

## Dual Soft Shift Controller

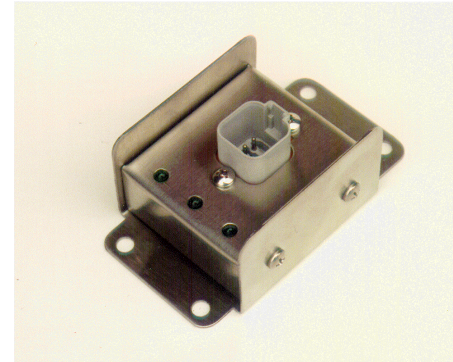
P/N: SSSD-2R-D

### Function:

The Dual Soft Shift Controller introduces a current ramp permitting the soft start of two solenoid valves.

### Description:

The Dual Soft Shift Controller provides a fixed ramp time for the soft start of two directional, flow, and pressure control proportional solenoid valves. When the unit is powered on, both solenoids ramp to a 1.28A maximum current (regulated) over a selected ramp on time. When the power is switched off, output of the unit immediately falls to zero. Mounted remote from the valve, the controller interfaces to a 9 to 32 VDC power supply. A diagnostic LED indicates power is OK. LEDs vary in intensity as output is provided to the two solenoid valves. The unit is encapsulated and housed in a metal box with a 6-pin watertight connector. Designed for the rugged mobile environment, it holds an IP67 protection rating. The ramp time is factory set to 1.75 seconds and is identical for both solenoids.



**Application:** Mobile equipment, industrial material handling, industrial hydraulics

### Features:

- Cost effective alternative for soft start of a hydraulic motor
- Broad range of supply voltages (9 to 32 VDC available)
- Reverse polarity protection provided
- Modern technology utilizing high frequency switching output (PWM)
- Factory set maximum current output is 1.28A (regulated)
- Identical fixed ramp time of 1.75 seconds (factory configured)
- Diagnostic LEDs
- Rugged construction to withstand harsh environments
- Encapsulated in a stainless steel box with 6-pin connector
- IP67 protection class

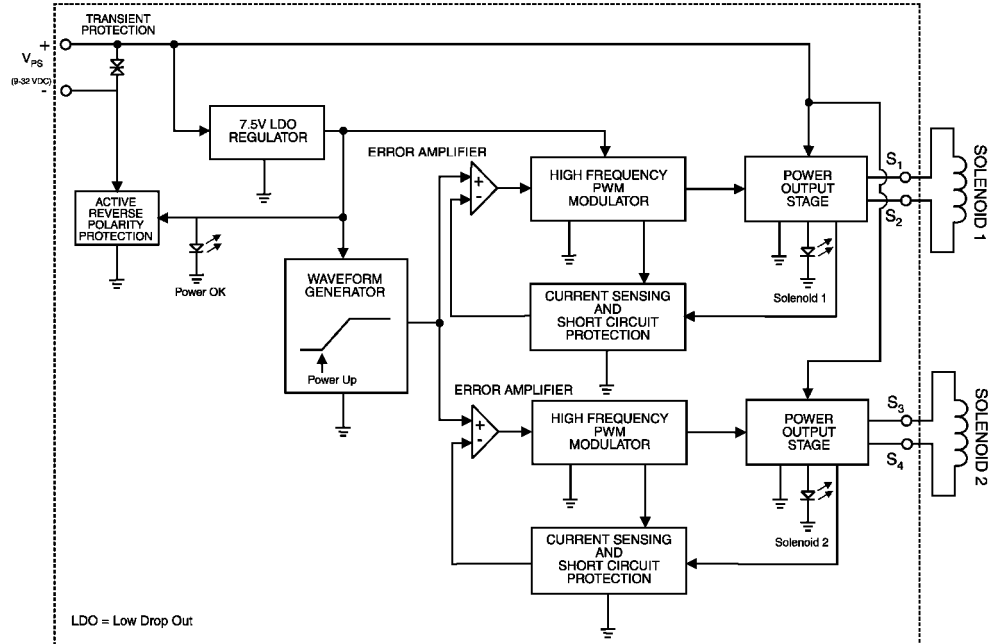
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**DUAL SOFT SHIFT CONTROLLER  
BLOCK DIAGRAM**  
June 12, 2001

