

One-Quadrant Potentiostat **EL 101/300**

Add-on modules for IM5/6 impedance spectrum analysers

**Modern
electrochemistry**



**at high
currents**

IN impedance spectroscopy, cyclic voltammetry, polarisation curves ...
FOR fuel cells, electrolysis, electro-plating ...

ZAHNER[®] Meßtechnik

Power potentiostats and electronic loads today are indispensable tools in several fields of electrochemistry, e.g. in the research of fuel cells. The potentiostats of the *EL*-series are designed to sink high currents up to 25A/100A at a total power dissipation of up to 100W/300W (*EL101/EL300*). Both modules may be connected in full cell or half cell schemes. Using an external precision power supply you easily can extend an electronic load of the *EL*-series to a two-quadrant potentiostat you need e.g. in the field of electrolysis.

The *EL101/300* is controlled by *EPC4*, a plug-in module for the impedance spectrum analyser *IM5/6*. Due to the built-in microprocessor system up to 16 *EL101/300* can be controlled by one *IM5/6*. Each *EPC4* can address up to four *EL*-modules, up to four *EPC4* cards you can install in one *IM5/6* system. Each potentiostat will hold all its values from one control-access to the next one so that absolutely no potential- or current-disturbances can occur when scanning the potentiostats. With more than one *EL*-module connected you can run series-measurements where spectra are taken from all modules in a definable order.

The *EL*-series modules are embedded completely in the *IM5/6* environment. Thus all acquisition- and analysis-techniques that run on the *IM5/6* can be used with these modules as well. Installation of one or more *EL*-modules will upgrade your *IM5/6* to an even more versatile high-current impedance spectrum analyser system.

Supported Methods	Software Module
• Impedance spectroscopy	IM
• Cyclic voltammetry	CV
• Polarisation curves	CV
• Arbitrary current/potential/time measurements	PVI
• Capacity/potential measurements	C/E
• Automatic series measurements	AS

Specifications	EL101	EL300
Operating modes	potentiostatic / galvanostatic	
Potential range	$\pm 4V / \pm 12V$	
Potential accuracy	0.25%	
Current range	0A ... 25A	0A ... 100A
Current accuracy	0.25%	1%
Power dissipation	100W @ T _a	25W @ T _a 300W water cooled
Ambient temperature	0°C ... 25°C	
Frequency range	10µHz ... 10kHz	10µHz ... 3kHz