IKA

designed for scientists

EN

SAFE AND RESISTANT

Passionately enabling chemists to create a better world since 1910.
From A to Z.

MAGNETIC STIRRERS MADE BY IKA.

A scientist's most essential piece of equipment

/// Stirring technology redefined

IKA offers an extensive range of magnetic stirrers, hotplate stirrers and magnetic hotplate stirrers.
By launching two new hotplate stirrers, IKA has once again redefined a chemist's most essential piece of laboratory equipment. The development of the IKA Plate (RCT digital) and C-Mag HS 7 control has focused on user safety, ergonomics and design. Having been introduced by world-renowned scientists Phil S. Baran and Jin-Quan Yu from the Scripps Research Institute, the two products have won several design awards and are equipped with a lifetime warranty.

The innovative RET control-visc with integrated weighing function is patented and equipped with a USB interface. Latter feature enables reproducibility and documentation of trials at any given time.

Scientists can select from a wide range of small battery operated, "fun in the lab" magnetic stirrers, multi-position stirrers with and without heating function or larger industrial size stirrers.

We look forward to contributing to your research and advancing science.

3-YEAR WARRANTY*
*2+1 years after registering at www.ika.com/en/register, glassware and wearing parts excluded

Find out more about IKA and order our fascinating products online: **www.ika.com.**

Mixing

/// Overview magnetic stirrers

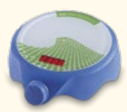
IKA magnetic stirrers are made for scientists. When a product is developed, the engineers focus on safety, power and intelligence. There is a complete range of magnetic stirrers to handle various tasks, applications and quantities, either with or without heating capabilities and with open or closed vessels. IKA stirrers require up to 25 % less energy than other manufacturer's products.

topolino

topolino mobil

lab disc

Mini MR standard



Color Squid

Big Squid

KMO 3 basic

C-MAG MS 4 | 7 | 10

Midi MR 1 digital

Maxi MR 1 digital

MAGNETIC STIRRERS
WITHOUT HEATING FUNCTION

RH basic 2

RH basic

RH digital

RCT basic

IKA Plate (RCT digital)

RET basic

RET control-visc

C-MAG HS 4 | 7 | 10

C-MAG HS digital 4 | 7 | 10

C-MAG HS 7 control

MAGNETIC STIRRER
WITH HEATING FUNCTION

RT 5 | 10 | 15

MULTIPOSITION STIRRERS
WITH HEATING FUNCTION

RO 5 | 10 | 15

MULTIPOSITION STIRRERS
WITHOUT HEATING FUNCTION

topolino | topolino mobil

/// Compact and even portable

Meet our smallest magnetic stirrer: topolino. Taking up hardly any space, yet stirring up to 250ml, a strong partner for your easy stirring tasks.

The topolino mobil is even more convenient as it can be operated with and without power cord. Just take it to where you need it.

TOPOLINO

- Durable brushless motor
- Continuously adjustable speed range
- High magnetic adhesion

TOPOLINO MOBIL

- Extremely light-weight and ultra-mobile with the possibility to operate outside the laboratory
- Operated mains-free with standard AA batteries
- Short charging time (2 – 3 h)
- Long operating time (8 – 12 h)

lab disc

/// Titrations made easy

The thinnest magnetic stirrer you will find.

pattern

stream

LAB DISC

- Ultra-flat for stirring quantities of up to 800 ml (H_2O)
- Modern wear-free magnetic coil technology
- Automatic reverse rotation every 30 seconds for better mixing results
- Set-up plate and casing made of chemically resistant materials
- Slip-proof and safe stand
- high IP protection class, IP 65

Mini MR standard

/// Compact and convenient

Basic stirring tasks of up to 1l are easily performed with the Mini MR standard. Monitoring color reactions are also no problem for this space saving magnetic stirrer.

MINI MR STANDARD

› For stirring quantities of 1000 ml (H_2O)
› Infinitely variable speed from 0 – 2,500 rpm
› White set-up plate suitable for observing color reactions

KMO 3 basic

/// Sleek and lit

Ever worked with a magnetic stirrer that lights up? Meet our KMO 3 basic: high quality fast response display, hardened glass, reversible stirring and USB interface.

NEW!

KMO 3 BASIC

› High-quality Fast Response Display
› Hardened glass set-up plate
› USB interfaces
› Illumined setup-up plate
› Right and left rotation

color squid | Big squid

/// Have fun in the lab

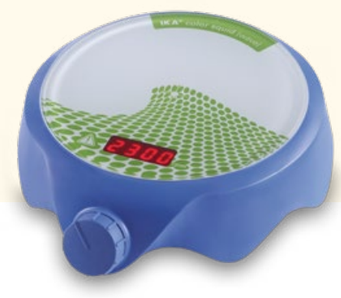
Express yourself with magnetic stirrers and their different designs.
Do you like to travel or rather prefer an abstract design?
The choice is yours.

COLOR SQUID

- For maximum stirring quantity of 1 l (H_2O)
- Available with attractive designs

BIG SQUID

- For maximum stirring quantity of 1.5 l (H_2O)
- Digital display for precise speed setting
- Electronically controlled motor for more capacity
- High speed range from 0 – 2,500 rpm
- Glass plate for excellent resistance to acids, bases and solvents



COLOR SQUID

Ident-Nr. 0003671000 white

Ident-Nr. 0003698200 zebra

Ident-Nr. 0003698300 bubbles

Ident-Nr. 0003698400 wave

Ident-Nr. 0004175500 seleção

Ident-Nr. 0004175300 solar sphere

Ident-Nr. 0004175100 stars and stripes

Ident-Nr. 0004175200 union Jack

Ident-Nr. 0004175400 red flag

BIG SQUID

Ident-Nr. 0003672000 white

Ident-Nr. 0003857200 frozen

Ident-Nr. 0003857100 leaves

Ident-Nr. 0003857300 twist

C-MAG MS 4 | 7 | 10

/// Chemical-resistant surface

With a robust and chemical resistant ceramic surface, the C-MAG MS line handles any stirring tasks for volumes of 5l, 10l and 15l.

AVAILABLE IN 3 DIFFERENT SIZES:
4“, 7” AND 10”

Powerful motor for stirring quantities up to 15 l (H_2O).

Ceramic top offers excellent chemical resistance to acid, bases and solvents.

Elevated control panel for protection against spilled liquids.

Midi MR 1 digital | Maxi MR 1 digital

/// Sturdy and robust

Our proven large scale magnetic stirrers. A sturdy stainless steel top ensures reliable stirring for your larger mixing needs.

MIDI MR 1 DIGITAL

› For stirring quantities up to 50 l (H_2O)

MAXI MR 1 DIGITAL

› For stirring quantities up to 150 l (H_2O)

Timer (0 – 56 min) or continuous operation.

Digital display for precise monitoring of the speed.

Non-locking motor.

USB/RS 232 interfaces to connect to a PC.

Infinitely variable speed.

Flat, sturdy stainless steel casing.

RO 5 | 10 | 15

/// Optimize your time

The RO series of multi-position digital magnetic stirrers without heating are ideal for synchronous stirring. The closed and compact design allows easy cleaning and protects the equipment against the penetration of liquids. The RO series of magnetic stirrers are available with 5, 10 and 15 stirring positions with a maximum stirring quantity of 0,4 l per position

RO 15

The magnetic coil technology works on the inductive principle with alternative current (AC) as its driving force. The generated magnetic field drives the magnetic bar into vessels.

The drive is 100 % wear and maintenance-free and has no moving parts, for example belts, bearings, engine parts etc. The flat and space-saving design requires only limited space and fits in all lab settings.

Digital display for precise monitoring of speed.

Wear-free magnetic coils for consistent and silent operation.

Eco-mode for a low self-warming of the surface.

