CAN-BUS KEYPAD SWITCH MODULE
SCB/SCJ SERIES

Introduction

Suns SCB/SCJ keypad switch module offers a flexible and sealed solution for high-density switch requirements insevere environments. The keypad can be configured with any graphic/switch,as well as with customer-defined illumination. Great for specialty vehicle, construction, and agricultural equipment markets.

- Reduced wire harness complexity and size; uses one harness to a controller,reducing wiring, weight, connection point, and controller requirements
- On/Off-Highway applications: signal and light controls, beacon and utility systems, etc..

Features

- Silicone rubber overmold for enhanced water resistance and shock-resistance
- SAE J1939 CAN or ISO11898 CAN
- Up to IP69k sealing protection when connected
- Exceptional tactile and audible feedback of switch actuation
- Custom legends and configurations available

Specifications

Voltage Input	8 to 32 VDC
Serial Communication	CAN J1939/ISO11898
Short Circuit Protection	ISO 16750-2
ESD	ISO 10605
Radiated Immunity	ISO14982 6.6
Conducted Emissions	SAE J1113-41
Broadband Radiated Emissions	ISO14982 6.4
Operating Temperature	-40~+85°C (-40~185°F)
Thermal Shock	IEC 60068-2-14
Solar Radiation	IEC 60068-2-5
Ingress Protection	IP67
Humidity	IEC 60068-2-78; IEC 60068-2-30
Salt Fog	IEC 60068-52
Chemical resistance	ISO 16750-5
Vibration	IEC 60068-2-6
Mechanical Shock	IEC 60068-2-27

SCJ51
Keypad with Joystick

Selection Guide:

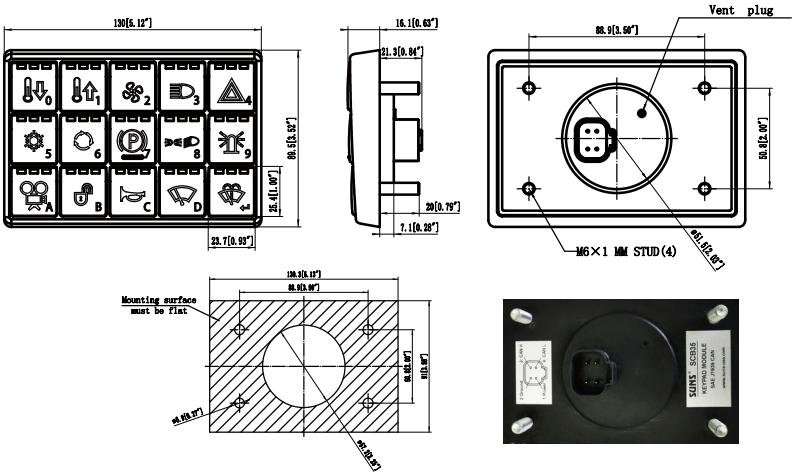
SCB — Body Style
- **SCB**: Standard Pushbutton
- **SCJ**: With Joystick

24 — Button Configuration
- **For SCB**: Number of Rows by Number of Columns
- **For SCJ**: Number of Buttons by Number of Joysticks

____ Custom Legend Suffix

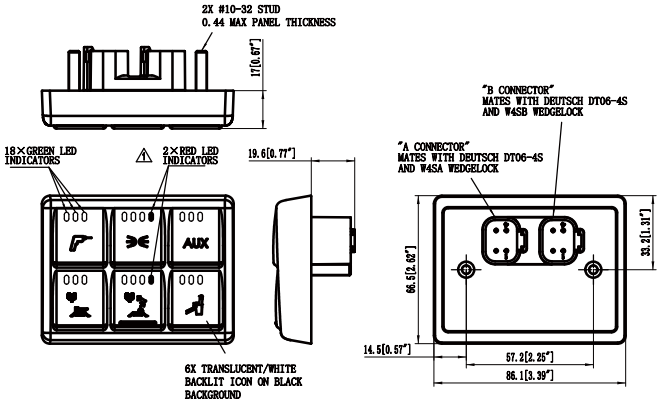
Dimensions:

