

introduction



The *SD100* is a device capable of allowing a motion controller with only step and direction (or count up / count down) type signals to control a brush-type DC servo motor or voice coil actuator, thereby allowing those to be used in applications formerly assigned to stepping motors.

The *SD100* implements a mnemonic type command instruction set via a standard RS-232 serial communications interface. These commands are used to set various operating parameters which are then stored in non-volatile memory for automatic retrieval at power-up.

The *SD100* interfaces to the real world via an onboard PWM switching amplifier, a quadrature type encoder interface, 8 dedicated digital inputs and 4 dedicated digital outputs (all optoisolated).

Model *SD100* Single Axis “Smart Driver”

features

- **Description** Stand-Alone, 1 Axis, Brush Type, Servo Motor Indexer / Driver
- **Operating Modes** Position, Torque
- **Filter Algorithm** PID
- **Servo Loop Rate** 10 KHz
- **Servo Position Feedback** +5V Quadrature Type Incremental Encoder
- **Output** Power PWM, 3 Amps cont. and 6 Amps Peak at 48 VDC Max.
- **PWM Frequency** Approximately 19.531 KHz
- **Encoder Input** Single-ended or Differential
- **Encoder Output** Single-ended or Differential Line Driver
- **Encoder Count Rate** 1 Million Quadrature Counts per Second
- **Dedicated Digital Inputs** Reset, Clear, Output_Limit (2), Mode (2), Count Up / Step (+5 VDC only), Count Down / Direction (+5VDC only), All optoisolated.
- **Dedicated Digital Outputs** Ready, Over-Temp, Overflow, In_Position, all optoisolated.
- **Communication Interface** RS-232 Serial Interface, 9600 Baud, 8 Bits, 1 Stop Bit, No Parity, XON / XOFF Handshake
- **Supply Voltage** +11 To +48 VDC
- **Motor Voltage** +12 To +48 VDC
- **Dimensions** 4.1” L. x 4.0” W. x 1.2” H.
- **Weight** Approx. 9 oz.
- **Enclosure** Rugged Powder Coated Aluminum Extrusion

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