Foil keypad for easy operation.

Reverse rotation switch for better mixing results.

RO 10

RO 5

IKA Plate (RCT digital)

/// Hardened glass for chemical resistance

The IKA Plate (RCT digital) is the all new magnetic stirrer made by IKA, recommended by world-renowned scientists: Phil S. Baran and Jin-Quan Yu.

In a stroke of brilliant engineering prowess, IKA has changed the game in what is the chemist's most essential piece of lab equipment.

PHIL S. BARAN
Professor of Chemistry,
Scripps Research Institute

From the hardened glass enclosure to the embedded Alnico magnet, IKA has created a stirring plate with no peer: it's in a class of its own.

JIN-QUAN YU
Professor of Chemistry,
Scripps Research Institute

LIFETIME WARRANTY!

The first magnetic stirrer with a **lifetime warranty.**

IKA SmartTemp – keep reactions and chemists safe.

Integrated timer/counter for the control of kinetics sensetive reactions and reminders.

A stirplate that improves over time with **firmware updates via USB**.

DESIGN AWARD 2017

Scope of delivery includes
PT 1000.60 temperature sensor.

RCT basic

/// Advanced technology

Extended stirring and heating performance with aluminum alloy heating plate. External temperature control is possible by connecting a temperature sensor (PT 1000*). The digital display allows an optimal overview for speed and temperature.

BESTSELLER!

Hot Top indicator
to prevent burns.

Two digital displays
for an optimal overview.

Integrated temperature sensor
for precise temperature control.

Rotating Knob for adjusting the speed and the temperature.

RCT BASIC

- Integrated temperature control
- * Incl. PT 1000 temperature sensor (PT 1000.60)
- Set safety temperature limit displayed digitally
- Hot Top indicator >> hot surface warning to prevent burns!
- Digital error code display
- With adjustable safety circuit of heating plate temperature (50 – 360 °C)
- Safety magnetic stirrer with heating, suitable for unsupervised operation
- Bushing according to DIN 12878 for connecting a contact thermometer, e.g. ETS-D5, enables precise temperature control
- High level of safety thanks to improved heat control technology
- Enclosed assembly (IP 42) guarantees long service life
- Highly polished aluminium heating plate for optimum heat transfer
- Improved magnetic adhesion
- Incl. protection cover H 100

RET control-visc

/// Safety. Power. Intelligence.

The Magnetic Stirrer for Scientists. Strongest and safest magnetic stirrer in its class with integrated weighing function and torque trend measurement.

PATENTED!

RET CONTROL-VISC

RET control-visc with high-quality stainless-steel heating plate surface.

The stainless steel surface of the composite plate enables the most efficient heat transfer to the medium and results in the fastest possible heating of the medium.

RET CONTROL-VISC WHITE

RET control-visc white with ceramic coated heating plate

The RET control-visc white offers a ceramic coated heating plate. The white surface helps to recognize color changes of fluids in a glass vessel.

- **pH electrode**: Possibility to connect **pH electrode**.
- **TFT display**: **TFT display** for better image quality and easy navigation.
- **°C**: **Extra strong heating**.
- **°C**: **Integrated temperature sensor** for precise Temperature control.
- **5 kg**: **Integrated weighing function** allows the user to measure weight changes of up to 5,000 g.
- **USB interface** to control and document all parameters using labworldsoft® software and for updating your firmware
- **±Ncm**: **Torque trend measurement**
  Viscosity changes in the medium can be measured by using a torque measurement device. The results can be depicted on the display.

Scope of delivery includes
PT 100.70 temperature sensor.

RET basic

/// Reliable and robust

Optimized stirring and extended heating performance with composite stainless steel heating plate. External temperature control is possible by connecting the included temperature sensor. Digital LED display for speed and temperature.

Scope of delivery includes
PT 1000.60 temperature sensor.

RH basic 2

/// Economic

Basic stirring and heating functionality.

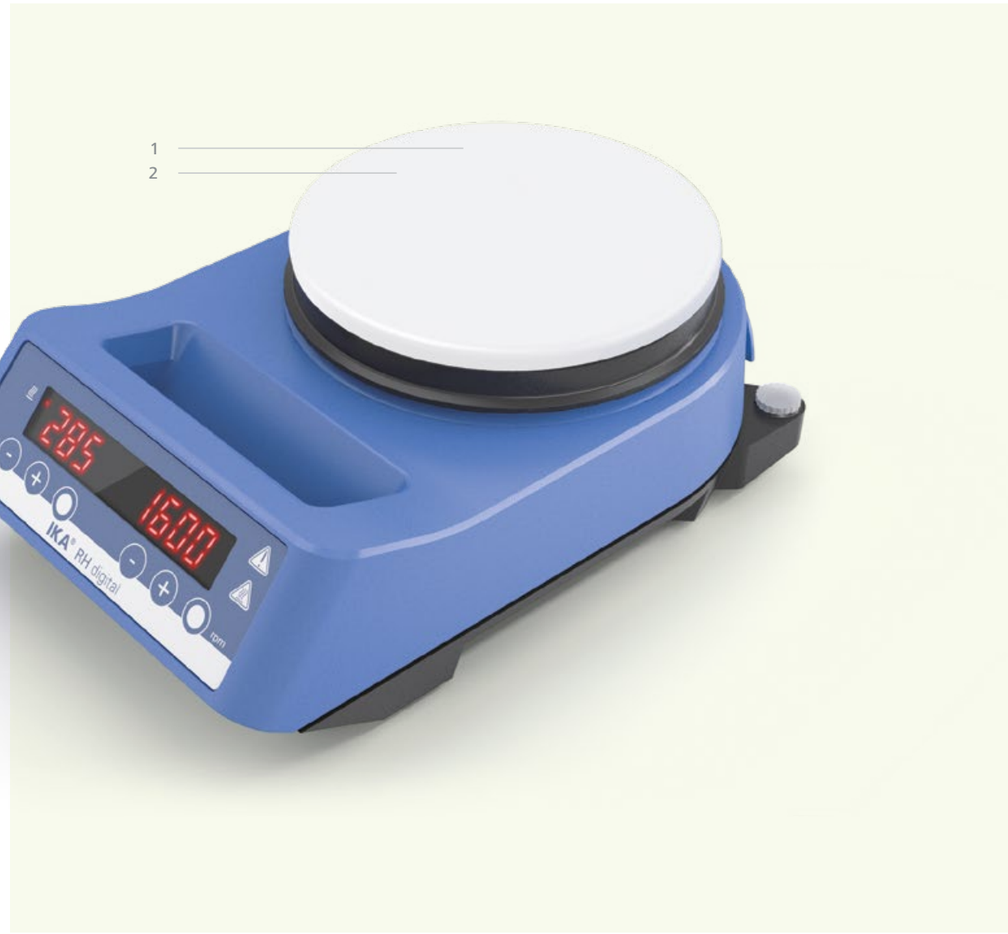
Fixed safety circuit 400°C.

Soft-starting motor.

RH basic | RH digital

/// Highly efficient

The low-cost magnetic stirrers RH basic and digital are now available with enhanced features ensuring better performance and exceptional heating solutions. The strong magnetic field and wide speed range ensures usage for volumes up to 15 liters with ease.



RH BASIC/DIGITAL

Basic stirring and heating functionality with composite heating plate in stainless steel or white ceramic coated. External temperature control is possible by connecting a contact thermometer (only ETSD series). The RH DIGITAL is equiped with a LED display for speed and temperature.

RH BASIC/DIGITAL
WITH WHITE COATED HEATING PLATE!

1 Offers **excellent chemical resistance**
2 **Easy to clean**

Scope of delivery includes:
› H102 protective cover
› Set of 3 stir bars

C-MAG HS 7 control

/// State of the art

The new C-MAG HS 7 control with a glass ceramic heating plate and a unique display that shows all information at a glance.

