DataChart™ DC1250

2-Channel Paperless Recorder

Features:

- Communication options include Ethernet and USB
- Navigator software allows for full remote control
- Data can be transferred from CompactFlash® card to PC or can be viewed in real-time graphic format and stored to a remote hard drive
- Highly reflective twisted nematic LCD with LED backlight makes for a clear, bright display
- Graphic user interface can be configured to display real-time data or trend format
- Easy-to-follow menu system allows for intuitive process for configurable user interface
- Universal 100 to 240 V ac supplied; optional rechargeable battery pack available
- Can be used in conjunction with any of Monarch's 5 V dc speed measurement sensors to measure RPM

The DC1250 is a feature-rich digital recording system offering 2 universally configurable inputs for measuring DC voltage, DC current, thermocouples and RTDs as well as frequency and pulse inputs. Four internal alarm setpoints, 2 alarm relay outputs and 1 digital control input are all standard. Combining small package size with extreme flexibility make the DataChart 1250 a powerful, yet economical, digital data recording system. A maximum sample storage rate of 100 samples per second can be set for both channels allowing for capture of short duration process signals anomalies. CompactFlash™ cards up to 2 Gigabyte size can be used allowing many data points to be stored over long periods of time. With intuitive operation, flexible input configuration and large memory capability, the DataChart 1250 is a powerful, compact digital recorder.

MADE IN THE USA with US and Imported Components

DataChart™ DC1250 Paperless Recorder

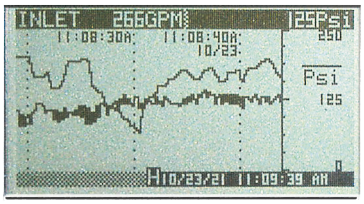
Advanced Features

USB Communication

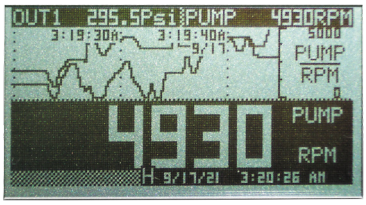
Communication options include Ethernet or USB. When used with Navigator software the user has full remote control of all recorder functions. Data can be transferred from the CompactFlash™ card to the PC or can be viewed in real-time graphic format and stored to a remote hard drive.

Bright, Clear Display

The DC1250 has a highly-reflective twisted nematic LCD with a bright white LED backlight. The graphic user interface can be configured to display real time data in digital or trend format. Configuring the 1250 is an intuitive process which uses an easy-to-follow menu system.



Dual Trend

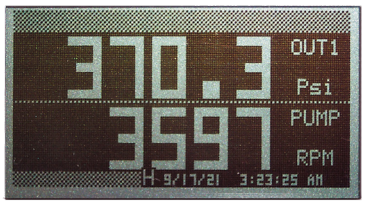


Split Screen

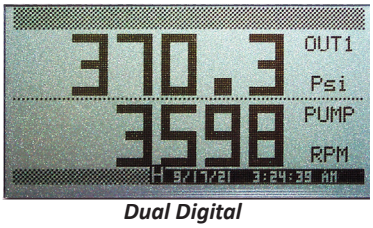
Versatile Power

The DC1250 is supplied with a universal wall transformer power supply that can operate from 100 to 240Vac 50/60Hz. It includes interchangeable plugs for North America, Australia, UK and Europe.

An optional isolated input power of 12-24Vdc is also available for use with instrument power supplies or external batteries.



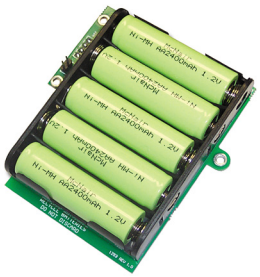
Dual Digital Inversed



Dual Digital

The DC1250's real time clock and internal RAM have a battery back-up to preserve data in the event of a power loss.

If losing data during a power outage is a concern, the user can add the rechargeable battery pack option. With the battery pack option installed, the DC1250 automatically keeps the rechargeable NiMH batteries charged to capacity. In the event of a power loss, the DC1250 automatically switches over to internal battery power. All functions continue to operate as normal for up to 6 hours! This option* is also great for using the DC1250 in areas where no AC or DC power is available. (*Not available with the DC Input power option.)



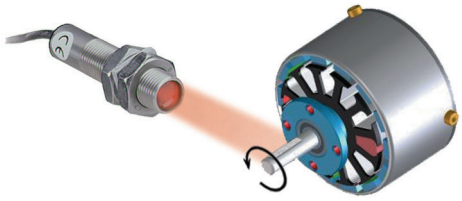
Internal Rechargeable NiMH Battery Pack

Ethernet Communication

A rear accessible RJ45 Ethernet port is available. With this option, the DC1250 can be connected to any Standard 10/100BaseT Network. Access and transfer data stored on the compact flash card. View real-time trended data and remotely control and configure recorder with Navigator software. The built-in web server allows real-time data viewing with only an internet browser.

