
- Range: 1 to 64,000 counts
- Resolution: 1 count
- Frequency range: 0 to 50 KHz
- Input signal: 0 to 5 V
- Input impedance: 470 Ω

Frequency (input 4 only)

- Zero crossing detector
- Range: 20 to 30 KHz
- Input signal: 0 to 5 V
- Input impedance: 470 Ω

Internal Temperature

- Type: NTC resistor
- Range: -20 to 50 $^{\circ}$ C
- Resolution: 0.1 $^{\circ}$ C (1 μ V)
- Accuracy: $\pm 0.3^{\circ}$ C

Internal Humidity

- Range: 5 to 95 %
- Resolution: 0.5%
- Accuracy: 3%

External Sensors

- PT100 Sensor: 3 cable length options
2.5m/4m/6m
- Teflon cable range: -65 to 200 $^{\circ}$ C
- Probe: Diameter 6mm, length 81mm

OUTPUT

External Power Excitation (transducers usage)

- 12 VDC @ 2 A

Alarm Output (output 1)

- Open collector
- Close position resistance: 50 Ω
- Max. Load: 50 mA, 5 V DC
- Overload protection
- 50mA reset fuse

PC Communication

- USB 2.0 compliance

Type of USB Cable

- Mini USB type B

RF Network Communication

- Frequency: 2.4 GHz
- Network units: 65,000
- Data rate: 250 Kbps
- Full mesh network architecture supported
- 128-bit network security inscription
- Worldwide license-free
- RF Transmission range boost mode 80 m (line of sight)
- RF Transmission range power amplifier 800 m (line of sight)

Sampling Features

- Memory capacity: 59,000 samples
- Sampling rate: Variable, 1 sample per sec to 1 sample per 2 hours
- (For PT100 or Thermocouple sensors: Max Sampling rate with more than two sensors connected 1 sample per 2 secs)
- Sampling resolution: 16 bit
- Channel separation: 80 dB

Man Machine Interface

- Full keyboard operation

Display

- 2 row LCD
- 16 characters 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 $^{\circ}$ C

Casing

- Plastic ABS box
- Dimensions: 97 x 93 x 27 mm
- Weight: 200 gr

Standards Compliance

- CE, FCC
- Internal battery specs: 4.8 V 800 mAh NiMH battery (2 batteries in series)
- External voltage specs: DC 12 V @ 300 mA 3.6 VA

DATANET SOFTWARE

Main Features

- Windows[®] based software
- Data displayed in numeric or graphical display of all inputs
- On-line retrieval and display of the collected data in real-time
- Definition of new sensors
- Ability to read the defined sensor's units on the logger's display
- Full calibration of the loggers via the software
- Documentation and filing
- 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

Ordering Information

DNL 910	Four channel mA, V, TC/K, J, T, PT100
DNL 920	Internal RH and Temp + Four channel mA, V, TC/K, J, T, PT100
DNR 900	Receiver/Repeater
DN-PCSUITE	PC suite including communication USB cable, manual
12753	PT100 sensor 2.5 m
12752	PT100 sensor 4 m
12751	PT100 sensor 6 m