LIFETIME WARRANTY!

reddot award 2017
winner

High-quality Fast Response Display, showing relevant parameters at a glance.

Hardened glass for maximum visibility and chemical resistance.

USB/RS 232 interfaces to connect to a PC.

Scope of delivery includes
PT 1000.60 temperature sensor.

C-MAG HS 4 | 7 | 10

/// An Overview

Basic stirring and heating functionality with full-ceramic square plate to achieve higher temperatures. External temperature control is possible by connecting a contact thermometer with precise control accuracy (ETS-D series). Digital LED display for heating plate temperature.

Hot Top indicator to prevent burns.

Ceramic set-up plate offers excellent chemical resistance to acid, bases and solvents.

Elevated control panel for protection against spilled liquids.

DIN Bushing 12878 for connecting an electronic contact thermometer (Available only for C-MAG HS 7 & 10)

C-MAG HS 10

C-MAG HS 4

Scope of delivery includes temperature sensor.

C-MAG HS 7

OVERVIEW OF COMPONENTS

1 **Digital display** for precise temperature control
2 **Ceramic heating plate** offers excellent chemical resistance to acids, bases and solvents
3 **DIN bushing** for connecting a digital contact thermometer such as ETS-D5
4 **Digital displa**y for precise temperature control

C-MAG HS digital 4 | 7 | 10

/// Safe and accurate

The C-MAG HS digital magnetic stirrers with heating come equipped with a ceramic heating plate which offers excellent chemical resistance and an LCD display.

C-MAG HS 10 DIGITAL

C-MAG HS 7 DIGITAL

C-MAG HS 4 DIGITAL

- **LCD display** for simultaneous display of target and actual temperatures.
- Ceramic set-up plate offers excellent chemical resistance to acid, bases and solvents.
- **Elevated control panel** for protection against spilled liquids.
- **Integrated temperature sensor** for precise temperature control.
- **Hot Top indicator** to prevent burns.

PT 1000.60

A connection for a
PT 1000 TEMPERATURE SENSOR
enables precise temperature control of the medium temperature (PT 1000 sensor included in delivery).

RT 5 | 10 | 15

/// Run several experiments at once

The RT series of multi-position digital magnetic hotplate stirrers are ideal for synchronous heating and stirring applications. The wear-free magnetic coil technology provides consistent and noiseless stirring on all positions. The RT series of magnetic stirrers are available with 5, 10 and 15 stirring positions with a maximum stirring quantity of 0,4 l per position

RT 15

RT 5 RT 10

- **Digital display** for precise monitoring of the speed.
- **Wear-free magnetic coils** for consistent and silent operation.
- **Heating foil** for homogeneous temperature distribution of the heating plate.
- **Eco-mode** for a low self-warming of the surface.
- **Reverse rotation switch** for better mixing results.
- **Hot Top indicator** to prevent burns.

Technical data

/// Magnetic stirrers without heating function

TECHNICAL DATA
/// Comparison

	C-MAG MS 4 Ident. No. 0003582200	**C-MAG MS 7** Ident. No. 0003582400	**C-MAG MS 10** Ident. No. 0003582600
Max. stirring quantity (H_2O)	5 l	10 l	15 l
Motor rating input/output	15/1,5 W	15/1,5 W	15/1,5 W
Speed range	100 – 1500 rpm	100 – 1500 rpm	100 – 1500 rpm
Speed display	scale	scale	scale
Max. stirring bar length	30 mm	80 mm	80 mm
Speed adjustment	scale 0 – 6	scale 0 – 6	scale 0 – 6
Set-up plate material	ceramic	ceramic	ceramic
Set-up plate dimensions	100 × 100 mm	180 × 180 mm	260 × 260 mm
Dimensions (W × D × H)	150 × 260 × 105 mm	220 × 330 × 105 mm	300 × 415 × 105 mm
Weight	3 kg	5 kg	6 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %	80 %
Protection class acc. to DIN EN 60529	IP 21	IP 21	IP 21
Voltage	220 – 240 V	220 – 240 V	220 – 240 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
	€ 465,00	**€ 543,00**	**€ 695,00**

TECHNICAL DATA
/// Comparison

	topolino Ident. No. 0003368000	**topolino mobil** Ident. No. 0003381300	**Mini MR standard** Ident. No. 0025004132
Max. stirring quantity (H_2O)	0,25 l	0,25 l	1 l
Motor rating input/output	1/0,8 W	1/0,8 W	3/2 W
Speed range	300 – 1800 rpm	300 – 1800 rpm	0 – 2500 rpm
Speed display	–	–	–
Max. stirring bar length	30 mm	30 mm	30 mm
Speed adjustment	stepless	stepless	stepless
Set-up plate material	synthetic (PP)	synthetic (PP)	polyester
Set-up plate dimensions	Ø 80 mm	Ø 80 mm	115 × 115 mm
Dimensions (W × D × H)	95 × 115 × 37 mm	Ø 140 × 42 mm	114 × 127 × 37 mm
Weight	0,32 kg	0,60 kg	0,25 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %	80 %
Protection class acc. to DIN EN 60529	IP 21	IP 21	IP 42
Voltage	100 – 240 V	100 – 240 V	100 – 240 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
	€ 99,00	**€ 200,00**	**€ 199,00**

TECHNICAL DATA
/// lab disc, Ident. No. 003907500 white
0003765000 pattern
0003916100 stream

Max. stirring quantity (H_2O)	0,8 l
Motor rating input/output	5/3 W
Speed range	15 – 1500 rpm
Speed display	–
Max. stirring bar length	25 mm
Speed adjustment	stepless
Set-up plate material	polyester
Set-up plate dimensions	Ø 100 mm
Dimensions (W × D × H)	117 × 180 × 12 mm
Weight	0,3 kg
Permissible ambient temperature	5 – 40 °C
Permissible relative moisture	80 %
Protection class acc. to DIN EN 60529	IP 65
Voltage	100 – 240 V
Frequency	50/60 Hz
	€ 256,00

TECHNICAL DATA
/// Comparison

	Midi MR 1 digital Ident. No. 0025002968	**Maxi MR 1 digital** Ident. No. 0025002978	**KMO 3 basic** Ident. No. 0020004631
Max. stirring quantity (H_2O)	50 l	150 l	5 l
Motor rating input/output	70/19 W	80/35 W	13/9 W
Speed range	0 – 1000 rpm	0 – 600 rpm	0/10 – 1,500 rpm
Speed display	LCD	LCD	LED
Max. stirring bar length	80 mm	155 mm	80 mm
Speed adjustment	stepless	stepless	10 rpm steps
Set-up plate material	stainless steel 1.4301	stainless steel 1.4301	glass
Set-up plate dimensions	350 × 350 mm	500 × 500 mm	140 × 120 mm
Dimensions (W × D × H)	360 × 430 × 110 mm	505 × 585 × 110 mm	153 × 227× 62,5 mm
Weight	10,7 kg	16 kg	1,2 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %	80 %
Protection class acc. to DIN EN 60529	IP 21	IP 21	IP 42
Voltage	220 – 240 V	220 – 240 V	220 – 240 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
USB/RS 232 interface	yes	yes	only USB
	€ 2.805,00	**€ 3.098,00**	**€ 749,00**

