Monarch Instrument has been a pioneer in the development of paperless data acquisition systems for over 15 years. The utilization of state of the art technologies to develop intelligent, powerful and intuitive products has made Monarch Instrument’s DataChart product line a global leader in paperless recording technology.

The DataChart 6000 is one of the most advanced paperless recording system available. It incorporates the latest in measurement, communication, interface and processing technologies to deliver unmatched performance for your data acquisition application.

The DataChart 6000 is like no other paperless recorder available. We listened carefully to our product users and developed a device with the unique features they demanded.

### Features
- 6 or 12 universal inputs
- Up to 4 pulse/frequency inputs
- 6 or 12 relay outputs
- Networkable using standard Ethernet Port
- 21 CFR Part 11
- 24 volt transmitter power supply
- IP65/NEMA4 compliant
- Locking media access door
- Onboard Media Drives:
  1. CompactFlash™
  2. USB (Memory stick, external drive etc.)
  3. Smart Digital (SD)
- Touch Screen Control
- Direct on screen chart annotation with integral stylus
- Built in OPC and MODBUS servers
- Built in E-mail client
- Shallow installation depth (6.5”)

### Benefits
- Maximum flexibility achieved with universal inputs
- Input pulse signals directly from flow meters
- Relay outputs for control or activating external alarms
- Accessible via LAN or WEB
- HACCP/GMP Compliance
- Reduce cost and complexity by providing transmitter power supply
- No additional equipment needed to panel mount in harsh environments
- Media and Data can be locked and secured
- Flexibility of multiple media drives
- Intuitive icon driven touch screen interface
- Write notes and comments directly on the virtual chart for permanent storage with data
- Seamlessly interfaces with third party software packages using OPC for MODBUS standard
- Send alarm, instantaneous data or activity information anywhere with E-mail capability
- Shallow depth allows the use of economical panels and enclosures for installation

### Common Industries
- Petro Chemical
- Power
- Pharmaceutical
- Water and Waste Water
- Process
- Automotive
- Steel
- Oil and Gas
- Pulp and Paper
- Aerospace
- Agricultural
- Food and Dairy
- Telecom
- Transportation
- Regulatory
- Heat Treat
User Interface and Control

The DC6000 utilizes a high contrast 5.6-inch color Active Matrix TFT LCD display with a rugged touch screen. Use a finger or the onboard stylus, if you prefer, to perform data entry and system navigation. The front panel is also fully compliant to IP65 for use in dusty or wet areas. An intuitive icon driven menu system guides the user through easy to follow setup and control screens. The Display Builder feature makes setting up custom screens extremely simple. Design custom displays containing various combinations of indicator types such as horizontal and vertical bar graphs, large and small digital indicators and horizontal or vertical trends. On-screen help is available throughout the menu system to assist you during setup and use.

Intuitive System Menu

Custom Designable Display Screens

Display Builder

Horizontal Trend

Horizontal Trend with Indicators

Vertical Trend

Vertical Trend with Bar Graphs

Digital Indicators with Bar Graphs

Channel Setup

On-Screen Help

This is a one stop shop to quickly set up all the channels or get a general overview of channel setup.

This dialog window shows the current setup of all the channels and allows the user to edit each of them individually. Click button. The checkboxes show whether the channel and its alarms are enabled.

In order to change the setups it is necessary to use the edit button. Pressing the edit button takes you to the individual channel setup menu. When you have completed the channel setups press the done button to
When it comes to storing data, the DC6000 is extremely flexible. Data can be stored to the non-volatile internal flash RAM or any of the available removable storage drives including CompactFlash™ and USB provided there is media present. Programmable record start and stop times allow the user to start and stop recording at predetermined intervals. Data may also be stored to a remote PC via Ethernet using the optional Exhibitor Software. In addition, the built in MODBUS and OPC Servers allows any compliant software client to connect to, communicate with and retrieve data. The DC6000 utilizes many layers of security to protect the integrity of your stored data. All data is stored in an encrypted binary format which prevents data tampering and maximizes compression.

