

## CAMAC Equipment

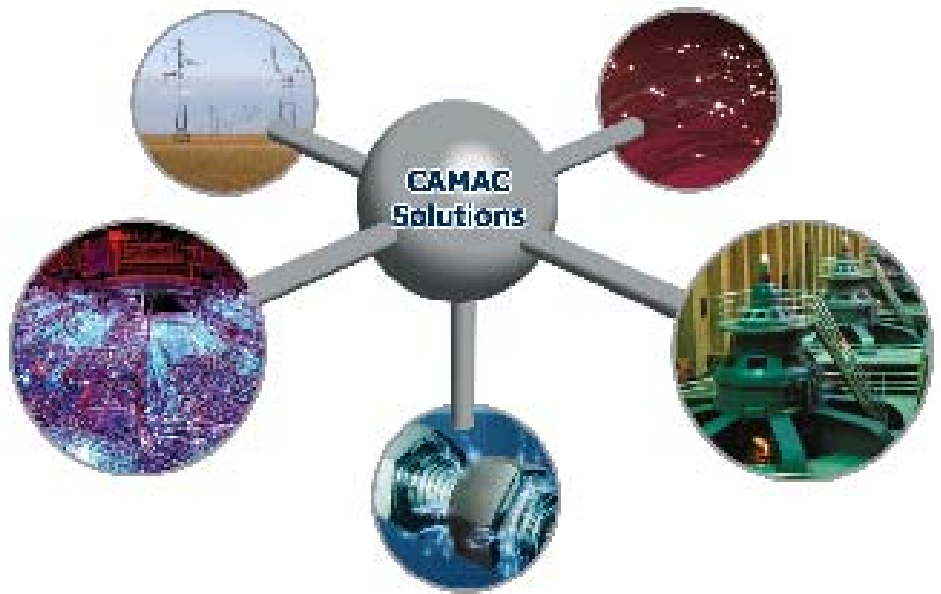
CAMAC, Computer Automated Measurement And Control, is an IEEE-standard (583), modular, high-performance, realtime data acquisition and control system concept.

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

### APPLICATIONS

Jet and rocket engine testing  
General-purpose data acquisition

## 3564 4-channel Strain Gage Signal Conditioner



The Model 3564 is a single-width CAMAC module providing four channels of strain gage bridge completion and input filtering as well as four channels of input multiplexing.

### FEATURES

- 4 channels
- Bridge measurements with one, two, or four active arms
- Programmable shunt calibration
- On-board excitation source
- Two-pole, lowpass filter per channel
- Multiplexer for use with 3518 ADC

## **GENERAL DESCRIPTION**

The Model 3564 is a single-width CAMAC module providing four channels of strain gage bridge completion and input filtering as well as four channels of input multiplexing. It is used with the Model 3518 Scanning A/D Converter Host module. The 3564 can accommodate transducers that represent one, two, or four active arms of a bridge circuit. This input module provides the remaining legs of the bridge (three, two, or none). Bridge completion (for one, two, or four active transducer elements) can be selected on a per-channel basis.

Each channel on the 3564 has a precision voltage source for bridge excitation. The excitation sources are strap-selectable for 5 or 10 volts. Calibration resistors are available that can be placed in parallel with one leg of the bridge. The switching of these resistors is programmable on a per-channel basis. Each channel also includes a bridge balance potentiometer accessible at the module front panel along with test points to monitor bridge output.

The Model 3564 is available in options with or without bridge completion resistor kits installed. Bridge completion resistor kits can be ordered separately on a per channel basis and are available for bridges with 120 ohms per leg or with 350 ohms per leg. Each kit also includes a resistor to limit the range of the balance adjustment as well as a shunt calibration resistor. All bridge completion resistors have a tolerance of  $\pm 0.05\%$ .

Wiring from the transducers is brought into the 3564 via an AMP, 36-contact, high-density, rectangular connector mounted on the front panel. This connector mates directly with the Model 5944-Z1A mating connectors and with the Model 5855-Series of cable assemblies. The multiplexer output and control signals are bussed between the front panel of the 3564, other signal conditioning modules, and the 3518 ADC module via the Model 5840 10-wire flat ribbon cable. The front panel also contains an N LED which flashes whenever the module is addressed.

## **FILTERS**

The 3564 contains a passive, lowpass filter per channel. These filters provide a nominal 3dB attenuation at 10 hertz with a rolloff of 12 dB per octave above 10 hertz. Contact KineticSystems Corporation for filters with other cutoff frequencies.

## **CHANNEL SELECTION**

If the 3564 Channel Address switch is set to "0," then its first channel corresponds to the first channel of a 3518 scan. The Channel Address switch can be set from 0 to 7 (with the first channel of the 3564 in the appropriate four-channel group of the 3518). This allows maximum flexibility in configuring a system with multiple input modules connected to a 3518. The First Channel address can be read via the Dataway for verification.

## **POWER REQUIREMENTS**

+6 volts — 615 mA  
+24 volts — 160 mA  
-24 volts — 45 mA

## **WEIGHT**

.62 kg. (1 lb. 6 oz.)



#### ACCESSORIES

Model 3518-Z1A	16-bit Scanning A/D Converter Host
Model 5944-Z1A	Mating Connector
Model 1854-A2A	Termination Panel with 5855-B30J Cables
Model 5855-A30J	Cable Assembly
Model 5840-Series	Cable Assemblies
Model 3564-001	Resistor Kit for 120-ohm Bridges (Includes bridge completion, shunt calibration and balance limit resistors for one channel)
Model 3564-002	Resistor Kit for 350-ohm Bridges (Includes bridge completion, shunt calibration and balance limit resistors for one channel)

#### ORDERING INFORMATION

MODEL	DESCRIPTION
3564-V1A	4-channel Strain Gage Signal Conditioner without Resistor Kits
3564-v1B	4-channel Strain Gage Signal Conditioner with Four Resistor Kits for 120 ohm Bridges
3564-V1C	4-channel Strain Gage Signal Conditioner with Four Resistor Kits for 350 ohm Bridges
3564-V2A	4-channel Strain Gage Signal Conditioner with Four Resistor Kits for 350 ohm Bridges

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