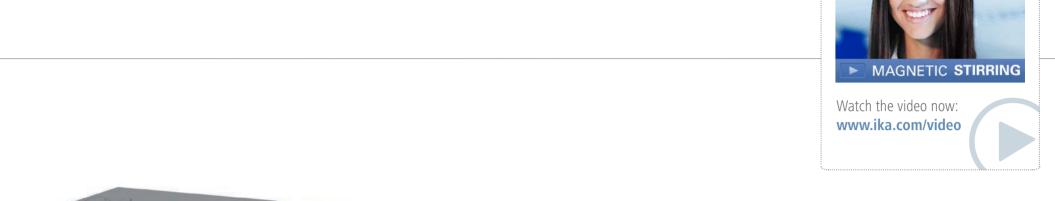


Stirring technology redefined!

IKA® offers an extensive magnetic stirrer portfolio worldwide.

The new generation of magnetic stirrers offers many unique features, such as an innovative RET® controlvisc with patented integrated weighing function. In addition, the RET® controlvisc is equipped with an USB interface to reproduce and document trials at any time.

Furthermore, the new and advanced multi-position magnetic stirrers are now equipped with digital displays and wear free magnetic coil technology. The newly designed, unbelievably affordable magnetic stirrers are now available with enhanced features to ensure better performance and exceptional heating solutions.



IKA°





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

Protection class according to DIN EN 60529: Min. IP 21





Magnetic stirrers without heating



Mini MR standard

- > For stirring quantities of 1000 ml (H,0)
- > Infinitely variable speed from 0 2500 rpm
- > White set-up plate suitable for observing color reactions



topolino

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



topolino mobil

> Short charging time (2 – 3 h)

C-MAG MS 4 | 7 | 10

> Portable unit with long operating time (8 – 12 h)



lab disc

- > Ultra-flat for stirring quantities of up to 800 ml (H₂O)
- > Modern wear-free magnetic coil technology
- > Automatic reverse rotation every 30 seconds for better mixing results
- chemically resistant materials
- > Slip-proof and safe stand



IKA°+

topolino mobil:

- > Extremely light-weight and ultra-mobile with the possibility to operate outside the laboratory
- > Operated mains-free with standard batteries



big squid

- > For maximum stirring quantity of 1.5 I (H,O)
- > Digital display for precise speed setting
- > Electronically controlled motor for more
- > Higher speed range from 0 2500 rpm
- > Glass plate for excellent resistance to acids, bases and solvents









- > For maximum stirring quantity of 1 I (H₂0)
- > Available in various interesting motives





KMO 2 basic

- > Small, powerful magnetic stirrer for stirring quantities up to 5 I (H,O)
- > Motor with optoelectronic speed control
- > Infinitely variable speed from 0 1100 rpm
- > Stainless steel casing facilitates cleaning and sterilization



- > For stirring quantities up to 150 l (H₂0)
- > Flat, sturdy stainless steel casing
- > Non-locking motor
- > Infinitely adjustable speed with digital display
- > Timer (0 56 min) or continuous operation



> For stirring quantities up to 50 l (H,O)



RET® control-visc | Safety. Power. Intelligence.

The RET® control-visc is the safest, strongest and most intelligent magnetic stirrer in its class.

The RET® control-visc is a magnetic stirrer whose remarkable technical functions have been developed for demanding applications. The unit mainly focuses on three core competences:

1. Safety, 2. Power, 3. Intelligence.





This is realized by

- > using high performance electronic components,
- > intelligent heating technology,
- > a motor designed specifically for a variety of applications (including high-viscous fluids) and
- > high quality standards applied during the production process.

Insulated composite heating plate

With the unique structure of the composite heating plate, the RET® control-visc minimizes the loss through eddy currents when heating and stirring. The integrated high-tech insulation optimizes the heat transfer into the medium by minimizing thermal losses. The built-in heating foil ensures an even temperature allocation on the heating plate.



Sealed housing

to protect motor and display



An integrated and patented

weighing function allows the user to measure weight changes of up to 5,000 g



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



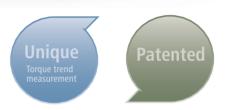
An RS 232 and USB interface enable

connecting the unit to a PC for operating and updating the device











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.



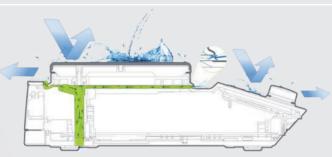
RET® control-visc | Safety

> The RET® control-visc offers excellent safety

The device comes with a coated and sealed housing which protects liquids from entering into the magnetic stirrer. Overheating is prevented by several integrated technical features. In the case of a malfunction, the device shuts down automatically and shows the error code on the TFT display. The integrated safety features also allow for an unsupervised operation of the RET® control-visc.