SCB35
Canbus Keypad

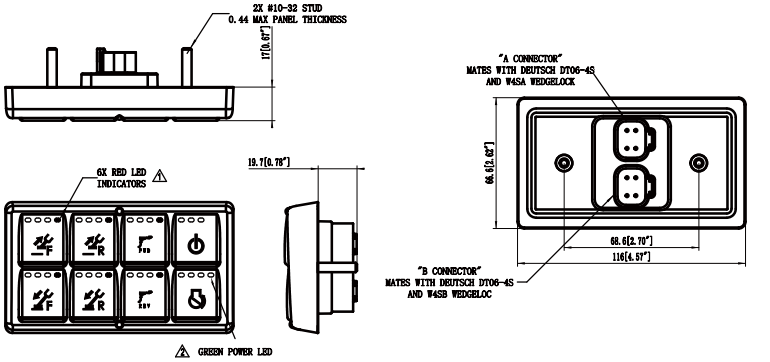


CAN-BUS KEYPAD SWITCH MODULE
SCB/SCJ SERIES

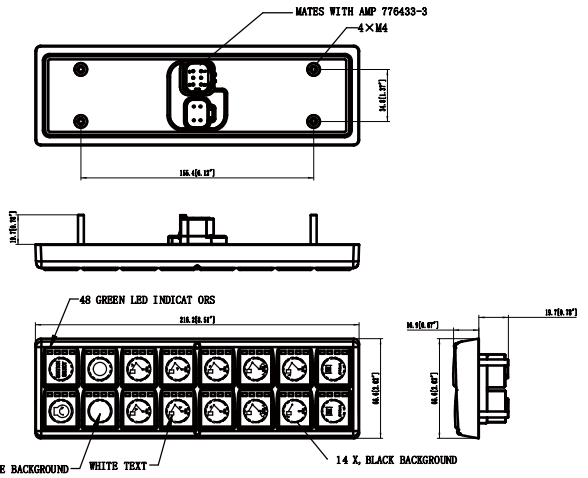
SCB23



SCB24



SCB28



Standard J1939 CANBUS Protocol for Keypads (Custom Firmware Available)

PINOUT		
A	1	POWER
	2	GROUND
	3	CAN HIGH
	4	CAN LOW
B	1	INPUT 1-STB/STG/AIN
	2	INPUT 2-STB/STG
	3	OUTPUT 1-LSO
	4	OUTPUT 2-LSO

1. THE POWER LED REMAINS ON WHILE THE DEVICE IS POWERED.
2. UPON POWER UP THE DEVICE TRANSMITS THE KEYPAD STATUS MESSAGE ON 100 mS INTERVALS AND CONTINUES TO DO SO UNTIL POWERED DOWN.
3. UPON RECEIVING THE PIN CONFIGURATION MESSAGE, CONNECTOR B INPUT PINS ARE CONFIGURED AS SWITCH TO BATTERY INPUTS (STB), SWITCH TO GROUND INPUTS (STG), OR ANALOG INPUTS (AIN). LOW SIDE OUTPUT PINS (LSO) ARE NOT CONFIGURABLE.
4. REFER TO THE PINOUT TABLE FOR VALID CONFIGURATIONS FOR EACH PIN.
5. UPON RECEIVING THE OUTPUT CONFIGURATION MESSAGE, PWM OUTPUT FREQUENCIES ARE SET.
6. THE CONFIGURATION MESSAGES NEED NOT BE RECEIVED MORE THAN ONCE WHILE THE DEVICE REMAINS POWERED ON, BUT PWM FREQUENCIES AND PIN CONFIGURATIONS MAY BE ADJUSTED BY RESENDING.
7. AFTER THE OUTPUT CONFIGURATION MESSAGE HAS BEEN RECEIVED, THE OUTPUT COMMAND MESSAGE ALLOWS CONTROL OF THE DUTY CYCLE OF PWM OUPUTS.
8. IF THE DEVICE DOES NOT RECEIVE A NEW OUTPUT COMMAND MESSAGE WITHIN 200 mS OF THE PREVIOUS MESSAGE THE DEVICE RESETS THE DUTY CYCLES TO 0%.
9. THE BUTTON BACKLIGHT AND INDICATOR LEDS REMAIN OFF UNTIL THE DEVICE RECEIVES THE LED COMMAND MESSAGE.
10. IF THE DEVICE DOES NOT RECEIVE A NEW LED COMMAND MESSAGE WITHIN 200 mS OF THE PREVIOUS MESSAGE THE DEVICE RETURNS ALL BUTTON AND INDICATOR LEDS TO THE OFF STATE.

29 BIT ID	DESCRIPTION	DLC	TRANS RATE	Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
0x18FF0280	BUTTON STATUS MESSAGE	8	N/A	BUTTON 4 BUTTON 3 BUTTON 2 BUTTON 1	BUTTON 8 BUTTON 7 BUTTON 6 BUTTON 5						
0x00EF80F9	OUTPUT COMMAND MESSAGE	8	N/A	MESSAGE DESCRIPTION	OUTPUT GROUP	OUT 4 OUT 3 OUT 2 OUT 1	OUT 8 OUT 7 OUT 6 OUT 5	OUT 12 OUT 11 OUT 10 OUT 9	OUT 16 OUT 15 OUT 14 OUT 13	OUT 20 OUT 19 OUT 18 OUT 17	OUT 24 OUT 23 OUT 22 OUT 21
0x00EFFF80	HEARTBEAT	1	N/A	MESSAGE DESCRIPTION	BUTTON 6 BUTTON 5		STATE 2 STATE 1	ANALOG INPUT 1			