TECHNICAL DATA
/// Comparison

	color squid Ident. No. 0003671000 white Ident. No. 0003698200 zebra Ident. No. 0003698300 bubbles Ident. No. 0003698400 wave Ident. No. 0004175500 seleção Ident. No. 0004175300 solar sphere Ident. No. 0004175100 stars and stripes Ident. No. 0004175200 union Jack Ident. No. 0004175400 red flag	**big squid** Ident. No. 0003672000 white Ident. No. 0003857200 frozen Ident. No. 0003857100 leaves Ident. No. 0003857300 twist
Max. stirring quantity (H_2O)	1 l	1,5 l
Motor rating input/output	3/2 W	3/2 W
Speed range	0 – 2500 rpm	0 – 2500 rpm
Speed display	LED	LED
Max. stirring bar length	30 mm	30 mm
Speed adjustment	50 rpm steps	50 rpm steps
Set-up plate material	glass	glass
Set-up plate dimensions	Ø 115 mm	Ø 160 mm
Dimensions (W × D × H)	145 × 160 × 45 mm	180 × 195 × 40 mm
Weight	0,54 kg	0,7 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %
Protection class acc. to DIN EN 60529	IP 54	IP 54
Voltage	100 – 240 V	100 – 240 V
Frequency	50/60 Hz	50/60 Hz
	€ 234,00	**€ 258,00**

Technical data

/// Multiposition stirrers without heating function

TECHNICAL DATA
/// In comparison

	RO 5 Ident. No. 0003690500	**RO 10** Ident-Nr. 0003691000	**RO 15** Ident-Nr. 0003692500
Number of stirring positions	5	10	15
Max. stirring quantity per stirring position (H_2O)	0,4 l	0,4 l	0,4 l
Distance between stirring places	90 mm	90 mm	90 mm
Deviation for individual stirring positions	0 %	0 %	0 %
Speed range	0 – 1200 rpm	0 – 1200 rpm	0 – 1200 rpm
Speed display	LED line	LED line	LED line
Speed adjustment	10 rpm steps	10 rpm steps	10 rpm steps
Max. stirring bar length	30 mm	30 mm	30 mm
Set-up plate material	stainless steel 1.4301	stainless steel 1.4301	stainless steel 1.4301
Set-up plate dimensions	120 × 470 mm	190 × 470 mm	280 × 470 mm
Dimensions (W × D × H)	120 × 570 × 60 mm	190 × 570 × 60 mm	280 × 570 × 60 mm
Weight	3 kg	5 kg	7 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %	80 %
Protection class acc. to DIN EN 60529	IP 40	IP 40	IP 40
Voltage	100 – 240 V	100 – 240 V	100 – 240 V
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
	€ 1.175,00	**€ 1.300,00**	**€ 1.830,00**

Technical data

/// Magnetic stirrers with heating function

TECHNICAL DATA
/// Comparison

	IKA Plate (RCT digital) Ident. No. 0025004969	**RCT basic** Ident. No. 0003810000 *
Max. stirring quantity (H_2O)	20 l	20 l
Motor rating input/output	16/9 W	16/9 W
Speed range	0/50 – 1.500 rpm	100 – 1.500 rpm
Speed display	LCD	LED
Max. stirring bar length	80 mm	80 mm
Heat output	600 W	600 W
Heating rate (1 l H_2O in H15)	7 K/min	6,5 K/min
Temperature range	0 – 310 °C	RT – 340 °C
Setting accuracy	±1 K	±1 K
Adjustable safety circuit	50 °C – 370 °C (± K)	50 – 370 °C
Connection for ext. temp. sensor	DIN 12878	DIN 12878
Control accuracy with sensor	PT1000 = 0.5±K ETS-D5 = 0.5±K ETS-D6 = 0.2±K	PT 1000: ±1 K ETS-D5: ±0,5 K ETS-D6: ±0,2 K
Set-up plate material	aluminium	aluminium alloy
Set-up plate dimensions	Ø 135 mm	Ø 135 mm
Dimensions (W × D × H)	160 × 270 × 85 mm	160 × 270 × 85 mm
Weight	2,4 kg	2,5 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %
Protection class acc. to DIN EN 60529	IP 42	IP 42
Voltage	220 – 240 V	220 – 240 V
Frequency	50/60 Hz	50/60 Hz
Interface	USB/RS 232	–
	€ 799,00	**€ 697,00**

* PT 1000.60 included in delivery

TECHNICAL DATA
/// Comparison

	RET basic Ident. No. 0003622000	**RET control-visc** **RET control-visc white** Ident. No. 0005020000* Ident. No. 0005030000 white*
Max. stirring quantity (H_2O)	20 l	20 l
Motor rating input/output	16/9 W	16/9 W
Speed range	50 – 1.700 rpm	50 – 1.700 rpm
Speed display	LED	TFT
Max. stirring bar length	80 mm	80 mm
Heat output	600 W	600 W
Heating rate (1 l H_2O in H15)	7 K/min	7 K/min
Temperature range	RT – 340 °C	RT – 340 °C
Setting accuracy	±1 K	±0,1 K
Adjustable safety circuit	50 – 360 °C	50 – 370 °C
Connection for ext. temp. sensor	DIN 12878	DIN 12878
Control accuracy with sensor	PT 1000: ±1 K ETS-D5: ±0,5 K ETS-D6: ±0,2 K	PT 100: ±0,2 K
Set-up plate material	aluminum	stainless steel 1,4301 | white ceramic
Set-up plate dimensions	Ø 135 mm	Ø 135 mm
Dimensions (W × D × H)	160 × 270 × 95 mm	160 × 270 × 85 mm
Weight	2,5 kg	3 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %
Protection class acc. to DIN EN 60529	IP 42	IP 42
Voltage	220 – 240 V	220 – 240 V
Frequency	50/60 Hz	50/60 Hz
Interface	–	USB/RS 232
	€ 996,00	**€ 1.262,00** **€ 1.290,00**

* PT 100 included in delivery

TECHNICAL DATA
/// Comparison

	RH basic **RH basic white** Ident. No. 0005019700 Ident. No. 0005029700 white	**RH digital** **RH digital white** Ident. No. 0005019800 Ident. No. 0004678000 white	**RH basic 2** Ident-No. 0003339000
Max. stirring quantity (H_2O)	15 l	15 l	10 l
Motor rating input/output	15/2 W	15/2 W	15/2 W
Speed range	50 – 2.000 rpm	50 – 2.000 rpm	100 – 2.000 rpm
Speed display	Scale	LED	scale (0 – 6)
Max. stirring bar length	80 mm	80 mm	
Heat output	600 W	600 W	400 W
Heating rate (1 l H_2O in H15)	6 K/min	6 K/min	
Temperature range	50 – 320 °C	50 – 320 °C	RT – 320 °C
Setting accuracy	– | ±5 K	– | ±5 K	
Adjustable safety circuit	50 – 370 °C	50 – 370 °C	400 °C (fixed)
Connection for ext. temp. sensor	DIN 12878	DIN 12878	
Control accuracy with sensor	ETS-D5: ±0,5 K ETS-D6: ±0,2 K	ETS-D5: ±0,5 K ETS-D6: ±0,2 K	–
Set-up plate material	stainless steel 1.4301 white ceramic	stainless steel 1.4301 white ceramic	stainless steel 1.4301
Set-up plate dimensions	Ø 135 mm	Ø 135 mm	Ø 125 mm
Dimensions (W × D × H)	160 × 246 × 90 mm	160 × 246 × 90 mm	168 × 220 × 105 mm
Weight	2 kg	2 kg	2,4 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C	40 °C
Permissible relative moisture	80 %	80 %	80 %
Protection class acc. to DIN EN 60529	IP 21	IP 21	IP 21
Voltage	220 – 240 V	220 – 240 V	220 – 240 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
	€ 449,00 **€ 493,00**	**€ 564,00** **€ 588,00**	**€ 343,00**

