

IVT-S

COMPACT CURRENT SENSING

ISAscale® shunt-based current & voltage sensor designed for DC applications

INTRODUCTION

The IVT-S is a compact high precision current measurement device. It is based on a modular design and provides flexibility for fast system integration in the automotive and industrial area. The continuous current measurement has a range up to $\pm 2,500$ A. Voltage measurement is supported with up to 3 channels. The IVT-S is the benchmark in precise current and voltage measurement since 2017.



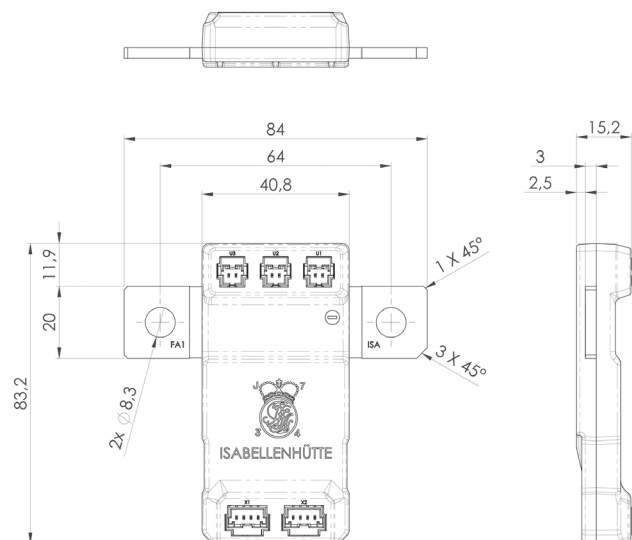
APPLICATIONS

- Hybrid and full electric devices
- Electrical energy storage systems
- Fuel cells
- Transportation systems
- Traction battery system
- Uninterruptable power supply (UPS) systems

FEATURES

- Shunt based current measurement
- Up to 3 voltage measurement channels
- Temperature measurement
- Nominal current measurement range: $\pm 1,000$ A
- Extended measurement range: $\pm 4,000$ A
- Total accuracy $\pm (0.4 \% \text{ of reading} + \text{Offset})$
(over whole temperature range -40 °C up to 105 °C)
- Isolation according to ISO 60664 (1,000 V basic isolation)
- CAN 2.0a with DBC
- Output rate: up to 1 kHz
- Supply voltage 12/24 V

DIMENSIONS [mm]



TECHNICAL DATA CURRENT

<i>Description</i>	<i>Value</i>					<i>Unit</i>
Measurement range	±100	±300	±500	±1,000	±2,500	A
Resolution	3	10	27	47	186	mA
Initial accuracy	±0.1					% of reading
Total accuracy	±0.4					% of reading
Linearity	0.01					% of reading
Offset	≤8	≤25	≤75	≤125	≤500	mA
Noise	≤5	≤15	≤40	≤70	≤280	mA (RMS)

TECHNICAL DATA VOLTAGE

<i>Description</i>	<i>Value</i>		<i>Unit</i>
Measurement range	nominal: ±1,000	extended: ±1,200	V
Resolution	30		mV
Initial accuracy	±0.1		% of reading
Total accuracy	±0.5		% of reading
Linearity	0.01		% of reading
Offset	≤100		mV
Noise	≤60		mV (RMS)