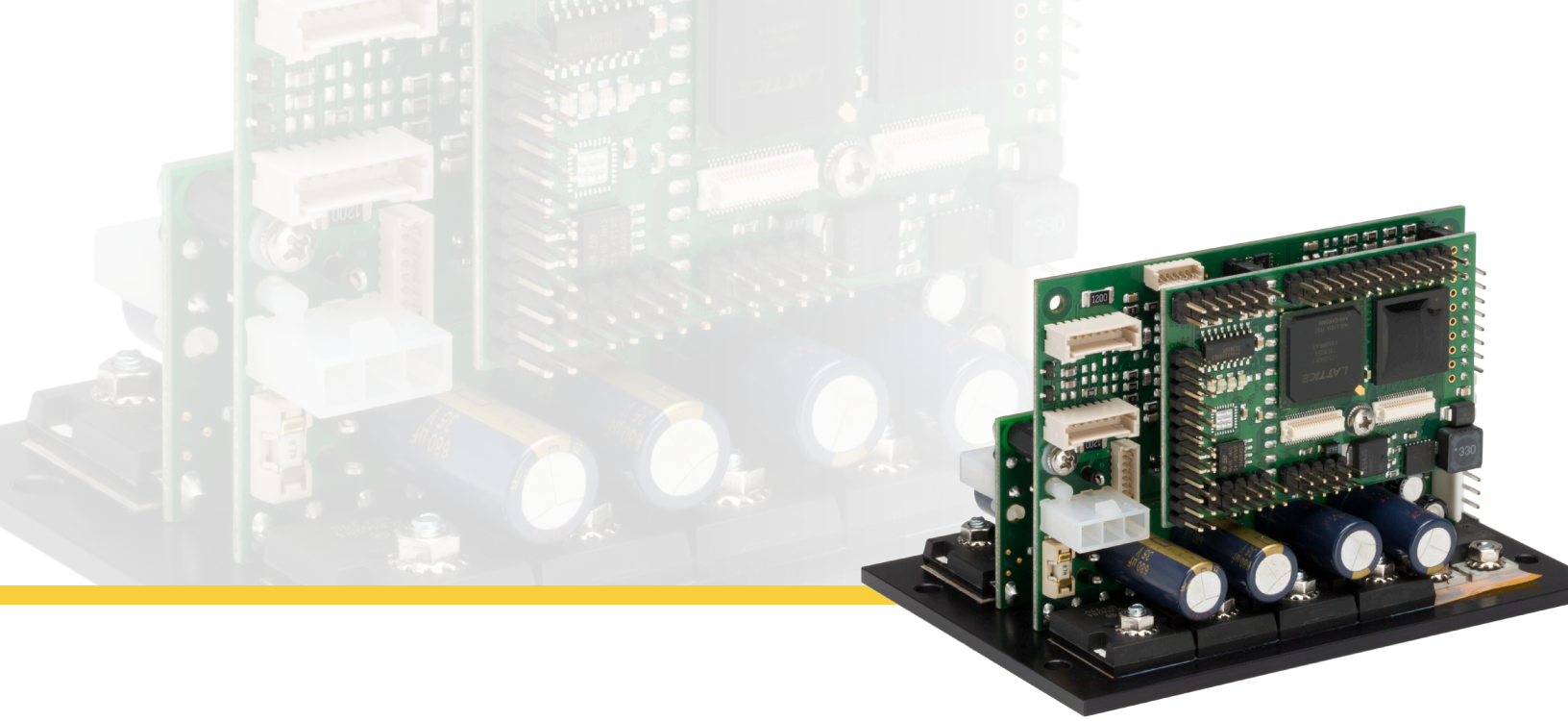

Servo Driver Solutions for Optical Scanning

Digital Series

Product Highlights

Our digital servo drivers feature self-calibration, state-space control, and command input optimization, features that are ideal for scanning applications demanding the highest speeds and accuracy. The drivers' patented technology delivers maximum system performance, flexibility, and ease of use with on-board processors that characterize the scanning components every time you turn on the system. For ease of integration, our compact DC Model servos include flexible power supply configurations, integral mounting hardware, and low-profile connectors.

