HIGH-CURRENT SENSING SOLUTIONS FOR ALL TYPES OF ELECTRIC VEHICLES



ISABELLENHÜTTE

Innovation by Tradition

SENSOR EXCELLENCE... EVERYWHERE YOU NEED IT!

We have applications in some of the most popular and hard-working vehicles all over the world including commercial trucking, mining, and agriculture in addition to automotive. Our engineers and applications specialists go the extra mile to make sure all your high-current sensing needs are met.



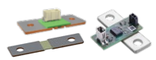
On-board 48V DC Power
- Highly accurate component



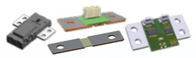
Auxiliary Drives



Auxiliary Power Outlets
- HV DC sensing
- 12V to 48V DC
- HV AC Sensing



Inverter current sensing, 1-3 Phase



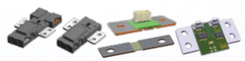
HV DC to drive unit – highly accurate current sensing



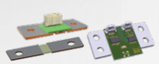
HV DC sensing , main smart sensor for total current, voltage, energy counting, isolation monitoring, Relay & Fuse control



Auxilliary / Heater & AC / DC-DC HV DC sensing



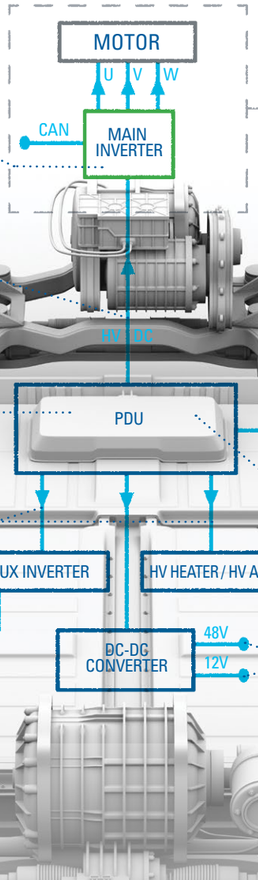
DC Charge current sensing, charge energy counting



Pyro fuse threshold monitoring



12V-48V current sensing and energy counting



DESIGNING A BETTER BDU/PDU

Next-gen applications in EV and charging infrastructure need to:

- Deal with **high current levels**
- Support **auxiliary AC systems** like drives or refrigeration
- Accommodate **increased battery capacities**
- **Charge faster**, to match market demands

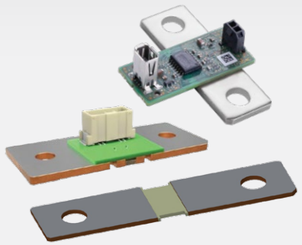
All of this means being 100% certain of your operational parameters (current, voltage, temperature), while finding new ways to put more performance into tight spaces and safe, economical designs.



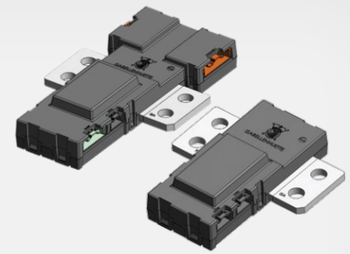
Current Sensing for PyroFuse control



- 12V-48V current sensing
- DC sensing
- Cranking current sensing for hybrids
- Low voltage auxillary applications



- AC or DC sensing
- Current Sensing for PyroFuse control



- HV DC sensing
- Main smart sensor for total current, voltage, energy counting, isolation and monitoring
- Relay & fuse control
- ASIL rated

A BETTER SENSOR STARTS WITH BETTER ALLOYS.

We've been making our own for 500 years.

Our precision alloys are manufactured to comply with the strictest tolerances and satisfy all national and international standards. This results in an exceptionally high level of quality that is renowned in the industry.

These alloys are used in many areas of electronics and electrical engineering and are supplied in many different forms and types. Our alloys MANGANIN®, ZERANIN®, ISAOHM® and NOVENTIN® are homogenous solid-solution alloys that are annealed and stabilized in the primary thermodynamic state—guaranteeing stability values in the ppm range per annum.

It is these exceptional materials that are at the heart of our sensing products.



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Enter an existing part number from any manufacturer We'll show you the comparable Isabellenhütte solution!

Enter your specification parameters...for resistance, wattage, and package size. You'll see a full list of Isabellenhütte components that fit your spec!

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Easy to order...

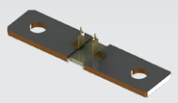
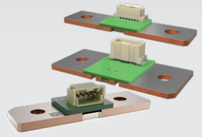
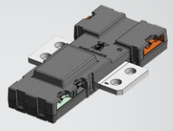
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ISABELLENHÜTTE

You can ***expect more*** from us.

ANALOG SOLUTIONS

DIGITAL SOLUTIONS

	BAS/BAX/BAN	BAV	BSS/BSX/BSN	IPC	ICD	IVT-S	IVT 3.0 base	IVT 3.0 pro
								
INTERFACE	Analog (Weld-on)	Analog (Pin-on)	Analog (Connector)	LVDS	CAN 2.0 A/B	CAN2.0 A	CAN 2.0 B	CAN 2.0 B
CURRENT RANGE	100-2500A	600-1000A	100-2500A	220-600A	100-500A	100-2,500A	1000A	1000A
TEMPERATURE RANGE	-65° C to 170° C	-65° C to 170° C	-40° C to 150° C	-40° C to 85° C	-40° C to 105° C	-40° C to 125° C	-40° C to 125° C	-40° C to 125° C
ACCURACY	5% tolerance	5% tolerance	5% tolerance DMC code: 0.2%	0.5% of reading	0.4% of reading	0.4% of reading	0.4% of reading	0.4% of reading
MAIN FEATURES	Resistance range 0.005 to 0.1mOhms	Laser welded press fit sense connections	• NTC analog output • Optional temperature compensation with printed values on label • Up to three current readings	• Bandwidth(3dB) <=150kHz. • 1.5kV galvanic isolation • 5V Power supply	• Temp sensing • Monitors own supply voltage • Sleep mode • 12V Power supply	• Temp sensing • 12V to 24V Power supply • Up to three voltage measurement channels • Energy counter available	• Temp sensing • ASIL-rated • 12V or 24V Power supply • Optional analog sensing channel	• Temp sensing • High voltage sensing (3-6 channels) • Active isolation monitoring • ASIL-rated • 12V or 24V Power supply • Optional analog sensing channel

EXPECT MORE.

We believe that imagination and innovation are the fuel for forward progress. We are intensely focused on our customers and their challenges—always looking for new possibilities and ways to help them win.The crucial factor for our success as a technology leader is the concentration of a wide range of production steps and proprietary technologies in-house. Our vertically integrated value chain—and the continuous improvement of processes—are the basis of our outstanding technical and innovative capability.

HUNDREDS OF YEARS OF PRODUCT INNOVATION. EIGHT GENERATIONS OF FAMILY-BASED LEADERSHIP.

Isabellenhütte USA is headquartered in Swansea MA and has developed an industry-wide reputation for providing high-quality products and unparalleled customer support. We are known worldwide in industries ranging from aerospace and medical to energy and automotive. 500 years ago, a simple copper smelter perfected techniques to serve a customer base. Today, Isabellenhütte is one of the world's leading manufacturers of precision measurement systems, resistance, and thermo alloys as well as high power resistors. We call this journey "Innovation by tradition." Isabellenhütte USA is a wholly owned subsidiary of Isabellenhütte Heusler GmbH KG, located in Dillenburg, Germany.

ISABELLENHÜTTE

Innovation by Tradition

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