



High Performance Low Voltage Servo Drives



Compact CANopen® and Sercos III low voltage drives, ideal for driving stepper, brushed and brushless DC motors. A high PWM switching frequency with advanced space-vector modulation enables operation with low inductance motors while minimizing current ripple and eliminating acoustic noise.

Extensive functionality meets any low voltage application requirement

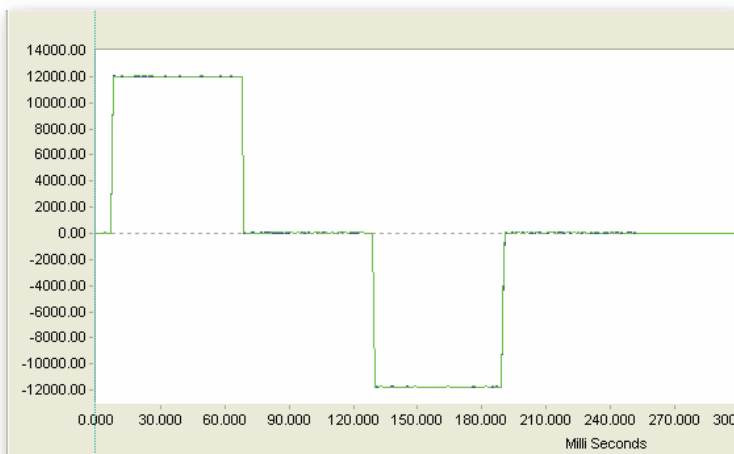
- Ideal for driving brushless and brushed DC motors used with CANopen® or Sercos III interface, and stepper motors used with Sercos III interface
- Multiple I/O points
- Single-ended or differential encoder feedback
- Configurable homing based on index and / or digital input
- Current, velocity and position loop modes
- Ideal for applications such as semiconductor wafer handling processes, medical applications, surveillance cameras, and more

Space-saving efficiency without compromising on performance

Measuring only 117 x 83.5 x 21.5 mm and weighing just 250 g, the LVD is one of the smallest low-voltage drives. Its compact size, however, is no indication of the power versatility it offers. With 12 Arms peak current and switching frequency of up to 100 KHz, LVD is one of the most powerful low voltage drives in the industry.

Increased accuracy

LVD delivers outstanding performance thanks to field oriented control (DQ) and highly flexible tuning capabilities. LVD also offers high sampling rates for the velocity and position loops, achieving wider bandwidth and greater accuracy.



Current loop step response

Key benefits

- Ideal for driving brushless and brushed DC motors using CANopen® or Sercos III interface, and stepper motors using Sercos III interface
- Communication via RS232 / CANopen® / Sercos III
- Power supply voltage: 15 – 48 VDC
- Current rating: 7 A continuous / 12 A peak
- Compact and lightweight
- Current, velocity and position loop
- PWM switching frequency of up to 100 kHz, minimizing current ripple and eliminating acoustic noise
- Separate bus and logic power supplies allow safe motor power off while maintaining the drive state, and a fast restart
- Fast and easy drive configuration with the Axis Manager GUI
- CE compliance



Servotronic LVD
The perfect fit to your motion suit!

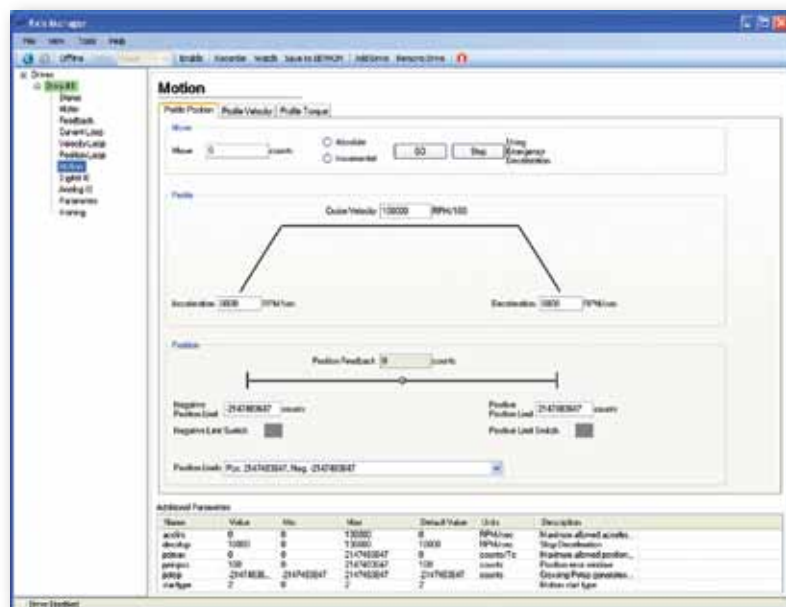
Axis Manager wizard for simple commissioning

- User-friendly Windows interface
- Motor and feedback configuration
- Control loop tuning
- I/O setup
- Monitoring and recording functions

Reliability

Various mechanisms ensure continuous LVD operation, and prevent damage due to over-current or over-voltage. Reliability features include full protection against:

- Short circuit
- Drive over-temperature
- Over-current
- Over-voltage
- Under-voltage
- Differential encoder disconnect
- Hall sensor malfunction
- I2T overload



Axis Manager motion configurator

Fast customization for specific applications

LVD hardware and firmware can be modified to meet particular application demands.

Rating and dimensions

Model	Logic Voltage (VDC)	Input Voltage (VDC)	Continuous Current (A rms)	Peak Current (A rms)	Length (mm)	Width (mm)	Height (mm)
LVD CANopen®	10–36	12–48	7	12	117	83.5	21.5
LVD Sercos III	10–32	15–48	7	12	117	84.0	22.0

Communication:

CANopen®* (CiA 301, CiA 402)
Sercos III*
RS232

Motor feedback:

Incremental encoder
Hall Sensors

I/Os:

LVD Sercos III

Digital: 4 x Input, 1 x Output
Analog: 2 x Input
RS-485 interface

LVD CANopen®

Digital: 6 x Input, 2 x Output
Analog: 2 x Input
RS-485 interface

* Some features are not available on all models.

Ordering information

LVD CANopen® - LVD48701

LVD Sercos III - LVD-E4807/SIII



For specifications and manuals, go to
www.servotronic.com/LVD.html