The front access media door is lockable to prevent unauthorized access to the internal removable storage media. There are 3 levels of password protection to prevent unauthorized entry into critical recorder function menus. To ensure that data files are completely error free the DC6000 has a built-in rechargeable Nickel Metal Hydride battery backup system that constantly monitors the incoming power source. In the event of a power loss or power dip, the DC6000 seamlessly switches over to the internal power and begins a safe and controlled system shutdown. When power is restored the recorder immediately returns to the last state of operation. This guarantees that data files will never be corrupted by unexpected power conditions.

### 21CFR Part 11

The DC6000 is fully compliant with the requirements of 21CFR Part 11. This section of the Code of Federal Regulations sets forth the guidelines for handling all aspects of electronic data storage to ensure data is secure and accurate. The DC6000 provides a password management system that allows an administrator to set multiple unique user/password combinations and assign them to one of the 3 available access levels. Each user’s login password can be set to automatically expire to ensure passwords are regularly updated. The DC6000 also maintains a secure, time stamped audit trail to independently record the date and time of operator entries and actions that create, modify, or delete electronic records.

Use the optional 21CFRCDP Compliance Documentation Package to perform IQ/OQ/PQ and validate a compliant environment using the DC6000. We go the extra mile with our Installation Qualification, Operational Qualification and Performance Qualification step by step instructions and checklist. Use the verification checklist to quickly and easily guide yourself through the procedures avoiding extensive labor and setup costs. Use our OQ/PQ procedures and documents as an aid to complete the validation and monitoring requirements associated with the use and installation of the DC6000 in a regulated environment. This enables you to develop your validation plan in accordance with the FDA’s Good Manufacturing Practice and HACCP requirements.

### Recording Data

Using the Record Setup menu, the user can select which channels to record, the sample storage rate, whether to record alarms and/or events, and the start/stop time and date for the record session. The location of the data file is selected in this menu along with the data file name. The user can also configure the unit to start or stop recording on an alarm level or an externally triggered input.

#### Media Storage Locations

**Front Accessible:** (lockable)
- CompactFlash™
- USB Host (for memory stick)

**Rear Accessible:**
- USB Host

**Internal:**
- 512 Meg Standard
- (Larger sizes available)

### Data Storage vs. Time Guide

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Storage</th>
<th>Record Rate</th>
<th>1 Channel</th>
<th>2 Channels</th>
<th>4 Channels</th>
<th>6 Channels</th>
<th>12 Channels</th>
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<td>64 Mb</td>
<td>1 Gb</td>
<td>64 Mb</td>
<td>1 Gb</td>
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<td>64 Mb</td>
<td>1 Gb</td>
<td>64 Mb</td>
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<tr>
<td></td>
<td></td>
<td>3.1 Days</td>
<td>49.4 Days</td>
<td>2.5 Days</td>
<td>40.8 Days</td>
<td>1.9 Days</td>
<td>30.4 Days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.5 Days</td>
<td></td>
<td></td>
<td>64 Mb</td>
<td>1 Gb</td>
<td>64 Mb</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/Sec.</td>
<td></td>
<td></td>
<td>64 Mb</td>
<td>1 Gb</td>
<td>64 Mb</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30.8 Days</td>
<td>1.3 Years</td>
<td>5 Days</td>
<td>81.6 Days</td>
<td>3.8 Days</td>
<td>60.8 Days</td>
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<tr>
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<td></td>
<td>6.2 Days</td>
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<td></td>
<td>246.9 Days</td>
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<tr>
<td></td>
<td></td>
<td>0.15 Sec.</td>
<td></td>
<td></td>
<td>10.6 Days</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>20.6 Years</td>
<td></td>
<td></td>
<td></td>
<td>10.6 Days</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>1/Min.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>5.1 Years</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>20 Min.</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>10 Min.</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
DC6000 Networkable Paperless Data Acquisition System

Unique Features

Write directly on the screen

The innate feature of handwriting notes and comments on the chart of paper recorders had been lost with the onset of video graphic recorders until the arrival of the DC6000. Using the high-resolution touch screen interface and the integral stylus you can once again make notes or comments directly on the chart. This on-screen annotation is stored within the data file directory and can be recalled and displayed on the recorder or in Exhibitor Software.

Energy Calculation

Use the DC6000 to calculate energy with its’ included flow calculator which looks up enthalpy, computes mass flow and compensates for density to output BTU rates for hot and cold water heating and cooling systems. Track your buildings energy usages and generate accurate billing data with this powerful unique feature. Use additional math functions to determine peaks, averages and totals.

