

# CAN KEYBOARD



Revision A

## PRODUCT INFORMATION

CAN keyboard is an universal device that could be connected to PMU and EMU BLACK. All keys are back lighted in 3 colors GREEN, ORANGE and RED.

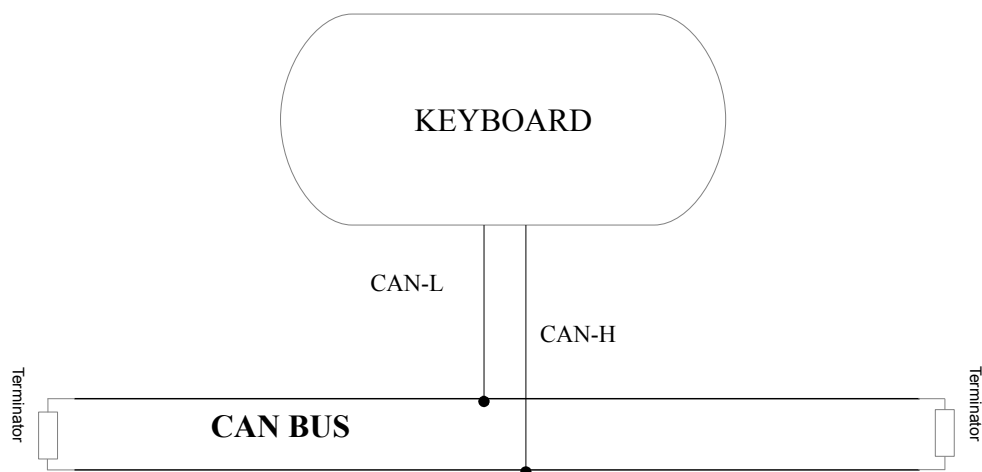
The color indicates current state of the key. Keys inserts are customizable (available icon list included in appendix A). Custom icons are available on request.

The keyboards are water proof (IP67).

## CONNECTION

TERMINAL	Function
1 (blue)	CAN L
2 (white)	CAN H
3 (black)	Ground
4 (red)	Power (12-24V)

The mating connector type is Amphenol AT06-4S.



## DEFAULT SETTINGS

Parameter	Default vale
CAN Speed	500kbps
CAN IDs	0x195 (BASE), 0x615 (RCV), 0x715 (STATUS)

During the start up the device send out the one status message (0x715 by default).

For **EMU BLACK** only this CAN ID configuration is supported.

For **PMU** the base CAN ID could be in the range of 0x180 to 0x195.

Depends on base CAN ID, RCV and STATUS messages ID changes.

For example for base CAN ID 0x180, RCV = 0x600, STATUS = 0x700.

To determine device base ID status message could be observed.

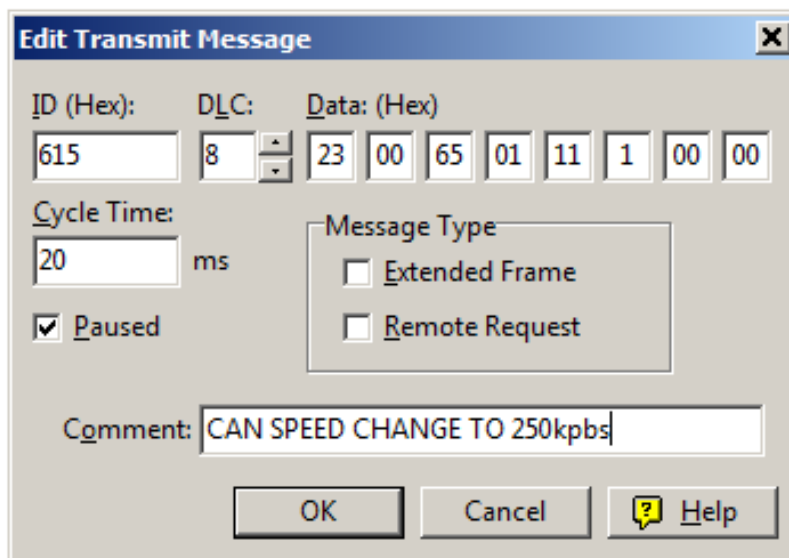
## CAN SPEED CHANGE

To change CAN SPEED the following message should be sent:

