

# Solutions for Electromechanical Maintenance and Troubleshooting

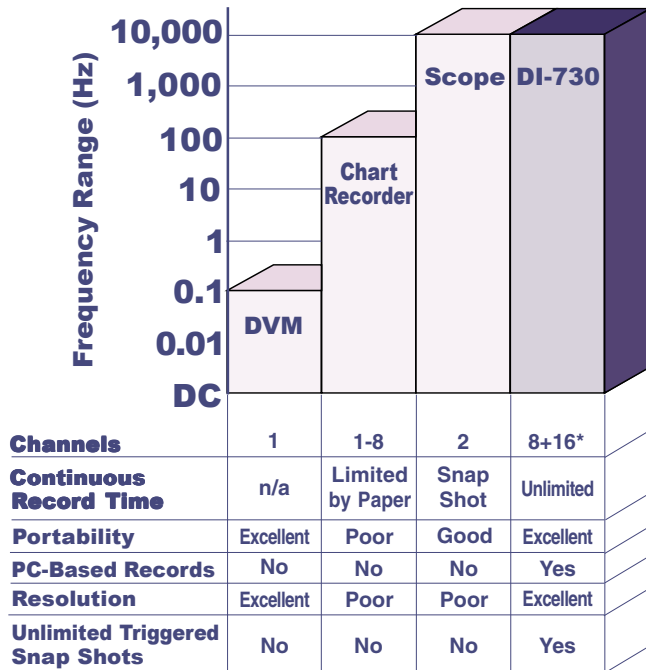


# The DI-730 System at a Glance

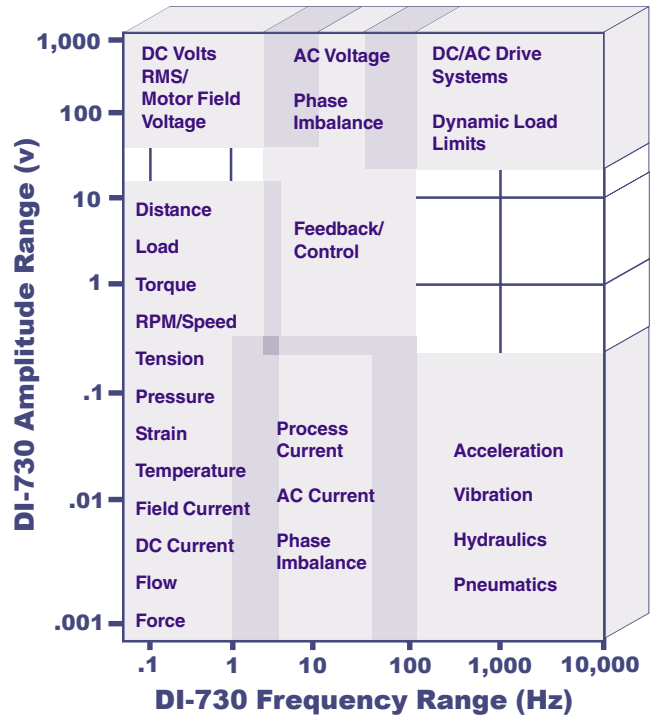
DVMs and oscilloscopes are limited in channel count and can't record waveform information. Your chart recorder can, but it's slow, bulky, and expensive to buy and maintain. So you use all three, juggling them in and out of the troubleshooting process until the problem is solved. Is there a better way?

From steel mills to paper mills, from energy systems to transportation systems, the words "Get the DATAQ!" are synonymous with fast and cost-effective electromechanical troubleshooting of all kinds. One instrument replaces three traditional instruments by leveraging the flexibility of the PC you already have. Acquire, measure, record, and analyze with more speed and power than you ever thought possible, and with point-and-click efficiency that requires no programming.

