

AG300 - Centralized Motion Controller High Performance 3-axis Controller and Dual-Axis Drive

AG300 is a high performance centralized motion controller family. It consists of a standalone 3-axis controller and an option to have an integrated 2-axis power amplifier to function like a dual-axis intelligent drive.



AG300 - Centralized Motion Controller



The AG300 controller is capable of handling 3-axis motion control with position and velocity loops running at 16 kHz sampling rate. User programs, up to 8 concurrent threads, are supported to make this an ideal standalone controller for compact systems. With Akribis ASD drive or any third-party drive, this controller can control any motor available in the market.



The DRV01-2A is a dual-axis intelligent driver supporting full functionalities of AG300 controller plus 16 KHz vector current control. It is capable of driving 2 motors at 16A peak each. It can drive any voice coil, brushed and brushless motor, including direct drive linear and rotary motor, as well as stepper motors in open and closed loop.



General Specifications

Feature	AG300 Controller	DRV01-2A Driver
Number of axes	3	2 (+external drive for 3rd axis)
Motor types	Depends on external amplifier	Brushed,Brushless,Voice Coil,Stepper
Power supply	12-36 VDC	12-90 VDC
Continuous current	NA	1.43A/2.86A/5.71A (RMS)
Peak current duration	NA	≤ 2 second
Communication	Ethernet,RS-232,CAN Bus, USB, RS-485	
Control filter sampling rate	16KHz (Position/Velocity/Current) + Bi-Quad filters + Feed Forward	
Control filter structure	Position over velocity over current	
Encoder Input	3 x Encoder ports	
Supported Encoder Type	Incremental AquadB	
	Incremental SIN/COS (1Vp-p) (only for encoder port A and B)	
	Absolute encoder (Biss-C, EnDat2.2, SSI, etc)	
	Consult factory for other protocols	
Special Features	Encoder Error Mapping: 1D, 2D or 3D	
	Auto-Tuning	
	Frequency domain system identification and design	
Operational modes	Flexible Gain Scheduling	
	Position/Velocity/Torque	
Motion modes	Point to point, repetitive	
	Jogging, ECAM, FIFO	
	Master/Slave (gearing)	
	Joystick, Handwheel	
	Vector: Linear, Arc, Helical	
	CNC style sequential motion	
Isolated inputs	11 (NPN/PNP, Sink/Source configurable)	
Isolated outputs	4(Sink/Source configurable)	
Differential inputs	8	
Differential outputs	4	
Analog inputs	4 (12 bits)	
Analog outputs	4 (16 bits)	

AG300 Part Numbering

AG300 Controller With Casing + Connector Board for 3rd Party Drivers

AG300 3-axis Controller WITH Casing + AG300 Connector board CB01	AG300C + CB01
AG300 Connector board CB01 Connector Kits	AG300CCB01-CK

AG300 Integrated Controller + Casing + Dual-axis Driver Board

AG300 3-axis Integrated Controller + Casing + Dual-axis Driver Board (80Vdc, 1.43A/2.86A)	AG300C + DRV01-2A-0102
AG300 Dual-axis Driver Board Connector Kits	AG300DRV01-CK
0.4m Encoder & 0.4m I/O - Interface Cables for Dual-axis Driver Board	AG300DRV01-Cables

AG300 3-axis Integrated Controller + Casing + Dual-axis Driver Board (80Vdc, 2.86A/5.71A)	AG300C + DRV01-2A-0205
AG300 Dual-axis Driver Board Connector Kits	AG300DRV01-CK
0.4m Encoder & 0.4m I/O - Interface Cables for Dual-axis Driver Board	AG300DRV01-Cables

AG300 3-axis Integrated Controller + Casing + Dual-axis Driver Board (80Vdc, 5.71A/11.43A)	AG300C + DRV01-2A-0511
AG300 Dual-axis Driver Board Connector Kits	AG300DRV01-CK
0.4m Encoder & 0.4m I/O - Interface Cables for Dual-axis Driver Board	AG300DRV01-Cables

AG300 3-axis Integrated Controller + Casing + Dual-axis Driver Board (80Vdc, 1.43A/5.2.86A)



AG300 3-axis Controller WITH Casing + AG300 Connector board CB01