TECHNICAL DATA
/// C-MAG HS 7 control, Ident. No. 0020002694

Max. stirring quantity (H_2O)	20 l
Speed range	50 – 1.500 rpm
Heat output	1.000 W
Temperature range	RT – 500 °C
Speed display	LED
Max. magnetic bar (L × Ø)	30 – 80 mm
Safety circuit	100 – 650 °C
Control accuracy with sensor	PT 1000/±0,5K
Heating plate material	ceramic
Set-up plate dimensions	180 × 180 mm
Weight	4 kg

€ 899,00

TECHNICAL DATA
/// Comparison

	C-MAG HS 4 Ident. No. 0003581000	**C-MAG HS 7** Ident. No. 0003581200 Ident. No. 0009015900 Package	**C-MAG HS 10** Ident. No. 0003581400
Max. stirring quantity (H_2O)	5 l	10 l	15 l
Motor rating input/output	15/1,5 W	15/1,5 W	15/1,5 W
Speed range	100 – 1.500 rpm	100 – 1.500 rpm	100 – 1.500 rpm
Speed display	scale	scale	scale
Max. stirring bar length	30 mm	80 mm	80 mm
Heat output	250 W	1000 W	1500 W
Heating rate (1 l H_2O in H15)	2,5 K/min	5 K/min	5 K/min
Temperature range	50 – 500 °C	50 – 500 °C	50 – 500 °C
Temperature display	LED	LED	LED
Setting accuracy	±10 K	±10 K	±10 K
Adjustable safety circuit	550 °C (fixed)	550 °C (fixed)	550 °C (fixed)
Connection for ext. temp. sensor	–	DIN 12878	DIN 12878
Control accuracy with sensor	–	±0,5 K	±0,5 K
Set-up plate material	ceramic	ceramic	ceramic
Set-up plate dimensions	100 × 100 mm	180 × 180 mm	260 × 260 mm
Dimensions (W × D × H)	150 × 260 × 105 mm	220 × 330 × 105 mm	300 × 415 × 105 mm
Weight	3 kg	5 kg	6 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %	80 %
Protection class acc. to DIN EN 60529	IP 21	IP 21	IP 21
Voltage	220 – 240 V	220 – 240 V	220 – 240 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
	€ 481,00	**€ 510,00** **€ 649,00**	**€ 724,00**

TECHNICAL DATA
/// In comparison

	C-MAG HS 4 digital Ident. No. 0004240200	**C-MAG HS 7 digital** Ident. No. 0003487000	**C-MAG HS 10 digital** Ident. No. 0004240400
Max. stirring quantity (H_2O)	5 l	10 l	15 l
Motor rating input/output	15/1,5 W	15/1,5 W	15/1,5 W
Speed range	100 – 1.500 rpm	100 – 1.500 rpm	100 – 1.500 rpm
Speed display	scale	scale	scale
Max. stirring bar length	30 mm	80 mm	80 mm
Heat output	250 W	1000 W	1500 W
Heating rate (1 l H_2O in H15)	2,5 K/min	5 K/min	5 K/min
Temperature range	50 – 500 °C	50 – 500 °C	50 – 500 °C
Temperature display	LCD	LCD	LCD
Setting accuracy	±1 K	±1 K	±1 K
Adjustable safety circuit	550 °C (fixed)	550 °C (fixed)	550 °C (fixed)
Connection for ext. temp. sensor	DIN 12878	DIN 12878	DIN 12878
Control accuracy with sensor	±0,5 K	±0,5 K	±0,5 K
Set-up plate material	ceramic	ceramic	ceramic
Set-up plate dimensions	100 × 100 mm	180 × 180 mm	260 × 260 mm
Dimensions (W × D × H)	150 × 260 × 105 mm	220 × 330 × 105 mm	300 × 415 × 105 mm
Weight	3 kg	5 kg	6 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %	80 %
Protection class acc. to DIN EN 60529	IP 21	IP 21	IP 21
Voltage	220 – 240 V	220 – 240 V	220 – 240 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
	€ 573,00	**€ 637,00**	**€ 805,00**

Technical data

/// Multi-position stirrers with heating function

TECHNICAL DATA
/// Comparison

	RT 5 Ident. No. 0003690600	RT 10 Ident. No. 0003691100	RT 15 Ident. No. 0003692600
Number of stirring positions	5	10	15
Max. stirring quantity per stirring position (H_2O)	0,4 l	0,4 l	0,4 l
Distance between stirring places	90 mm	90 mm	90 mm
Deviation for individual stirring positions	0 %	0 %	0 %
Speed range	0 – 1.000 rpm	0 – 1.000 rpm	0 – 1.000 rpm
Speed display	LED line	LED line	LED line
Speed adjustment	10 rpm steps	10 rpm steps	10 rpm steps
Max. stirring bar length	30 mm	30 mm	30 mm
Heat output	175 W	375 W	580 W
Heating rate (1 l H_2O in H15)	3 K/min	3 K/min	3 K/min
Temperature range heatig plate	RT – 120 °C	RT – 120 °C	RT – 120 °C
Max. temperature medium (dep. on vessel)	70 °C	70 °C	70 °C
Temperature display	LED	LED	LED
Heat control accuracy	±1 K	±1 K	±1 K
Set-up plate material	aluminium alloy	aluminium alloy	aluminium alloy
Set-up plate dimensions	110 × 495 mm	180 × 495 mm	270 × 495 mm
Dimensions (W × D × H)	120 × 610 × 60 mm	190 × 610 × 60 mm	280 × 610 × 60 mm
Weight	4 kg	7,5 kg	10,5 kg
Permissible ambient temperature	5 – 40 °C	5 – 40 °C	5 – 40 °C
Permissible relative moisture	80 %	80 %	80 %
Protection class acc. to DIN EN 60529	IP 40	IP 40	IP 40
Voltage	220 – 240 V	220 – 240 V	220 – 240 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
	€ 2.125,00	**€ 2.844,00**	**€ 3.558,00**

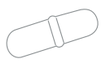
Accessories

/// Stir bars

STIR BARS
/// Comparison

	Description	Dimensions (L × Ø)	Price
KAFLON® round			
IKAFLON® 10 Set (5 Pcs) Ident-No. w	round, PTFE-coated	10 × 6 mm	**€ 7,00**
IKAFLON® 15 Set (5 Pcs) Ident-No. 0004488700	round, PTFE-coated	15 × 6 mm	**€ 8,00**
IKAFLON® 20 Set (5 Pcs) Ident-No. 0004488800	round, PTFE-coated	20 × 8 mm	**€ 9,00**
IKAFLON® 25 Set (5 Pcs) Ident-No. 0004488900	round, PTFE-coated	25 × 8 mm	**€ 11,00**
IKAFLON® 30 Set (5 Pcs) Ident-No. 0004489000	round, PTFE-coated	30 × 8 mm	**€ 11,00**
IKAFLON® 40 Set (5 Pcs) Ident-No. 0004489100	round, PTFE-coated	40 × 8 mm	**€ 12,00**
IKAFLON® 50 Set (5 Pcs) Ident-No. 0004489200	round, PTFE-coated	50 × 8 mm	**€ 13,00**
IKAFLON® 80 Set (5 Pcs) Ident-No. 0004489300	round, PTFE-coated	80 × 10 mm	**€ 31,00**
IKAFLON® 110 Ident-No. 0000793300	round, PTFE-coated*	108 × 27 mm	**€ 268,00**
IKAFLON® 155 Ident-No. 0001129000	round, PTFE-coated*	153 × 27 mm	**€ 358,00**

* Used for large magnetic stirrers like Maxi MR 1 digital.
* The admissible temperature range for PTFE-coated stirring bars is -200 – 280° C.

