

Companion IV

Dynamometer Data Acquisition System



Features

- Utilizes NI cRIO™ data acquisition hardware
- Performs data acquisition, multiplexing, and analog to digital conversion
- Includes an integral power supply for external transducer excitation
- Standard Ethernet communication interface
- Data Collection rates of up to 20Hz for Cell Assistant for Windows
- Data Collection rates of up to 100Hz for Cell Assistant for NI LabVIEW™
- Modular system allows for easy configuration
- Independent cold junction compensation for accurate temperature measurement
- Rack mount utilizes Sub-D connections for external voltage interface
- Rack mount utilizes miniature thermocouple connector for temperature inputs
- Wall mount utilizes terminal block connections for all external interface
- Channel count expandable in varying group sizes (module dependent) up to 128
- Custom systems engineered upon request

Testing Applications

- Engine
- Electric Motor / Alternator / Generator
- Transmission / Transaxle / Differential
- Component / Gear Box / Lubricants

Companion IV (C-IV) utilizes the National Instruments CompactRIO™ hardware. C-IV integrates with Cell Assistant for either Windows or NI LabVIEW™ for test automation. This unit comprises all equipment into one enclosure (wall or rack) accommodating a wide variety of user defined inputs including temperature, frequency, current, and analog voltage (i.e. TC, RTD, Strain Gauge, Pressure Transducer, etc.).

Dimensions

19" Rack x 7"h x 15"d
(24 Channels)

Wall Mount - size dependent on number of inputs

Control Power

120 - 240 V, 2.0 Amps

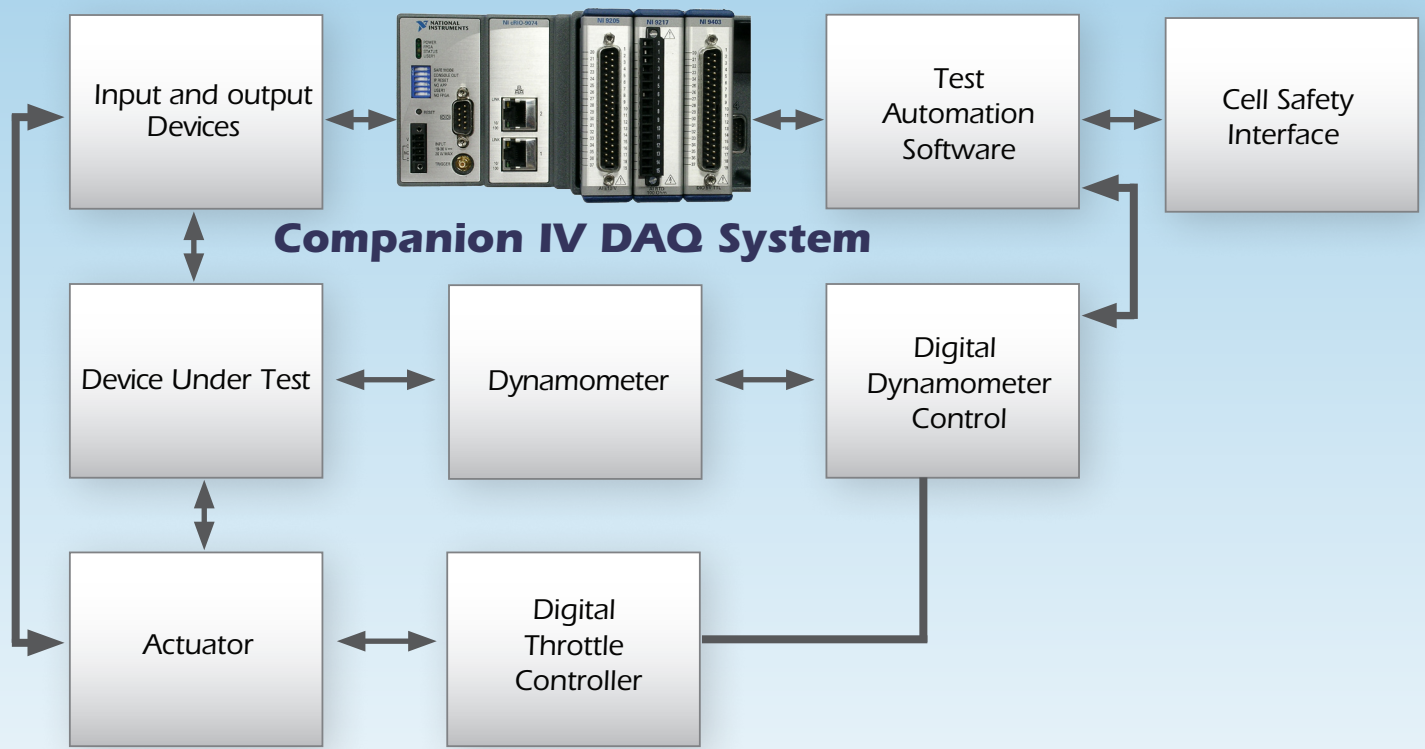
Environmental Limits

Air Temperature: 0° to 40°C (104°F)

Relative Humidity: 0 to 95%
No condensation allowed

Optional Configurations

Wall mount, boom arm, pedestal mount and rolling cart



Dyne Systems Product Line

Closed Multi-Loop Dynamometer & Throttle Control

- Inter-Loc V
- DS630 Inter-Loc V Throttle Controller

Closed Single-Loop Dynamometer Control

- Dyn-Loc IV
- Dyn-Loc V

Closed Loop Throttle Control

- DTC-1
- DS830 Stand-Alone Throttle Controller

Open Loop Dynamometer Control

- DS820 Eddy Current PAU

Closed Loop Water Flow Control

- EWC-1

5-Gas Exhaust Analyzer

- XM2000

Data Acquisition

- Companion II: Dyne Systems proprietary
- Companion III: Yokogawa based
- Companion IV: NI compactRIO™ based

Test Automation Software

- Cell Assistant for Windows
- Cell Assistant for LabVIEW™ (VeriStand™)

Test Cell Safety PLC Interface

- CIA I: Automation Direct / Koyo
- CIA II: Horner
- CIA III: ABB
- CIA IV: Allen-Bradley

Throttle Accessories

- Actuator, Remote Pendant, Cables

Eddy Current Dynamometers

- 5–5000 Hp

AC Dynamometers and Drives

- 5–1600 Hp

DC Dynamometers and Drives

- 5–1200 Hp