

# Companion III

## Dynamometer Data Acquisition System



## Features

- Utilizes Yokogawa data acquisition hardware
- Performs data acquisition, multiplexing, and analog to digital conversion
- Includes an integral power supply for external transducer excitation
- Superior noise immunity and isolation
- Standard Ethernet communication interface
- Data Collection rates of up to 20Hz for Cell Assistant for both NI LabVIEW™ and Windows®
- 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 (rack mount)
- Wall mount utilizes terminal block connections for all external interface
- Channel count expandable in groups of ten, up to 120
- Custom systems engineered upon request

Companion III (C-III) utilizes Yokogawa hardware. C-III 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  
(20 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)**

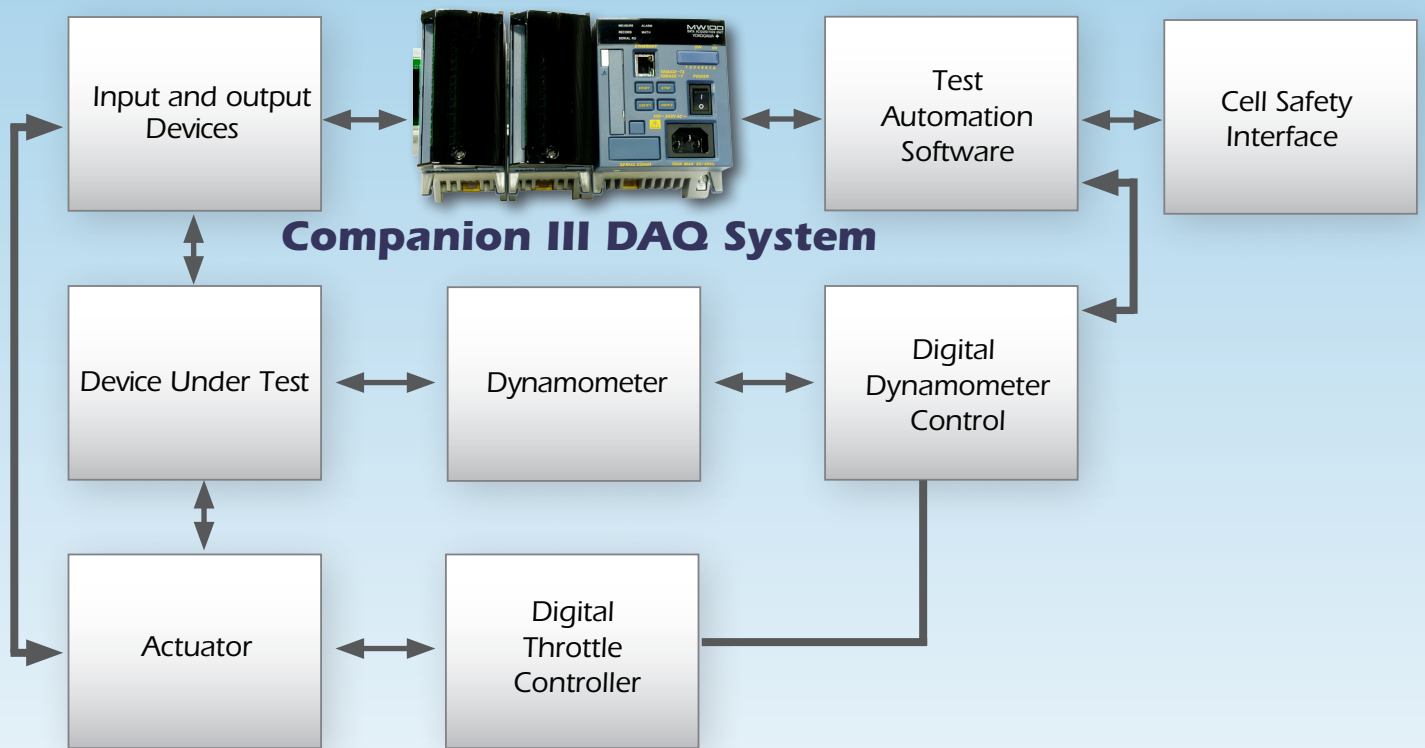
**Relative Humidity: 0 to 95%  
No condensation allowed**

## Optional Configurations

**Wall mount, boom arm, pedestal  
mount and rolling cart**

## Testing Applications

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



## 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 cRIO™ 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