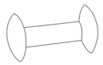


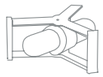
STIR BARS
/// Comparison

	Description	Dimensions (L × Ø)	Price
IKAFLON® glass round			
IKAFLON®glass 25 Set (5 Pcs) Ident-No. 0004492200	round	25 × 6 mm	**€ 17,00**
IKAFLON®glass 30 Set (5 Pcs) Ident-No. 0004492400	round	30 × 6 mm	**€ 19,00**
IKAFLON®glass 40 Set (5 Pcs) Ident-No. 0004492600	round	45 × 8 mm	**€ 21,00**
IKAFLON®glass 50 Set (5 Pcs) Ident-No. 0004492800	round	50 × 8 mm	**€ 23,00**
IKAFLON® power			
IKAFLON® 20 Set (5 Pcs) Ident-No. 0004493000	power, PTFE-coated	20 × 6 mm	**€ 21,00**
IKAFLON® 30 Set (5 Pcs) Ident-No. 0004493200	power, PTFE-coated	30 × 6 mm	**€ 31,00**
IKAFLON® 50 Set (5 Pcs) Ident-No. 0004493400	power, PTFE-coated	50 × 8 mm	**€ 38,00**
IKAFLON® slide round			
IKAFLON® 25 Set (5 Pcs) Ident-No. 0004493800	slide round, PTFE-coated	25 × 6 mm	**€ 9,00**
IKAFLON® 30 Set (5 Pcs) Ident-No. 0004494000	slide round, PTFE-coated	30 × 6 mm	**€ 9,00**
IKAFLON® 40 Set (5 Pcs) Ident-No. 0004494200	slide round, PTFE-coated	40 × 8 mm	**€ 16,00**
IKAFLON® 50 Set (5 Pcs) Ident-No. 0004494400	slide round, PTFE-coated	50 × 8 mm	**€ 19,00**

STIR BARS
/// Comparison

	Description	Dimensions (L × Ø)	Price
IKAFLON® ellipse			
IKAFLON® 20 Set (5 Pcs) Ident-No. 0004494600	ellipse, PTFE-coated	20 × 10 mm	**€ 14,00**
IKAFLON® 25 Set (5 Pcs) Ident-No. 0004494800	ellipse, PTFE-coated	25 × 12 mm	**€ 15,00**
IKAFLON® 30 Set (5 Pcs) Ident-No. 0004495000	ellipse, PTFE-coated	32 × 16 mm	**€ 20,00**
IKAFLON® 35 Set (5 Pcs) Ident-No. 0004495200	ellipse, PTFE-coated	35 × 15 mm	**€ 26,00**
IKAFLON® 40 Set (5 Pcs) Ident-No. 0004495400	ellipse, PTFE-coated	40 × 20 mm	**€ 33,00**
IKAFLON® 50 Set (5 Pcs) Ident-No. 0004495600	ellipse, PTFE-coated	50 × 20 mm	**€ 47,00**
IKAFLON® 60 Set (5 Pcs) Ident-No. 0004495800	ellipse, PTFE-coated	64 × 20 mm	**€ 69,00**
IKAFLON® 70 Set (5 Pcs) Ident-No. 0004496000	ellipse, PTFE-coated	70 × 20 mm	**€ 84,00**
IKAFLON® cross			
IKAFLON® 10 Set (5 Pcs) Ident-No. 0004496200	cross, PTFE-coated	10 × 10 mm	**€ 12,00**
IKAFLON® 20 Set (5 Pcs) Ident-No. 0004496400	cross, PTFE-coated	20 × 20 mm	**€ 15,00**
IKAFLON® 25 Set (5 Pcs) Ident-No. 0004496600	cross, PTFE-coated	25 × 25 mm	**€ 18,00**
IKAFLON® 30 Set (5 Pcs) Ident-No. 0004496800	cross, PTFE-coated	30 × 30 mm	**€ 23,00**
IKAFLON® 38 Set (5 Pcs) Ident-No. 0004497000	cross, PTFE-coated	38 × 38 mm	**€ 28,00**





STIR BARS
/// Comparison

	Description	Dimensions (L × Ø)	Price
IKAFLON® bone			
IKAFLON® 37 Set (5 Pcs) Ident-No.	bone, PTFE-coated	35 × 8 × 20 mm	**€ 42,00**
IKAFLON® 54 Set (5 Pcs) Ident-No. 0004497400	bone, PTFE-coated	55 × 8 × 20 mm	**€ 51,00**
TRIKA®			
TRIKA® 25 Set (5 Pcs) Ident-No. 0004499300	PTFE-coated	25 × 8 mm	**€ 9,00**
TRIKA® 35 Set (5 Pcs) Ident-No. 0004499400	PTFE-coated	35 × 9 mm	**€ 15,00**
TRIKA® 55 Set (5 Pcs) Ident-No. 0004499500	PTFE-coated	55 × 14 mm	**€ 24,00**
TRIKA® 80 Set (5 Pcs) Ident-No. 0004499600	PTFE-coated	80 × 17 mm	**€ 34,00**
IKAFLON® beaker		**Ø × height in mm**	
IKAFLON® 67 Ident-No. 0004497600	beaker, PTFE-coated	67 × 21 mm	**€ 240,00**
IKAFLON® 74 Ident-No. 0004497800	beaker, PTFE-coated	74 × 29 mm	**€ 247,00**
IKAFLON® 103 Ident-No. 0004498000	beaker, PTFE-coated	103 × 32 mm	**€ 357,00**
IKAFLON® 125 Ident-No. 0004498200	beaker, PTFE-coated	125 × 48 mm	**€ 456,00**
IKAFLON® crown			
IKAFLON® 9 Set (5 Pcs) Ident-No. 0004498400	crown, PTFE-coated	9 × 6 mm	**€ 10,00**

STIR BARS
/// Comparison

		Description	Price
	Stirring bars		
①	RS 1 Ident. No. 0001358600	Consisting of IKAFLON (10 – 80 mm) and TRIKA (25 and 40 mm) magnetic stirring bars	**€ 94,00**
②	RS 2 Ident. No. 0004499100	Consisting of IKAFLON 40 round, 40 glass, 30 power, 40 slide round, 40 ellipse, 40 TRIKA, 25 cross, 9 crown and 25 bone magnetic stirring bars	**€ 107,00**
③	RSE Ident. No. 0001293100	Stirring bar remover	**€ 59,00**

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SYNTHESIS BLOCKS
/// Comparison

		Description	Hole Ø Dimensions	Price
	Dry heating block square series			
1	H 135.10 Ident-No. 0025000832	Square carrier without handle	– 160 × 160 mm	**€ 114,00**
2	H 135.11 Ident-No. 0004448200	Square carrier with handle	– 160 × 160 mm	**€ 201,00**
	H 135.101 Ident-No. 0025000626	Block 16 × 4 ml	15,2 mm, 79 × 79 mm	**€ 42,00**
	H 135.102 Ident-No. 0025000627	Block 16 × 8 ml	17,5 mm, 79 × 79 mm	**€ 60,00**
3	H 135.103 Ident-No. 0025000628	Block 9 × 16 ml	20,5 mm, 79 × 79 mm	**€ 46,00**
4	H 135.104 Ident-No. 0025000629	Block 4 × 20 ml	28,5 mm, 79 × 79 mm	**€ 39,00**
	H 135.105 Ident-No. 0025000630	Block 4 × 30 ml	28,5 mm, 79 × 79 mm	**€ 46,00**
5	H 135.106 Ident-No. 0025000631	Block 4 × 40 ml	28,5 mm, 79 × 79 mm	**€ 51,00**
	H 135.107 Ident-No. 0025000632	Block 100 ml	– 79 × 79 mm	**€ 41,00**
6	H 135.108 Ident-No. 0025000633	Block 250 ml	– 79 × 79 mm	**€ 48,00**


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SYNTHESIS BLOCKS
/// Comparison