Powerful Math Package

The onboard math package is extremely powerful. It allows the user to input complex polynomial equations using constants, custom functions and variable inputs obtained from live channels. The resultant information can be displayed and recorded as a real time channel.

Using the intuitive Calculated Channel Setup menu the user enters in the formula and can perform a test to make sure the formula is accurate.

Remote Control

The Remote Control feature extends the graphic user interface of the DC6000 directly onto your local PC. Use remote control and your desktop PC’s mouse and keyboard to view real time data, change settings, start and stop recording or virtually anything else you can do with the recorders touch screen. Remote control empowers you with virtual presence.

Wireless Connectivity

The optional Wireless-N USB Dongle extends the connectivity of the DC6000 to areas where conventional hard wired networks are not available. Simply plug the dongle into an open USB port on your DC6000 and configure a secure connection to your wireless router. Compatible with IEEE 802.11 b/g/n.

Automatic FTP Function

The DC6000 can be setup to automatically transfer files and delete or archive the data files after the transfer is successful. This greatly simplifies data file management and offers redundancy for critical data. Multiple data files can later be “stitched” together to create larger files for review in Exhibitor Software allowing ultimate flexibility when reviewing data over any period of time.
Exhibitor Software is an extremely powerful set of tools that compliments the DC6000 and other OPC or MODBUS compliant devices. Incorporating functions to simplify data management via searching, reviewing, printing, or exporting historic data, Exhibitor Software allows real-time monitoring and recording independently as well, while historic recording is not affected. Also featured are the OPC and MODBUS clients which enables the user to build custom screens selecting various display elements and data from multiple servers, including devices other than DC6000’s. (Compatible with Windows XP, Vista 7 and 8).

Network Overview

Use Exhibitors design page features to create custom real-time display projects that can be saved and recalled with a click of the mouse. Create bar graphs, digital panel meters, thermometers or trend screens from live data coming from any DC6000 or other OPC or MODBUS compliant device accessible on the network. Using the Device Manager, Exhibitor allows you to connect to servers anywhere there is a network connection. A user definable list of data is then accessible by the Design Page, where customized Real Time Views are built using the user friendly graphic user interface. To place items, simply point, click, and drag. Save your project for future use and the next time it is opened all servers are automatically connected and data will begin displaying immediately. Go one step further, and record real time data to your PC.

Customizable Real-Time View

System Requirements: Windows™ Compatible PC with CD ROM drive running XP, 2000, Vista or 7.
Graphical Review

The composite graphical view can display all inputs and calculated data from a particular recording session. The user is able to manipulate the graph to make it easy to see interaction between recorded channels, turn channels off and on, change color schemes, expand, compress, zoom, and print.

Individual channels can be displayed for detailed analysis. There is a summary function for the individual channels which provides minimum, maximum, averages and time and date for the records. The same analysis tools used for the multi-channel graph are used to scroll through data, zoom, review and expand the single channel graphs.

Tabular Data Review

The Data Table view displays recorded data in tabular format. All recorded information within a file can be viewed or deselected along with time stamps. Using the export feature, the table can be exported to a spreadsheet in its entirety or in portions.

The data table and graph can be synchronized so that they are interactive during analysis of records. Double clicking a value in the Data Table will automatically bring you to the graph page with that value and time highlighted. Move the cursor over the point and detailed information is provided.

Also available are separate alarm, event, and memo review screens. Memo review lists all on-screen annotations in a record.

21 CFR Part 11 for HACCP/GMP Compliance

Exhibitor Software provides the ultimate in secure recording and data access. Three password activated levels include User, Manager, and Administrator. The user can access all tabs except OPC Client, Device Manager and Remote. The Manager can access everything except Password and Language. The Administrator can access everything. Features such as expiration dates and auto timeout further enhance the security of your process. Data records that are not in Monarch Instruments proprietary binary encrypted format are rejected by Exhibitor. Monarch Instrument offers optional documentation that encompasses the hardware and software to shorten the time it takes to get a fully compliant process up and running.
**General**

Input Resolution: 0.0015% of full scale, 16 bit unless otherwise stated

Input Impedance: >1 Mohm

Input Channels: 6 or 12 direct plus 6 additional calculated channels.