CAN ID	DLC	0	1	2	3	4	5	6	7
RCV ID	8	0x23	0x0	0x65	0x01	0x11	SPD	0x0	0x0

SPD VALUE	BAUD RATE
0	125kbps
1	250kbps
2	500kbps

Sample message for keyboard with 0x195 BASE ID (from PCAN-View software) to change speed to 250kbps.



## BASE ID CHANGE

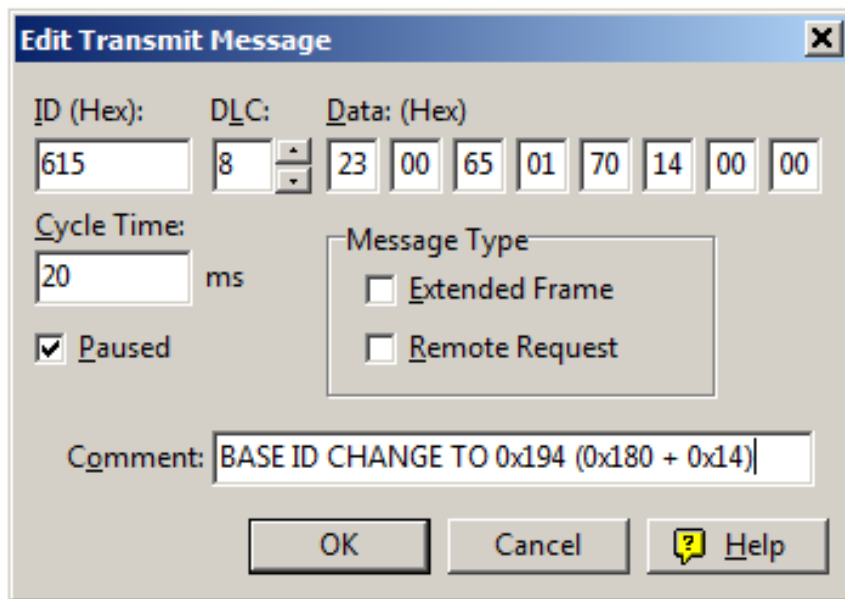
To change BASE ID the following message should be sent:

CAN ID	DLC	0	1	2	3	4	5	6	7
RCV ID	8	0x23	0x0	0x65	0x01	0x70	NEW ID	0x0	0x0

New BASE ID = 0x180 + NEW ID

New RCV ID = 0x600 + NEW ID

Sample message for keyboard with 0x195 BASE ID (from PCAN-View software) to change BASE ID to 0x194



**Edit Transmit Message**

ID (Hex): 615    DLC: 8    Data: (Hex) 23 00 65 01 70 14 00 00

Cycle Time: 20 ms

Paused

Message Type

Extended Frame

Remote Request

Comment: BASE ID CHANGE TO 0x194 (0x180 + 0x14)

