



PRODUCT INFORMATION

Intelligent battery sensor (IBS) 12 V

- Accurate measurement of voltage, current and temperature battery parameters
- Determination of the battery condition parameters – state of charge (SOC), state of health (SOH) and state of function (SOF)
- Simple electrical and mechanical integration
- OE Quality

PRODUCT FEATURES

Customer benefits

The intelligent battery sensor (IBS), generation II, informs you about the current energy balance, allowing you to plan your energy supply.



The IBS generation II also comes with the tried-and-tested CI bus interface, which is increasingly becoming a standard in the caravanning and motorhome industry. This communications interface can be used, for example, to convey the battery's charge status to the charging system, which switches on automatically if necessary.

Application

The intelligent battery sensor (IBS), generation II, from HELLA is the key element for vehicle energy management in the vehicle. The IBS generation II reliably and accurately measures the battery parameters: voltage, current and temperature. Information about the battery's state of charge (SOC), state of health (SOH) and state of function (SOF) is calculated algorithmically from the measurements. The IBS generation II is designed for use in starter, gel and AGM batteries to monitor in-vehicle starter or consumer batteries. The IBS generation II can be directly integrated into the vehicle's electrical system (e.g. CI BUS) with the standardised LIN protocol.

DESIGN AND FUNCTION



- 1. Shunt at sensor
- 2. Connector
- 3. Sensor module
- 4. Negative terminal clip
- 5. Screw-on bolt For cable lug contacting (ground cable)



Installation at standard battery pole

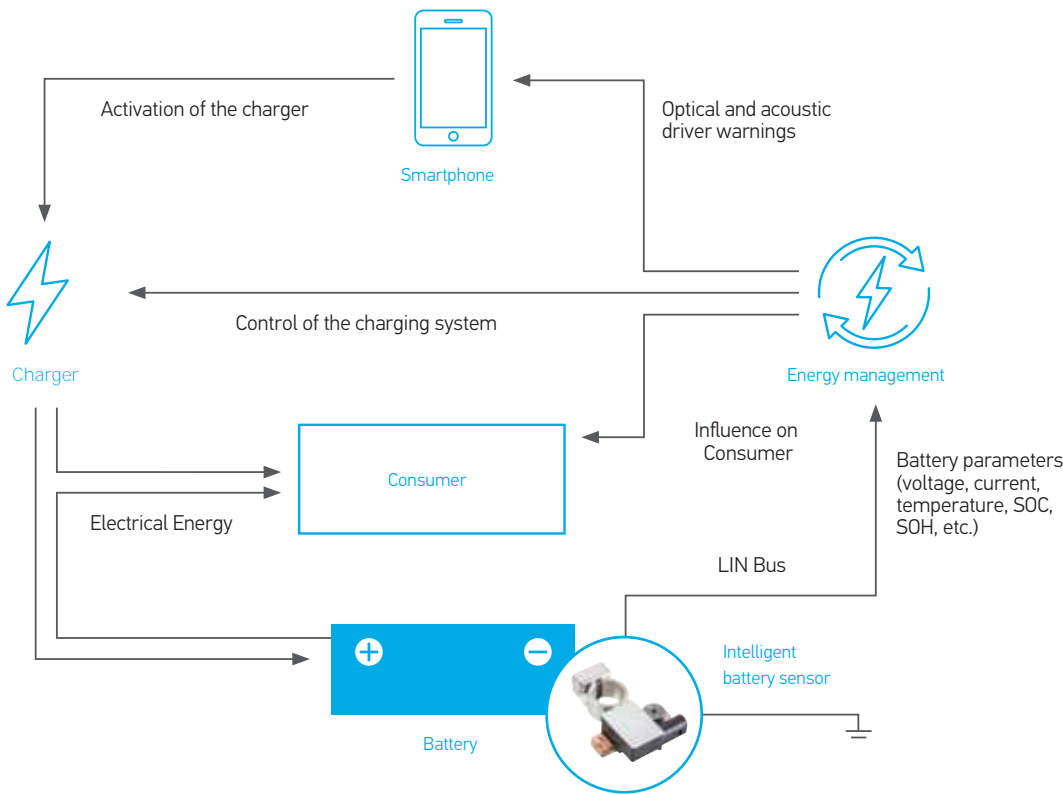
The IBS generation II is attached directly to the negative terminal of the battery via the pole terminal. In addition to the terminal, the mechanical portion of the battery sensor consists of shunt and ground bolt components. The shunt is attached to the vehicle’s load path and is used as a measuring resistor to measure the current indirectly. The existing ground cable can be easily fixed to the grounding bolt with a cable lug.

