

# Multi-Axis Ethernet Motion Controllers Features

## High Performance

- 32-bit RISC processor for high speed performance.
- Non-volatile memory for variables, arrays and programs.
- Multitasking to run up to eight programs simultaneously.
- PID compensation with velocity and acceleration feed forward, integration limits, notch filter, and low-pass filter.
- Any mode of motion, including jogging, point-to point, contouring, PVT, linear and circular interpolation, electronic gearing and electronic cam. Features include elliptical scaling, slow-down around corners, infinite segment feed and feed rate override.

## Flexible

- Available in 1 through 8-axis models.
- Mix-and-match steppers and servos on any combination of axes.
- Controller available with internal 4-axis drives for stepper and servo motors up to 750 Watts/axis. Option for sinusoidal commutation, or connect to external drives of any power range.
- Accepts single 20 to 80 VDC input.
- 10/100 Base-T Ethernet ports.
- Two RS232 ports up to 115kb for Accelera and USB port for Econo.
- D-type connectors for easy interface to external devices.
- Software tools for easy tuning of servo systems in the time or frequency domain.

*Dedicated applications engineers*



## Multiple I/O

- Optically isolated home input and forward and reverse limits for every axis.
- High speed position latch for each axis and output compare.
- Uncommitted, isolated I/O: 8 in/8 out for 1-4 axis; 16 in/16 out for 5-8 axis models.
- High-power 500mA outputs.
- 8 uncommitted analog inputs with 12-bit or 16-bit ADC.
- Supports quadrature, sin/cos, BiSS and SSI encoders.
- Accepts two encoders for every servo axis.
- RIO PLC available for Ethernet I/O expansion.

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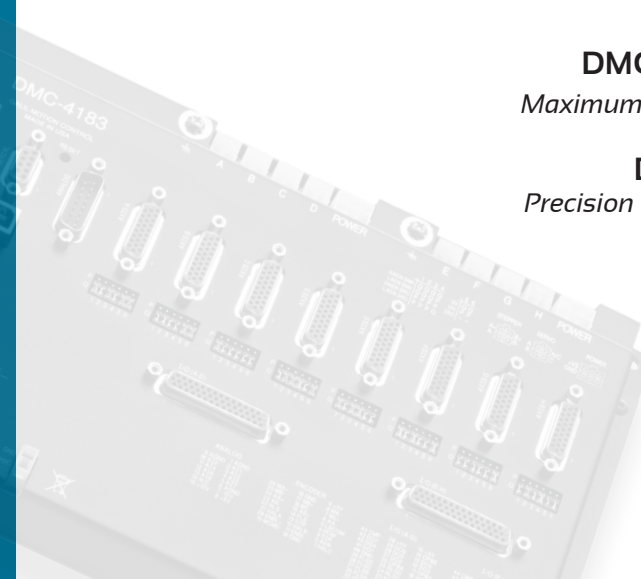
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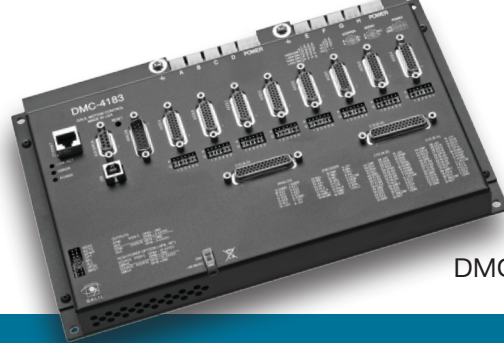
**DMC-40x0 Accelera Series**  
*Maximum Performance. Fully Loaded.*

**DMC-41x3 Econo Series**  
*Precision Control. Low Cost Package.*





DMC-4080



DMC-4183



DMC-4040

## DMC-40x0 and DMC-41x3 Drive Options (4-AXIS)

Drive Model	Motor Type	Specs
AMP-43140	Brush Servo	Linear 1A; +/-12-30 VDC
AMP-43640	Sinusoidal Brushless Servo	Linear 1A; 15-30 VDC
AMP-43040	Brush or Brushless Servo	7A cont, 10A peak; 20-80 VDC
AMP-43540	Sinusoidal Brushless Servo	8A cont, 15A peak; 20-80 VDC
AMP-43240	Brush or Brushless Servo	10A cont, 20A peak; 20-80 VDC
SDM-44040	Full, Half, 1/4, 1/16 Stepper	1.4A/phase; 12-30 VDC
SDM-44140	Microstep	3A/phase; 12-60 VDC

### Options

- SSI or BiSS encoders
- Din rail mounting
- 12 VDC power
- 16-bit analog inputs (12-bit standard)
- RS422
- 4-20mA analog inputs
- Real time clock
- Shunt regulator
- Custom options available on request



Accelera  
Accessories



Econo  
Accessories

## Comparison of Accelera and Econo Controllers

Comparison	DMC-40x0 Accelera Series	DMC-41x3 Econo Series
Ethernet	1 or 2, 10/100 Base-T	10/100 Base-T
RS232	2 ports, 115 kb	Auxiliary port
USB	None	Yes, main port
Maximum Encoder Rate	22 MHz	15 MHz
Maximum Stepper Rate	6 MHz	3 MHz
Maximum Servo Update	31 microseconds	62 microseconds
Command Processing	40 microseconds	200 microseconds
Program Memory	2000 lines x 80 chr	2000 lines x 80 chr
Array Size	16000 elements	16000 elements
# of Variables	510	510
# of Uncommitted Digital I/O	8 in, 8 out for 1 to 4 axis 16 in, 16 out for 5 to 8 axis	8 in, 8 out for 1 to 4 axis 16 in, 16 out for 5 to 8 axis
Optically Isolated I/O	Standard, high current outputs	Standard; high current output optional
Extended I/O	32 TTL I/O	None
Analog Inputs	Standard, 8 inputs	Standard, 8 inputs
Packaging Options	Box-level only	Card or Box-level
Enclosure Dimensions	1-4 axis: 8.1" x 7.25" x 1.7" 5-8 axis: 11.5" x 7.25" x 1.7"	1-4 axis: 8.1" x 7.25" x 1.5" 5-8 axis: 11.5" x 7.25" x 1.5"
LCD	Yes	No

**You can order the DMC-40x0 and the DMC-41x3 with 1 to 8 axes. Consult Galil for a quotation.**