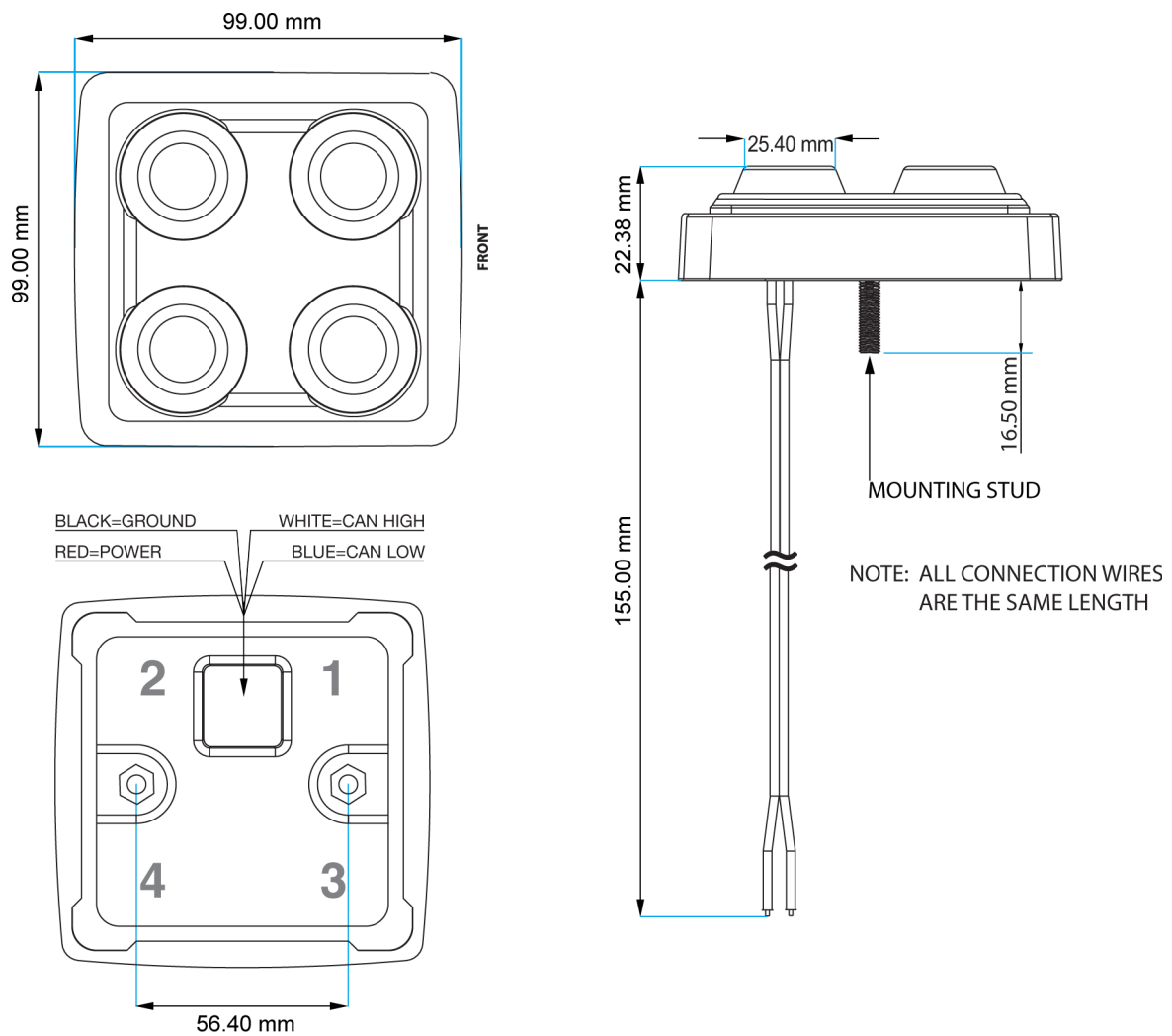
OK    Cancel    Help

## Technical specification

<b>Power supply</b>	8-24V
<b>Standby current</b>	< 50mA
<b>Switch life</b>	3 milion operations
<b>Operating temp.</b>	-40 to 85C
<b>Enclosure protection</b>	IP 67
<b>CAN BUS speed</b>	125kbps, 250kbps, 500 kbps

