

IKA

designed for scientists

EN



IKA SCREENING SYSTEM



Create Something New

Electrosynthesis shortens processes, saves energy and reduces environmental impact. With the Screening System IKA offers a smart all-in system for research and development.

We are happy to welcome you at our application centre at the company headquarters in Staufen. Here you can try out the Screening System and run customized electrosynthesis tests together with our experts.

What do you want to achieve? You can find the solution here.



IKA Screening System

The IKA Screening System is perfectly suited for constant current electrosynthesis in "multibatch" mode. The combination of both divided and undivided batch cells enables you to quickly carry out research on multiple electroconversions at the same time. In addition, you can combine the system with other equipment in the laboratory.

Parallel batch electrosynthesis offers following advantages:

- > Up to 8 undivided or 6 divided cells can be operated simultaneously and individually
- > Synthesize sufficient quantities for GC, LC or NMR analysis processes
- > Separate control and pre-set for each cell
- > Easy testing of identical or differing electrolysis runs
- > Fast identification of ideal process parameters
- > Digital recording of test parameters
- > Simultaneous mixing and heating
- > Full temperature control (PT 1000) using heat block
- > Control and automation via Labworldsoft 6.0
- > Time and resources savings

Screening System Package (6 Cells)

Ident-Nr. 0040003631

Screening System Package (8 Cells)

Ident-Nr. 0040003642

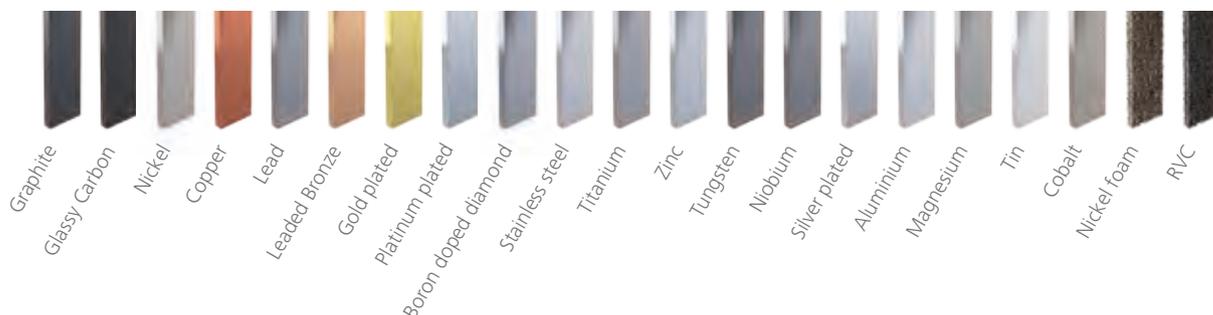
Divided and undivided cells

The usage of the single-cell screening system allows you to customize each reaction cell. The operator is able to individually pre-set an applied voltage of 0 – 32 V or 0 – 10 A current by using two voltage sources, each providing four outputs. Every reaction cell can be equipped with electrodes made of either different or the same electrode material. This depends strongly on the electro synthesis envisioned. All cells are arranged in a heating block that, if necessary, is heated up by a magnetic stirrer belonging to the scope of delivery. An external PT 1000 temperature sensor ensures the monitoring and control of the exact heating block temperature.

Six divided cells can be operated in parallel within the Screening System, if double cells are used. These divided reaction cells consist of a reaction block, which requires separate electrode compartments. These are connected by a glass frit. Thus, an electrochemical reaction takes place, but the reaction liquids remain separate. That prevents the mixture of oxidized and reduced liquid. This is of particular interest if the product formed is not stable towards the counter electrode.



Electrode materials (optional)



Scope of delivery

- > Reaction block
- > Electrolysis cells
- > Power supply
- > IKA Plate (RCT digital) including PT 1000 Temperature Control
- > Cable Set
- > Screwdrive
- > RS 232 cable PC 1.1
- > USB RS 232 converter 4 Ports
- > Electrode graphite (16 pcs)

Technical data

Technical data	IKA Screening System
CONTINUOUSLY ADJUSTABLE POWER SUPPLY	
Voltage output	0 – 32 V (\pm 1 mV)
Power output	0 – 10 A < 1 A (\pm 0,2 mA) \geq 1 A (\pm 1 mA)
Supply voltage	115 or 230 V (50 Hz / 60 Hz)
FUNCTIONS	
Galvanostat	Yes
MAGNETIC STIRRER	
RPM	0 – 1500 rpm
REACTION CELLS	
Number of cells	6 or 8
Usable volumes of undivided cell	8 ml
Usable volumes of divided cell (per chamber)	8 ml
Material	PTFE
Divided cells	Yes (6 System)
Temperierung	Yes (RT to 100°C)

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Industries Research, Chemicals, Pharmaceuticals, Agrochemistry

