



Mess- und Prüftechnik. Die Experten.

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CompactDAQ Structural Test Starter Bundle

CompactDAQ test bundles offer the easiest and most cost-effective way to access the quality and flexibility of a CompactDAQ system.

Use NI DAQ strain and load bundle for:

- Performing static testing
- Quick strain-based sensor logging
- Monitoring stresses and movements of large structures
- Validating device models
- Structural testing and health monitoring



Popular Features

Excitation

Up to 10 V
internal excitation

Rugged

-40° to 70° C Temp range
50g shock

Bridge Completion

Programmable half- and full-
bridge completion



Hardware Bundle for Strain and Load Sensors

Spend less time configuring your test bundle and more time testing your products with NI's strain and load measurement bundles based on CompactDAQ hardware.



| | cDAQ-SL1101 P/N: 868018-01 | cDAQ-SL4201 P/N: 868019-01 | cDAQ-SL8202 P/N: 868172-01 |
|---------------------------------|---|--|---|
| Differentiation | | | |
| What's in the Box? | | | |
| Chassis | cDAQ-9171 | cDAQ-9174 | cDAQ-9189 |
| Module(s) | NI 9237 (x1) | NI 9237 (x2) | NI 9237 (x2) |
| Accessories | <ul style="list-style-type: none"> • USB cable (A to B) with captive screw • Quarter Bridge Adapter • RJ-50 to Screw-Terminal Adapter • RJ50 Cables | <ul style="list-style-type: none"> • USB cable (A to B) with captive screw • Quarter Bridge Adapter • RJ-50 to Screw-Terminal Adapter • RJ50 Cables • Desktop Mounting Kit • AC/DC power supply* | <ul style="list-style-type: none"> • 2x NI 9923 - Front-mount terminal block for 37-pin D-Sub connectors. • AC/DC power supply* |
| Specifications (chassis) | | | |
| Bus Connector | USB | | Ethernet |
| Slots | 1 | 4 | 8 |
| Power Required | USB 2.0 Bus-powered | 9-30 VDC | 9-30 VDC |
| Dimensions (unloaded) | 131.4 mm × 88.6 mm × 33.3 mm | 159.5 mm × 88.1 mm × 58.9 mm | 272.8 mm × 88.1 mm × 62.3 mm |
| Operating Temp | -20° to 50° C | | -40° to 70° C |
| Operating shock/vib | 50 g shock and 5 g vibration | | |
| Specifications (module) | | | |
| Connectivity | RJ50 | RJ50 | RJ50 |
| Channels | 4 | 8 (in total) | 8 (in total) |
| Sample Rate | 50 kilosample/Second/Channel | 50 kilosample/Second/Channel | 50 kilosample/Second/Channel |
| Isolation | Channel-Earth | Channel-Earth | Channel-Earth |
| Resolution | 24-bit | 24-bit | 24-bit |
| Bridge Completion | Full, Half, and Quarter | Full, Half, and Quarter | Full, Half, and Quarter |
| Internal Excitation | 10 V | 10 V | 10 V |

*IEC power cord sold separately



Replacement and Upgrade Options for Strain and Load Sensors

Need more channels or a different sample rate? NI offers more Strain/Bridge Modules for your strain and load test needs.

Strain/Bridge Modules

| System Need | Connectivity | Ch | Sample Rate | Bridge Configurations | Model/PN |
|------------------------------|-----------------|----|----------------------------|-------------------------|----------|
| High quarter bridge channels | Spring Terminal | 8 | 10 kS/s/ch Simultaneous | Quarter | NI-9235 |
| Highest Bridge Resistance | Spring Terminal | 8 | 10 S/s/ch Simultaneous | Quarter | NI-9236 |
| General purpose | RJ50 | 4 | 50 S/s/ch Simultaneous | Quarter Half Full | NI-9237* |

