# Suncall -the worldwide valve spring supplier-launched a new model of Shunt bus bar, parts for BEV and HEV named "shunt bus-bar with a connector"



In May 2022, worldwide automotive parts supplier in Kyoto Japan, Suncall (Headquarters: Kyoto City, President: Tadao Ohtani) launched "shunt bus bar with a connector" as a new lineup of their EV-related products. It realizes more accurate sensing than the existing pin type.

Shunt bus bar, one of our next-generation-focusing-item, is used as a current detection sensor in BMS (battery management system) of EVs (electric vehicles), and has a great responsibility for precise control of charging/discharging. (Note 1).

According to existing products, setting terminal pins on shunt bus bar is the normal way to detect the current flowing on the bus bar.

However, our developed "shunt bus bar with a connector" can detect from connector port that is directly adhered on the electric circuit board. (photo1).

photo1: shunt bus bar with a connector

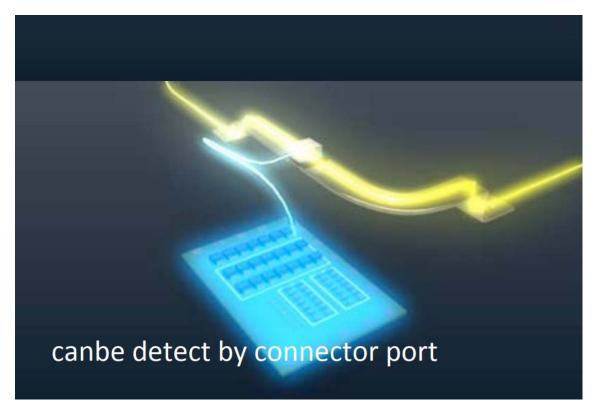


# ◆ One-touch simple assembly that also measures temperature

When detecting current by shunt bus bar, fine positioning of the detection point is the most crucial matter. Therefore, we focused on obtaining the detection point at the most accurate position by adhering the connector board onto the bus bar. The board has a simple configuration in which only a thermistor and a connector are mounted. By adding a temperature measurement function, it enables customer to correct the resistance value in their current control system such as BMS.

In addition, it gives great assemble-ability on the customer side, providing one-touch wiring with the connector port.

The greatest advantage is that, it is now possible to provide current value and temperature information with the high accuracy (0.1% accuracy) by required level from OEMs and BMS manufacturers.

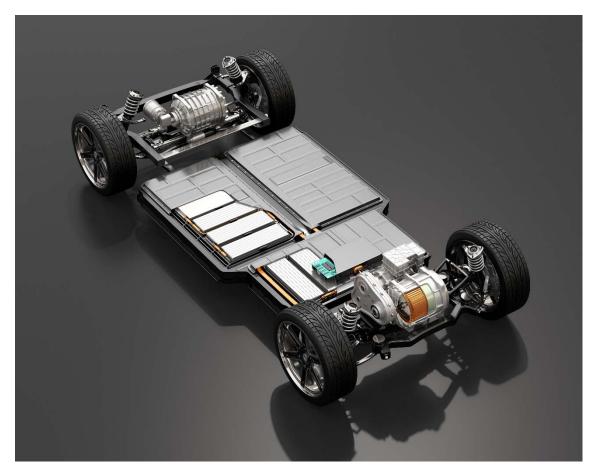


simple assembly with connector with BMS

### ◆ For the EV era of 2050

In recent years, EVs are becoming more and more popular as a countermeasure against climate change and it is said that about half of new car sales will be BEVs in 2050 (Note 3, Wood Mackenzie survey). When driving an electric vehicle, it is must to monitor charging/ discharging value of the lithium-ion battery, which is working as the power source in the car. There, it is essential to measure the current value that constantly flows.

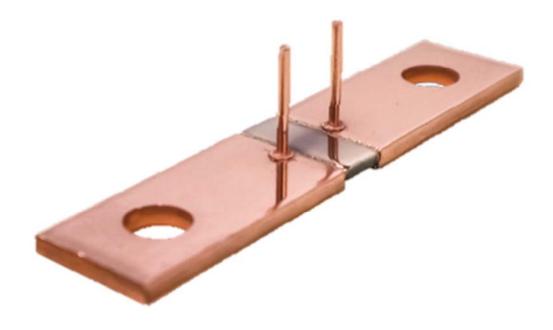
Therefore, lean and highly accurate sensing technology greatly affect life of the battery and mileage, and sophistication of its technology is required.



Shunt bas bar is adopted in BMS(Battery management system)

Born in Kyoto as a manufacturer of valve springs wire, we have been walking together with the Japanese automotive industry for over 70 years, supporting core-components for automobiles, such as engines and trans-missions.

Following the unique business model of "integrated production from materials to precision processed products", we have kept a strong relationship of trust as a good partner with major car manufacturers such as Toyota. In the medium-term management target (Note 4) announced in February 2022, we set forth "contribution to carbon neutrality" as one of our challenge, aiming to take flight from an engine vehicle parts manufacturer to an EV parts manufacturer.



Shunt bus bar of pin-type

As for shunt bus bar, we start developing it 10 years ago, and it has been adopted for electric vehicles and AGVs (automated guided vehicles) acknowledged as a part that has both design flexibility by existing technology and high-precision sensing technology.

In order to meet the increasing demand from Western OEMs in recent years, we integrated the development section in Kyoto in 2021, and also completed IATF 16949 certification in February 2022.



exhibiting at battery show (Stuttgart, Germany)

This new product "shunt bus bar with a connector", we already received inquiries from European customers, and will be exhibited at The Battery show Europe (held 6 / 28-30 at Messe Stuttgart) at Stuttgart held in June 2022. (Note 2). We will continue to develop products listening to our customer's voice aiming at further expansion from now on.

Note1: https://www.suncall.co.jp/shunt-sensor-solution/shunt-busbar/

Note2: https://www.thebatteryshow.eu/en/Home.html

Note3:https://www.woodmac.com/press-releases/700-million-electric-vehicles-

will-be-on-the-roads-by-2050/

Note4: (%1) GLOBAL GROWTH PLAN 2024 (GGP24) J

(2022 Feb.10th)

https://www.suncall.co.jp/wp/wp-content/uploads/2022/02/20220210ggp24url.pdf

### **Suncall corporation:**

CEO : Tadao Ohtani Established : 1943 June

Adress : Nishiura-cho,14 Umezu,Ukyo-ku,Kyoto Japan

web-site : https://www.suncall.co.jp

EV related products: <a href="https://www.suncall.co.jp/shunt-sensor-solution/">https://www.suncall.co.jp/shunt-sensor-solution/</a>

## For more information:

Business Strategy Promotion sect. Corporate Planning Dept.

E-mail:yutaka\_kunisawa@suncall.co.jp / fusako\_kubo@suncall.co.jp

+81-75-881-8122