



Bourns Releases New AEC-Q200 Compliant, Automotive Grade BMS Signal Transformer

Next-Generation Model SM91801AL

Riverside, California – February 28, 2024 – Bourns Magnetics Product Line is pleased to introduce the [Model SM91801AL](#) AEC-Q200 Compliant, Automotive Grade BMS (Battery Management System) Signal Transformer. This single channel basic insulation transformer is designed with a planar structure primarily for BMS applications.

The Model SM91801AL was developed for use with Analog Device’s Model LTC6815 Series, NXP’s Model MC33771C Series and Texas Instruments’ Model BQ79616. The fully automated manufacturing process for this product achieves a high quality, cost-effective solution for next-generation applications. This BMS transformer offers a working voltage of up to 1000 VDC and a Hi-Pot isolation voltage up to 4300 VDC or 2500 VAC with an extended operating temperature range of -40 to +125 °C.

Model	OCL (μH)	Size (mm)	Working Voltage (V)	Creepage Distance (mm)	Clearance Distance (mm)
SM91801AL	150 ~ 450	14 x 8.5 x 5.5	1000	Min. 5	Min. 5

For additional details on Bourns® transformers, visit the Bourns website at bourns.com/products/magnetic-products/transformers-signal. Should you have any questions, contact [Bourns Customer Service/Inside Sales](#).

Features

- Planar technology primarily for BMS signal applications
- Working voltage up to 1000 VDC
- Hi-Pot isolation voltage up to 4300 VDC or 2500 VAC
- Basic insulation complies with IEC 60664-1/ IEC 62368-1
- Clearance distance >5 mm up to 5000 m altitude, Pollution degree 2, Material group CTI I
- Creepage distance >5 mm Overvoltage Category II
- Partial discharge level up to 1200 V per IEC 60664
- Expanded temperature range: -40 to +125 °C
- RoHS compliant*
- Halogen free**
- UL recognized: File No. E515965 per UL 62368-1
- AEC-Q200 compliant
- AUTOMOTIVE GRADE

Applications

- Battery Management Systems (BMS)
- Energy Storage Systems (ESS)

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

** Bourns considers a product to be “halogen free” if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.