

## **GE Fanuc Automation**

## Power Mate H Motion Control

The GE Fanuc Power Mate H is a high performance, all digital motion control for multi-axis applications. It is a suitable control for packaging, assembly and material handling systems.

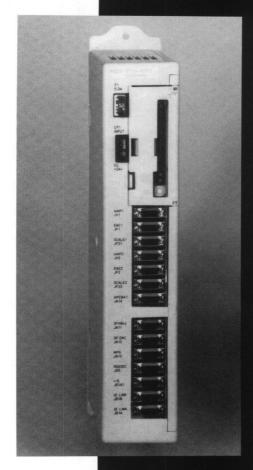
The GE Fanuc Power Mate H features include:

- A compact control unit with high density printed circuit boards
- Up to 6 axes and 6 independent paths; 2 or 3 linear interpolated axes controlled to 0.001mm, 0.0001" increments and traverse speeds up to 240m/min.
- Dynamic allocation of axis to paths through the motion profile data
- Motion programming using EIA/ISO standard commands
- Built-in PMC and I/O to control machine functions using familiar Ladder Diagram programming

The GE Fanuc Power Mate H is an advanced motion controller suited to applications which require high reliability for maximum up-time. High resolution encoders, variable in-position zones and selectable acc/dec profiles with adjustable time constants move the machine accurately, time after time.

Power Mate uses the same high performance digital servo drives as GE Fanuc CNCs. The all-digital design eliminates tuning of analog variables; "personality modules" are a thing of the past. The system works the way it's set up, even under changing environmental conditions.

Power Mate's built-in programmable machine control (PMC) provides direct control of machine functions with a high speed interface to the motion program. You can use the standard, pre-defined sequence control program or write a custom ladder program. In either case Power Mate integrates motion and sequence control. Through the PMC, custom macros can respond to external devices such as gauges for real-time adjustments to the motion profiles.



Technical

Specification

Guide

Careful
integration
of proven
technology
is the
hallmark of
Power Mate
design

Motion programming, status and diagnostics can be accomplished with a hand held keypad and display unit or an optional 9" monochrome CRT display and keypad which can be shared by up to sixteen Power Mates.

Up to 400 programs may be stored in onboard memory. Additional programs and control parameters can be conveniently stored on MS-DOS® compatible 3.5" floppy disks using the GE Fanuc Handy File, a factory hardened portable file transfer and storage unit. An interface is also provided for a compact flash memory card. Power Mate may be commanded by GE Fanuc CNCs and PLCs over the high speed I/O Link network. For distributed motion, the I/O Link connects Power Mate to the Series 90<sup>TM</sup> PLC products, thus marrying the advantages of high performance PLCs and operator interfaces with high performance motion control.

Careful integration of proven technology is the hallmark of Power Mate design. All the elements are designed to work together, reliably delivering peak performance while reducing system engineering costs.

| Max Controlled Axes               | 6                  |
|-----------------------------------|--------------------|
| Simultaneous Controlled Axes      | 3                  |
| Axis Type                         | Linear or Rotary   |
| Resolution(best available option) | 0.001 mm           |
| •                                 | 0.0001 inch        |
|                                   | 0.001 deg          |
| Look Ahead Feed Forward           | standard           |
| Switchless Ref. Point Return      | standard           |
| Follower to Ext'l Encoder (MPG)   | standard           |
| Machine Interface Options         |                    |
| Built-in I/O                      | 32in/24 out        |
| I/O Link                          | up to 1024 I/O     |
| High-Speed (Skip) Inputs          | 3                  |
| PMC (µS per step/max steps)       |                    |
| PA3                               | $1.5 \mu S / 12 K$ |
| Custom Macro                      | standard           |
| Macro Executor                    | option             |
| Part Program Storage (max)        | 256K (160m)        |

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| PCMCIA Memory Card Interface   | standard      |
|--------------------------------|---------------|
| Program Load/Store             | RS232         |
| Hand-Held Programmer           | option        |
| CRT Display                    | option        |
| Shared by up to 16 controls    | standard      |
| Ladder Monitoring              | standard      |
| Ladder Editing                 | option        |
| Servo setup                    | standard      |
| Alarm/Operation History        | standard      |
| Stored Pitch Error Comp.       | standard      |
| Linear Interpolation           | standard      |
| Feed Acceleration/Deceleration | Linear, Bell, |
|                                | Exponential   |
| Traverse Acceleration/Decel.   | Linear, Bell  |
| Torque Limit                   | standard      |
| Speed Changing Function        | option        |
| Interrupt Type Custom Macro    | option        |



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