Take full control using our easy-to-integrate, high-performance servos

- Simulation-based, pre-filtering algorithms for optimization of motion control
- Self-tuning and start-up calibration provide reduced system manufacturing cost
- Simplified field service increases savings and system up-time
- Compact, flexible servo footprint is easy to configure within complex systems
- Optimized performance provided with Cambridge Technology scanning products

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Servo Driver Solutions for Optical Scanning

Digital Series

Product Specifications	DC900 Model	DC2000 Model	DC3000 Plus Model (low noise)
Number of Axes	Single	Dual	Dual
Command Input	Analog (±5V differential, ±10V single-ended) XY2-100 High Speed Serial Digital	XY2-100 High Speed Serial Digital	XY2-100 High Speed Serial Digital
Analog Input Impedance	400K +/-1% ohms (Differential) 200K +/-1% ohms (Single Ended)	—	—
Analog Output Impedance	1K +/-1% ohms (for all observation outputs)	The un-terminated output of OPA2227, <1Ω	The un-terminated output of OPA2227, <1Ω
Position Input Scale Factor	0.50 volt/degree (40°system) 0.67volt/degree (30°system) 1.00 volt/degree (20°system)	—	—
Analog Position Input Range	+/- 10 volts max	—	—
Position Output Scale Factor	0.5 volt/degree	0.333V/degree non-differential	0.333V/degree non-differential
Power Supply Requirements	+/-15 to +/-32VDC configurations available	+/-15 to +/-32VDC configurations available	+/-15 to +/-28VDC configurations available
Maximum Drive Current Limit	8 amps peak, 5 amps rms (power supply and load dependent)	10 amps peak, 2.5 amps rms (per axis) (power supply and load dependent)	20 amps peak, 5 amps rms (per axis) (power supply and load dependent)
Quiescent Power	15W	16W	11.5W
Dither (RMS)	8 µrad	7 µrad	4 µrad
Operating Temperature Range	0 - 50°C	0 - 50°C	0 - 50°C
Dimensions[1]	5.14 cm x 10.48 cm x 4.45 cm	10.50 cm x 7.50 cm x 6.44 cm	10.50 cm x 7.50 cm x 6.44 cm

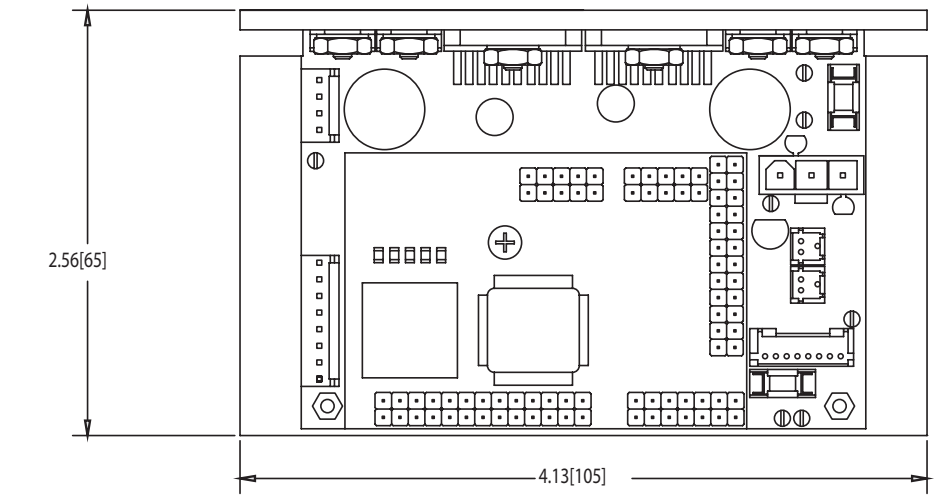
Notes:
All angles are in mechanical degrees, unless otherwise noted. All specifications apply after a 1 minute warm up period. All specifications are subject to change without notice.

