PEM STACK TESTING

- Up to 10 kW power range
- For simulation of all requirements for stationary or mobile applications
- Extended safety features including LEL hydrogen detector and cabin ventilation
- Fully automated for safe, reliable and unattended operation
- Optional dynamic direct injection humidifier technology for up to 250 °C gas temperature (option)
- Programmable automated purge and dead-end function
- Maximum performance and safety via integrated PLC

HORIBA FuelCon

Evaluator S5-LT

GENERAL FACTS

Standard anode flow range [Nl/min]	2.0 to 200
Standard cathode flow range [Nl/min]	5.5 to 550
Footprint L x W x H, [meter] (inches)	2.0 - 2.4 x 1.2 x 2.2 (79” - 95” x 47” x 87”)
Standard gas temperature	130 °C (194 °F) or 250 °C (482 °F)
Humidity range [HR]	Precise, dynamic-response humidification, dry (by-pass) to 100 % @ 90 °C (194 °F)
Back pressure control range [bara]	1.1 to 5.0
Electronic load	Maximum 1,000 A / 100 V / 10 kW
Thermal management	Water-based liquid loop up to 130 °C (194 °F) or oil-based liquid loop up to 230 °C (446 °F), max 5.0 bara system pressure
Safety features	PLC controlled 3-level alarming system, programmable nitrogen purge, emergency stop, hydrogen LEL detector
Data logging	SQL data base
Operational modes	Various dead-end and purging modes

OPTIONS

Reformate simulation
Environmental chamber connection
CVM and load voltage extension up to 300 channels and 300 V
TrueData-EIS (impedance analysis)

SAFETY

CE conformity marking (according to)
- EMC directive 2014/30/EC
- Low voltage directive 2014/35/EC
- ATEX directive 2014/34/EC
- General product safety directive 2001/95/EC
- Machinery directive 2006/42/EC
- Pressure equipment directive 2014/68/EC

Risk assessment
- DIN EN ISO 13849
- DIN EN ISO 12100

The Evaluator S5-LT is tailored to the needs of complex stack and system testing and evaluation. The design allows endurance testing and accelerated life time simulation which can be optimized for the typical needs of stationary or mobile applications. Various safety features include a closed test cabin and an integrated ventilation system with LEL hydrogen detectors to safeguard the operator and your facility. Mechanical and software interfaces are available to integrate environmental chambers or shaker platforms into test programs.

The S5-LT is perfectly designed for dynamic simulation of mobile applications in order to study fuel cell system behavior and optimize system design.

In addition, we offer hardware-in-the-loop tools for simulating subsystem load implication on the fuel cell power plant.

Combined with HORIBA FuelCon‘s sophisticated TestWork software, this system operates using either hydrogen or reformate fuels and is a powerful tool designed for MEA and stack developers and manufacturers to accelerate the time to market.

The integration of several devices from our TrueData line of diagnostic products such as our impedance analyzer allows operators to perform detailed studies of material behavior under real application conditions up to operating temperatures of 250 °C.

Please feel free to download the latest information available at www.horiba-fuelcon.com. If you have any questions, please do not hesitate to contact us. We will be happy to support you and discuss your testing requirements!

HORIBA FuelCon reserves the right to make changes at any time without notice.

BZM052_01_23 2019/02

HORIBA FuelCon | Steinfeldstr. 1 39179 Barleben | Germany | T +49 39203 514 400 F +49 39203 514 409 | info@horiba-fuelcon.com www.horiba-fuelcon.com