DI-194RS and DI-154RS* Starter Kits

Low Cost, Compact Data Acquisition Kit

Convenient Serial Port Interface

Four ± 10V Analog Inputs

Two Digital Inputs for Remote Start/Stop and Remote Event Marker Control

The DI-194RS and DI-154RS*, DATAQ's four-channel data acquisition starter kits, are a low-cost way to experience WinDAQ software, now with more features and capabilities than ever before. With these starter kits, you can digitize virtually any transducer's analog output signal and record it to your PC's hard disk. At the same time, view the transducers output on your PC's monitor in a triggered sweep (oscilloscope-like) or scrolling (chart recorder-like) display format.

Our starter kits provide a taste of the exceptional power and speed possible with WinDAQ software. They provide 12-bit (DI-154RS) and 10-bit (DI-194RS) measurement accuracy, a ±10V analog measurement range, up to 240 samples/second throughput, and four analog input channels. A CD demonstrates WinDAQ Waveform Browser (WWB), our playback and analysis software, but to get a hands-on illustration of the data recording and display capabilities of WinDAQ/Lite, you need a DI-154RS or DI-194RS starter kit. When connected to your PC's serial port, these starter kits allow you to record, display, and analyze data using your own signals. The kits ship with WinDAQ/Lite (Recording Software and Playback and Analysis software). Data acquisition rates up to 240 samples per second are supported for Windows 2000 and XP.

Features

Self-Powered Advantage
The DI-154RS and DI-194RS derive their power directly from the RS-232 serial port to which it is connected — no batteries to replace or external power supplies to connect.

More Capabilities
The DI-154RS and DI-194RS starter kits are equipped with two digital inputs for remote start/stop and remote event marker control.

Included ActiveX Control Library
Both starter kits are provided with an ActiveX Control Library that allows you to program the starter kits from any Windows programming environment.

Free Data Acquisition Software
Our WinDAQ/Lite data acquisition software offers real time display and disk streaming for the Windows environment. Their real time display can operate in a smooth scroll or triggered sweep mode of operation, and can be scaled into any unit of measure. Event markers with comments allow you to annotate your data acquisition session with descriptive information as you're recording to disk.

Raise your productivity to new heights with WinDAQ's unique multitasking feature. Record waveform data to disk in the background while running any combination of programs in the foreground — even WinDAQ Waveform Browser playback software to review and analyze the waveform data as it's being stored!

*The DI-154RS is now OBSOLETE and no longer available for sale.
**Specifications**

**WINDAQ Software Specifications**

**Disk and Display**
- Max rate to disk: Max Hardware Sample Rate
- Max rate to display: Max Hardware Sample Rate
- Max data file size: Unlimited
- Display Modes: Scrolling, freeze, triggered, non-triggered.
- Storage Modes: Continuous, pre- or post-trigger.
- Display Modes: 1:1 to 1:9000
- Displayed channels: 1 to 32
- Time and Data Stamping: Automatic
- Max event markers: 8,184 per file

**Waveform Display Scaling**
- Screen Scaling per channel: Waveform expansion, contraction, and offset.
- Engineering Units Conversion: y = mx + b per channel

**Hard Copy**
- Print screen; continuous form

**Data Storage Format**
- 2’s complement

**Waveform Measurements**
- Cursor-based, single-point: Amplitude measurements per channel in calibrated units; elapsed time; time and date at cursor.
- Cursor-based, dual-point: Time measurements on the same or across different channels; D%; Y-value difference; two-point slope (d/dt); number of samples; Hz; cycles per minute.
- Cursor-based (freq vs. amplitude): Frequency vs. db; Frequency vs. magnitude (in engineering units).

**Waveform Analysis**
- Statistics: min; max; variance; standard deviation; mean; median; sum; sum of squares; skewness; RMS; area; slope
- Frequency: 32 to 16,384 points (FFT); 2 to 8,191 points (DFT).
- Advanced CODAS analysis: Waveform integration; differentiation; arithmetic operations; rectification; moving average; peak and valley detection.

**Waveform Export**
- WINDAQ (CODAS) format to any spreadsheet (CSV), ASYST, ASYSTANT, DADiSP, CODAS, general purpose binary and ASCII.

**Hardware Requirements**
- Any Intel or compatible PC running Windows 2000 or XP. No memory requirements beyond that required by the operating system.

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**Hardware Specifications**

<table>
<thead>
<tr>
<th>Interface I/O</th>
<th>RS-232</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baud Rate</td>
<td>4800</td>
</tr>
</tbody>
</table>

**Analog Inputs**
- Number of input channels: 4
- Input type: Single-ended
- Analog Resolution: DI-194RS: 10-bit
  DI-154RS: 12-bit
- A/D conversion method: Successive approximation
- Sampling Rate: 240 samples/second
- Relative Accuracy: DI-194RS: 0.1%
  DI-154RS: 0.25%
- Measurement Range: ±10V
- Overvoltage Protection: ±20V peak
- Input Impedance: 200k ohms

**Digital Inputs**
- Number of inputs: 2
- Minimum high level: 3.5V
- Maximum low level: 0.8V

**Digital Outputs**
- Number of outputs: 1

**Power Requirements**
- Current: Less than 4 mA
- Source: Derived from RS-232 port

**Software Included**
- DI-194RS: WINDAQ/Lite (includes Recording and Playback software).
- DI-154RS: DI-154RS: WINDAQ/Lite (includes Recording and Playback software).

*Specifications are for both the DI-194RS and DI-154RS unless noted otherwise.

**Ordering Guide**

<table>
<thead>
<tr>
<th>Description</th>
<th>Order Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DI-194RS Starter Kit</strong></td>
<td>DI-194RS</td>
</tr>
<tr>
<td>4-channel 10-bit data acquisition starter kit.</td>
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<tr>
<td><strong>DI-154RS Starter Kit</strong></td>
<td>OBSOLETE</td>
</tr>
<tr>
<td>4-channel 12-bit data acquisition starter kit.</td>
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**Data Acquisition Product Links**

Data Acquisition | Data Logger | Chart Recorder | Thermocouple | Oscilloscope