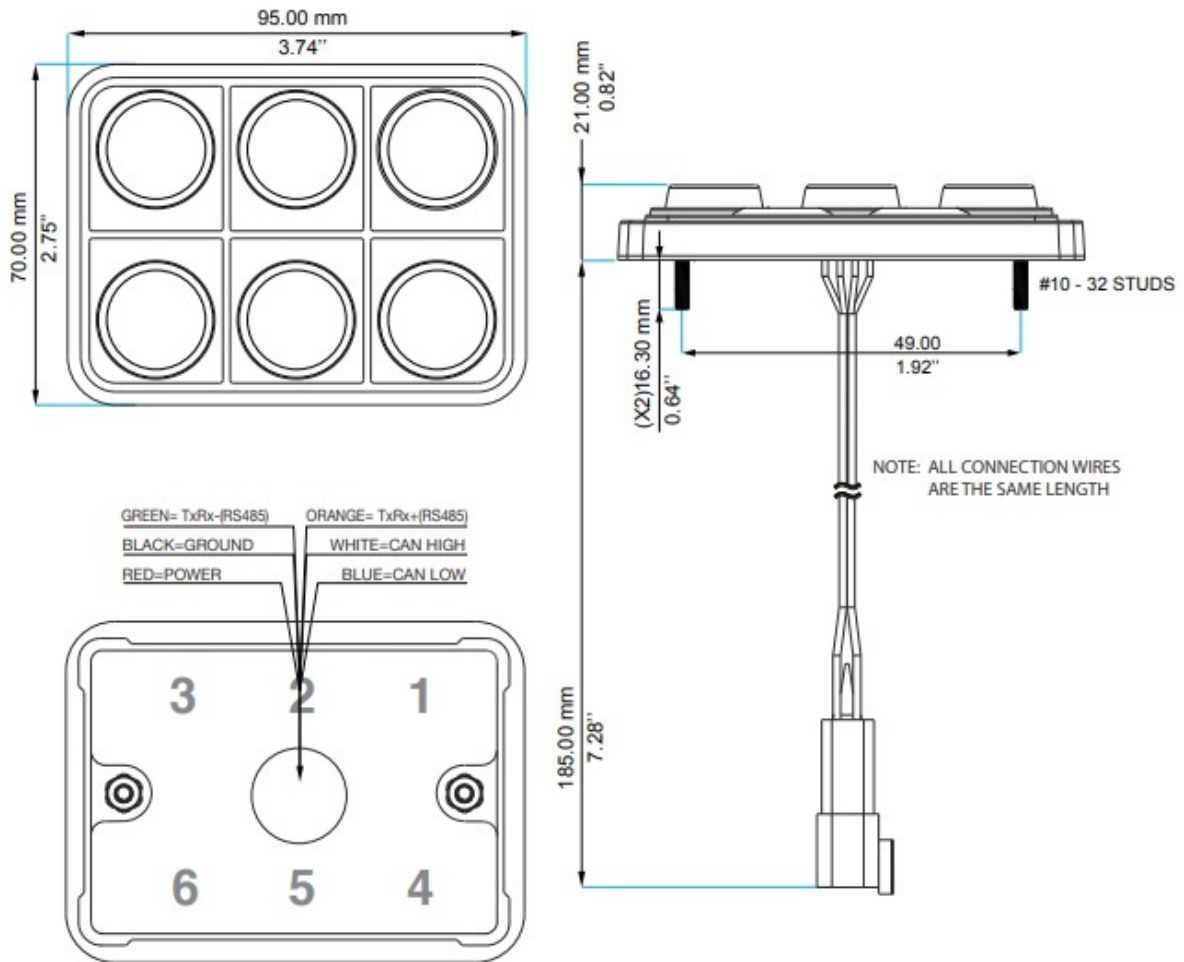
## Technical drawing for 4 keys keyboard

CAN\_BUS\_KEYBOARD 4POS (old type with 24mm inserts, no longer available):



