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

DATAQ® INSTRUMENTS

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 PCs 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.

The DI-194RS Module with the WINDAQ Resource CD, screwdriver, and cable—all included with each starter kit. DI-154RS* module case is identical.

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. Dot-joined at all sample rates.
Storage Modes:	Continuous, pre- or post-trigger.
Display compression ratios:	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.

Hardware Specifications*

Interface I/O	RS-232
Baud Rate	4800

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

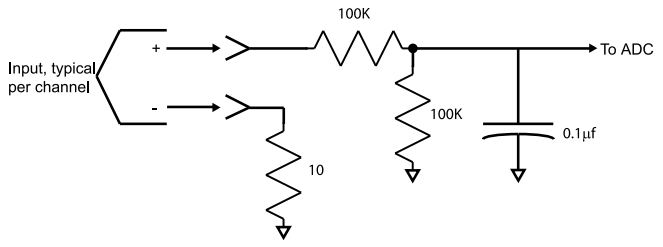
Current:	Less than 4 mA
Source:	Derived from RS-232 port

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.
**Not for general purpose use—Reserved for use by WinDAQ Software.

Front End Schematic



Ordering Guide

Description	Order Number
DI-194RS Starter Kit 4-channel 10-bit data acquisition starter kit.	DI-194RS
DI-154RS Starter Kit 4-channel 12-bit data acquisition starter kit.	OBSOLETE

Data Acquisition Product Links
(click on text to jump to page)
Data Acquisition | Data Logger | Chart Recorder | Thermocouple | Oscilloscope

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