

## CAMAC Equipment

CAMAC, Computer Automated Measurement And Control, is an IEEE-standard (583), modular, high-performance, realtime data acquisition and control system concept.

Since 1969, CAMAC has been used in many thousands of scientific, industrial, aerospace, and defense test systems around the world.

### APPLICATIONS

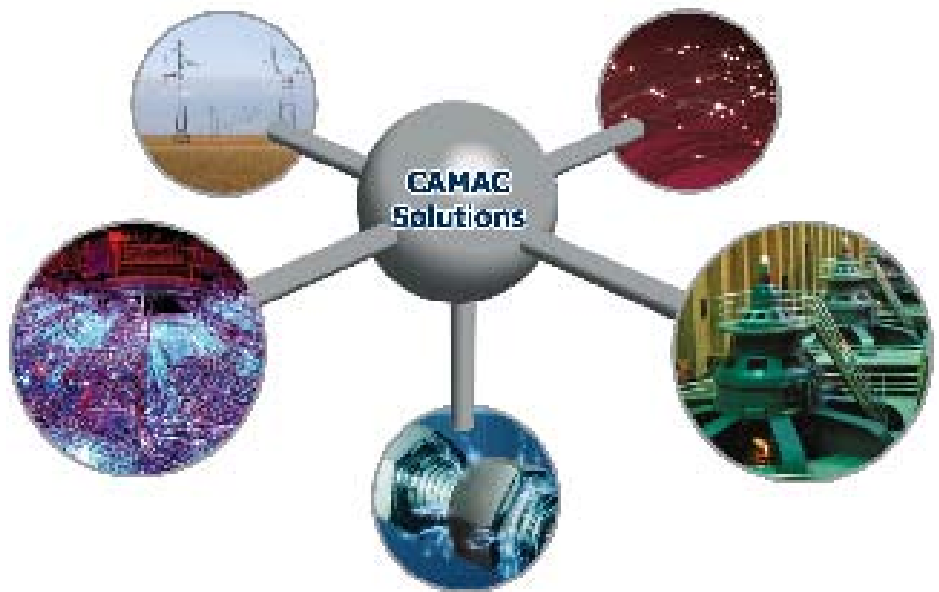
Real-time I/O interface for a personal computer or workstation

General-purpose data acquisition and control

Laboratory automation

Industrial process control

## 3929 SCSI Crate Controller



The Model 3929 is a double-width CAMAC crate controller which communicates with a host computer via the Small Computer Systems Interface (SCSI) bus and complies with ANSI Specification X3.131-1986.

### FEATURES

- Interfaces to the Small Computer Systems Interface (SCSI) channel
- Complies with the ANSI SCSI standard (X3.131-1986)
- Shares a SCSI bus with disk drives and other devices
- Multiple crate controllers addressed on a single SCSI bus
- Field-selectable as a main or auxiliary crate controller
- Supports a SCSI bus length to six meters (20 feet)
- Bus length increased by using third-party bus extenders
- Hardware list processor option



### GENERAL DESCRIPTION

The Model 3929 is a double-width CAMAC crate controller which communicates with a host computer via the Small Computer Systems Interface (SCSI) bus and complies with ANSI Specification X3.131-1986. This SCSI specification defines a standard approach for interfacing disk drives, printers, and other devices to one or more host computers. The SCSI bus is becoming one of the more popular peripheral channels for personal computers and workstations.

Peripheral controllers are called targets on a SCSI channel. Up to eight target controllers can be addressed on a single SCSI bus. In a typical personal computer or workstation, one or more floppy disk drives form one SCSI target controller, and the hard disk provides a second controller. This allows six additional controllers, such as the 3929, on the SCSI bus. The SCSI controller address is selected by a thumbwheel switch on the front panel of the 3929 crate controller.

The SCSI bus, as used by the 3929, contains an eight-bit data path with parity, nine control signals, terminator power, and associated ground return conductors. All signals are unbalanced, and the maximum total bus length is six meters (20 feet). Third-party bus extenders are available to provide balanced-line or fiber optic extensions to the SCSI bus. Two connectors are provided on the front panel of the 3929 to "pass through" the SCSI bus. On-board termination is provided on the 3929.

The 3929-Z1B option provides a hardware list processor. The list processor executes CAMAC commands contained in a 64 kilobyte storage memory. These commands may be either single CAMAC operations or Block Transfer operations. The list processor allows multiple CAMAC operation to occur within the crate by executing a single SCSI command.

This module is configured at the factory as a main crate controller. It can be changed to an auxiliary crate controller in the field by removing the plug-in resistor packs used to terminate the Dataway. As an auxiliary, the 3929 conforms to the front-panel Request/Grant arbitration protocol specified in IEEE Standard 675-1982

### CABLE INFORMATION

The SCSI specification defines an A Cable and a B Cable transmission scheme. The A Cable scheme can utilize either a 50-contact low-density connector or a 50-contact high-density connector. The B Cable scheme uses a 68-contact high-density connector. The 3929 utilizes the A Cable scheme and includes one each of the low-density and high-density 50-contact connectors. Several cables are available for interconnecting the 3929(s) and the host computer system. The KineticSystems Model 5809-Cxyz features a 50-contact low-density mating connector at one end of the cable assembly, and a 50-contact high-density connector at the other. The Model 5853-Cxyz cable assembly contains a 50-contact low-density connector at both ends. Those who have computers with only the B Cable connector available should order the Model 5809-A20J (two meter length) or 5809-A30J (three meter length) cables. These assemblies have a 68-contact high-density connector at one end and a 50-contact low-density connector at the other end. One additional cable assembly — the 5809-Bxyz — has 50-contact high-density connectors at both ends. It is useful in connecting a 3929 to the SCSI port on the Model 3968 Vantage 300 Intelligent Crate Controller.

### ACCESSORIES

- Model 5809-Axyz SCSI Interface Cable, 68P HD to 50P Amp
- Model 5809-Bxyz SCSI Interface Cable, 50P HD Connectors
- Model 5809-Cxyz SCSI Expansion Cable, 50P HD to 50P AMP
- Model 5853-Cxyz 50-contact Blue Ribbon Cable Assembly

Note: These cable assemblies are available in lengths of one, two, or three meters.

### ORDERING INFORMATION

MODEL	DESCRIPTION
3929-Z1B	SCSI Crate Controller with List Processing

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