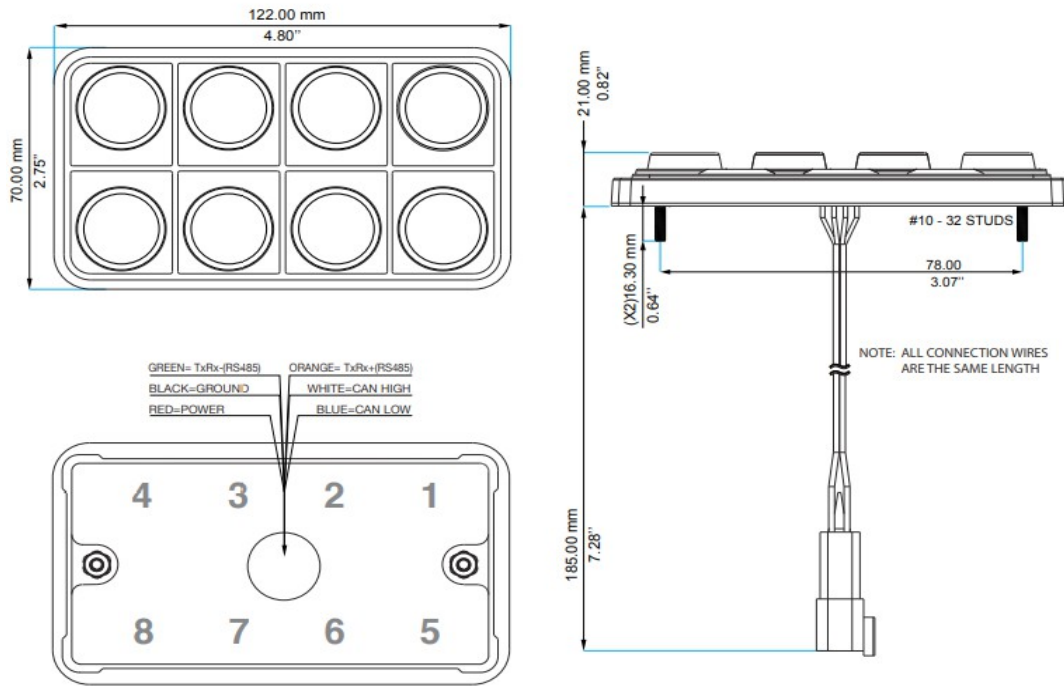
## Technical drawings for 6 keys keyboards

CAN\_BUS\_KEYBOARD\_6POS\_RGB (new type 15mm inserts):