Measure RPM

The DC1250 can be used in conjunction with any of Monarch's 5 V dc-powered speed measurement sensors. Power for sensors is provided from the DC1250 rear terminals. Measure, display and record RPM ranges from 5 - 600,000. Choose the sensor best suited for your application or take your existing signal directly into the 1250.



ROS-W Remote Optical Sensor

DataChart™ DC1250 Paperless Recorder

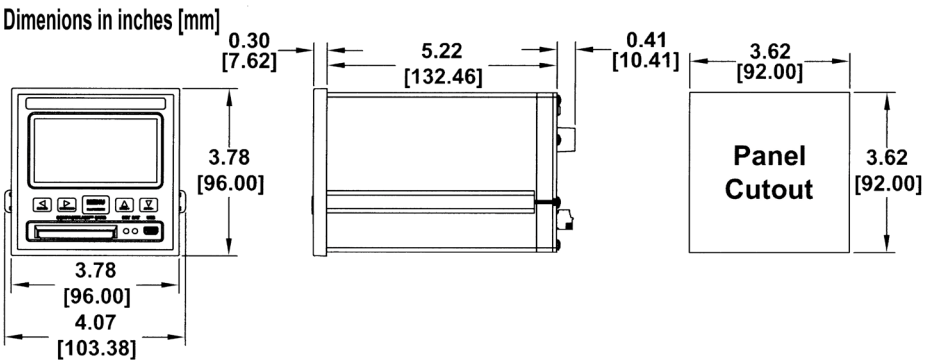
Specifications* for the DataChart™ DC1250 2-Channel Paperless Recorder

Input Power	**Recorder:** 9 V dc +0.5 V @ 5 VA (depends on external loads) **External AC Universal Adaptor:** 100 – 240 V ac 50/60 Hz **Optional Isolated:** 12-24 V dc input (not compatible with Battery Backup Option)
Battery Option	Internal battery pack provides uninterrupted operation during blackout; 6 V dc 2400 mAH NiMH **Backup Time:** Depends on External load **Without Ethernet:** 6 hours typical **With Ethernet:** 2.5 hours typical
Output	Two (2) outputs 5 V dc @ 50 mA to power external sensors Isolation - 300 V dc/ac to system ground/chassis
No. of Channels	Two (2)
Universal DC Input	**Isolated Input:** 300 V ac/dc to system ground/chassis; inputs share a common ground connection
DC Input	Resolution: 0.025%
Voltage	**Ranges:** 0 to 250 mV; 1.25 V; 2.5 V; 5 V; 12.5 V; 25 V **Accuracy:** 0.1%
Current/Accuracy	0.1% excluding 250 ohm external shunt (required)
Current/Ranges	0 – 20 mA; 4 – 20 mA; 0 – 50 mA; 10 – 50 mA
Thermocouple	**Accuracy:** 0.3%. Ambient temp. sensor accuracy +1.5°
	J -100 to 760 °C +2 °C (-148 to 1400 °F +3 °F)
	K[1] -100 to 1000 °C +2 °C (-148 to 1832 °F +3 °F)
	K[2] 0 to 1370 °C +2 °C (32 to 2498 °F +3 °F)
	T -100 to 400 °C +2 °C (-148 to 750 °F +3 °F)
	E -80 to 400 °C +2 °C (-112 to 750 °F +3 °F)
RTD	2 or 3 wire; **Resolution:** 0.1°C, **Accuracy:** 0.3% **Internal current source:** 1mA 100 ohm Pt385: -100 to 750 °C (-148 to 1380 °F) 100 ohm Pt 392: -100 to 750 °C (-148 to 1380 °F)
Frequency Input (Hz)/Speed Input (RPM):	
Range	0 – 10,000 Hz or 0 – 600,000 RPM
Accuracy	Frequency +1Hz; RPM: +1 RPM to 9,999 RPM then +10RPM
Input	Low <1.0 V dc High >3.0 V dc <12 V dc
Pulse Width	10ϟsec minimum

Input Impedance	> 100 k ohms
Measurement Rate	Up to 100 samples/sec per channel
Math Function	y = mx + b; average, hi peak., lo peak, totalizer
Media	CompactFlash to 2 GB
Display	LCD graphics 160x80 pixels, black FSTN with white LED backlight; user-controlled backlight level and contrast adjust (electronic)
Display Modes	Trending (horizontal), large dual digital readout, mixed mode
User Interface	Five (5) buttons keypad with second function operation
Clock	Internal battery-backed clock with auto leap year and daylight savings
Relay Output	Two (2) alarm outputs - 30 V 0.5 A Form A relays
Opto-Isolated Input	One input 5 to 12 V dc operation @ 10 mA typical
Audible	Internal beeper (tones)
Dimensions	Front panel: 96 mm x 96 mm (1/4 DIN) x 152 mm (3.78 in. x 3.78 in. x 6 in.)
Environmental	**Indoor Use Only** **Installation Category II** per IEC 664 **Pollution Degree Level II** per IEC61010-1
Altitude	Up to 2,000 m
Temperature	-10 °C to 50 °C operating per IEC61010-1
Humidity	Maximum relative humidity 80% for temperatures up to 31 °C decreasing linearly to 50% relative humidity at 40 °C
Certifications	CE – EN61326 EMI/EMC EN61010-1 Safety UL and cUL (Power Supply)
Optional Communications:	
USB	Front panel USB 2.0 slave port for data transfer and configuration
Ethernet	10/100 Ethernet

*Specifications are subject to change without notice.