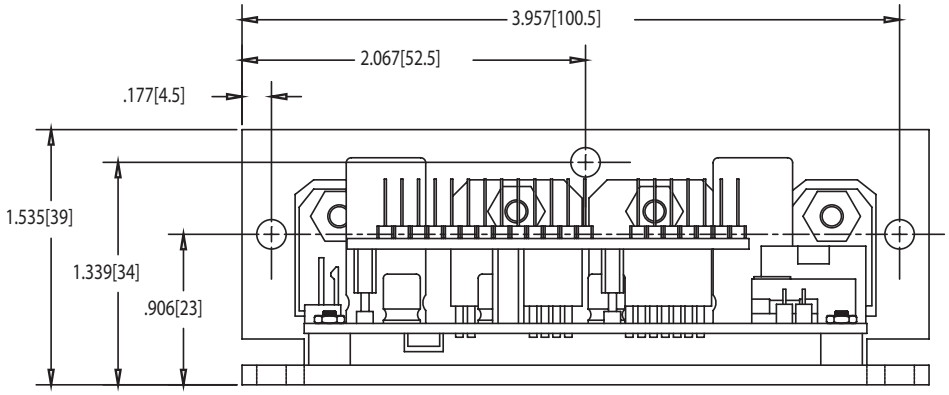
Reference:
1. Dimensions include standard, single-module heatsink bracket. DC2000 is also available with split-module heatsink bracket.

Servo Driver Solutions for Optical Scanning

Digital Series

DC900 Model





Notes:
All dimensions are in inches, unless otherwise noted. All specifications are subject to change without notice.

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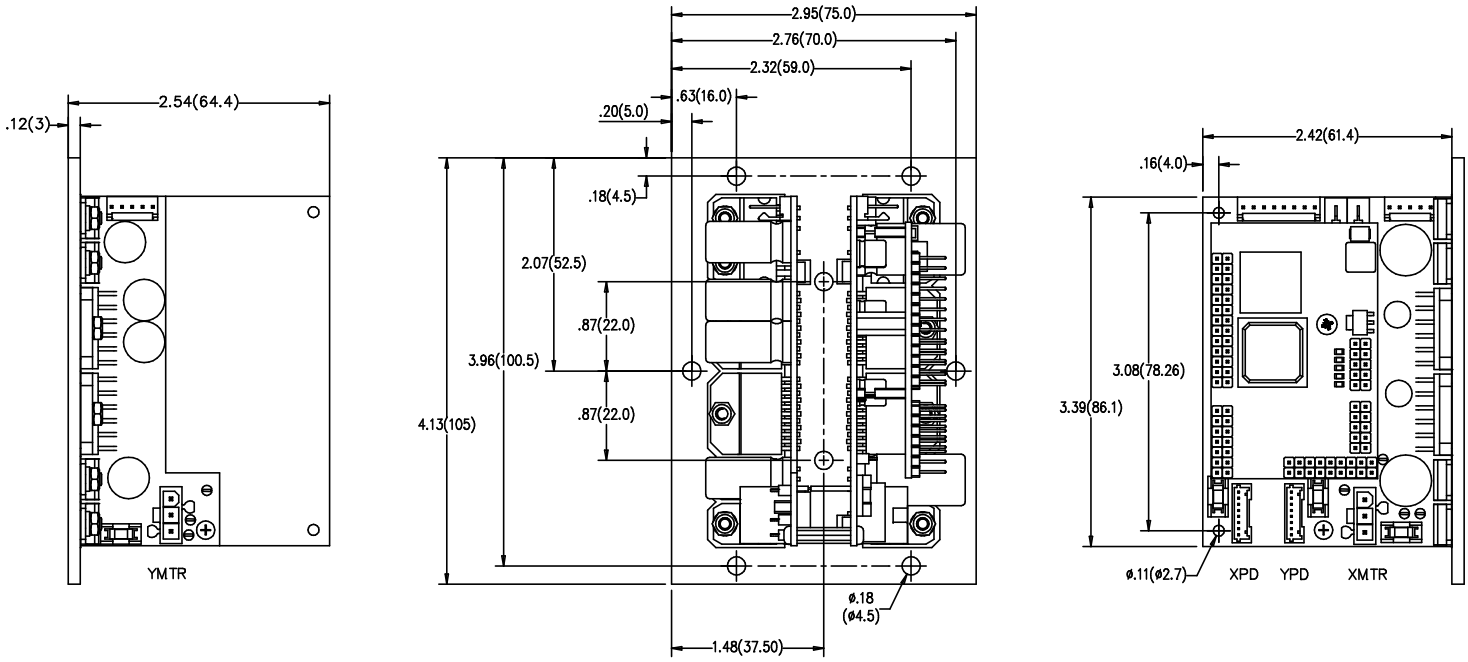
Servo Driver Solutions for Optical Scanning

Digital Series

DC2000 Model



Notes:

All dimensions are in inches, unless otherwise noted. All specifications are subject to change without notice.

