



Input and output wire-1



Input and output wire-2



High voltage interface wire

INTRODUCTION

LITHIUM BALANCE n-BMS MCU Wire Harness Kit type **100802** consists of three wire harnesses, which are:

- 1) Input and output (I/O) connector 1
- 2) Input and output (I/O) connector 2
- 3) High voltage interface connector

I/O connectors are used for connecting n-BMS Battery Control Unit (MCU) to all peripherals including:

Power

Ground

CAN

Relay control

Charger control

Temperature sensor

Hall effect sensor

General purpose IO (GPIO)

Ignition key & HVIL

High voltage interface connector is used for measuring:

Battery and load side pack voltage

Shunt

Leak detection

FEATURES

No tools are required to install the connectors.
Hybrid connector with terminals for both signal and power.

Easy mating work.

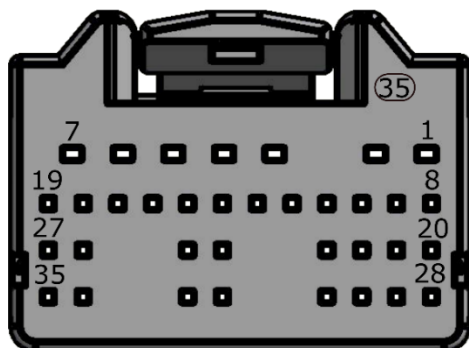
Reliable pre-charge operation is enabled by measuring voltage both at battery and load side, together with current measurement over shunt.

Leak detection from either HV+ or HV- to chassis.

For more information on the LITHIUM BALANCE n-BMS, please refer to the n-BMS datasheet.

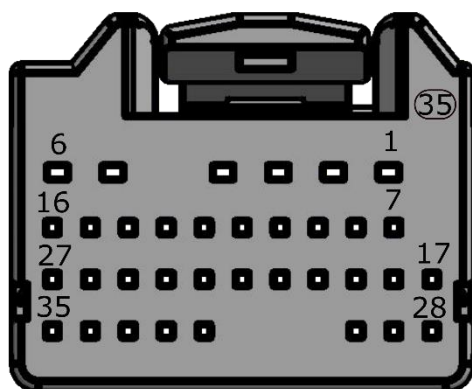


MCU I/O CONNECTOR 1 (J4a)



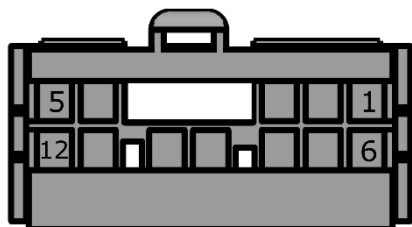
PIN No	SPECIFICATIONS	PIN No	SPECIFICATIONS
1	GPIO10	19	No Connection
2	GPIO9	20	CSENSEHI
3	HVIL OUT	21	CSENSEHI GND
4	HVIL IN	22	CSENSEHI 5V
5	GND Power	23	GPIO2
6	GND Power	24	No Connection
7	6V-35V Power	25	No Connection
8	No Connection	26	T-AUX-2
9	No Connection	27	T-AUX-GND-2
10	No Connection	28	CSENSELO
11	GPIO1	29	CSENSELO GND
12	IGNITION	30	CSENSELO 5V
13	T-AUX-GND-4	31	No Connection
14	T-AUX-4	32	No Connection
15	T-AUX-GND-3	33	No Connection
16	T-AUX-3	34	No Connection
17	T-AUX-GND-1	35	No Connection
18	T-AUX-1		

MCU I/O CONNECTOR 2 (J4b)



PIN No	SPECIFICATIONS	PIN No	SPECIFICATIONS
1	GPIO16	19	T-AUX-9
2	GPIO15	20	T-AUX-GND-8
3	GPIO14	21	T-AUX-8
4	GPIO13	22	T-AUX-GND-7
5	GPIO12	23	T-AUX-7
6	GPIO11	24	T-AUX-GND-6
7	sCAN HI	25	T-AUX-6
8	sCAN LO	26	T-AUX-GND-5
9	GPIO8	27	T-AUX-5
10	GPIO7	28	iCAN LO
11	GPIO6	29	iCAN HI
12	GPIO5	30	iCAN GND
13	GPIO4	31	No Connection
14	GPIO3	32	T-AUX-GND-11
15	No Connection	33	T-AUX-11
16	No Connection	34	T-AUX-GND-10
17	No Connection	35	T-AUX-10
18	T-AUX-GND-9		

BCU HIGH VOLTAGE INTERFACE



PIN No	SPECIFICATIONS	PIN No	SPECIFICATIONS
1	SH +	7	No Connection
2	SH -	8	No Connection
3	No Connection	9	HV+ Load side
4	No Connection	10	No Connection
5	HV+	11	HV+ Charger side
6	HV -	12	No Connection

