

## CAMAC Equipment

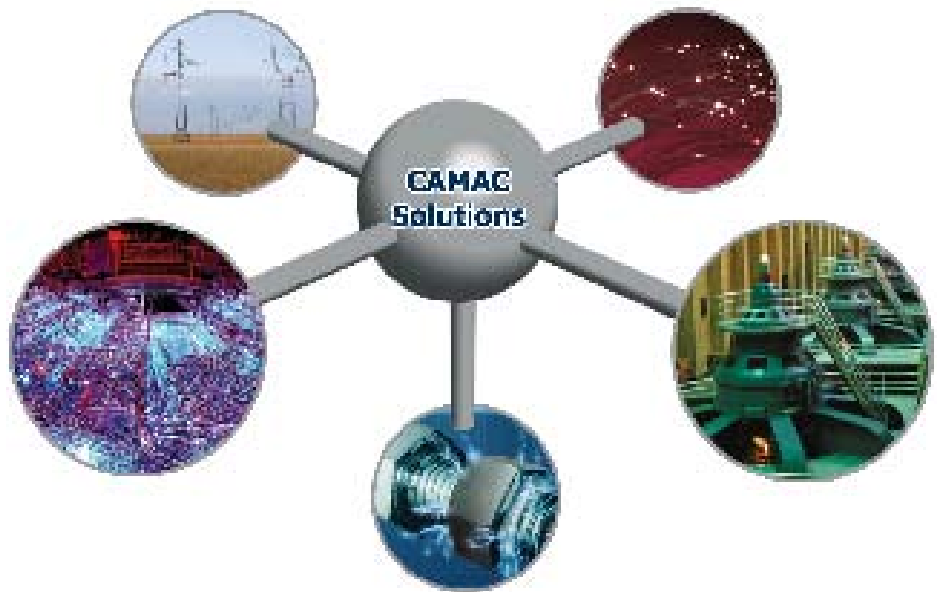
CAMAC, Computer Automated Measurement And Control, is an IEEE-standard (583), modular, high-performance, realtime data acquisition and control system concept.

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

### APPLICATIONS

Driving control transformers  
Positioning control systems

## 3395 3-channel, Digital-to-synchro Converter



The Model 3395 Digital-to-synchro Converter (DSC) module provides an interface between the CAMAC Dataway and standard three-wire synchro receivers, allowing the computer to control a device's angular position.

### FEATURES

- Three-channel digital-to-synchro converter module with 16-bit resolution
- Total cumulative output error is less than 4 arc-minutes
- Rank 1/Rank 2 registers for simultaneous conversion
- Simultaneous conversions triggered from Dataway P1 line or front-panel input

## GENERAL DESCRIPTION

The Model 3395 Digital-to-synchro Converter (DSC) module provides an interface between the CAMAC Dataway and standard three-wire synchro receivers, allowing the computer to control a device's angular position. It is a double-width module with three DSC channels: each channel contains a separate converter with 16-bits of resolution. The DSC outputs are brought to a 50-pin "D" connector on the front panel.

The 3395 accepts straight binary data, representing the desired angles (0 to 360 degrees) from the CAMAC Dataway. Setting the module's Mode Control register determines whether this data is passed directly to the selected DSC channel or held for subsequent, simultaneous conversion of all channels.

## OPERATION

Data is written into the Rank 1 registers for each channel via F(16) commands. External control of the Rank 2 register (and DSC) update is selected by the Mode register. Rank 1 data can be copied directly into the Rank 2 register by the F(16) command for independent conversion; for simultaneous conversion, all three channels of data can be copied into the Rank 2 registers by a one microsecond pulse on the P1 or P2 Dataway lines or by a signal at the front-panel LEMO connector. There are five modes of external Rank 1/Rank 2 update control, determined by the contents of the Mode Control register. This register is written by an F(17)•A(0) command using Dataway bits W1-W3 (W1 =LSB). Rank 1 data can be copied into the Rank 2 register by an F(25)•A(0)command regardless of mode setting

## MODE CONTROL REGISTER

Mode	Control of Rank 1/Rank 2	Transfer
0	Independent	Channel Conversion
1	Rank 1/Rank 2	Transfer on P1 pulse (See Note)
2	Rank 1/Rank 2	Transfer on P2 pulse
3	Rank 1/Rank 2	Transfer on P1 or P2 pulse (See Note)
4	Rank 1/Rank 2	Transfer on P2 pulse, followed by P1 pulse

Note: The P1 pulse and the front-panel trigger inputs are strap-selectable

## SPECIFICATIONS

(for each channel, 25 degrees C, except where noted)

<b>Resolution:</b>	16 bits
<b>Reference signal input:</b>	26 Vrms, 400 hertz
<b>Output rating:</b>	11.8 Vrms line-to-line at 400 hertz
<b>Settling:</b>	To within 1/2 LSB within 50 microseconds with a 179 degree step
<b>Performance:</b>	Monotonic to 14 bits, 15 to 35 degrees C
<b>Total cumulative error:</b>	Less than 4 arc-minutes
<b>Output drive:</b>	1.3 volt ampere (max)

## POWER REQUIREMENTS

Volts — 250 mA  
 Volts — 350 mA  
 -24 volts — 550 mA

## WEIGHT

1.03 kg. (2 lb. 5 oz.)



## ACCESSORIES

Model 5950-Z1A	Mating Connector
Model 5934-Z1A	Mating Connector
Modes 1850-A1D or E1D	Rack Termination Pane

## ORDERING INFORMATION

3395 Products and Part Numbers

MODEL	DESCRIPTION
3395-A2A	3-channel, 16-bit Digital-to-synchro Converter, 50-contact Ribbon Connector
3395-A2B	3-channel, 16-bit Digital-to-Resolver Converter, 50-contact Ribbon Connector
3395-E2A	3-channel, 16-bit Digital-to-synchro Converter, 50P "D" connector
3395-E2B	3-channel, 16-bit Digital-to-Resolver Converter, 50P "D" connector

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