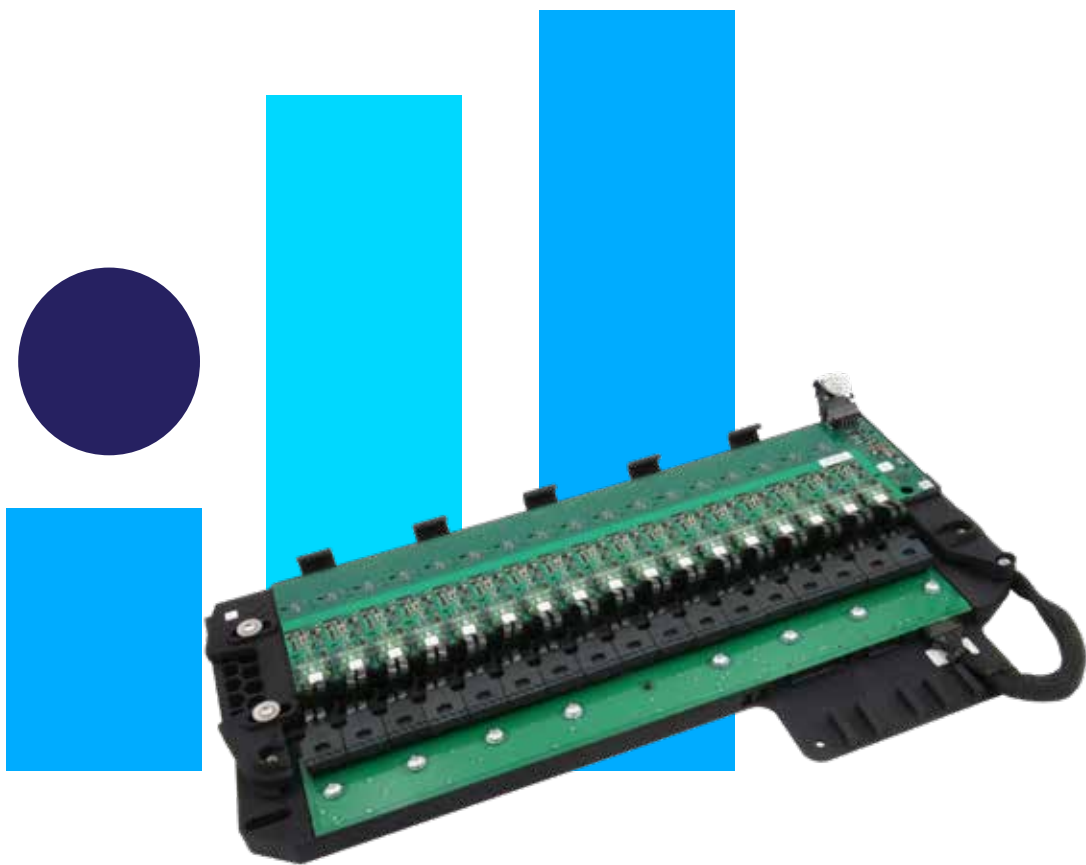


CVM G5S

CELL VOLTAGE MONITORING
FOR MOBILE AND STATIONARY SERIES APPLICATIONS

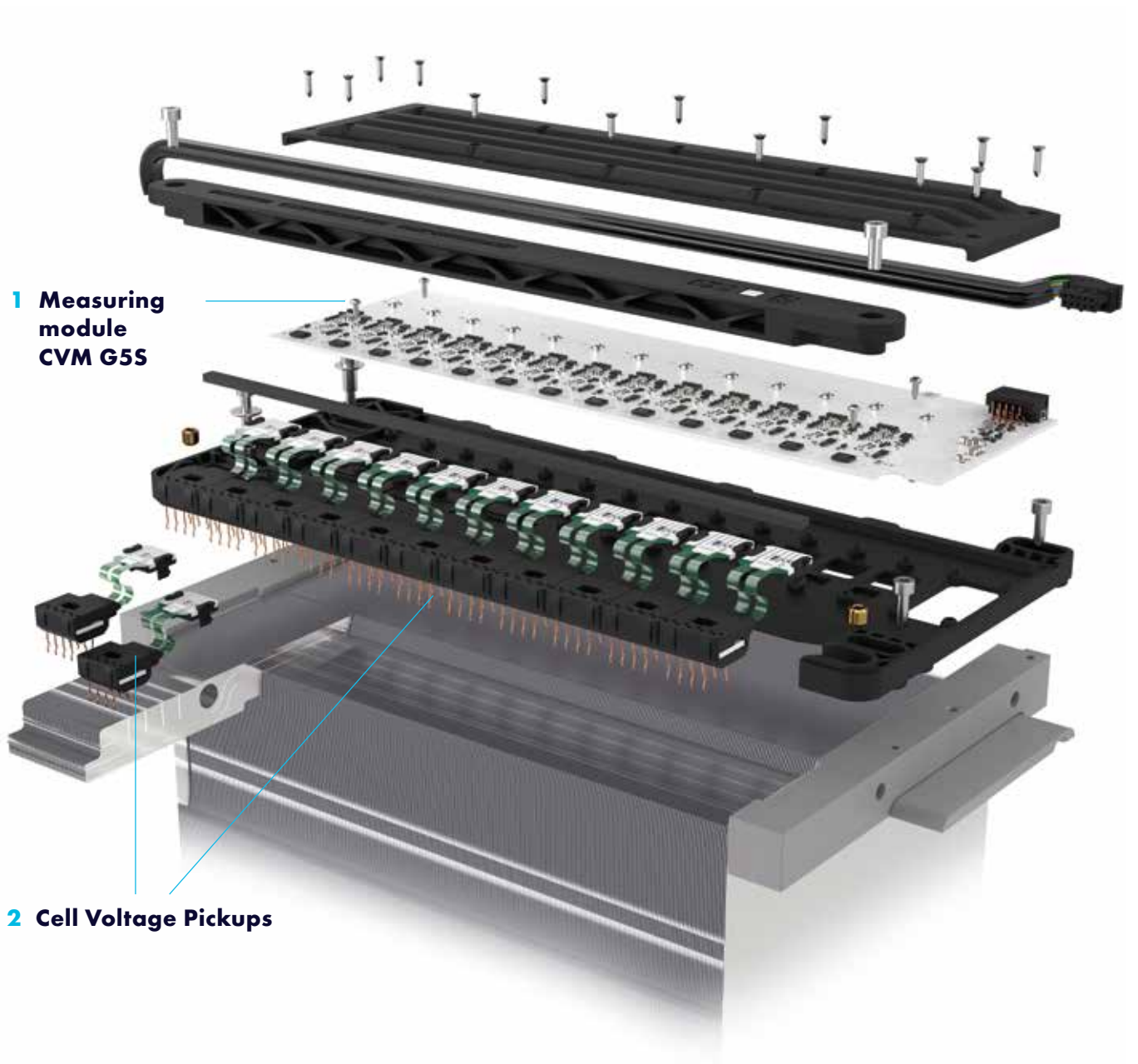


BE SMARTER

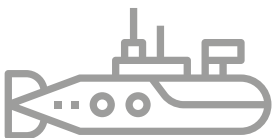
- ▶ Integrated solutions consisting of measuring module and Cell contacting in a space-saving mounting frame.
- ▶ Customised adaptation of the overall system to the respective fuel cell stack.
- ▶ Very robust in continuous operation.
- ▶ Wide range of cell voltage pick-up solutions.
- ▶ Cost-optimised design.
- ▶ Scalable up to 230 measuring channels.

