



technical data

AMT 002/004-DC 2 or 4 AXIS SERVO CONTROL

TECHNICAL SPECIFICATION

This board can be used to control up to 4 Dc servo motors. It was designed specifically for controlling arc welding equipment. As such a great deal of attention has been paid to RFI immunity. High specification opto isolators are used with 2500 volts isolation. The analogue signals are isolated using Burr Brown ISO122P. Also the board layout is such that no signals from the outside world are placed near any PC bus signals. The board will recognise a block of 16 addresses, which can be set anywhere in the range 0000H to FFF0H.

Analogue Output Specification

4 x 12 bit DACs, reference voltage can be 2.5, 5.0 or 10 volts. Each DAC can be unipolar or bipolar. At power on DAC outputs will be at 0v. All DAC outputs can be updated simultaneously under software control.

Each DAC output capable of supplying +/- 20mA.

Encoder Input

4 x Encoder input channels, each consisting of A, B and Index signals. Each channel can be linked for

TTL or Differential Line Receiver signal levels. Maximum input frequency 250 KHz (1,000,000 quadrature counts per second). (Faster version available).

Internal 12 bit up/down counters used to maintain position registers.

Digital input filter to remove noise spikes.

Analogue Input

Optional 10 bit ADC input channel.

Can be linked for 0-10v range or +/- 5v range.

General

On board 8253 counter timer chip can be linked to generate real time clock interrupts.

2.000 MHz crystal time reference.

Compatible with PC/XT/AT/386/486 machines.

Isolation	+/- 2500 Volts
Operating temperature	0 to +70 degrees C
Board size	8.5 x 3.9 inches (216 x 99 mm)
Connector	37 way 'D' type male

OPTIONS

- Low cost versions available for education.
- Encoder only version for position/speed monitoring.
- AMT 002-DC 2 axis servo control.
- AMT 004-DC 4 axis servo control.
- AMT 004-ENC 4 axis encoder only version for position/speed monitoring.
- AMT ANALOG INPUT option for above cards

APPLICATIONS

- Motion control and positioning
- System Automation
- Process Control
- Robotics
- Automatic Welding Systems
- Profile cutting machines
- Woodwork Routing Machine
- Engraving Machines
- Drilling Machines
- Laser cutting machines
- Water jet cutting machines
- Glue laying machines
- Automatic stitching machines
- Lathes & Mills

key features

- 4 optically isolated AB encoder input channels
- Differential inputs available by link settings
- 4 isolated 12 bit analogue output channels
- 1 isolated 10 bit analogue input channel
- On board 8253 counter with 2MHz crystal reference
- OPTO isolation voltage +/-2500 volts DC
- Analogue breakdown voltage 2400 volts rms at 60Hz
- Each encoder channel contains a 12 bit up/down counter
- User selectable port address
- Multiple cards may be used in the same system
- Smooth continuous path motion
- Comprehensive software support
- DOS Library & Windows DLL

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