*In the Strain and Load Measurement Bundles

Other Popular Measurement Types

| Measurement | Connectivity | Ch | Sample Rate | Isolation | Model/PN |
|--|-----------------|----|------------------------------|-----------------|----------|
| Sound and Vibration | Spring Terminal | 4 | 51.2 kS/s/ch Simultaneous | None | NI-9234 |
| Voltage Input | Spring Terminal | 4 | 250 kS/s Multiplexed | Channel-Earth | NI-9205 |
| Thermocouple | Spring terminal | 16 | 74 S/s Multiplexed | Channel-Earth | NI-9213 |
| Voltage, current, strain, thermocouple, RTD, ¼ ½ full bridge | Spring terminal | 4 | 100 S/sec Simultaneous | Channel-Channel | NI-9219 |

CompactDAQ Chassis

Need more than four modules or a different connectivity?

Select the chassis that meets your needs. All hardware use the same software driver.

- Ethernet: 1, 4, and 8-Slot chassis



Contact your NI product expert to get help solving your test challenges.



Improve Test Performance with NI Software

Build an Automated Test System with LabVIEW

- Acquire data from NI hardware, 3rd party instruments, and many industry-standard protocol
- Create interactive UIs for test monitoring and control.
- Process with standard math, probability, and statistical functions.
- Integrate code written in Python, C/C++, .NET, and MathWorks MATLAB® software.
- Save data to .csv, .tdms, or any custom-defined binary file.

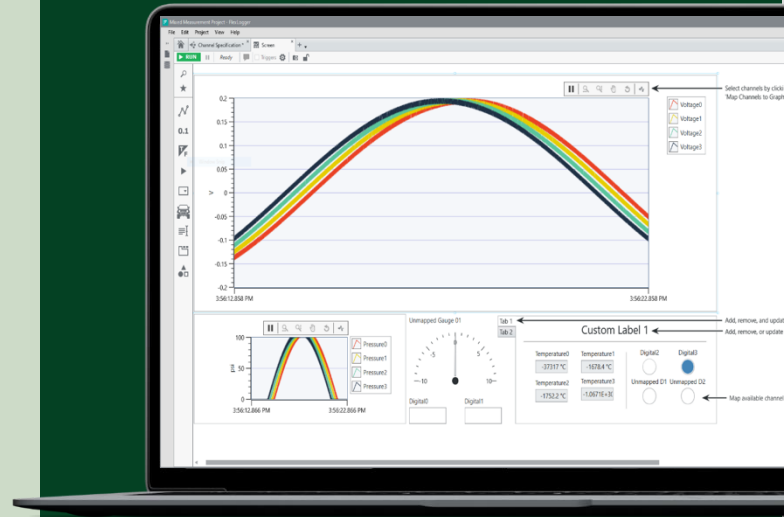
Perform Quick Tests with FlexLogger No-Code Software

- Get up and running quickly with Free version—NI FlexLogger™ Lite
- Configure quick tests with alarms, test properties, and real-time data displays
- Simplify sensor measurement with sensor-specific templates
- Log test results to .tdms or .csv files
- Add calculations for simple math, filtering, Boolean logic, and more
- Review data with an included interactive TDMS file viewer

Develop with Your Preferred Programming Language

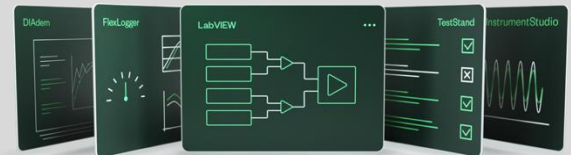
- Python
- C, C+, C#
- .NET
- MATLAB® (Contact MathWorks® for the Data Acquisition Toolbox)

*MATLAB is a registered trademark of The MathWorks, Inc.



“FlexLogger makes it easier to troubleshoot and verify that the raw data from different sensors are correct before I start my test. This helps shorten test development by saving time typically wasted on redoing configurations.”

- Andy Tarman,
Lab Test Engineer
CNH Industrial



Get FlexLogger and LabVIEW Plus More in the LabVIEW+ Suite

The LabVIEW+ Suite is a collection of LabVIEW plus, more software that provides purpose-built tools for automating measurement, analysis, and test. The software works together to save you time.

Part Number: 788509-35



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