## The Products We Replace



## The Applications We Address



## Your Requirements

## DI-730 Solutions

### Measurement Flexibility

- Multiple channels
- Wide measurement range
- Fine resolution
- Input protection
- Wide signal frequency range
- Continuous recording
- Unlimited triggered snapshots
- Multi-tasking

- 8+16\*
- 10mV to 1 kV full scale
- 14 bits allows you to detect the smallest change on any range
- 1 kV isolation per channel
- DC to >10,000 Hz
- Record to your PC for seconds, hours, days, weeks
- Pre- and post-trigger support
- Simultaneously record, view, analyze

### PC Connectivity

- Standard PC port support
- Excel-compatible data
- Word-compatible graphics
- E-mailable data files
- Ready-to-run software

- Connects to the printer, USB, or Ethernet port of any PC
- Combine data with any Excel spreadsheet
- Combine waveform graphics with reports
- Transmit data to anywhere, from anywhere
- Absolutely no programming is ever required

### Expandability

- Signal conditioning for any industrial measurement

### Portability

- Fits in an overnight bag with room to spare
- Use it with the laptop PC you already take in the field

### Affordability

- Buy three or more -730s for the price of one chart recorder

\* 8 wide measurement range and 16 general purpose channels

# Product Overview

## Start with our Model DI-730:

### 8 wide measurement range channels

- $\pm 10\text{mV}$  to  $\pm 1000\text{V}$  FS measurement range
- Six programmable measurement ranges per channel
- $\pm 1000\text{V}$  DC or peak AC input-to-output isolation
- Input protection to  $1500\text{V}$  DC or peak AC

### 16 non-isolated, general-purpose channels

- $\pm 1.25$  to  $\pm 10\text{V}$  FS measurement range
- Four programmable measurement ranges per channel

### Intelligent over-sampling features that allow real time

- Waveform filtering
- Waveform peak and valley detection
- Waveform averaging

### Flexible PC connection options

- Printer port
- Ethernet
- USB

### Fast sample rates

- Ranging from sub-Hertz to  $200,000$  Hz

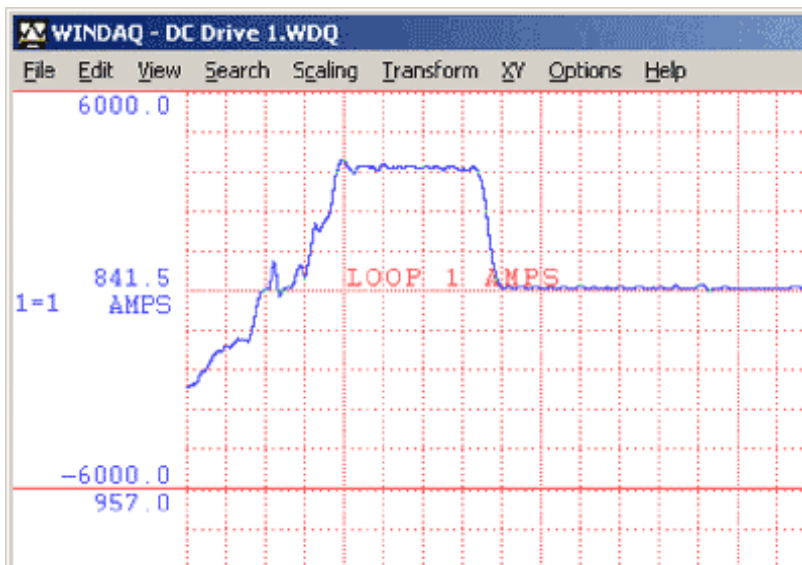
## Enhance measurement flexibility with our Model DI-75B backpack:

### Uses common 5B-style, isolated amplifier modules for use with:

- Thermocouples
- RTDs
- True RMS measurements
- Process current measurements
- Strain gage and strain gage-based transducers
- ICP-type accelerometers
- String pots
- Frequency/RPM measurements
- AC/DC voltage measurements

## Put it all together with WinDaq data acquisition, playback, and analysis software:

- Ready-to-run, **no programming is ever required**
- Real time scaling into calibrated engineering units
- Zero-delay, real time display of 1 to 32 channels  
Y vs. t  
X vs. Y
- Stream to disk for minutes, hours, or days
- Triggered-mode data acquisition with pre- and post-trigger options
- Automatic time- and date-stamping
- Cursor-based waveform amplitude and timing measurements
- Push-of-a-button waveform statistics
- Fast and Discrete Fourier Transformations
- Acquire, review, and analyze data simultaneously