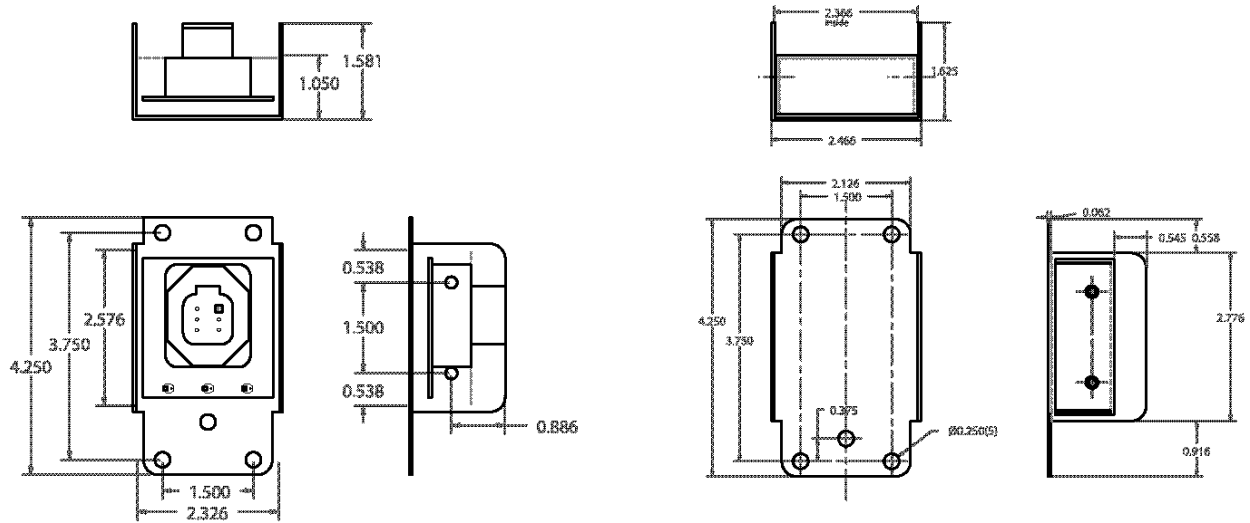


**Technical Specifications:** All specifications typical at nominal input voltage and 25 degrees C unless otherwise specified.

**General Specifications**

Operating conditions	-40 to +85°C (-40 to 185°F)
Electrical connection	6-pin Deutsch connector <i>Mating plug and wire harness assemblies are available upon request.</i>
Pin out	<p><b>Input:</b> Pin 6 - Power Supply + Pin 1 - Power GND</p> <p><b>Output to Solenoid A:</b> Pin 2 - Output A+ Pin 3 - Output A-</p> <p><b>Output to Solenoid B:</b> Pin 5 - Output B+ Pin 4 - Output B-</p> <p>○ Solenoid B      ○ Power OK      ○ Solenoid A</p>
Protection class	IP67
Packaging and dimensions	Encapsulated in stainless steel box to protect against the rugged mobile environment. 107.9 x 40.0 x 62.5 mm 4.25 x 1.58 x 2.46 inches (W x H x D)

## Housing Dimensions



Dimensions: inches

## Electrical Specifications

Operating voltage (power supply requirement)	9 to 32 VDC power supply range
Reverse polarity protection	Provided
LED indicators (green)	ON = Power OK Output to Solenoid A, Output to Solenoid B (intensity varies linearly with output)
Maximum output current (factory set)	1.28A maximum (regulated) See solenoid resistance selection formula.
Solenoid resistance selection (nominal)	$R_{coil} \leq (V_{power\ supply} - 1.5V) / I_{output}$ Where $I_{output} \leq 1.28A$
Current ramp time (factory set)	1.75 seconds (identical for Solenoid A and Solenoid B)

**Mounting:** Mount the unit close to the solenoid valves.

**Ordering Part Number:** SSDS-2R-D

*Mating plug and wire harness assemblies are available upon request.*

Specifications are subject to update without notice.

Form: TD1906AX-02/26/02