

# 100A Bidirectional Solid State Load Switch

## Technical Data Sheet



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### Description

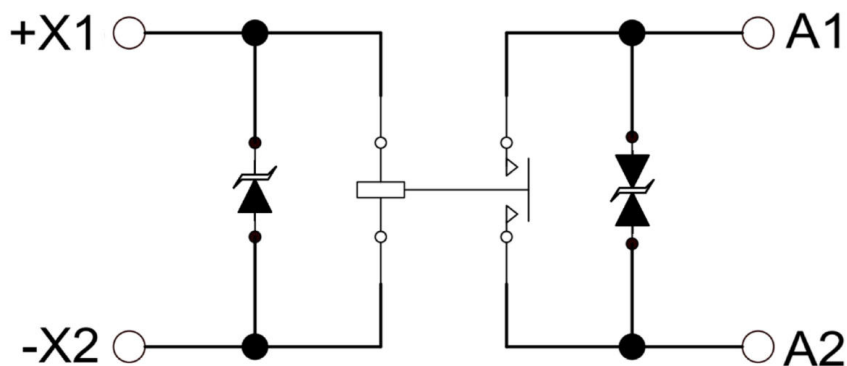
The Solid-State Load Switch is intended for use in 28VDC aircraft electrical systems and can switch currents up to 100A. It supports bidirectional current conduction and blocking across load terminals.

The SSLS100 meets aviation standards and requirements and is delivered with a COC or EASA Form 1 upon request. The applicable approval can be provided by us specifically for your aircraft type.

### Features

- 28VDC / 100A load
- Bidirectional blocking and passing
- +18VDC to +32VDC control voltage
- Output transition time less than 5ms
- Galvanic Isolation between control and load terminals
- Embedded thermal fuse for overtemperature protection

### Principle Diagram



## Technical Specifications

### Environmental Specifications according DO-160 / ED-14

Temperature and Altitude	DO-160G Section 4 Cat. D2
Temperature Variation	DO-160G Section 5 Cat. B
Humidity	DO-160G Section 6 Cat. B
Operational Shock and Crash Safety	DO-160G Section 7 Cat. A
Vibration	DO-160G Section 8 Cat. S (curve C)
Explosion Proofness	DO-160G Section 9 Cat. X
Waterproofness	DO-160G Section 10 Cat. Y
Fluids Susceptibility	DO-160G Section 11 Cat. X
Sand and Dust	DO-160G Section 12 Cat. S
Fungus Resistance	DO-160G Section 13 Cat. F
Salt Fog	DO-160G Section 14 Cat. S
Magnetic Effect	DO-160G Section 15 Cat. C
Power Input	DO-160G Section 16 Cat. B
Voltage Spike	DO-160G Section 17 Cat. A
Audio Frequency Conducted Susceptibility - Power Inputs	DO-160G Section 18 Cat. B
Induced Signal Susceptibility	DO-160G Section 19 Cat. ZC
Radio Frequency Susceptibility (Radiated and Conducted)	DO-160G Section 20 Cat. RR
Emission of Radio Frequency Energy	DO-160G Section 21 Cat. X
Lightning Induced Transient Susceptibility	DO-160G Section 22 Cat. A3 C3 XX
Lightning Direct Effects	DO-160G Section 23 Cat. X
Icing	DO-160G Section 24 Cat. A
Electrostatic Discharge	DO-160G Section 25 Cat. A
Fire, Flammability	DO-160G Section 26 Cat. C