SMART CVM G5S

- integrated Cell Voltage Monitoring



APPLICATION AREAS



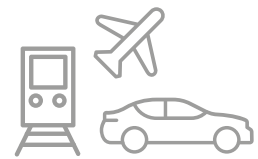
MARINE



ELEKTROLYSIS

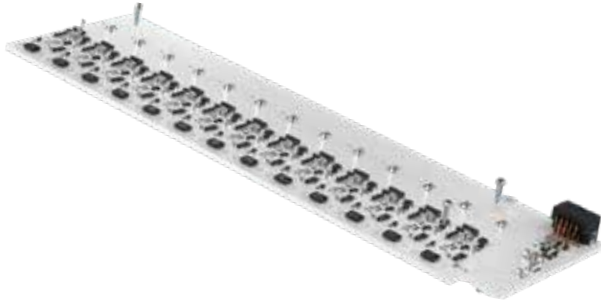


TEST BENCHES



TRAFFIC

1 Measuring module CVM G5S



The G5S measurement module is the core of our integrated solutions for cell voltage monitoring in series production vehicles and stationary applications. As a single-board solution, it fits seamlessly into our product family for voltage monitoring on fuel cells, batteries and electrolysis applications, whereby the module primarily takes into account economic and operational requirements. Important performance features are robustness and reliability in continuous operation. Further components of an integrated solution are the CVP cell contacting units as well as mounting frames and covers for space-saving installation of the system on or at the fuel cell. These are each individually adapted to the planned application.

Technical data

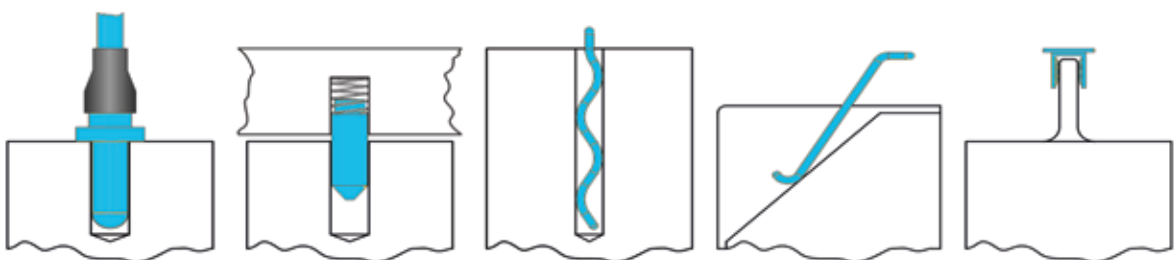
Dimension per module (LxWxH)	max. 450 x 100 x 30 mm
Number of measuring channels per board	max. 230
Measuring range DC per channel	-3 to +3 V or -1 to +5 V
Power consumption	<6 W
Resolution	μV ca. 700 (14bit)
Accuracy	
- industrial temperature range	$\pm 3 \text{ mV}$ (-25 to +85 °C)
- automotive temperature range	$\pm 6 \text{ mV}$ (-40 to +105 °C)
Galvanic Isolation	1400 V _{DC} permanent
Power supply	4,5 to 32,0 V _{DC}
Communication interfaces	2x CAN CAN 2.0B ISO 11898
Transmission rate CAN 1	1 to 50 Hz
Transmission rate CAN 2	$\leq 1000 \text{ Hz}$ (internal) $\leq 100 \text{ Hz}$ (external)
Operating temperature	-40 to +105 °C
IP protection class	IP65 incl. coating/housing (EN60529)
Common mode suppression	$\geq 80 \text{ dB}$
Weight	$\leq 1000 \text{ g}$

2 Cell Voltage Pickup solutions (CVP)



The requirements for cell voltage pickups are manifold: they must be electrically functional, insensitive to vibrations, suitable for automotive use, neutral in terms of installation space, temperature-resistant and cost-effective. At the same time, not all fuel cell stacks are the same; the materials and geometries used differ. For this reason, we do not have one universal cell contact module. In recent years, we have developed numerous CVP solutions that meet the requirements. We draw from this pool when we develop the optimal solution for your application.

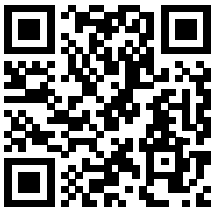
TYPES OF CONTACT



BE SMARTER

And call us.

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