Rear Panel

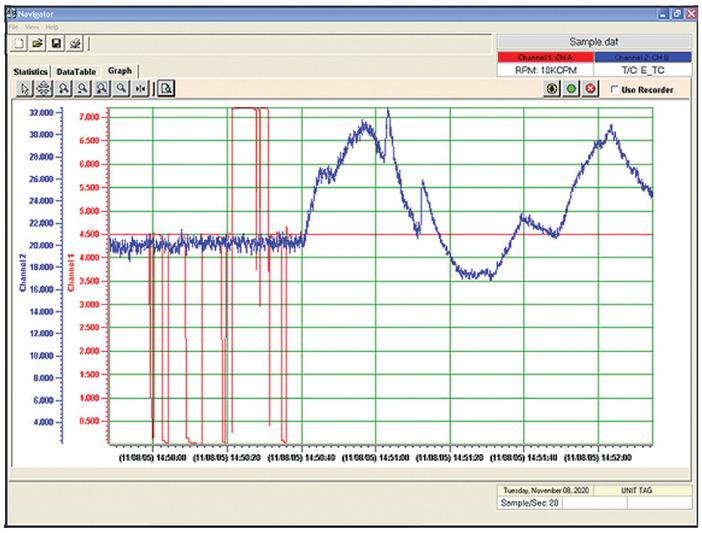


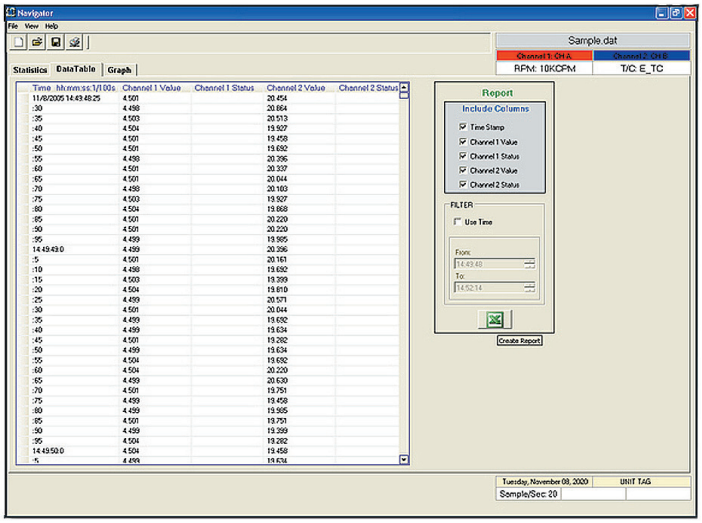
DataChart™ DC1250 Paperless Recorder

DataChart Navigator Software

DataChart Navigator software makes reviewing, printing and exporting data easier than ever. Simply start the program, double click the data file and Navigator does the rest. Your data file is displayed in one graphic window complete with the scales as programmed in the DC1250 as well as date and time stamps. You can expand, compress or use the box zoom to display specific areas of data as needed. The print preview feature allows review prior to printing. With the optional USB or Ethernet communications, Navigator turns your computer into a real-time data acquisition system as graphical data is streamed in and displayed. These “snapshot” files can be saved in addition to files being stored on the DC1250. The built in Ethernet webserver allows you to view real-time data using only a web browser. Exporting data is as simple as clicking the Excel™ Icon in the Data table export window. Navigator automatically converts the historic data, starts up Excel™ and loads your data into an organized spreadsheet.

Minimum system Requirements: PC running Windows® 2000 or XP, 40 MB free disk space and CD ROM Drive.





Ordering Information

DC1250 – ☐ + ☐ + ☐

1) Choose Input Power:

U AC Adapter 100-240 V ac wall adapter with interchangeable plug set

D 12-24 V dc isolated input power

2) Choose Backup:

0 None

1 Battery Backup* Rechargeable NiMH battery pack will power recorder up to 6 hours if power loss

*Not available with Option “D” DC Input Power

3) Choose Communications:

0 None

1 USB
Mini-USB port for downloading data directly to PC; front access

2 Ethernet
10/100 BaseT rear access RJ45 connector; allows network access to recorder

Compatible Sensors:

THP-W
Temp/Humidity Probe

ROS-W
Remote Optical Sensor

MT-190W
Magnetic Trigger Sensor/Amplifier

IRS-W
Infrared Sensor

DC1250 0522

MONARCH INSTRUMENT