Maximum Input: 50Vdc

**Isolation:**

- Channel to Channel: 350Vdc or RMS AC
- Channel to Chassis: 2000 Vdc or RMS AC
- Isolation category II: Pollution Degree 2

**Measurement Rate:** 10 times per second on all direct input channels

**Common Mode Noise Rejection:** >100dB, 50/60 Hz, filter enabled

**Normal Mode Noise Rejection:** >50dB at 50/60 Hz, filter enabled

**Math Functions:** Fully programmable, +, -, x, /, square root, sine, cosine, tangent, log, totalization, powers, averages, conditional logic; AND, OR, |, &,

- gated timers, energy calculation/LBTU. Can use live channels in calculation. Can define 6 constants and 6 functions per channel.

**Analog Inputs**

DC Voltage:

- +/-125mV, +/-250mV, +/-500mV, +/-1.00V, +/-3.0V, +/-6.0V, +/-12.0V, +/-24.0V

**Accuracy:** Ranges to 1V +/-0.06%, Ranges > 1V +/-0.1%

**DC Current:**

- +/-12.0V, +/-24.0V

**DC Voltage:**

- +/-125mV, +/-250mV, +/-500mV, +/-1.00V, +/-3.0V, +/-6.0V, +/-12.0V, +/-24.0V

**Accuracy:** +/-1.5% using external 50 ohm 0.1% 1/4 watt shunt.

**Thermocouple (Per ITS90)**

Resolution: 0.1°C, thermocouple burnout detection: Automatic

<table>
<thead>
<tr>
<th>Type</th>
<th>Range (°C)</th>
<th>Accuracy (°C)</th>
<th>Range (°F)</th>
<th>Accuracy (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>-210 to 0°C +/-1.6°C</td>
<td>-346 to 32°F +/-3.0°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>-270 to -162°C +/-5°C</td>
<td>-454 to -260°F +/-9.0°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>-27 to 200°C +/-2.2°C</td>
<td>-260 to -94°F +/-4.0°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>-270 to 70°C +/-2.5°C</td>
<td>-454 to -94°F +/-4.5°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>-270 to 100°C +/-3.0°C</td>
<td>-454 to -212°F +/-5.4°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>-50 to 0°C +/-2.8°C</td>
<td>-58 to -32°F +/-5.0°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>0 to 100°C +/-1.4°C</td>
<td>32 to 1832°F +/-2.5°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>0 to 100°C +/-0.9°C</td>
<td>32 to 1832°F +/-1.6°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>0 to 260°C +/-3.0°C</td>
<td>32 to 500°F +/-5.4°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0 to 180°C +/-2.5°C</td>
<td>32 to 1200°F +/-2.5°F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>-200 to 0°C +/-1.1°C</td>
<td>-328 to 32°F +/-2.0°F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Field calibration improves accuracy to better than +/-2 °F and up to +/-0.5°C and ensures compliance with AMS2750D measurement accuracy requirements for Nacecap accredited suppliers.

**RTD (Cont.)**

**Base Accuracy:** 0.2% or 0.5 °C (1 °F).

**Resolution:** 0.1 °C

2 or 3 wire connection. Cable compensation to +/-0 ohm. Open and short circuit detection.

<table>
<thead>
<tr>
<th>Type</th>
<th>Range °C</th>
<th>Range °F</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 ohm Plt. 385</td>
<td>-220 to 850 °C</td>
<td>-364 to 1560 °F</td>
</tr>
<tr>
<td>100 ohm Plt. 392</td>
<td>-180 to 620 °C</td>
<td>-292 to 1200 °F</td>
</tr>
<tr>
<td>200 ohm Plt. 392</td>
<td>-180 to 400 °C</td>
<td>-292 to 750 °F</td>
</tr>
<tr>
<td>1000 ohm Plt. 385</td>
<td>-200 to 200 °C</td>
<td>-328 to 392 °F</td>
</tr>
<tr>
<td>500 ohm Plt. 385</td>
<td>-220 to 850 °C</td>
<td>-364 to 1562 °F</td>
</tr>
<tr>
<td>50 ohm Plt. 385</td>
<td>-220 to 850 °C</td>
<td>-364 to 1562 °F</td>
</tr>
<tr>
<td>100 ohm Ni.</td>
<td>-70 to 300 °C</td>
<td>-94 to 570 °F</td>
</tr>
<tr>
<td>120 ohm Ni.</td>
<td>-70 to 300 °C</td>
<td>-94 to 570 °F</td>
</tr>
<tr>
<td>1000 ohm Ni.</td>
<td>-60 to 209 °C</td>
<td>-76 to 408 °F</td>
</tr>
</tbody>
</table>