The electronics are located in a molded casing with a plug connector, functioning as the interface to the energy management system. The communication interface to the higher-level control unit is the LIN protocol. The supply voltage, used simultaneously as the reference voltage for voltage measurement, is provided by the connection to the positive pole of the battery.

Compared to previous generations, the IBS generation II offers the following benefits: This sensor can now also monitor more powerful batteries. Thanks to the higher nominal capacity that can be set, this battery sensor can also be used to monitor several batteries connected in series. Instead of 250 ampere hours they can be configured for up to 500 ampere hours (Ah). This is particularly important in view of the growing energy requirements of motorhomes, passenger cars, EVs, agricultural vehicles and last mile vehicles. These new IBS generation II units are also particularly robust and can reliably detect short-term, high current consumption – for example when bow thrusters are used.

ENERGY MANAGEMENT

By using the intelligent battery sensor, the energy management system can react quickly in the event of a critical battery condition and influence both consumer and charging behavior.



HELLA INTELLIGENT BATTERY SENSORS

UNLEASHING THE ELECTRIC VEHICLE'S FULL POTENTIAL

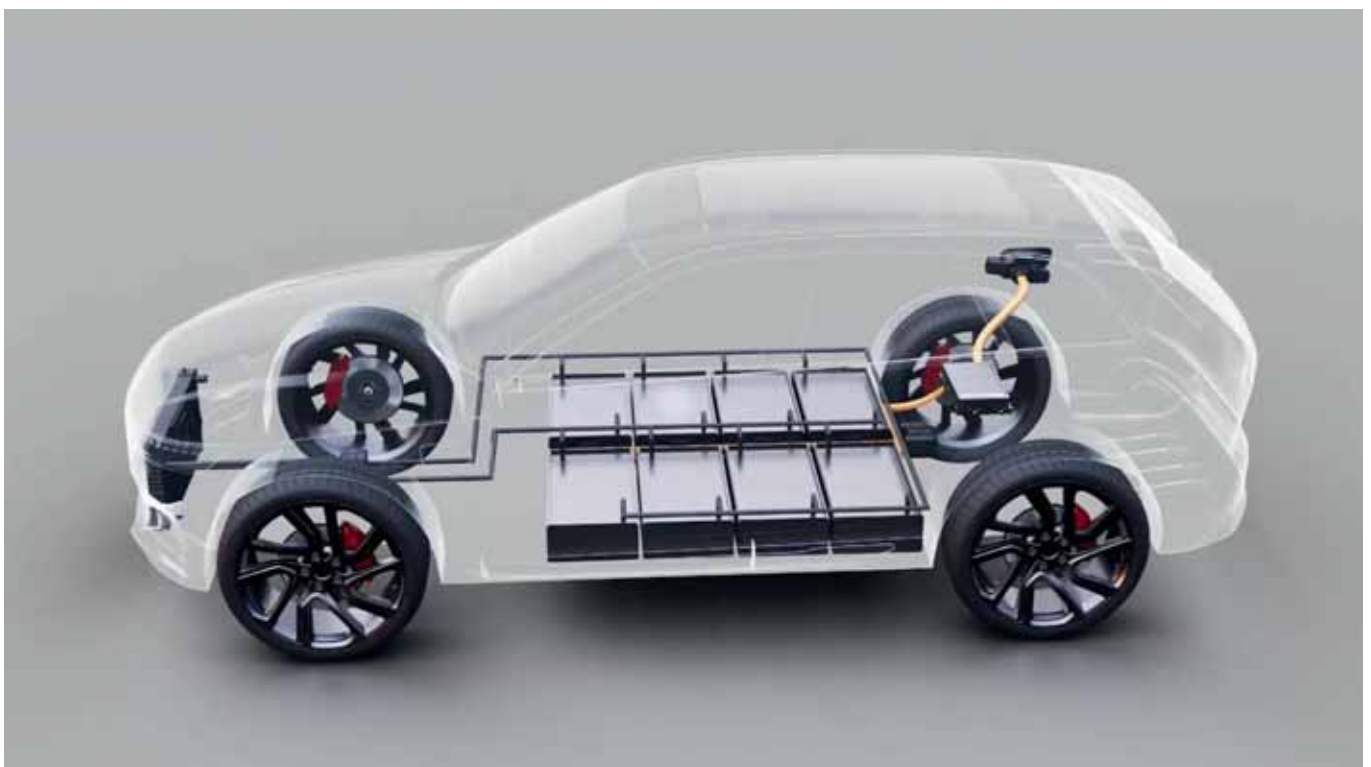
Allowing for **affordable
intallation** in the vehicle











