

CAMAC Equipment

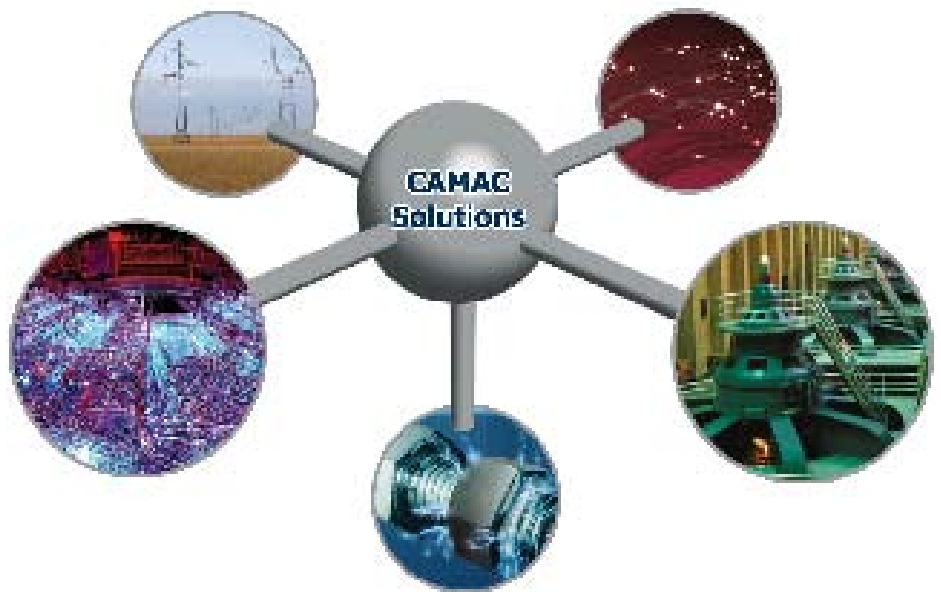
CAMAC, Computer Automated Measurement And Control, is an IEEE-standard (583), modular, high-performance, realtime data acquisition and control system concept.

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

APPLICATIONS

Industrial process control
Laboratory automation
Drives gauges or indicators
PID loop control

3116 16-channel, 16-bit D/A Converter



The Model 3116 is a single-width CAMAC module with 16 differential output voltage channels.

FEATURES

- Sixteen independent analog outputs 10 volt output
- 16-bit resolution (one part in 65536)
- 12 milliampere drive capability
- Low drift
- Single Gain and Offset adjustments
- 2-pole Bessel output filter on each channel
- Power-on reset to zero volts



GENERAL DESCRIPTION

The Model 3116 is a single-width CAMAC module with 16 differential output voltage channels. The maximum output of each channel of the 3116 is rated at 10 volts, at a maximum 12 milliamperes. Output signal levels can be resolved to 16 bits (one part in 65536) with better than 14-bit accuracy. The settling time for a 20 volt output step is 2 milliseconds.

Data values for each channel are written to a 16-bit wide, 16-word dual-ported memory. The memory is sequentially scanned, and the values are applied to a single, 16-bit Digital-to-Analog converter circuit. The DAC output is then multiplexed to 16 high-precision sample-and-hold circuits, the outputs of which are fed through a 2-pole, active low-pass Bessel filter before being brought to the front panel connector. Since the voltage outputs of all circuits are accurate to within 500 V, only one Gain and one Offset potentiometer are needed to adjust the DAC. All channels are updated every 2.3 ms. The nominal cutoff frequency of each filter is set at 400 Hz.

Based on the position of an on-board strap option, data may be written and read in either offset binary or two's complement format. During power-on, the module goes into a sequence of zeroing the memory contents. This sequence lasts approximately 50 microseconds, and any attempt to read or write the memory during this time results in a Q = 0 response.

The output signals are available at a 36-contact, high-density rectangular connector on the module's front panel. This connector mates directly with KineticSystems' Model 5944 connector and Model 5855-Series of cable assemblies. The 3116 front panel also contains an N LED which flashes whenever the module is addressed.

ACCESSORIES

Model 5944-Z1A Mating Connector
Model 5855-Series Cable Assemblies

ORDERING INFORMATION

3116 Products and Part Numbers

MODEL	DESCRIPTION
3116-V3A	D/A Converter, 16 channels, 16 bits

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