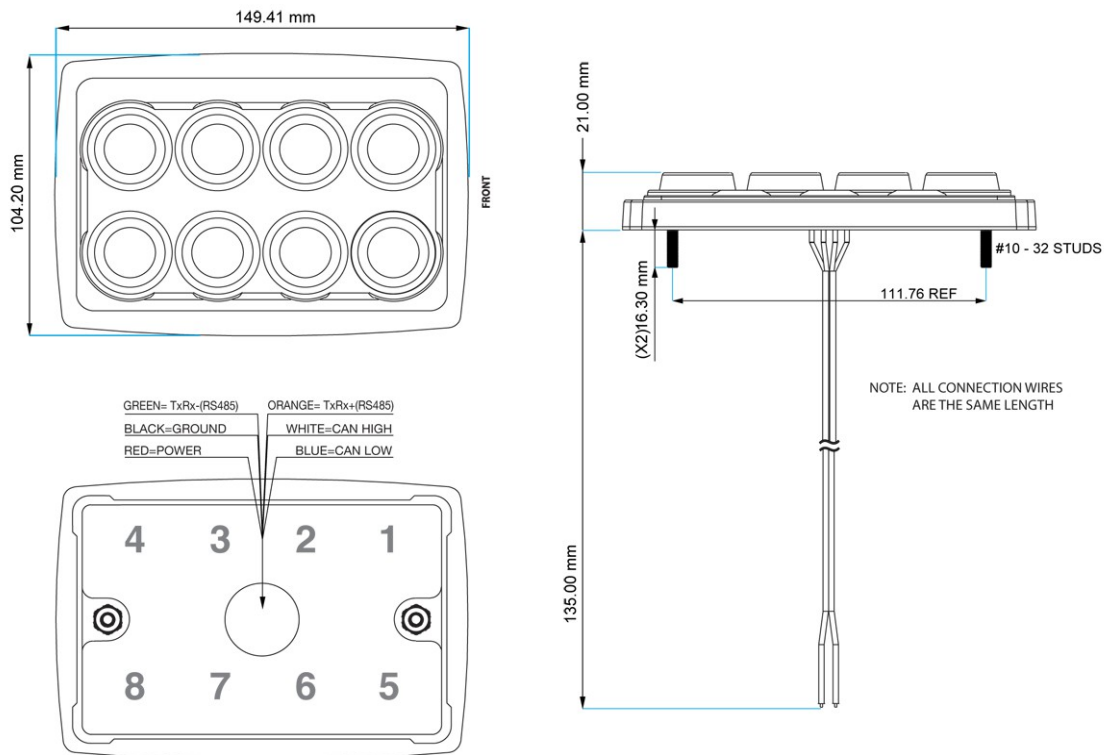


## Technical drawings for 8 keys keyboards

CAN\_BUS\_KEYBOARD\_8POS\_RGB (new type 15mm inserts):



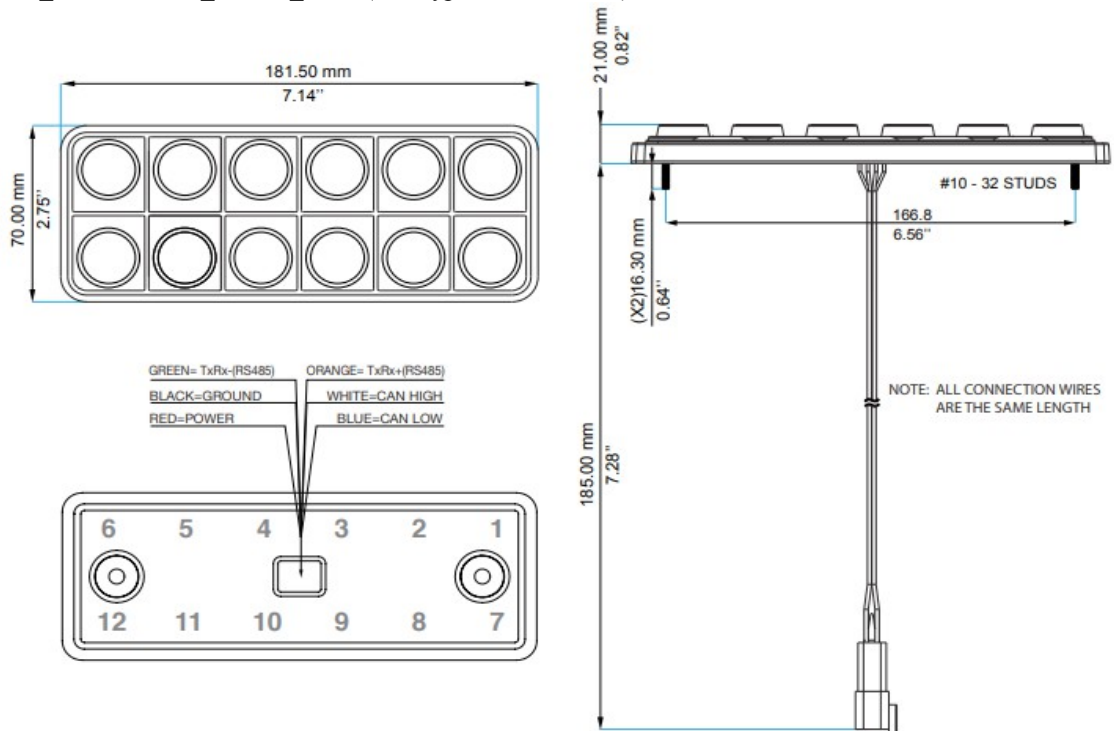
CAN\_BUS\_KEYBOARD\_8POS (old type with 24mm inserts, no longer available):



