

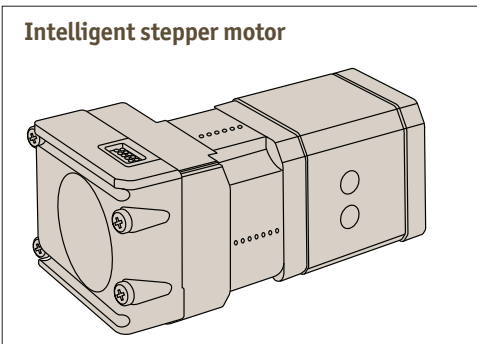
### Intelligent stepper motor

- No need for separate motion controller.
- Inbuilt motor, driver and controller.

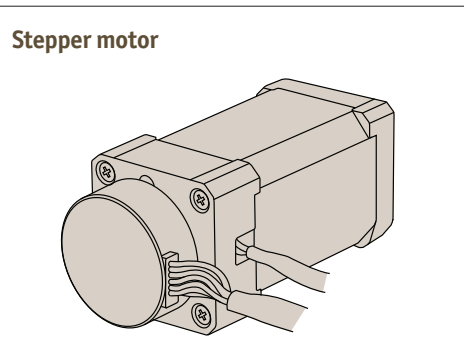
### Options

- Standard
- With rotary encoder (512 line)

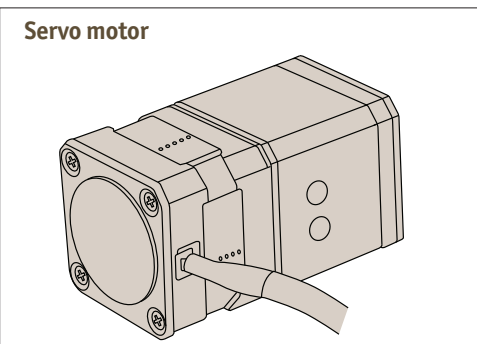
### Separate motor controllers (single axis)



- Standard
- With rotary encoder (512 line)



- Standard
- With rotary encoder (1000 line)



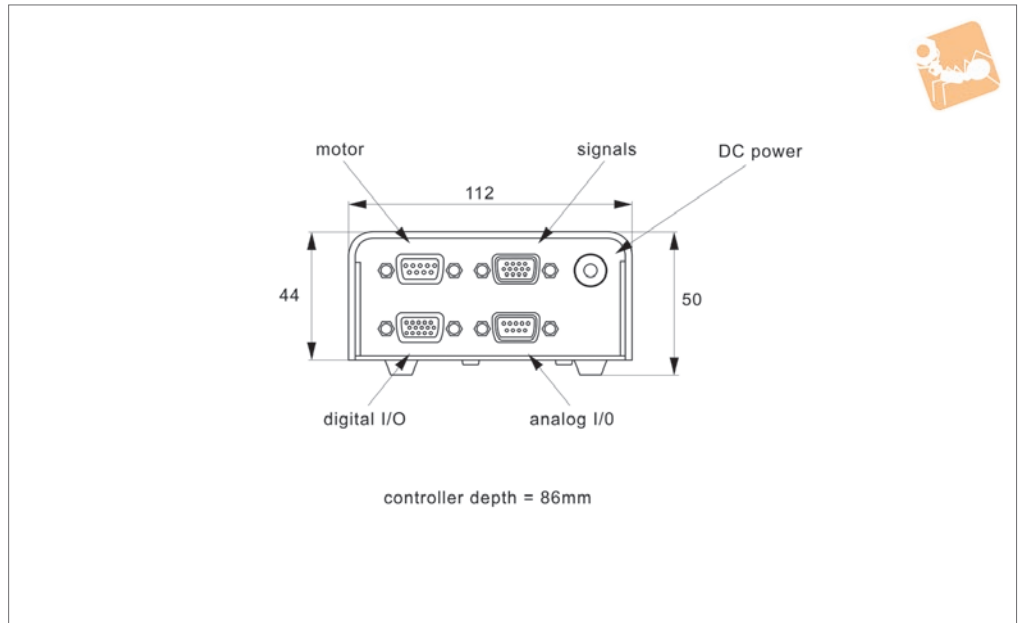
- Standard
- With rotary encoder (1000 line)

Positioning Stages from Automotion Components

MOTORISED LINEAR STAGES



## L3521



### Material

Includes universal AC power adapter, user interface software and USB cable.

### Technical Notes

Communication: USB 2,0 or RS-485 ASCII (9600 - 115200 bps)

Digital IO Communication: 4 bit motion profile select inputs (DI3-DI6). One start motion input (DI1). One abort/clear motion input (DI2). One in position output (DO1). One error output (DO2).

