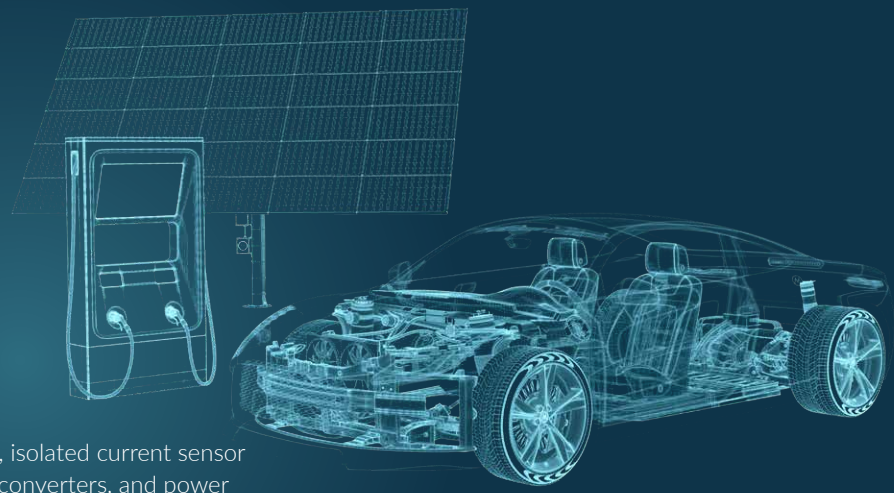


# ISOLATED INTEGRATED HALL CURRENT SENSOR

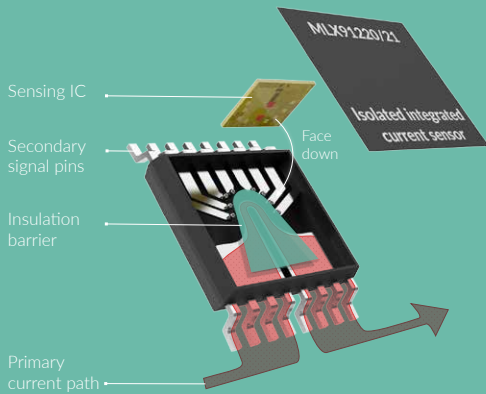


## MLX91220 & MLX91221

Melexis' MLX91220 series is a next-generation, high-speed, isolated current sensor ideal for automotive and industrial uses like OBCs, DC/DC converters, and power supplies. Combining sensing, signal conditioning, and isolation in a small package, it's an easy-to-use all-in-one solution. Available in two package variants with different isolation levels, the 300 kHz bandwidth MLX91220/21 (5V/3.3V) supports up to 50A current measurements and is robust against short transients.



## Key features



- ✓ Factory trimmed AC and DC current sensor
- ✓ Certified voltage isolation as per IEC/UL 62368-1
  - Basic and reinforce isolation
  - 3.55 kV RMS for SOIC-8
  - 5.4 kV RMS for SOIC-16
- ✓ Analog ratiometric or fixed output voltage (internal or external reference)
- ✓ High speed sensing
  - DC to 300kHz bandwidth
  - 2 $\mu$ s response time
- ✓ Robust against external magnetic fields
- ✓ No magnetic hysteresis
- ✓ Double overcurrent detection
- ✓ Low ohmic losses
- ✓ AEC-Q100 automotive qualified
- ✓ RoHS compliant packages SOIC-8 & SOIC-16



## Reinforced isolation

Safeguard the end user from high voltage risk.



### Reinforced isolation



MLX91220  
MLX91221



## Applications

### ✓ Automotive

- On Board Charger (OBC)
- DCDC converter high side
- PTC heater
- E-compressor
- EESM low rotor current

### ✓ Industrial & household

- Small electric drives and HVAC compressor
- Power supplies (UPS, SMPS)
- Solar panel (MPPT)
- White goods and load control
- EVSE: in-cable control box (ICCB), AC wallbox, DC fast charger (modular charging supply unit)
- Telecommunications



[www.melexis.com/MLX91220](http://www.melexis.com/MLX91220)