

R356

SINGLE AXIS CONTROLLER + DRIVER



FEATURES & BENEFITS

- Input Voltage of +12 to 40 VDC
- Phase Current Ranges from 0.2 to 3.0 Amps Peak
- Full step, 1/2, 1/4, 1/8, 1/16, 1/32, 1/64, 1/128, 1/256
- RS485 Communication with Optional Converter Cards Available
- 2 User Configurable Digital I/O's
- 2 Dedicated Inputs:
 - 1 Optical Sensor for Homing
 - 1 Switch Closure to Ground
- Fully Programmable Ramps and Speeds
- Software Selectable Hold and Move Currents
- Stand Alone Operation with No Connection to PC
- Stores up to 16 Different Programs at Once with 4 kBytes of Memory

OPTIONS

Each R356 comes with the following cables (Lin part number 090-00018, 090-00096, and 090-00153):



4-Pin cable

6-pin cable

DB-15 cable with white 3-pin connector

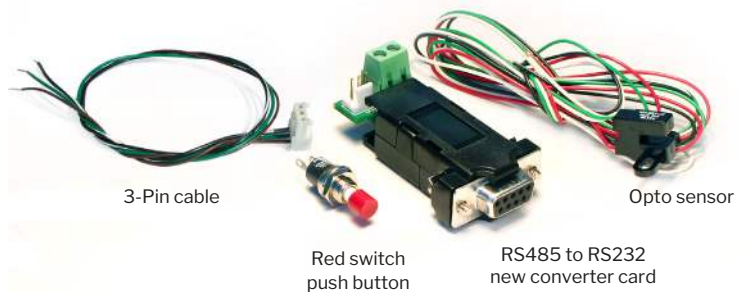
• The R356 is a fully intelligent controller and driver in one. Commands can be issued from any serial terminal program, such as HyperTerminal, or from Lin Engineering's Graphical User Interface, LinControl. (have LinControl link to the download section from <https://www.linengineering.com/products/drivers-controllers/r356/>)

• Commands are simple and intuitive. This communication is compatible with devices that use the Cavro DT or OEM protocol.

• The R356 controller is also capable of stand alone operating with no PC. It can execute a pre-programmed string of commands upon Power up. Commands include nested loops, wait statements, halt commands, software selectable currents, speeds, acceleration, microstepping, and more.

The Designer's Kit (sold separately) enables first time users to become well acquainted with the options of R356 Controller/ Driver.

RS485 Designer's Kit (Lin P/N: RS232KIT) includes:



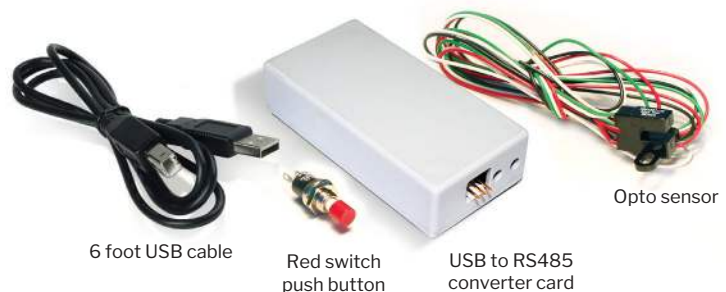
3-Pin cable

Red switch push button

RS485 to RS232 new converter card

Opto sensor

USB485 Designer's Kit (Lin P/N: USBKIT) includes:



6 foot USB cable

Red switch push button

USB to RS485 converter card

Opto sensor

ELECTRICAL SPECIFICATIONS

Input Voltage	+12 to 40 VDC
Drive Current(Per Phase)	0.2 to 3.0 Amps Peak
Isolated Inputs	I/O, Switch Closure to Ground, Opto Phototransistor
Step Frequency (Max)	16.77 MHz
Steps Per Revolution (1.8° Motor)	200, 400, 800, 1600, 2000, 3200, 5000, 6400, 10000, 12800, 25000, 25600, 50000, 51200
Microstep Resolutions (1.8° Motor)	Full step, 2X, 4X, 5X, 8X, 10X, 16X, 25X, 32X, 50X, 64X, 125, 128X, 250X, 256X

Function (Command)	Description
Running Current (m)	30% of 3.0 Amps
Holding Current (h)	10% of max current of 2 Amps
Step Resolution (j)	256x
Top Velocity (V)	305175 pps (microsteps/sec)
Acceleration (L)	L=1000, 6103500 usteps/sec ²
Microstep smoothness (o)	1500
Outputs (I)	both are turned off, J0
Baud Rate	9600 bps

CONNECTORS

Color	Function
Red	A+ Phase
Blue	A- Phase
Green	B+ Phase
Black	B- Phase



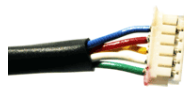
Mating connector provided.



DB-15 connector is provided with the controller/driver

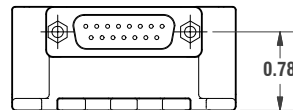
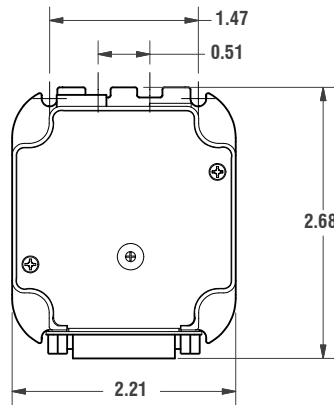
This should ideally be used with a US digital E2, E3, or E5 encoder.

Pin #	Color	Function
1	Green	Ground
2	White	Index
3	Yellow	Ch B
4	Red	+5 VCD
5	Blue	Ch A
6	...	



DB-6 connector

DIMENSIONS

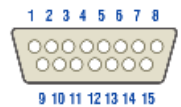


PIN OUTS

Pin #	Color	Function	I/O Alternative Function
1	Green	Power Ground	
2	Black	1A On/ Off Output	
3	Yellow/Green	Direction Input	
4	Yellow	+5 VCD Input for Opto Isolated STEP and DIR	
5	Orange	Input	2/Jog Input
6	Yellow/White	Internal Power for Opto Sensor	
7	Orange/White	Input (Opto Input)	3/Opto Input
8	Black/White	RS485 A	
9	Red	+12V TO 40V POWER	
10	Blue	1A ON/ OFF Output	
11	Blue/White	Step Input	
12	Green/White	Signal Ground	
13	White	Input	1/Jog Input
14	Red/White	Input	1/Jog Input
15	Brown	RS485 B	

PIN ASSIGNMENTS

* Inputs are labeled 1, 2, 3 and 4 for programming the 'Halt', 'Skip', and special mode 'n' commands.



Motion Control, Solved.

MOTOR ENGINEERING & MANUFACTURING



Optimized
For Your
Application



Quick
Prototype
Turnaround



Small Batch
to OEM Volume
Production



US Based
Support &
Manufacturing