

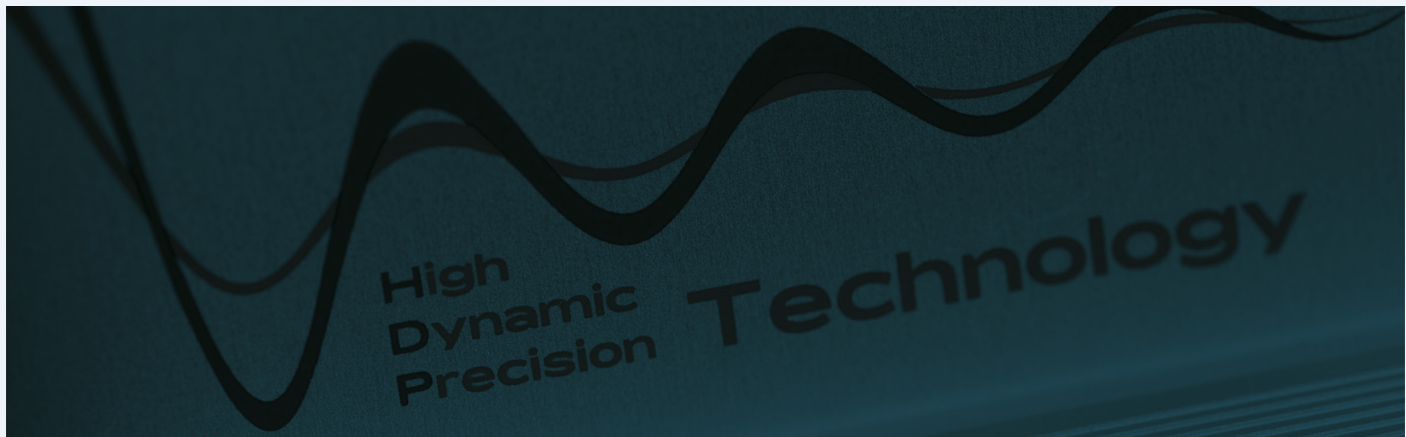


H&H



ZAHNER

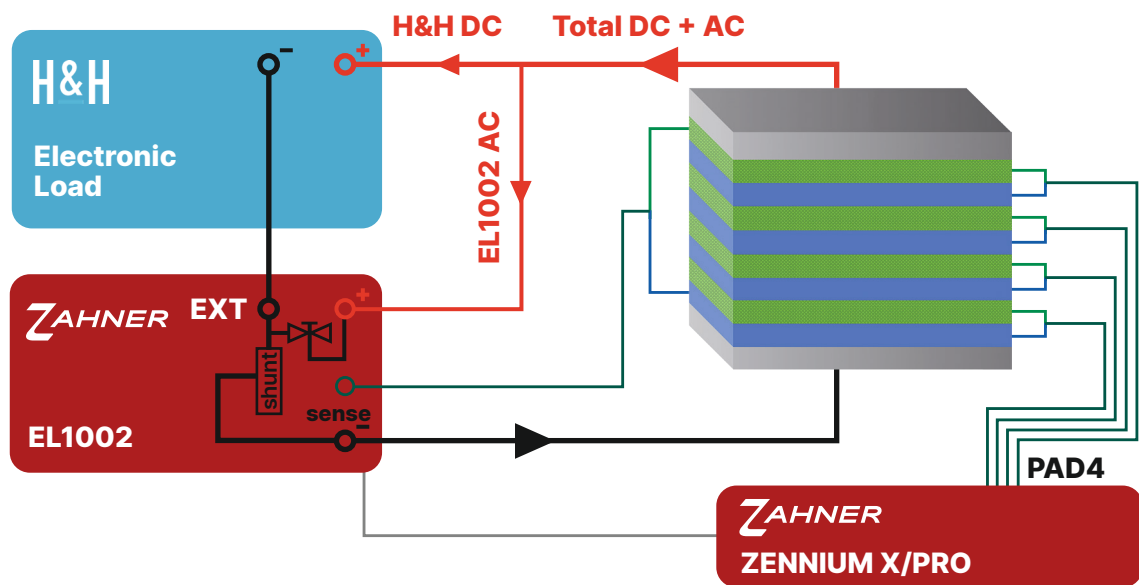
**HIGH PRECISION EIS
ON FUEL CELLS**



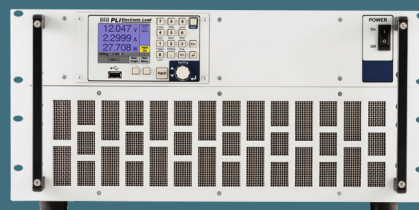
High
Dynamic
Precision

Technology

High Precision EIS on Short/ Medium Fuel Cell Stacks



Zahner EL1002

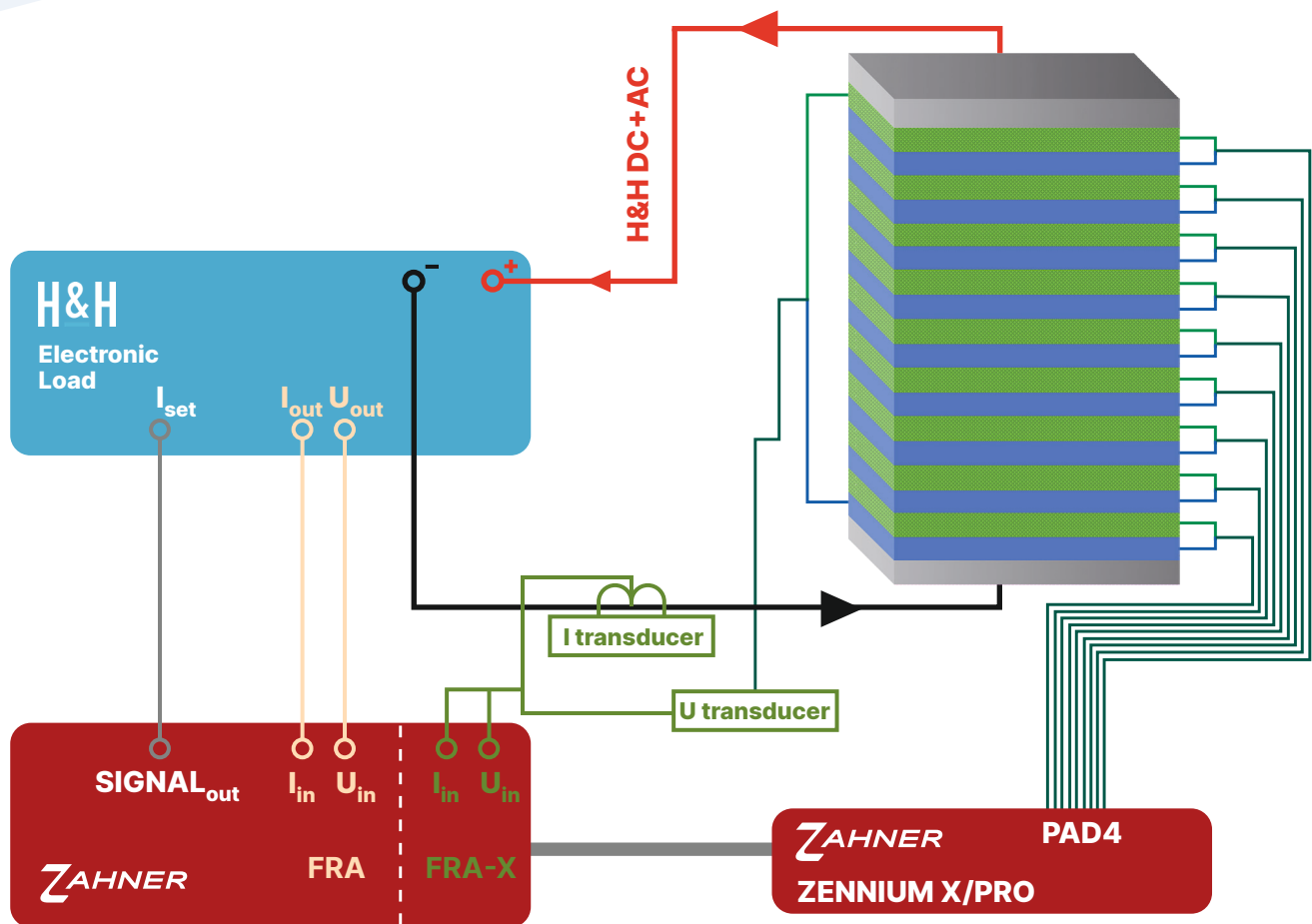


H&H eLoad PLI



- DC by H&H, AC (EIS) by EL1002 (max. 100 V, 680 A, 1 kW modulation)
- Zahner's unique EXT connection circuit excludes artifacts induced by the DC load
- Up to 17 simultaneous measurements on cells in a stack

High Power EIS on Large Fuel Cell Stacks



- DC + AC (EIS) by H&H (max. 1200 V, 2700 A), controlled and modulated by $SIGNAL_{out}$ of FRA/FRA-X
- Current and voltage measurement by H&H electronic load (FRA) or galvanically isolated, high-quality voltage/current transducers (FRA-X)
- Simultaneous measurement of up to 17 spectra



Höcherl & Hackl GmbH was founded in 1986 as a partnership and has been developing and manufacturing electronic loads and systems for testing power supplies, energy storage systems and fuel cells for more than 35 years in Konzell, Germany. Through continuous and steady growth, H&H has established as one of the leading suppliers of electronic loads in the German and international markets.

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Since 1976 Zahner-Elektrik is developing and manufacturing innovative high-precision instruments for all kinds of electrochemical and photoelectrochemical applications in Kronach, Germany. A multi-disciplinary team with a strong expertise in electrochemical impedance spectroscopy (EIS) is always in contact with users at the front line of technology development.

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