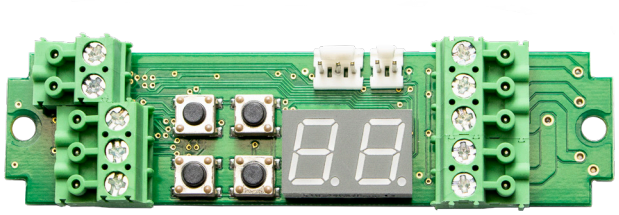
SINGLE AXIS DRIVER BOARD SDB-P1

SURE GRIP™ CONTROLS INC.
A Bailey Hydraulics Company

TECHNICAL INFORMATION



Features

- Adjustable high current PWM outputs, up to 2.5A
- Wide supply voltage range +6V to +30V
- Power supply protected against transients and reverse polarity
- Control inputs protected
- Built in fault detection
- Dual 7-segment display and switches for field calibration

Description

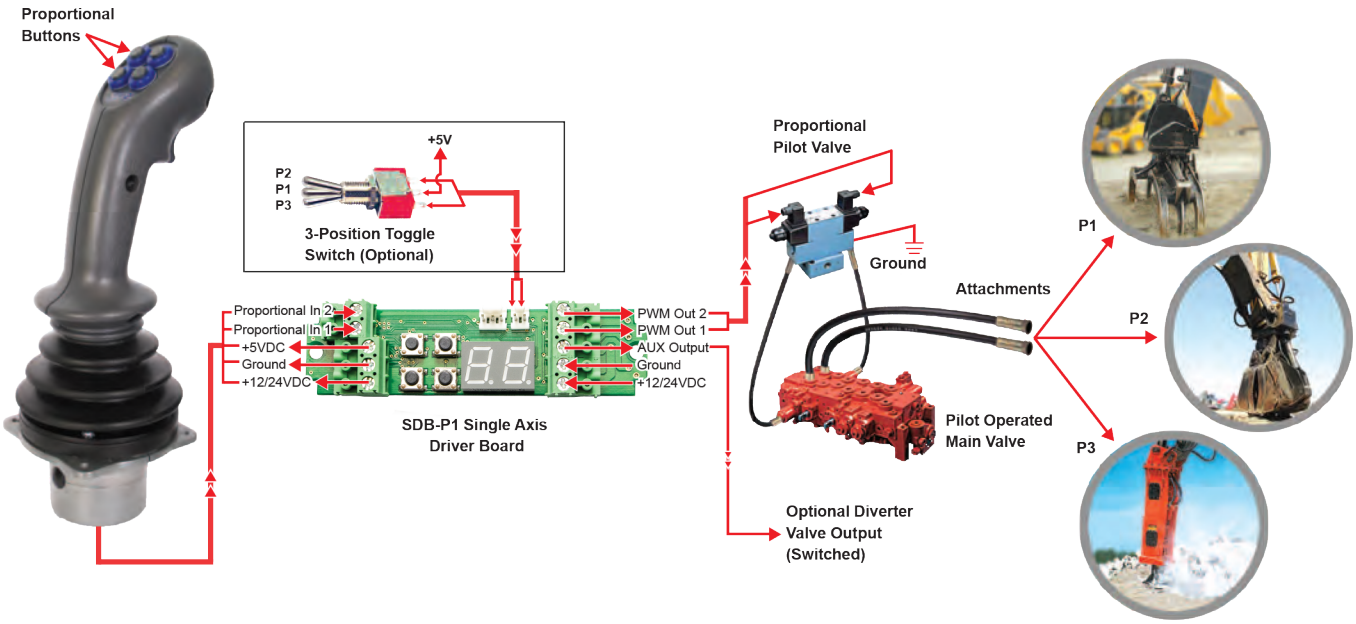
The SDB-P1 Single Axis Driver Board is designed to proportionally drive two solenoids using proportional control devices such as Joysticks, Slider Modules, Rocker Modules or Variable Voltage Modules.

