ISABELLENHÜTTE

IVS-A

COMPACT VOLTAGE SENSING

ISAscale® compact high-precision voltage measurement device



INTRODUCTION

The IVS-A is a compact, high-precision DC voltage measurement device with one galvanically isolated measurement channel, internal temperature monitoring, and a CAN interface. Its small footprint and high isolation make it the right choice wherever installation space is limited — such as measuring the voltage directly at the charging inlet.

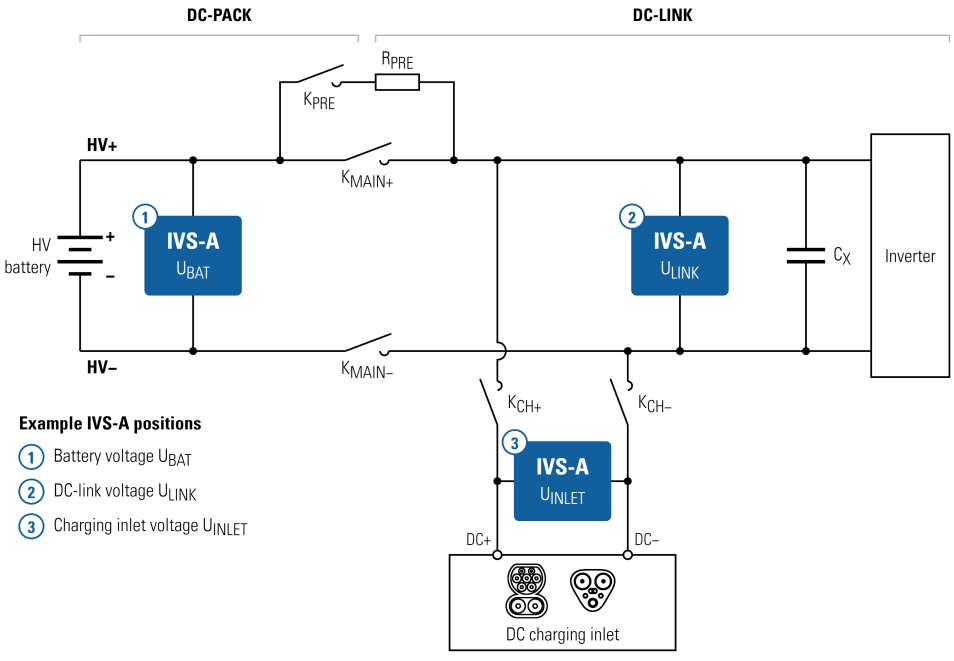
APPLICATIONS

- Charge junction boxes / power distribution boxes
- Electric vehicles (BEV, HEV, PHEV, FCEV)
- Stationary energy storage systems
- Fuel cell systems
- Uninterruptible power supplies (UPS)
- Industrial power distribution systems

FEATURES

- **High-precision voltage measurement** — one differential channel, ±1,000 V DC nominal range
- **High galvanic isolation** — 6 kV rated impulse voltage, 1000 V DC working voltage
- **Internal temperature monitoring**
- **CAN 2.0A/B interface** — with UDS diagnostics and firmware update
- **Compact housing** — IP40

TYPICAL APPLICATION



Example positions of the IVS-A in the high-voltage circuit of a battery electric vehicle

IVS-A

TECHNICAL DATA — OPERATING CONDITIONS

Parameter	*Min*	*Typ*	*Max*	*Unit*
Supply voltage	9	12/24	32	V
Ambient temperature (operation)	-40		+85	°C
Degree of protection			IP40	—

TECHNICAL DATA — VOLTAGE MEASUREMENT

Parameter	*Value*	*Unit*
Number of measurement channels	1 (differential)	—
Nominal measurement range	-1,000 … +1,000	V DC
Accuracy (nominal range, over lifetime)	± (0.5 % of reading + 100 mV)	—
Resolution	< 40	mV
Noise	≤ 60	mV (RMS)

TECHNICAL DATA — GALVANIC ISOLATION

Parameter	*Value*
Working voltage	1,000 V DC
Rated impulse voltage	6 kV

Excerpt — see the full datasheet for the complete specification.