Measuring **current, voltage and
temperature** directly at the battery

HELLA is market leader in the field
of intelligent battery sensors

Over 130 million delivered
IBS since 2000








HELLA INTELLIGENT BATTERY SENSORS

PART NUMBER	PRODUCT IMAGE	YEAR	MAKE	MODEL	COUNTRY OF ORIGIN
010547761		2019-2023	Acura Honda	MDX Odyssey Passport Pilot RDX Ridgeline	US
010547781		2016-2020	Acura Honda	MDX Odyssey Pilot Ridgeline TLX	US
NEW! 010547851		2019-2023	Acura Honda	MDX Odyssey Passport Pilot RDX Ridgeline	US
358158001		2017-2024	Audi	A4 A4 allroad A4 Quattro A5 Quattro A5 Sportback Q5 Q5 PHEV Q5 Sportback Q7 RS3 RS5 RS5 Sportback S4 S5 S5 Sportback SQ5 SQ5 Sportback SQ7	MX
358158021		2018-2024	Audi Volkswagen	Atlas Atlas Cross Sport Q3 Tiguan	MX
009429911		2006-2020	BMW	323i 325i 325xi 328i 328xi 330i 330xi 335i 335xi M3 M5 X5 X6	AT
013288911		2016-2017	BMW	X1	RO
NEW! 012767391		2021-2022	Buick	Envision	US

HELLA INTELLIGENT BATTERY SENSORS

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NEW! 012767171		2018-2022	Buick Cadillac Chevrolet GMC	ATS CTS Encore GX Equinox LaCrosse Regal Sportback Regal TourX Sierra 1500 Sierra 1500 Limited Silverado 1500 Silverado 1500 LTD Terrain Trailblazer	US
NEW! 010557361		2016-2017	Cadillac	ATS CTS	US
010557441		2016-2017	Cadillac	ATS CTS	US
010557481		2016-2020	Cadillac	CT6	US
NEW! 010557311		2016-2018	Cadillac Chevrolet GMC	Acadia Malibu XT5	AT
NEW! 012767371		2020-2022	Cadillac Chevrolet GMC	Corvette CT4 CT5 Escalade Escalade ESV Hummer EV Pickup Suburban Tahoe Yukon Yukon XL	RO
NEW! 010557111		2015-2019	Chevrolet	Impala	US
012767701		2016-2020	Cadillac	CT6	US

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010557471		2016-2018	Cadillac Chevrolet GMC	Acadia Malibu XT5	US
010557431		2015-2019	Chevrolet	Impala	US
010557901		2012-2015	Chevrolet	Aveo	DE
013442901		2016-2018	Ford	Focus	RO
011653331		2015-2019	Subaru	Legacy Outback	US
358158011		2018-2024	Volkswagen	Golf Golf Alltrack GTI Jetta Taos	MX

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Product features, specifications and availability are subject to change without notice.

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