



designed to work perfectly



# IKA ELECTROSYNTHESIS PORTFOLIO





IKA Carousel complete Ident. No.0040005427



IKA e-Hive Ident. No.0040004945

### ElectraSyn 2.0

The ElectraSyn 2.0 complete variable system enables the development of new electrochemical reactions or transformations on the laboratory scale.

Precise batch electrosynthesis for users with or without previous experience:

- > Ideal test conditions thanks to Smart Assist
- > For use as a potentiostat / galvanostat
- > Analysis of samples via cyclic voltammetry
- > Digital recording of tests
- > Best reproducibility
- > Large selection of electrodes
- > Sustainable, cost-effective synthesis paths
- > Maximum process security
- > Mixing with the magnetic stirrer function
- > Control via Labworldsoft 6.0
- > Regular enhancement via software updates
- > A variety of accessories available

ElectraSyn 2.0 Package Ident. No. 0020008980 ElectraSyn 2.0 pro Package Ident. No. 0040003261 ElectraSyn 2.0 pro starter Package Ident. No. 0010003390

#### Create Something New



Electrosynthesis shortens processes, saves energy and reduces environmental impact. For batch equipment, screening systems or continuous flow cells with enhancement options - IKA offers complete smart systems for research and development and for production.

Please come and visit our application laboratory or the Technical Center at our company headquarters in Staufen. Our experts here will be happy to run customized electrosynthesis tests with you.

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

## Technical System Overview

Technical data	ElectraSyn 2.0	IKA Screening System	ElectraSyn flow basic
CONTINUOUSLY ADJUSTABLE	POWER SUPPLY		
Voltage output	0-30 V (± 10 mV)	0-32 V (± 1 mV)	0-35 V (± 6 mV)
Power output	0 – 0,1 A (± 0,1 mA )	0 - 10  A < 1 A (± 0,2 mA) $\ge 1 \text{ A} (\pm 1 \text{ mA})$	0 – 1 A (± 0,05 mA )
Supply voltage	100 – 240 V (50 Hz / 60 Hz)	115 V / 230 V (50 Hz / 60 Hz)	100, 115 / 230 V (50 Hz / 60 Hz)
INTERFACES	USB, WIFI, Bluetooth	USB, RS 232	USB and LAN
OPERATING MODE			
Cyclic voltammetry	Yes	No	No
Constant voltage	Yes	Yes	No
Constant current	Yes	Yes	Yes
MAGNETIC STIRRER			
Speed	0 – 1 500 rpm	0 – 1 500 rpm	
REACTION CELLS			
Volume	1 – 20 ml	3 – 16 ml	0,6 ml – 3,6 ml
Material	Glass	PTFE	PTFE
Divided cells	Yes	Yes (6 System)	Yes
Divided cells	Yes	Yes (RT to 100 °C)	No
HOSE PUMP			
Volume flow per hose	-	_	0,004 – 14 ml/min
Total volume flow	_	_	0,008 – 28 ml/min
Hose diameter	_	_	0,8 mm
Supply voltage	_	-	90 V – 260 V (50 Hz / 60 Hz)







#### **IKA Screening System**

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

Parallel batch electrosynthesis using parameters predefined by you:

- > Up to 8 undivided or 6 divided cells simultaneously
- > Synthesize sufficient quantities for GC, LC or NMR analysis processes
- > Separate control for each cell
- > Easy testing of identical or differing samples
- > 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 divided cells) Ident. No. 0040003631 Screening System Package (8 undivided cells) Ident. No. 0040003642



# ElectraSyn flow

ElectraSyn flow enables you to carry out continuous electrosynthesis based on the flow-through principle. The electrosynthesis flow cell can be used either individually or in combination, to research or produce very small quantities.



- > Modular, compact complete system
- > Galvanostatic operating method
- > Continuous operation
- > Nine half cells that can be combined as required
- > Optional cell division via ion-permeable membrane
- > Adjustable electrode separation
- > Adjustable educt flow speed
- > Continuous adjustment of the electrosythesis flow
- > Height-adjustable cell mounting
- > Practical component system in the carry case
- > Can be recirculated
- > Numbering-up easily possible
- > Upscaling to larger cell systems easily possible
- > Easy identification of ideal process parameters
- > Easy adjustment of parameters for research purposes
- > Control, automation and recording via Labworldsoft 6.0

ElectraSyn flow basic Ident. No. 0020014266 ElectraSyn flow eco Ident. No. 0020014267



# **Overview of Electrodes**

Electrode material	ElectraSyn 2.0	IKA Screening System	ElectraSyn flow
Graphite	V	V	V
Vitreous carbon	V	V	V
Nickel	$\checkmark$	V	V
Copper	V	V	V
Lead	V	V	V
Lead bronze	V	V	V
Gold	V	V	V
Platinum (plated)	V	V	V
BDD (boron-doped diamond)	V	V	V
Stainless steel	V	V	V
Titanium	<b>v</b>	V	<b>V</b>
Zinc	V	V	-
Tungsten	V	V	-
Niobium	V	V	-
Silver	V	V	-
Aluminum	V	V	-
Magnesium	$\checkmark$	V	-
Tin	V	V	-
Cobalt	$\checkmark$	V	-
Nickel foam	V	V	V
RVC	V	V	V
Ag/AgCl reference electrode	V	-	-

Industries Research, Chemicals, Pharmaceuticals, Agrochemistry





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