A/B/Z differential encoder inputs:

StepNLoop closed loop control (position verification)

2 x 10-bit analog inputs (joystick control).  
 Opto-isolated I/O: 6 x inputs, 2 x outputs,  
 1 x high speed position capture latch input, +limit/-limit/home inputs.

### Tips

Can only be plugged into, and control a single axis. Comes with cables and software. Simple plug and play system via USB port of your laptop or PC. Also has analogue inputs for connection of a joystick control.

This motion controller can only be used with stages that have a stepper motor attached. If you have a servo motor, see part

number L3297.

Micro-stepping is the number of steps per step of the motor output shaft. e.g the stepper motors have 200 steps per revolution of the shaft. The motion controllers are defaulted to 250 microsteps. This means that the motor shaft has 50,000 steps per revolution (250 x 200). Compatible with LabView, Matlab, VB, C++, Python, and OS X.

### Important Notes

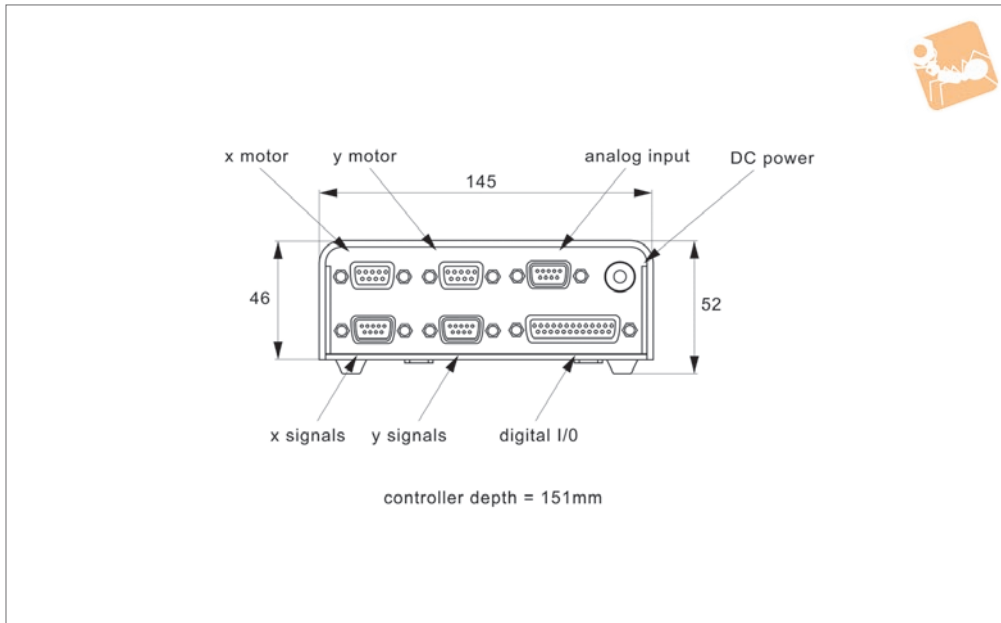
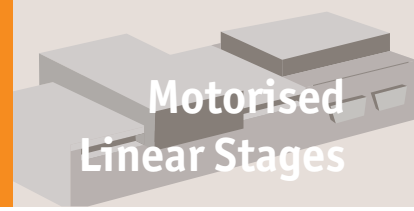
When using with Matlab a RS-485 to USB adapter will be required.

Order No.	No. of axes	Encoder	Input voltage V DC	Output current Amps max.	Micro-step resolution	Weight kg
L3521.ST1X	One	No	+12 to +24	3.0	2 to 500	0.34
L3521.ST1X-E	One	Yes	+12 to +24	3.0	2 to 500	0.34
L3521.RS485	USB cable	-	-	-	-	-



# Two Axes Stepper Controllers

## Motorised Linear Stages



**L3522**

MOTORISED LINEAR STAGES

**Material**

Includes universal AC power adapter, user interface software and USB cable.

**Technical Notes**

Communication: USB 2,0 or RS-485 ASCII (9600 - 115200 bps)

Digital IO Communication: 4 bit motion profile select inputs (DI3-DI6). One start motion input (DI1). One abort/clear motion input (DI2). One in position output (DO1). One error output (DO2).

A/B/Z differential encoder inputs (Max frequency of 5 MHz): StepNLoop closed loop control (position verification)

2 x 10-bit analog inputs.

Opto-isolated I/O: 8 x inputs, 8 x outputs, +Limit/-Limit/Home inputs per axis  
Stand alone programmable.  
Max. pulse input rate of 400K.

**Tips**

Can be plugged into, and control two axis simultaneously. Comes with cables and software. Simple plug and play system via USB port of your laptop or PC.  
This motion controller can only be used with stages that have a stepper motor attached. If you have a Servo motor, see part number L3297.

