

# Optima Motion Controllers

Galil's Optima motor controllers are prior generation controllers that are still sold and supported by Galil. Galil offers Optima motion controllers in PCI, PC/104, ISA and Ethernet/RS232. These controllers are available as full-featured, multi-axis Optima controllers or as single-axis controllers.

Complete specifications are included on Galil's website.

	<b>Multi-Axis Optima: Bus-based</b>	<b>Multi-Axis Optima: Stand-alone</b>	<b>Single Axis</b>
<b>Communication interface</b>	PC/104: DMC-12x0 ISA: DMC-17x0 PCI: DMC-18x0	Ethernet/RS232: DMC-22x0 USB/RS232: DMC-20x0	PC/104: DMC-1411 RS232: DMC-1412 PCI: DMC-1417
<b>Form factor</b>	card	box	card
<b>Number of axes</b>	x=1,2,3,4,5,6,7,8	x=1,2,3,4,5,6,7,8	1
<b>Connector type</b>	100-pin SCSI	100-pin SCSI	37-pin D 40-pin for DMC-1411
<b>Mating interconnect module</b>	ICM-1900/-2900	ICM-2900	ICM-1460
<b>Power requirement</b>	5V,+/-12V	90-260 VAC	5V,+/-12V
<b>Maximum encoder rate</b>	12 MHz	12 MHz	8 MHz
<b>Maximum stepper rate</b>	3 MHz	3 MHz	2 MHz
<b>Minimum servo update time</b>	1-2-axes: 125 usec	1-2 axes: 250 $\mu$ sec 7-8 axes: 625 $\mu$ sec	1-axis: 375 usec
<b>Optoisolated digital inputs</b>	yes, except for DMC-12x0	yes	no
<b># of uncommitted digital inputs</b>	1-4 ax: 8; 5-8 ax: 16	1-4 ax: 8; 5-8 ax: 16	7
<b># of uncommitted digital outputs</b>	1-4 ax: 8; 5-8 ax: 16	1-4 ax: 8; 5-8 ax: 16	3
<b># of analog inputs</b>	8	8	0
<b># of programmable I/O</b>	64 (with DB-1x064)	64	0
<b>Dual encoder for each axis</b>	yes	yes	yes
<b>Program memory size (lines x chr)</b>	1000 x 80	1000 x 80	250 x 40
<b>Array size (number of elements)</b>	8000	8000	1000
<b># of variables</b>	254	510	126
<b># of tasks for multitasking</b>	8	8	2