

## 24 Bit Digital Servocontroller

Highly integrated hardware and software designed specifically for mechanical test system measurement and control applications. Designed to control electromechanical, electrodynamic and servohydraulic load frames and actuators.

### Applications ...

- *Materials Testing*
- *New Test Machines, Retrofits & Upgrades*
- *Two Channel Controller - Biaxial Test Setups*

### Overview

2370 Controllers offer advancements in performance, functionality and affordability, and are compatible with Global Data Sharing (GDS) open architecture software.. The 2370 is available in two compact configurations and include power supply, strain bridge feedback channels for load cells or extensometers, AC type signal conditioners for LVDT transducers, inputs for 10V analog signals, and a digital encoder control channel. Two servo-output channels provide 10V signals to servo controlled actuators. Digital input and output bits provide drive and device control including hydraulic pump on/off or high/low pressure management in servohydraulic applications.

### High Speed – High Resolution – High Accuracy

- High Speed (300 MIPS) Digital Signal Processor
- 24 bit Analog Data Conversion
- 32 bit Data acquisition
- 40 bit Servo-Loop
- Modular Global Data Sharing (GDS) Software
- Latest analog, digital and hybrid IC's

**With 24 bit hardware resolution, the 2370** delivers unmatched measurement and control quality. Internal high speed 40 bit computations update the control loop continuously, delivering unmatched servo-output control quality. Data acquisition speed is configuration dependent – but fast.

For higher channel measurement and control applications, consider our 2360 Controller. The 2360 just as fast and accurate and can control up to 16 different test stations or actuators. It handles up to 80 signal conditioners or 96 analog data channels in data acquisition applications. All channels are high resolution at 24 bit.

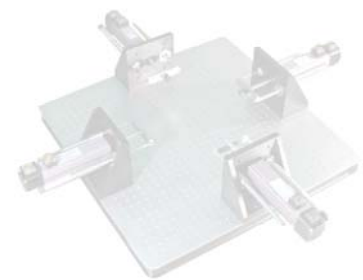
When used with TestResources actuators high resolution translates to improved machine control in testing applications. Our systems are typically configured with digital encoders, LVDT's and Deflectometers or extensometers for position and strain control applications.

Consider these claims:

- *100 mm full range LVDT can control position to 100 micron... (1000000:1)*
- *1 mm Deflectometer or extensometer can control deflection to 1 micron. ... (1000000:1)*
- *5000 N load cell can control load to 5 N and better ( depending on sample behavior) ...*

### Multi-Station Applications

The 2370 may be configured to control two test stations or two actuators (biaxial). The 2360 can control up to sixteen actuators, frames or a mixture of both.



## Compatible Software Products

**MachineBuilder Software Program** (MTL32) enables user setup and association of machine resources (e.g. transducers) to test stations or actuators. It includes panels for servotuning, calibration, and global limit setting. The user may set up and switch test station configurations easily.

**TestBuilder Software Program** (MS32) is an application program which enables users to set up, launch, monitor tests. Test data may be saved and exported for reports. Separate user panels are available for static and fatigue tests. Users create, store and execute tests including command signal, data acquisition and export of data to Excel.

**Global Data Sharing Toolkit** is an optional application developer's support program that facilitates software components and full applications development. GDS is a powerful capability that shortens the test development process and brings significant advantages to customers. Ask for more information on GDS.

**Standard Test Application** programs are available for common standardized test methods (ASTM, etc).

**Engineered to Order Application Software** serves the needs of speeding the creation of complex test protocols or analyses, or creating software for specific needs. Application programs are made to order.

## 2370 Specifications

Model	2370 Base Configuration	2370-303 Configuration
Enclosure Size	200 mm (8") x 200 mm (8") x 50 mm (2")	Same
Digital Position Channel	One encoder channel	One encoder channel
Strain Bridge Conditioners (load cell, extensometer, etc)	Three channels	Five channels
External Analog Input / LVDT signal conditioner	One channel total	Four channels total
Servo-outputs	Two channels (0 to 10V)	Two channels (0 to 10V)
Digital Inputs	8 Channels	16 Channels
Digital Outputs	8 Channels	16 Channels

## About TestResources ...

TestResources is a test engineering firm that supplies test machines, testing accessories and control systems to engineers, researchers and industry, government and research organizations. Our core competence is in the application engineering of servocontrol technology to single and multichannel control of mechanical testing applications, and the supply of static, dynamic and fatigue test machines.

## Want more information or want a demo?

Call 1.800.430.6536 or contact us at [info@testresources.com](mailto:info@testresources.com)