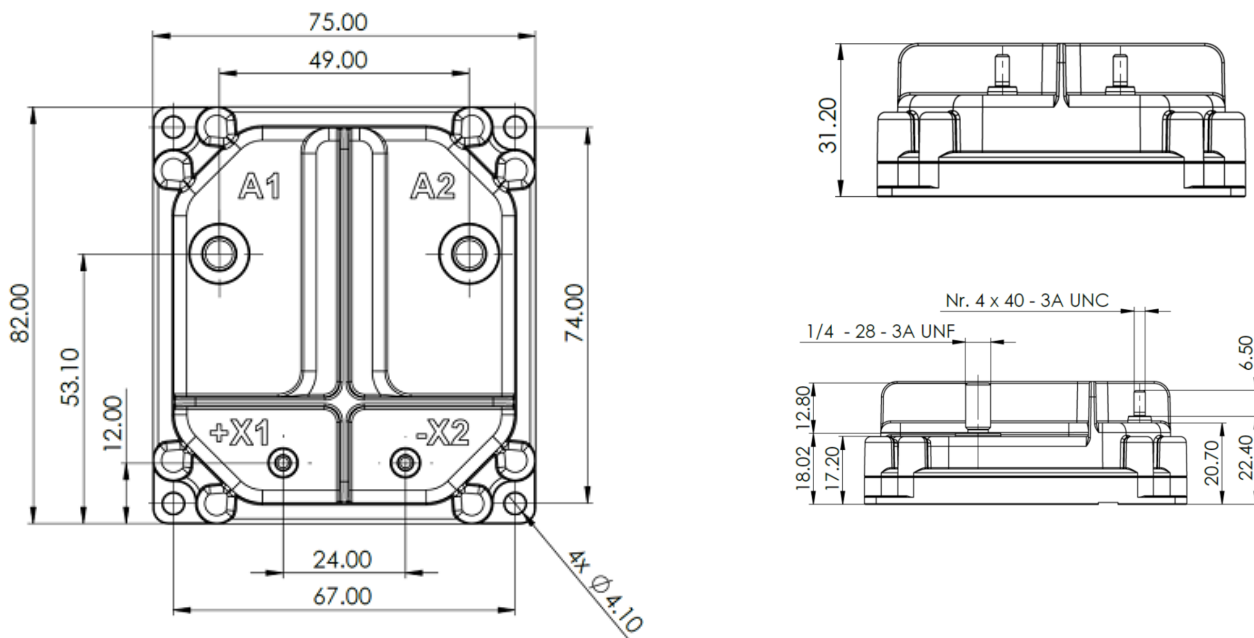
## Interface

Symbol	Parameter	Conditions	Value			Unit
			Min	Typ.	Max	
<b>Control circuit</b>						
V <sub>C</sub>	Nominal Control Voltage		18	28	32	VDC
V <sub>CPU</sub>	Pick-Up Control voltage		12	15	18	VDC
V <sub>CDO</sub>	Drop-Out Control Voltage		4	7	10	VDC
I <sub>CC</sub>	Continuous control current	V <sub>C</sub> =0 VDC	-	-	0	mA
I <sub>CC</sub>	Continuous control current	V <sub>C</sub> ≥18 VDC	-	-	20	mA
<b>Load circuit</b>						
V <sub>Drop</sub>	Voltage Drop on Load terminals	nominal current of 100A		30	50	mV
V <sub>L</sub>	Continuous Voltage between Load terminals		0	28	32	VDC
V <sub>Lpeak</sub>	Non-repetitive Peak voltage between Load terminals	< 10s			60	VDC
I <sub>L</sub>	Continuous Load current	V <sub>C</sub> > V <sub>CPU</sub> -55 °C < T <sub>ENV</sub> < 70 °C			100	A
I <sub>Lpeak</sub>	Non-repetitive Peak current	100ms max, 60s recovery time			250	A
I <sub>RP</sub>	Repetitive peak current (resistive load)	10Hz, 50% duty cycle			130	A
T <sub>ENV</sub>	Environmental temperature	Operational	-55		70	°C
		Thermal fuse trip point	175			°C
L <sub>L</sub>	Maximal inductive load	I <sub>L</sub> = 100A			300	μH
C <sub>L</sub>	Maximal capacitive load				220	μF

## Mechanical Dimensions

Weight of the unit

156.00 g



## Configuration / Ordering Data

Part Number	Type	Description
2412884-1	100A Bidirectional Solid State Load Switch	28V/100A Bidirectional Solid-State Load Switch