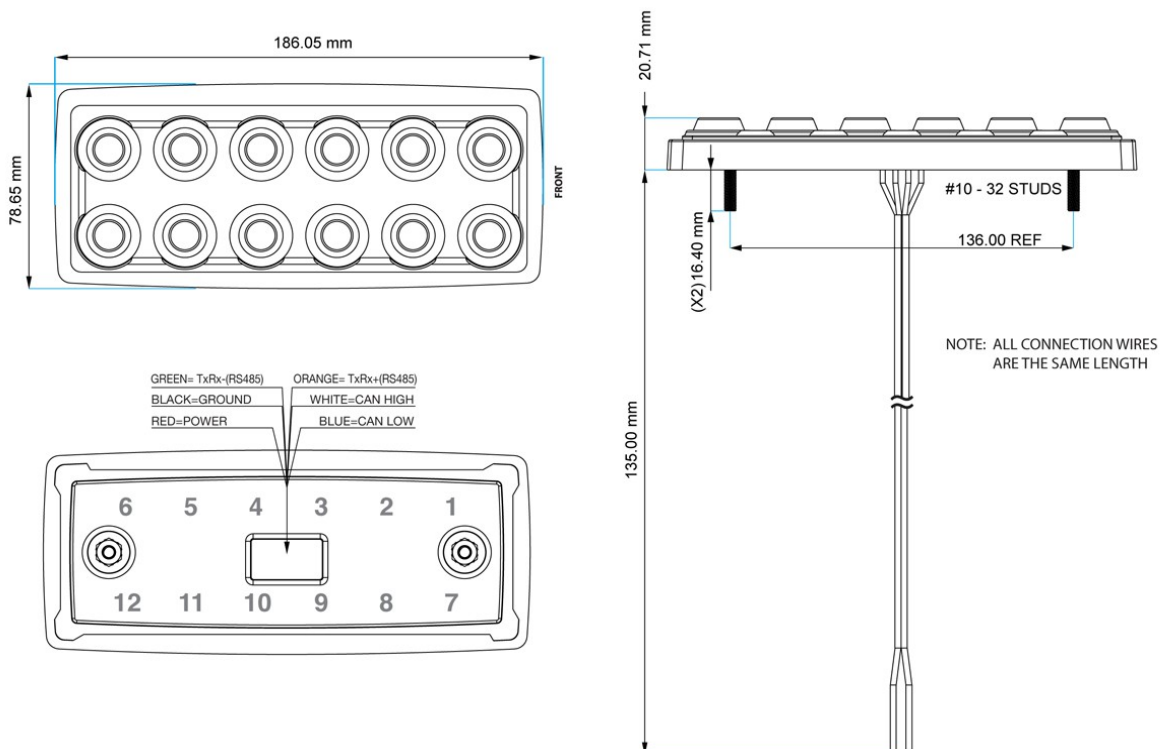


## Technical drawings for 12 keys keyboards














CAN\_BUS\_KEYBOARD\_12POS\_RGB (new type 15mm inserts):



CAN\_BUS\_KEYBOARD\_12POS (old type with 15mm inserts, no longer available):



### CAN KEYBOARD INSERTS (15mm and 24mm keys)

 002	 003	 014	 016	 022	 024
 030	 031	 032	 041	 052	 056
 068	 069	 071	 074	 076	 091
 092	 098	 099	 100	 101	 102
 139	 162	 163	 164	 166	 169
 170	 172	 173	 174	 175	 176
 B193	 B212	 B265	 B346	 B409	 B526

B527	B528	B529	B530	B531	B532

Special Keys (15mm):

B663	B736	B737	S001	S002	S003
S004	S005	S006	S007	S008	S009
S010	S011	S012	S013	S014	S015
S016	S016	S017	S017	S018	S019
S020	S021	S022			