		Description	Max. Outer Ø, Inner Ø	Price
	100 ml flask heating block series			
7	H 135.20 Ident-No. 0025000634	Flask carrier 100 ml without handle	142 mm –	**€ 99,00**
8	H 135.21 Ident-No. 0004448300	Flask carrier 100 ml with handle	142 mm –	**€ 185,00**
	H 135.201 Ident-No. 0025000636	Flask inlay 10 ml	– 33,8 mm	**€ 23,00**
	H 135.202 Ident-No. 0025000637	Flask inlay 25 ml	– 43,8 mm	**€ 23,00**
	H 135.203 Ident-No. 0025000638	Flask inlay 50 ml	– 52,8 mm	**€ 23,00**
	250 ml flask heating block series			
9	H 135.25 Ident-No. 0025003280	Flask carrier 250 ml without handle	142 mm –	**€ 120,00**
	H 135.26 Ident-No. 0020007954	Flask carrier 250 ml with handle	142 mm –	**€ 199,00**


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SYNTHESIS BLOCKS
/// Comparison

		Description	Max. Outer Ø, Inner Ø	Price
	500 ml flask heating block series			
⑩	H 135.30 Ident-No. 0025000639	Flask carrier 500 ml without handle	142 mm –	**€ 130,00**
⑪	H 135.31 Ident-No. 0004448400	Flask carrier 500 ml with handle	142 mm –	**€ 210,00**
	H 135.301 Ident-No. 0025000641	Flask inlay 100 ml	– 66,3 mm	**€ 52,00**
	H 135.302 Ident-No. 0025000642	Flask inlay 250 ml	– 88 mm	**€ 54,00**
	1000 ml flask heating block series			
⑫	H 135.40 Ident-No. 0025000833	Flask carrier 1.000 ml without handle	166,3 mm –	**€ 166,00**
⑬	H 135.41 Ident-No. 0004448500	Flask carrier 1.000 ml with handle	166,3 mm –	**€ 279,00**
⑭	H 135.401 Ident-No. 0025000644	Flask inlay 500 ml	– 108 mm	**€ 94,00**

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SYNTHESIS BLOCKS
/// Comparison

		Description	Max. Outer Ø, Inner Ø	Price
	2.000 ml flask heating block series			
⑮	H 135.50 Ident-No. 0025000834	Flask carrier 2.000 ml without handle	194,7 mm –	**€ 204,00**
⑯	H 135.51 Ident-No. 0004448600	Flask carrier 2.000 ml with handle	194,7 mm –	**€ 390,00**
	H 135.501 Ident-No. 0025000645	Flask inlay 1.000 ml	– 131,8 mm	**€ 136,00**

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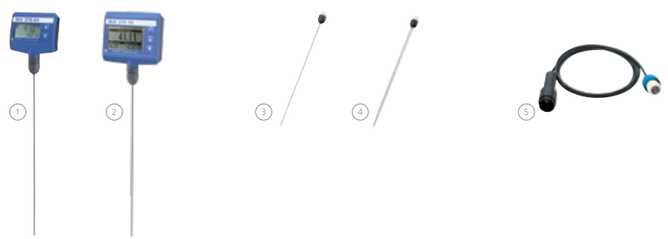
ACCESSORIES
/// Comparison

		Description	Price
	Electronic contact thermometers		
1	ETS-D5 Ident. No. 0003378000	Electronic contact thermometer, -50 – 450 oC, 0,1 K resolution	**€ 311,00**
2	ETS-D6 Ident. No. 0003378100	Electronic contact thermometer. Similar to ETS-D5, additionally comes equipped with integrated pH measuring instrument (without pH electrode)	**€ 441,00**
	Temperature sensors for ETS-D5/D6		
3	H 62.51 Ident. No. 0002735451	Temperature sensor, stainless steel, Ø 3 mm, 260 mm length	**€ 158,00**
4	H 66.51 Ident. No. 0002735551	Temperature sensor, stainless steel, glass-coated, Ø 7 mm, 260 mm length	**€ 236,00**
	H 66.53 Ident. No. 0004499900	Temperature sensor, coated with SafeCoat, Ø 3 mm, 260 mm length	**€ 199,00**
	ETS-D5/D6 Accessories		
5	H 70 Ident. No. 0002735600	Extension cable, 1 m	**€ 154,00**



ACCESSORIES
/// Comparison

		Description	Price
	Temperature sensors for RCT/RET basic and C-MAG HS digital series		
6	PT 1000.60 Ident. No. 0003516800	Temperature sensor, stainless steel, Ø 3 mm, 230 mm length	**€ 105,00**
7	PT 1000.70 Ident. No. 0003736000	Temperature sensor, stainless steel, glass-coated, Ø 7 mm, 230 mm length	**€ 116,00**
	PT 1000.80 Ident. No. 0004443000	Temperature sensor, stainless steel, Ø 3 mm, 150 mm length	**€ 112,00**
8	PT 1000.90 Ident. No. 0004480600	Temperature sensor, stainless steel, coated with SafeCoat, Ø 3 mm, 230 mm length	**€ 149,00**
	Temperature sensors for RET control-visc		
9	PT 100.51 Ident. No. 0002600300	Temperature sensor, glass-coated, Ø 8 mm, 230 mm length	**€ 268,00**
	PT 100.53 Ident. No. 0004499700	Temperature sensor, stainless steel, coated with SafeCoat, Ø 3 mm, 230 mm length	**€ 236,00**
10	PT 100.70 Ident. No. 0020000440	Temperature sensor, stainless steel, Ø 3 mm, 230 mm length	**€ 101,00**
11	PT 1000.50 Ident. No. 0003367600	Temperature sensor, dual stainless steel, Ø 3 mm, 230 mm length	**€ 231,00**
12	PT 1000.51 Ident. No. 0003377700	Temperature sensor, dual stainless steel, glass-coated, Ø 3 mm	**€ 268,00**
13	PT 1000.53 Ident. No. 0004499800	Temperature sensor, coated with SafeCoat, 230 mm length	**€ 280,00**

ACCESSORIES
/// Comparison

	Description		Price
Lift			
(14)	LABLIFT m Ident. No. 0004022400	Manual scissors lift, set-up plate dimensions 170 × 230 mm, stroke 70 – 300 mm, max. dynamic load 7 kg	**€ 227,00**

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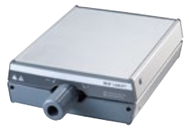

ACCESSORIES
/// Comparison

	Description		Price
Oil bath attachments			
(1)	H 29 Ident. No. 0002829400	Oil bath attachment, 1 l, aluminum, inner Ø 136 – 180 mm, 81 mm height for use with oil only	**€ 175,00**
	H 30 Ident. No. 0002829500	Oil bath attachment, 1,5 l, aluminum, inner Ø 136 – 190 mm, 110 mm height for use with oil only	**€ 195,00**

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ACCESSORIES
/// Comparison

	Description		Price
Stainless steel pot			
(2)	H 1000 Ident. No. 0004444401	Pot, stainless steel, 1 l, inner Ø 160 mm, 79 mm height	**€ 315,00**
(3)	H 1500 Ident. No. 0004444501	Pot, stainless steel, 1,5 l, inner Ø 140 mm, 160 mm height	**€ 305,00**
(4)	H 3000 Ident. No. 0004444503	Pot, stainless steel, 3 l, inner Ø 180 mm, 119 mm height	**€ 306,00**
(5)	H 5000 Ident. No. 0004444505	Pot, stainless steel, 5 l, inner Ø 220 mm, 142 mm height	**€ 379,00**
(6)	H 8000 Ident. No. 0004444508	Pot, stainless steel, 8 l, inner Ø 265 mm, 162 mm height	**€ 580,00**

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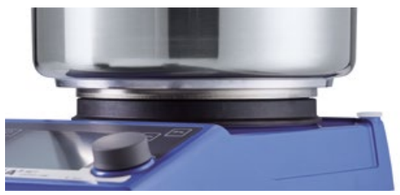