**Frequency inputs (2 or 4 channels)**

**Range:** 0 to 5000Hz all channels, 0 to 10,000Hz 1 channel

**Accuracy:** 0.005%/±/1 digit

**Recording**

**Recording Rates:** User programmable from 10 samples per second to 1 sample every 24 hours.

**Data Format:** Proprietary encrypted format, User file naming.

**Data Storage Capacity:** Data stored in non-volatile RAM and recorded automatically to:

- Removable media types:
  - CompactFlash™ or USB drive to 16 GB

**Internal media types:**

- SD card (secure digital) to 16 GB

**File Types:** Data files, alarm event and activity files, configuration files, language files, multiple files of different names on a single disk.

**Display**

**Type:** Color LED backlit Active Matrix TFT Liquid Crystal Display

**Size:** 5.6 inch diagonal, Resolution: 320 (W) x 240 (H) pixels

**Interface:** Resistive analog touch screen control

**Display Builder:** Allows user to create custom displays

**Display Modes:** Graphic Trending (vertical or horizontal), Bar Graphs (vertical or horizontal), Digital Meter (large or small), Alphanumeric Alarm Activity and Event Log.

**Virtual Chart Speed:** Programmable from 0.5 inch/hour to 72 inches/hour (10 mm/hr to 882 mm/hr)

**Display Windows:** Time/Date, Graphics (bars, large digital, trends) Disk Status, System Status, Menu Button Bar, Unit Identification, Alarms, Events and Activity logs.

**Communications**

**Network:** 10/100 BaseT Ethernet per 802.3, RJ45 connection standard.

**Servers:** Webserver supports http and ftp protocols, OPO server, Modbus over Ethernet server.

**Serial:** Isolated RS485/RS232 Modbus Interface (option)

**Email:** SMTP standard TCP/IP for sending email.

**Time:** Selectable synchronization via private or public NTP server.

**File Transfer:** Automatic, scheduled file transfer via FTP.

**Power**

**Requirements:** 100 to 240 Vac, 50/60Hz, 35 VA max. 24Vdc optional

**Power Fail Protection:** Programmed parameters stored in non-volatile memory. Clock battery backed. Internal battery backup provides orderly shutdown and the ability to survive brownouts and short blackouts (<20 seconds).

**Power Output:** Optional isolated 24Vdc @ 100mA output.

**Input/Output**

**Digital I/O:** 6 or 12 relay outputs, Form A (normally open SPST contacts) rated at 200 Vdc @ 0.5A Max, 2 digital control inputs +5 to +12Vdc @ 20mA (optional). Control inputs may be used for record start/stop, alarm acknowledge and channel reset functions

**Safety and Environmental**

**Operating Range:** 0 ° C to 50 ° C, 10% to 80% RH non-condensing

**Protection:** IP65 when mounted in panel.

**Safety:** Meets the requirements of EN61010-1 when installed in accordance with the instructions in the manual.

**EMC:** Meets requirements of EN61326:2003 and CE directive 89/336/EEC.

**Weight:** 7 lbs. (3.17 kg) - weight will vary depending on options.
Standard DC6000 Features:
- 5.6" color QVGA TFT LCD display with touch screen and integral stylus
- CompactFlash™ Drive (Front), USB thumb drive port (Front)
- USB master (rear), USB slave (Rear), Internal memory
- Mouse/keyboard connection (Rear)
- Audio: Line in, Line out, Microphone (Rear)
- RJ45 Ethernet port (Rear)
- NEMA 4/IP65 Front Bezel with locking media drive door

Select options  Build model #: DC6

Input Power
1 100 to 240 Vac 50/60Hz / 125 Vdc with cable and plug
2 18 - 30 Vdc
3 100 to 240 Vac 50/60Hz / 125 Vdc with Screw Terminals

Input Signals
B 6 Total: 4 (V, I, TC, RTD), 2 (V, I, TC, RTD, Frequency)
12 12 Total: 8 (V, I, TC, RTD), 4 (V, I, TC, RTD, Frequency)