The SDB-P1 has two proportional high current PWM outputs and one switched auxiliary output. The operating parameters of the PWM outputs can be adjusted through the on board switches and display.

Optional Feature

The SDB-P1 driver board can be supplied with an external switch (shown below) that is used to select between three different sets of adjustable operating parameters. These operating parameters can be used to control up to three different machine attachments. When an attachment is changed, the operator can move the switch to the position corresponding to the new attachment. This feature allows the control of up to three attachments using the same valve. The operating parameters for each of the three attachment profiles are set up using the on-board calibration interface, in addition to load calibration and PWM output frequency adjustments.

Typical Application



Specifications are subject to change without notice

Doc #: 550.0031.2018.11.22

Technical Specifications

General Specifications:

Parameter	Min	Typ	Max	Unit	Notes
Input Power Supply:					
Supply Voltage (VS)	6	12 or 24	30	V	Reverse Polarity and Transient Protected (1)
Supply Current (max)		5		A	
Input Power Supply Current (idle)	25		35	mA	
+5V Output:					
+5V Supply Voltage	4.75	5	5.25	V	
+5V Supply Current	20		30	mA	
Analog Inputs:					
Input Voltage Range	0.5		4.5	V	Inputs Transient Protected
Neutral Point (single)		2.5		V	
Neutral Point (dual)		0.8		V	
PWM Outputs:	**Min**	**Neutral**	**Max**		
PWM Output at $V_{MAX} = V_S$	5 (+/-5%)	50 (+/-5%)	99 (+/-5%)	Duty Cycle (%)	Adjustable
PWM Output Frequency Range	40 (+/-10%)	200 (+/-10%)	400 (+/-10%)	Hz	Adjustable
Control Signal Output Current				A	
Auxiliary Output:					
Auxiliary Output Voltage	0	VS		V	
Auxiliary Output Current			2.5	A	
Environmental Specifications:					
Operating Temperature Range	- 40		+ 85	˚C	

(1) Input transient protected up to +/- 48.4VDC @ 11.3A for pulse widths ≤ 1ms.