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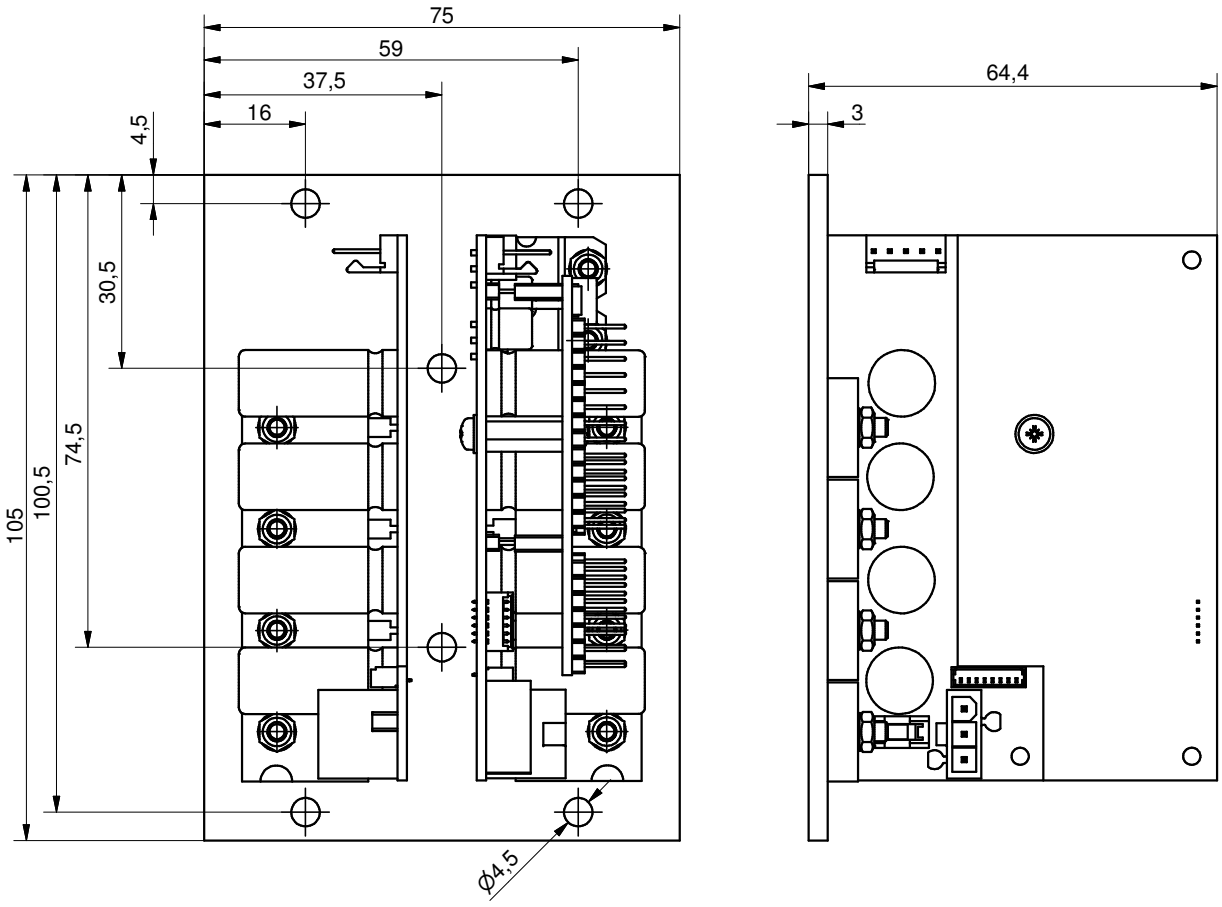
Servo Driver Solutions for Optical Scanning

Digital Series

DC3000 Plus Model



Notes:
All dimensions are in inches, unless otherwise noted. All specifications are subject to change without notice.

About Cambridge Technology

With close to 50 years of expertise, Cambridge Technology designs, develops, and manufactures innovative beam steering solutions including polygon- and galvanometer-based optical scanning components, 2-axis and 3-axis scan heads, scanning subsystems, high power scanning heads, and controlling hardware and software. We excel in collaborating with our key OEM partners to engineer products that meet their needs from the largest engineering solution to the smallest component. Key market applications include advanced industrial processes like additive manufacturing, laser converting, laser marking, and via-hole drilling, and medical applications such as laser treatment and optical coherence tomography. Cambridge Technology is a Novanta company.

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