Micro-stepping is the number of steps per step of the motor output shaft. e.g the stepper motors have 200 steps per revolution of the shaft. If the motion controllers are set to 8 microsteps, this means that the motor shaft has 1600 steps per revolution (8 x 200).

Compatible with LabView, Matlab, VB, C++, Python, and OS X.

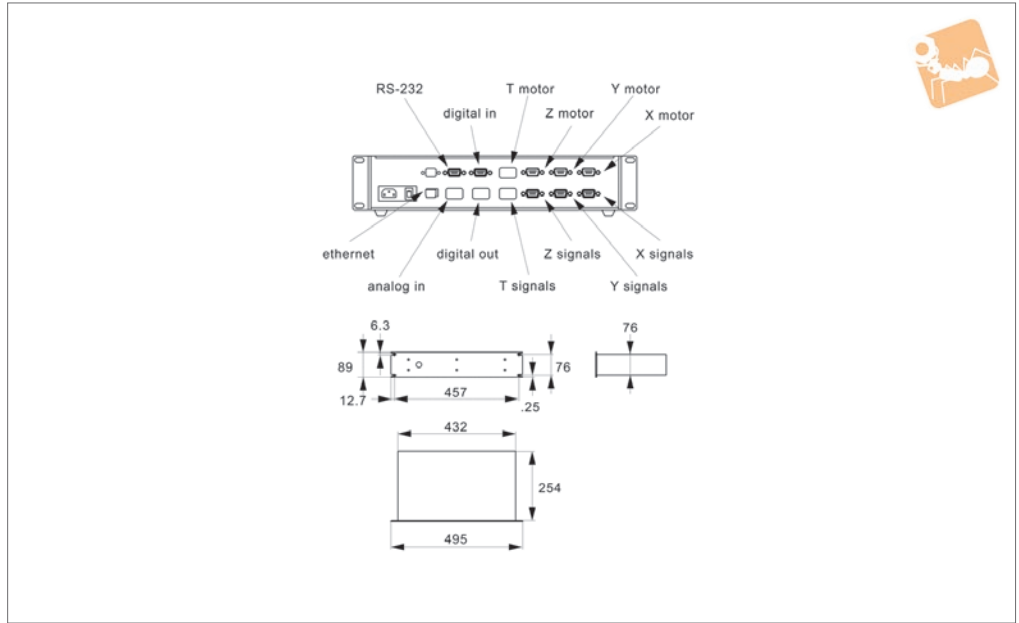
**Important Notes**

When using with Matlab a RS-485 to USB adapter will be required.

Order No.	No. of axes	Encoder	Input voltage V DC	Output current Amps max.	Micro-step resolution	Weight kg
L3522.ST2X	Two	No	+12 to +24	1.5	1 to 8	0.45
L3522.ST2X-E	Two	Yes	+12 to +24	1.5	1 to 8	0.45
L3522.RS485	USB cable	-	-	-	-	-



## L3524



### Material

Incorporates a Motorola 32 bit microcomputer. Configurable to run up to four stepper or servo motors. For 2/4 phase bipolar stepper motors. Power input 100-240V AC, 47-63 Hz.

### Technical Notes

Communication: RS-485 (up to 19,2 kbps)  
10 Base-T Ethernet.  
Encoder feedback: High speed differential

inputs up to 12Mhz.

Number of I/O: 4 x inputs, 4 x outputs.  
Program and data storage: 1000 lines x 80 characters. 510 variables. 8000 array elements in up to 30 arrays.  
Easy programming with simple command language. Communication drivers are available for Windows, .NET, Mac OSX and Linux.