> Sealed housing



In case of a liquid overflow a built-in drainage protects the electronic components of the device.

- > Liquids cannot get inside the unit
- > Components are safe
- > Isolated drain



Sealed housing

to protect motor and display

> Three temperature safety protection features

"Safety Temperature"

is an adjustable temperature safety circuit that prevents from exceeding a specified set temperature. The safety temperature can be adjusted by using a special tool included in the product delivery.



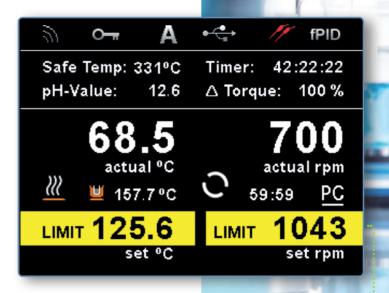


"Overheating protection"

Should the internal temperature of the RET® control-visc exceed the permissible temperature that would damage the internal electronic components, the heating power is reduced automatically.



can be adjusted easily. It is used to safely heat the medium until the set temperature is reached.



> Safe operation

Operating modes

The unit is equipped with three operating modes:

A Mode: regular operation, all values can be directly changed. **B Mode**: all settings are stored when the device is switched off or loses power, functions are restored when the unit is switched ON again.

C Mode: If operating in C-Mode the set values are not changeable. When restarting the device these values are still fixed. In order to change the parameters, the software mode has to be changed to A or B through the display menu.



Password protection

Menu access can be password protected. If enabled, users cannot change any settings without password.

Adjustable limits

Limits can be set for speed and temperature. It is possible to set a minimum value for each parameter.

Lock button protects set parameters

YOUR BENEFITS

Coated and sealed housing

- > Liquids can not get inside the unit
- > Components are safe
- > Isolated drain
- > Protection class IP 42

Three temperature safety protection features

- > Highest possible safety especially when working with easily flammable liquids
- > Manually adjustable safety circuit
- > Overheating protection for electronic components

C Mode advantages

- > Protected against changes to set values
- > Values are still fixed after restarting the device, suitable for serial testing
- > Automated restart after power outage to operating mode and set values



- 1. high performance EC motor with 12 W
- 2. high performance internal transformer providing efficient power
- 3. composite heating plate with minimal eddy current losses

The unique structure of the insulated heating plate results in faster heating than other magnetic stirrers.

> Stirring performance **Powerful EC motor with high performance** internal transformer





Compact and closed composite heating plate, combined with an advanced heating foil and engineered insulation, ensures an even temperature distribution on the heating plate.

Heating surface

Heating foil

Compression plate

Insulation

YOUR BENEFITS

Highly powerful and energy efficient

- > High stirring speed stability
- > Fast heating times
- > High temperature stability
- > Motor / transformator / composite heating plate = high performance of stirring and heating
- > Engineered heating plate insulation
- > Optimized heating through intelligent product design



Heating rate

7 K/min for 1 l H₃O at 600 W

RET® control-visc | Intelligence

The heart of the RET® control-visc is the ARMbased microcontroller which is also used in smart phones and tablets. The use of the ARM-based microcontroller technology provides the intelligence of simple navigation, firmware update possibilty, weighing and torque trend measurement.

> Intelligent features



Integrated and patented weighing function

Perform simple weighing tasks without taking the sample off the device.



Torque trend measurement

Relative viscosity changes can be measured with this feature by using a torque trend measurement device. Results can be depicted on the display. Useful for long term studies, test results can be documented through labworldsoft®. Reproducibility with max. deviation of $\pm 1\%$.





Measure weight changes of up to 5,000 g

Tolerance $< 500 g : \pm 1 g$

Patented

 $> 500 \text{ g}: \pm 5 \text{ g}$



Stirring bar decoupling detection

The stirring function stops briefly when a decoupling occurs. It will automatically resume to the previously set speed when the stir bar is recoupled. Useful for long-term studies and when

working with non-transparent fluids.



Firmware update tool

- > Keep your device up-to-date
- > Software upgrade features



The RET® control-visc has a USB, **RS 232 and Bluetooth interface:**

Connect the unit to a PC for controlling and updating the device



> Advanced technology

Integrated ARM-based microcontroller

The RET® control-visc uses technology which is used in smart phones or tablets. Two integrated ARM-based microcontroller along with a graphic controller are the base for all intelligent functions within the RET® control-visc. They provide for speed, energy efficiency and powerful performance. When selecting components, the IKA® engineers focus on quality, safety and reliability.

> Easy operation with user-friendly display

The RET® control-visc continues the user-friendly tradition of operating the unit with two rotating knobs. They enable the easy and direct change of the most important parameters on the display menu.

The high-resolution display has easy to understand icons that allow for simple navigation through the menu, as well as allow for adjusting display settings, using the weighing or torque trend measurement functions, or changing the display language.