Output Options
0 None
1 6 Form A relay contacts 0.5 Amp @ 200Vdc, 2 Control Inputs
2 12 Form A relay contacts 0.5 Amp @ 200Vdc, 2 Control Inputs

Serial Communications
0 None
1 RS232/485 (9 pin "D" shell connector)

Transmitter Power Supply
0 None
1 24 Vdc, 100mA auxiliary output

Internal Memory
1 512 Megabyte
2 1 Gigabyte
3 2 Gigabyte

FDA 21 CFR 11 Compliance
0 None
1 21 CFR 11 Compliance

Dimensions
- Panel Cut-out: 5.43 [137.9] x 5.60 [144.6] x 0.60 [15.2]
- Panel Cut-out: 5.43 [137.9] x 5.60 [144.6] x 0.60 [15.2]
- Panel: 5.91 [150.1] x 5.48 [139.2] x 2.86 [72.7]

Determining model number configuration
To specify your DataChart™ 6000, select desired options and enter the appropriate selection in the boxes below. Example model number: DC6-1-06-1-0-1-1-1

Field Upgradeable Options
- Part No.: 6CH-ADD 6 Channel input module with connectors
- Part No.: 6-FormA 6 Form A relay output module with connectors
- Part No.: 12-FormA 12 Form A relay output module with connectors
- Part No.: 24-TP 24-volt transmitter power supply module with connector

Accessories
- Part No.: Exhibitor Windows compatible software program
- Part No.: Exhibitor SE 21 CFR 11 Compliant Windows compatible software program
- Part No.: NIST 6000 N.I.S.T. traceable certificate of calibration with documentation
- Part No.: 21 CFR RCS 21 CFR p.11 Compliance Statement
- Part No.: 21 CFR CDP 21 CFR p.11 IQ/OQ/PQ Validation Package
- Part No.: MAS50R 50 ohm external shunt resistor, 0.1% accuracy
- Part No.: CC-8 Padded nylon carrying case with shoulder strap
- Part No.: CFCR Compact Flash Card Reader with USB cable
- Part No.: Audio Splitter Splitter for audio port (includes cables)
- Part No.: Keyboard Splitter Splitter for keyboard and mouse port (includes cable)
- Part No.: Stylus Pak 3 pack of stylus’
- Part No.: Keys Replacement media door key (pair)
- Part No.: NEMA 6000 NEMA 4 hinged enclosure, wall mount 11"D x 18"H x 16"W
- Part No.: USB/WNA Wireless N USB network adapter, 2.4GHz 802.11 b/g/n

Compact Flash Memory Cards
- Part No.: Capacity
  - MC512MBCF: 512 Megabyte
  - MC1024MBCF: 1 Gigabyte
  - MC2048MBCF: 2 Gigabyte

Rear Panel
Monarch International, Inc. was founded in 1977 as a sales and service organization for a diverse range of instrumentation. In 1982, the Monarch Instrument Division was established to manufacture and market the first microprocessor based portable tachometers.

“Innovation in Instrumentation” is the Monarch design philosophy and in recent years we have introduced state-of-the-art products:

- Pocket Laser Tachometer
- Palm Strobe x
- Nova-Strobe DBx Stroboscope
- Track-It USB Data Loggers
- DataChart 1250 Paperless Recorder
- DataChart 6000 Networkable Paperless Recorder

Monarch Instrument remains committed to innovations and advancements in technology.

With the addition of new models of tachometers and the introduction of the Nova-Strobe Series of portable stroboscopes, Monarch rapidly became the world’s largest supplier of rotational speed measuring instrumentation and stroboscopic inspection equipment.

In 1992, Monarch introduced the DataChart Paperless Recorder. Today, we offer a wide range of technical capabilities and competitive pricing throughout the DataChart product line to include color touchscreens and multi-channel recorders.

Our full service sales force and world-wide distribution force stands ready to answer purchase and applications questions. Please feel free to contact us via our toll free telephone line, website, e-mail, fax or surface mail. We offer a comprehensive line of precision products and calibration services, all with the convenience of the Internet.

Monarch Instrument also manufactures a full line of proactive maintenance and monitoring instruments. Please visit www.monarchinstrument.com for more information.

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