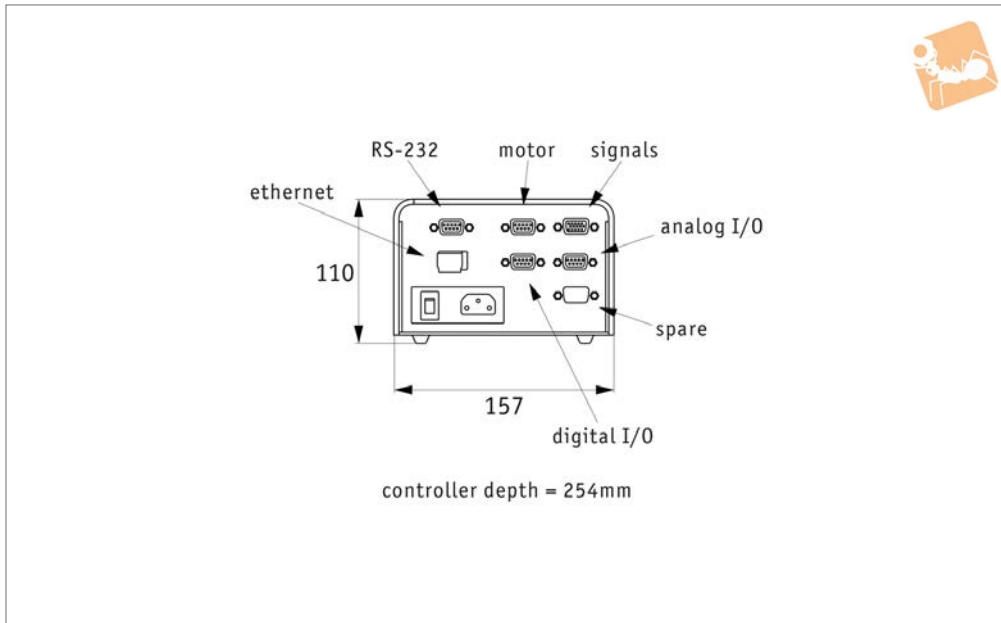
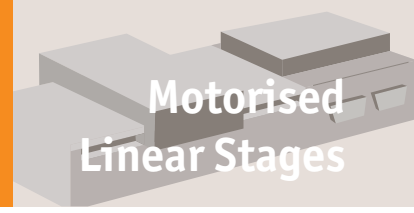
Operating temperature 0°C to 50°C, humidity 20-95%.

duty 20-95%.

### Tips

Can be plugged into, and control up to four axes simultaneously. Comes with cables and software. Simple plug and play system via USB port of your laptop or PC. Micro-stepping is the number of steps per revolution of the motor output shaft.

Order No.	No. of axes	Encoder	Voltage for stepper driver	Output current continuous Amps	Output current peak Amps
L3524.ST2X	Two stepper	No	24V DC	-	3
L3524.ST2X-E	Two stepper	Yes	24V DC	-	3
L3524.ST3X	Three stepper	No	24V DC	-	3
L3524.ST3X-E	Three stepper	Yes	24V DC	-	3
L3524.ST4X	Four stepper	No	24V DC	-	3
L3524.ST4X-E	Four stepper	Yes	24V DC	-	3
L3524.SV2X	Two servo	No	48V DC	7	10
L3524.SV2X-E	Two servo	Yes	48V DC	7	10
L3524.SV3X	Three servo	No	48V DC	7	10
L3524.SV3X-E	Three servo	Yes	48V DC	7	10
L3524.STV4X	Four servo	No	48V DC	7	10
L3524.SV4X-E	Four servo	Yes	48V DC	7	10



### L3525

MOTORIZED LINEAR STAGES

#### Technical Notes

The L3297 servo motion controller is a single-axis controller and amplifier designed for use with all servo motor stages. The controller can communicate with the host computer through an RS-232 or 10/100 Base-T Ethernet interface. With built-in high level functionality such as position tracking, contouring and teach/playback, programming the controller is greatly simplified.

The motion controller can operate as a stand-alone system through the digital I/O for synchronizing motion with external events. It utilises a 32-bit microprocessor

to control the trajectory profile, acceleration, velocity, deceleration and program memory with multi-tasking for simultaneously running up to eight programs.

#### Tips

Features:

Single-axis motion controller with on-board PWM drive for brush or brushless servo motor and integrated power supply. Ethernet 10/100 Base-T and (1) 19.2kb RS232 port.

Accepts encoder feedback up to 12 MHz. Advanced PID compensation with velocity and acceleration feedforward, integration

limits, notch filter and low-pass filter. Modes of motion include jogging, point-to-point positioning, contouring, electronic gearing and ECAM.

Multi-tasking for concurrent execution of up to eight application programs. Non-volatile memory for application programs, variables and arrays. Over 200 English-like commands executable by controller. Includes conditional statements and event triggers. Home input and forward and reverse limits. Four TTL uncommitted inputs and 4 outputs. TWO uncommitted analog inputs (0-5V).

Order No.	No. of axes	Input power	Drive current continuous Amps	Drive current peak Amps
L3525.SV1X	One	120-240V AC	7	10



Controllers



**L3294 Single axis stepper motor controller**

- Communicate via RS-232 or Ethernet interface
- Uses virtually any programming language



**L3295 Two axis stepper motor controller**

- Communicate via RS-232 or Ethernet interface
- Programming via Labupu, VB, C++ and OSX etc.
- Stand alone programs can be downloaded
- Max output of 1.5A



**L3296 Multi axis stepper motor controller**

- Communicate via RS-232 or Ethernet interface
- Can control 4 axis and perform coordinated or independent motion of each or all the axis simultaneously
- Uses virtually any programming language



**L3297 Single axis servo motor controller**

- Communicate via RS-232 or Ethernet interface
- Uses virtually any programming language

Accessories



Joysticks



Digital readout



Connector RS232-USB



Connector RS422-USB

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MOTORISED LINEAR STAGES