ADVANTAGES STAINLESS STEEL POTS

- no eddy current losses
- high magnetic adhesion force
- very good heat transfer (3 l pot and up: due to a round deepening area for fitting heating plates with Ø 135 mm)

Magnetic Stirrers

ACCESSORIES
/// Comparison

		Description	Price
	Protective covers		
7	H 102 Ident. No. 0004281600	Cover for RH basic	**€ 14,00**
8	H 103 Ident. No. 0004299100	Cover for RH digital	**€ 14,00**
9	H 100 Ident. No. 0003661000	Cover for RET basic and RCT basic	**€ 14,00**
10	H 104 Ident. No. 0004209500	Cover for RET control-visc	**€ 14,00**


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ACCESSORIES
/// Comparison

		Description	Price
	Other accessories		
11	H 11 Ident. No. 0001091500	Euro plug, Mains cable, spare	**€ 25,00**
	H 11 Ident. No. 0003564500	USA plug, Mains cable, spare	**€ 25,00**
	H 11 Ident. No. 0002410700	UK plug, Mains cable, spare	**€ 25,00**
	H 11 Ident. No. 0001091600	CH plug, Mains cable, spare	**€ 25,00**
12	H 16 V Ident. No. 0001545100	Support rod, Ø 10 mm, 450 mm length	**€ 54,00**
13	H 16.3 Ident. No. 0025000622	Extension for support rod	**€ 14,00**
14	H 44 Ident. No. 0002437700	Boss head clamp	**€ 23,00**
15	H 38 Ident. No. 0003547700	Holding rod	**€ 23,00**
16	HG 600 Ident. No. 0020003416	Heating jacket for beaker 600 ml	**€ 108,00**
17	HG 1000 Ident. No. 0020003415	Heating jacket for beaker 1000 ml	**€ 141,00**
18	BC 1000 Ident. No. 0020003417	Beaker cap	**€ 11,00**
19	C-MAG Adapter Ident. No. 0025001022	Heating block Adapter for C-MAG	**€ 141,00**
20	WICO RET control-visc Ident. No. 0020007259	Wireless remote control	**€ 518,00**

Knowledge

/// Temperature regulation

Excellent temperature control is a critical factor in heating operations to effectively address rheological changes in samples. The ETS-D5 can be attached to all IKA magnetic stirring and heating devices with DIN bushing 12878 class 2, and also from other providers.

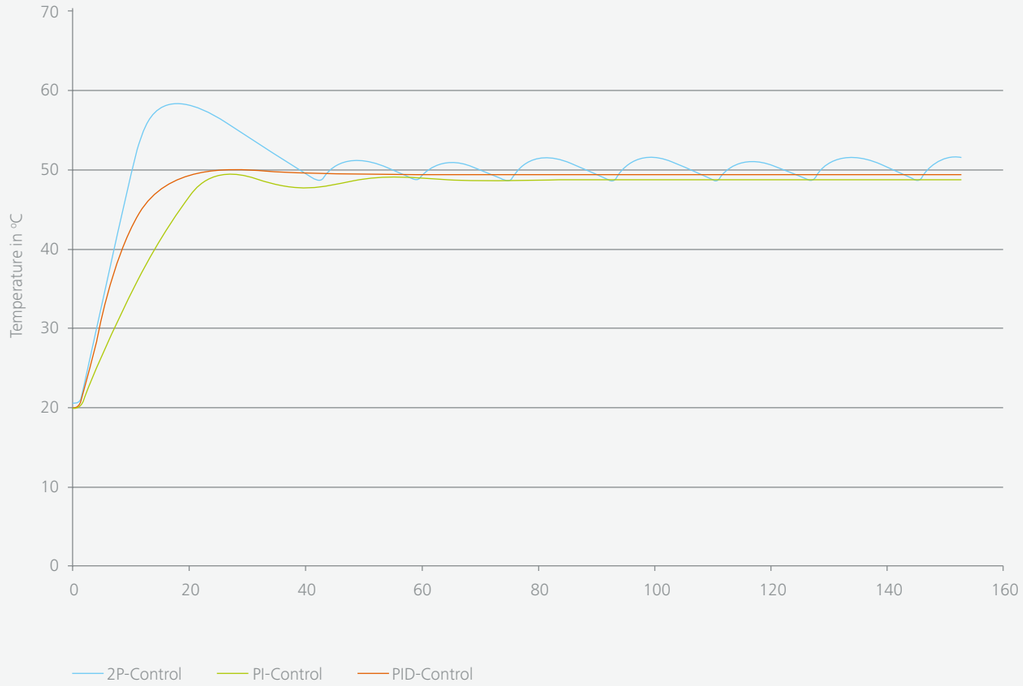
The ETS-D5 is an electronic contact thermometer with 3 operating modes. The electronic thermometer with optimized PID control ensures perfect temperature control without overshooting the set temperature, even in the case of quick heating.

PID control

PID stands for Proportional-Integral-Derivative, referring to the three terms operating on the error signal to produce a control signal. Some applications may require using only one or two actions to provide the appropriate system control. P (Proportional) control can provide a stable process temperature but there will always be a deviation between the required set point and the actual process temperature. I (Integral) control represent the steady state error of the system and will remove set point/measured value errors. For many applications, P + I control will be satisfactory with good stability and at the desired set point. D control is usually used for processes with rapidly changing process outputs.

For example, if you heated up a liquid to a certain set temperature, the liquid no longer gets heated up. If the liquid cools down slowly, the PI control reacts immediately and slightly heats up the liquid. So it appears as though the liquid can hold this temperature without any deviation. In reality, the controller responds to the slightest temperature fluctuations. If you add ice water to this liquid, the temperature changes very quickly. The D control responds to the rapid changes until the desired temperature is reached. Then, the difference of the temperature to be achieved is not too big and the last fine tuning is controlled by the PI control. By tuning P, I and D, a very fast and accurate temperature control can be achieved!

COMPARISON: PI, 2-POINT AND PID CONTROL (TARGET TEMPERATURE 50 °C)



IKA Service

/// FAQ

Can IKA magnetic stirrers run 24 hrs for several days?
Yes, a maximum ON time is not prescribed.

Is there a minimum, maximum or optimum distance from the stirrer surface to the vessel for magnetic stirrers?
The maximum distance depends on the volume and the viscosity of the corresponding medium. For example, a small amount of water up to 5 cm can be reached. The optimum distance is 0 cm, when the vessel is in contact with the magnetic stirrer surface.

What is the right size for stirring bars being used in common beakers for stirring water or aqueous solutions?
In general, 30 mm stirring bars are suitable for most applications.

How can IKA stirring bars be sterilized?
IKA magnetic stirring bars are PTFE (Teflon) coated and can be sterilized in many ways: e.g. autoclaving or treatment with alcohol or fungicide is possible.

Is there a maximum load prescribed for IKA magnetic stirrers?
The magnetic stirrer carries definitely the maximum volume of water plus the weight of a common vessel. E.g., the RCT carries 20 kg water plus a 20 liter vessel (about 5 – 10 kg), altogether about 25 – 30 kg!

What is the maximum viscosity that can be operated with an IKA magnetic stirrer?
A magnetic stirrer is constructed for working with aqueous solutions or low viscous medium up to 100 mPas.

Is there a recommended speed for magnetic stirrers?
To reach a steady mixture, the speed should not be too slow. The most common applications require speed ranging from 400 to 800 rpm.

What are the required environmental conditions for the operation of an IKA magnetic stirrer?
The relative humidity should not exceed 80 %. The ambient temperature should be within + 5 °C and + 40 °C.

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IKA

designed for scientists

EN

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