EVALUATOR C10-LT

PEM Single Cell Testing

EMISSIONS

ELECTRIFICATION

CAV

DATA

- Up to 100 W power range
- Compact plug and play system with ergonomic footprint
- For R&D and benchmarking of MEAs, GDLs, gaskets, bipolar plates or catalysts
- Proven humidification system including flexible hose trace heating
- Multi-range load with U, I, P or R control
- Maximum control performance, precise DAQ and safety via integrated PLC

HORIBA Automotive

EVALUATOR C10-LT

The Evaluator C10-LT offers outstanding performance of HORIBA FuelCon's Evaluator test stations in a clever package design, allowing highly reliable and safe operation. Based on HORIBA FuelCon's proven Evaluator PEM test station platform, the C10-LT has a fixed specification and contain all the necessary features for PEM testing.

The C10-LT enables testing of components and single cells with an active cell area of 25 cm^2 or 50 cm^2 up to 100 W. Combined with our sophisticated TestWork software and included SQL test and parameter data base, the station is perfectly designed for MEA developers or universities conducting fuel cell research.

The integrated PLC provides highly accurate, noiseless, reliable data acquisition; precise, real-time control loop operation; and 3-level alarm management for maximum operational safety. All these features are important when performing durability tests where reliable data is a priority.

The test stations include HORIBA FuelCon's highly sophisticated saturator humidifier. A multipoint electronic level control of the saturator vessel ensures always constant water level and pressure with unrivaled stable humidity values for both, anode and cathode. The integration of devices from our TrueData line of diagnostic products, such as our impedance analyzer or our cyclic voltammetry extension allow operators to perform detailed studies of material behavior.

GENERAL FACTS	
ANODE FLOW RANGE (NL/MIN)	0.02 to 2
CATHODE FLOW (NL/MIN)	0.05 to 5
FOOTPRINT L x W x H [METER] (INCHES)	1.1 x 0.8 x 1.65 (43" x 32" x 65")
STANDARD GAS TEMPERATURE	130 °C (266 °F)
HUMIDITY RANGE [HR]	Dry (by-pass) to 100 % at 90 °C (190 °F)
BACK PRESSURE CONTROL RANGE [BARA]	1.1 to 4.0
ELECTRONIC LOAD	Up to 100 A/2.5 V/100 W Zero voltage option
TYPICAL TEST ITEMS	Single cells, 25 to 50 cm^2
ACTIVE TEST ITEM THERMO SETTING	Receptacles for temperature sensor, cell end Plate heater and cooling blower, PID control loop
SAFETY FEATURES	PLC controlled 3-level alarming system, Programmabke nitrogen purge, Emergency stop
GAS SUPPLY	Solenoid valve gas shut off, Gas supply pressure monitoring
DATA LOGGING	SQL data base
MATERIAL	Stainless steel or PTFE for al wetted parts

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

Options

Impedance analysis
TrueData-CYV

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