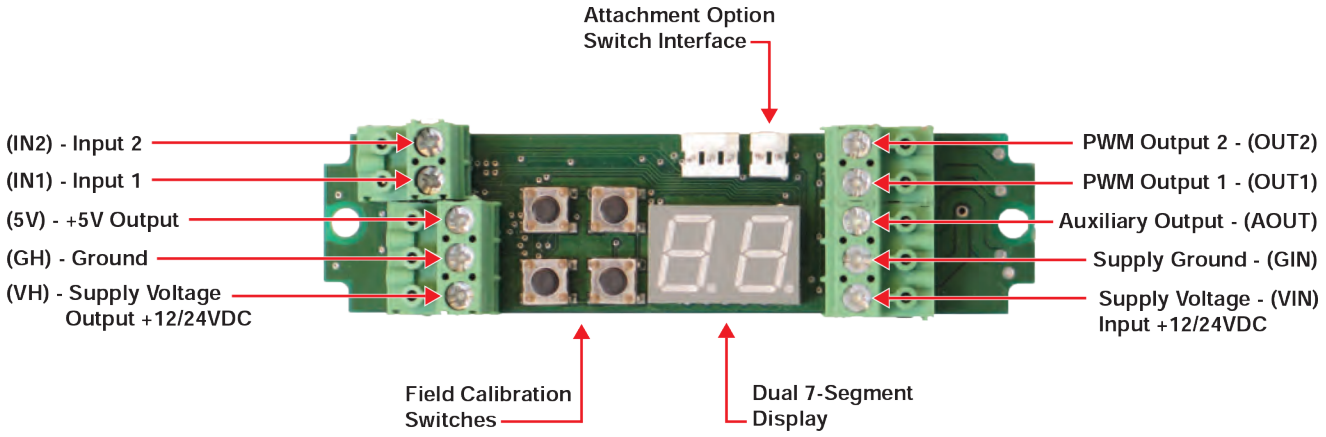
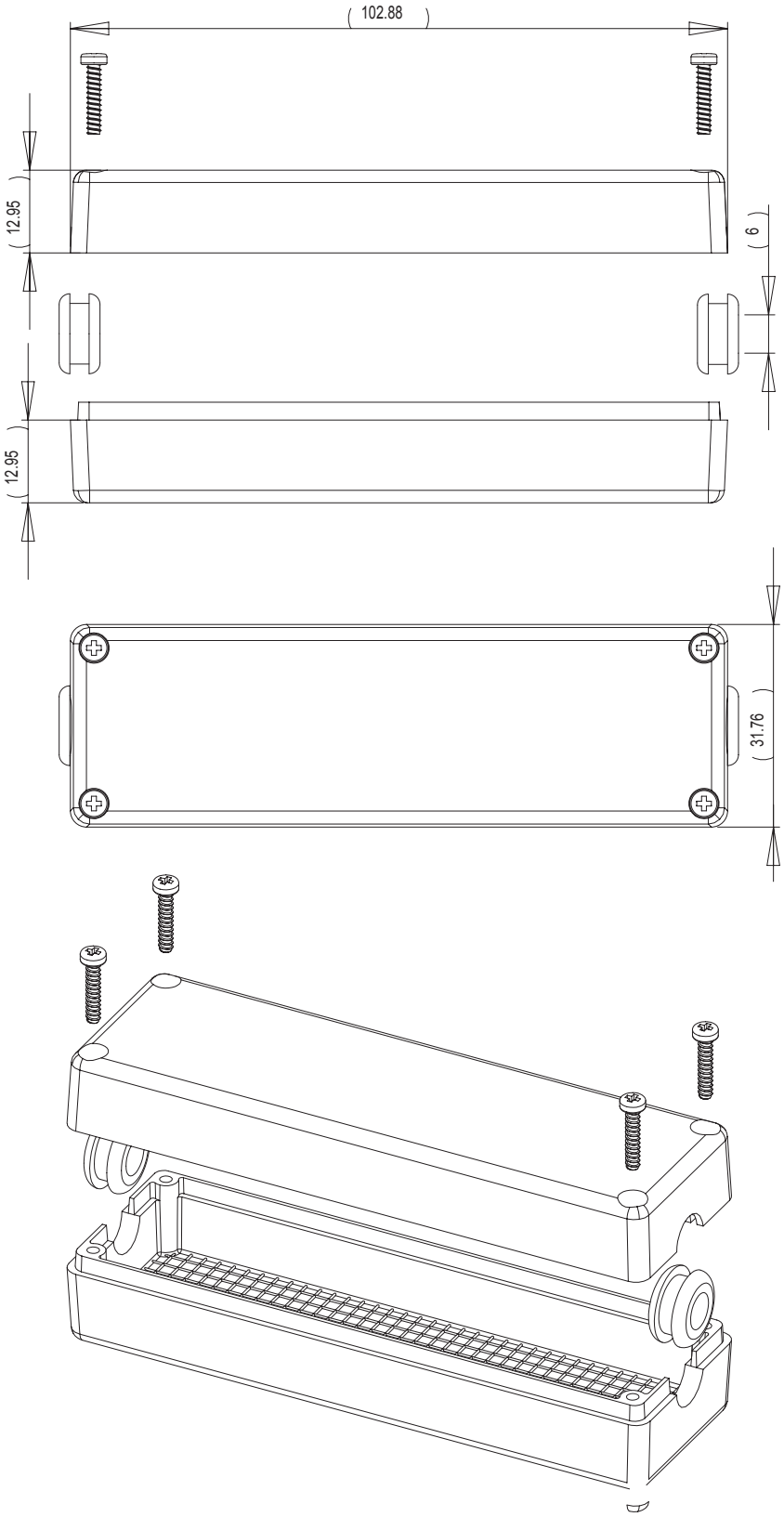


Figure 1: Board Layout and Wiring Connections

Case Dimensions (mm)



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