# Our Customers

Around the clock, around the world, someone is using a DI-730 to solve tough electromechanical problems and keep vital systems running. Here's a list of some of our larger customers, and the industries they serve:

## AC/DC Drive and Motor Service/Installation

Avtron Manufacturing  
Crown ESA  
EXISE  
Rockwell International  
Siemens-Westinghouse  
Taurus Controls  
GE Industrial Systems  
Flanders Electric Motor

## Mining Products/Machinery

Black Butte Coal  
Bucyrus International  
Coteau Mines  
John Deere  
Metso Minerals  
P&H Mining Equipment

## Transportation Systems

Alstom Transportation  
Bay Area Rapid Transit (BART)  
Bombardier Transportation

## General Industrial/Manufacturing

Armstrong World Industries  
BAE Industrial  
Cessna Aircraft  
Clopay Corp  
Delco Electronics  
Honeywell  
Hoover Company  
Lincoln Electric  
Procter & Gamble

## Steel and Aluminum Mills

AK Steel  
Alcoa  
Allegheny-Ludlum Steel  
Bethlehem Steel  
Citisteel USA  
I/N Tek  
Integrated Mill Systems  
International Steel Group (formerly LTV Steel)  
ISPAT Inland  
J&L Specialty Steel  
Pittsburgh Steel  
The Timken Company  
Weirton Steel  
Wheeling-Pittsburgh Steel

## Energy Systems

GE Power Systems  
Liebert  
Rolls Royce Energy

## Paper/Printing Mills and Equipment

Blue Heron Paper  
Goss Graphic Systems  
Kimberly Clark  
Newspaper Agency  
Paper Converting Products  
Weyerhaeuser Corp.

## Semiconductor Fabrication/Equipment

Applied Materials  
Intel  
Varian Semiconductor

# Learn More...

## DATAQ Instruments

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• Tel: (330) 668-1444

Fax: (330) 666-5434 • E-mail: info@dataq.com

**DI-720 and DI-730 Series PC-based Data Acquisition Systems**



**DI-720 For General Purpose Use**  
DI-730 For Electric Motor/Generator Maintenance and Troubleshooting in Mills, Locomotion, and DC Drive System Applications  
Standard Printer Port, Optional USB or Ethernet Interface  
Up to 56-bit Resolution

**DI-730 Offers Excellent, Wide Dynamic Measurement Range**  
The DI-730 Series offers a wide dynamic range for measuring signals from 100 mV to 100 V. The DI-730 Series offers a wide dynamic range for measuring signals from 100 mV to 100 V. The DI-730 Series offers a wide dynamic range for measuring signals from 100 mV to 100 V.

**250 kHz Sample-and-Hold ADC**  
Converts 16-bit digital signals into analog signals. The DI-730 Series offers a wide dynamic range for measuring signals from 100 mV to 100 V.

**High-Resolution Capability**  
The DI-730 Series offers a wide dynamic range for measuring signals from 100 mV to 100 V.

**Easy to Connect & Use**  
All DI-730 Series modules are designed for easy connection to your PC. The DI-730 Series offers a wide dynamic range for measuring signals from 100 mV to 100 V.

**Wide Software Included**  
The DI-730 Series offers a wide dynamic range for measuring signals from 100 mV to 100 V.

**Printer Port, USB, or Ethernet Interface**  
The DI-730 Series offers a wide dynamic range for measuring signals from 100 mV to 100 V.

**DI-75B 5B Module Channel Expander**



**5-Channel, 5B Module Expansion Device for DI-400, DI-700, and DI-730 Instruments**  
Given DI-400, DI-700, DI-720, and DI-730 Instruments  
Included Industrial Measurement Capability  
Powered From Any 9-36VDC Source  
Completely Portable

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Download the DI-730 Datasheet at:  
[www.dataq.com/products/hardware/di730.htm](http://www.dataq.com/products/hardware/di730.htm)

Download the DI-75B Datasheet at:  
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