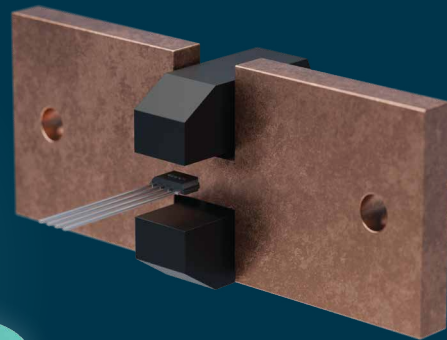


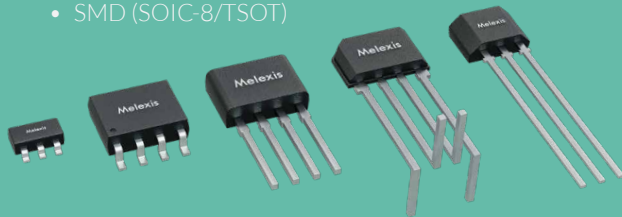
CONVENTIONAL-HALL CURRENT SENSORS (C or U Core)

Melexis Conventional Hall sensor ICs deliver high-accuracy, contactless current measurements for isolated high-power applications. Designed to be placed within the air gap of a ferromagnetic C- or U-core surrounding a busbar or primary cable, these sensors amplify magnetic flux, shield against external stray fields, and provide fast response times required for modern power electronics.



Key features

- ✓ **Isolated high-current measurement:**
 - up to >2 kA with high magnetic flux density handling
 - robust strayfield immunity
- ✓ **Robust against mechanical play**
- ✓ **Stress & thermal compensation for high accuracy**
- ✓ **Fast dynamic response:**
 - step response times <2-10 μ s
- ✓ **Automotive qualified & reliable:**
 - AEC-Q100
 - integrated diagnostics
- ✓ **Flexible packaging & forming:**
 - SIP-4 VA/VB & SIP-3 UA with Trim & Form options
 - SMD (SOIC-8/TSOT)

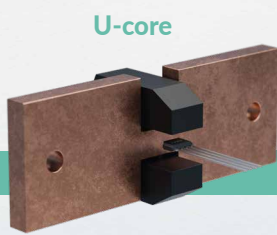


Highlights

	BW, t_response	Differentiator
MLX91209	250 kHz, <2 μ s	Foundation product
MLX91211	40 kHz, <10 μ s	Cost-optimized, UA, 3.3/5V
MLX91217	250 kHz, <2 μ s	High accuracy (low thermal drift)
MLX91219	400 kHz, <2 μ s	OverCurrent Detection (OCD), 3.3/5V, SOIC&VA
MLX91229	iso. f(demodulation)	Up to 12.5MHz Σ - Δ bitstream for harsh EMC
MLX91241	250 kHz, <2 μ s	Cost optimized 1-pin UART programming Made in China

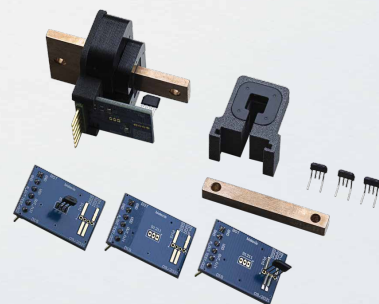
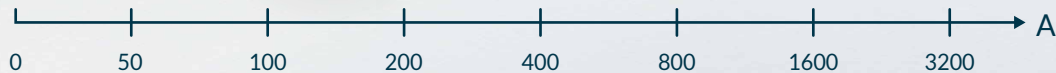


C-core



U-core

Conventional Hall



Development kit available

Applications

Automotive

EV/HEV traction inverter, DCDC,
High-Voltage Battery Management Systems (BMS)
& Junction Boxes

Mobility & Industrial

E-scooter/E-motorcycle traction inverter,
Solar inverter & grid converters,
High-power servo drive & industrial motors,
Smart Power Distribution (PDU)



[www.melexis.com/
conventional-hall](http://www.melexis.com/conventional-hall)

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