YOUR BENEFITS

Intelligent solutions

- > User-friendly
- > Simple navigation and easy operation
- > Multilingual task menu
- > User-defined display settings
- > labworldsoft® compatible





INTEGRATED **SAFETY**

Safety first hand with the RCT basic



With new technology for more capacity. Stronger motor for a higher range of speeds. Additional temperature control mode for faster heating of medium.

- > Integrated temperature control
- > Incl. PT 1000 temperature sensor (PT 1000.60)
- > Exact temperature and speed setting via digital display, even when switched off
- > 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



Hot Top indicator to prevent burns



Digital display for precise monitoring of speed and temperature



Integrated temperature sensor for precise temperature control



Rotating Knob for adjusting the speed and the temperature



RH basic & digital | Highly efficient & economical!



The newly designed 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.



digital will not overshoot the adjusted 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) The new C-MAG HS digital magnetic stirrers with heating come equipped with a ceramic heating plate which offers excellent chemical resistance and an LCD display.

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

Magnetic stirrer with heating / Overview

Overview IKA® magnetic stirrers

IKA® offers a wide range of magnetic stirrers. Compare the following IKA® hotplate stirrers to help you find the most suitable unit for your application.



Scale 320 °C

400 W

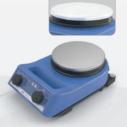
stainless steel

101

IP 21

Basic stirring ar

functionality.

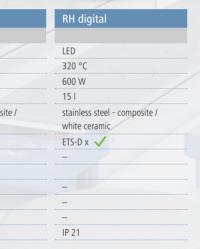


temperature control possible by

connecting a contact thermo-

meter (only ETS-D series)













Optimized stirring and extended

heating performance with com-

posite stainless steel heating

plate. External temperature

control is possible by connec-

ting the included temperature

sensor. Digital LED display for

speed and temperature.



Display	
Max. heatir	ng plate temperature
Heat outpu	t
Max. stirrin	g quantity (H₂O)
Heating pla	ite material
Connection	for ext. temp. sensor
ntegrated	temperature regulation
Control acc	uracy with integrated temperature regulation
nterface fo	r external control > labworldsoft
Neighing, 1	torque trend, pH
irmware u	pdate tool
Orotoction /	class according to DIN EN 60529

Willie Cerailie
ETS-D x 🗸
_
_
_
IP 21
Basic stirring and heating
functionality with composite he- ating plate in stainless steel or white ceramic coated. External

IVII Dasic	Kii uigitai
Scale	LED
320 °C	320 °C
600 W	600 W
15 l	15 l
stainless steel - composite /	stainless steel - composite /
white ceramic	white ceramic
ETS-D x 🗸	ETS-D x 🗸
-	_
_	-
_	_
_	_
IP 21	IP 21
Basic stirring and heating	Basic stirring and heating
functionality with composite he-	functionality with composite
ating plate in stainless steel or	heating plate in stainless

steel or white ceramic coated. External temperature control is possible by connecting a contact thermometer (only ETS-D series). Digital LED display for speed and temperature.

LED / Scale

500 °C

1000 W

ETS-D x 🗸

15 l white ceramic

IP 21

C-MAG 7 dig	ital	
LCD / Scale		
500 °C		
1000 W		
15 l		
white ceramic		
PT 1000 🗸		
precise 🗸		
± 0.5 K		
_		
_		
_		

Basic stirring and heating

temperatures. External

square plate to realize higher

by connecting the included

to have precise temperature

control accuracy of up to

set and actual heating plate

temperature.

temperature sensor (PT 1000)

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



LED
310 °C
600 W
20
aluminum alloy
 PT 1000 🗸
yes 🗸
± 1 K
_
 _
 _
IP 42
Encoded district

Extended stirring and heating functionality with full-ceramic performance with aluminum alloy heating plate. External temperature control is temperature control is possible possible by connecting the included temperature sensor (PT 1000). Digital LED display for speed and temperature. ± 0.5 K. Digital LCD display for



LED	high-res TFT
340 °C	340 °C
600 W	600 W
20	20
stainless steel - composite	stainless steel - composite / white ceramic
PT 1000 🗸	PT 100 🗸
yes 🗸	high-precision 🗸
± 1 K	± 0.2 K
_	RS 232 / USB 🗸
- Usas more	yes 🗸
_	yes 🗸
IP 42	IP 42

Optimized stirring and heating performance with composite heating plate in stainless steel or white ceramic coated. External temperature control is possible by connecting the included temperature sensor (PT 1000); the unit is capable of high-precision temperature control (± 0.2 K). High-resolution TFT display enables easy operation.



Please visit www.ika.com for more information on IKA®'s magnetic stirrers and accessories





RT 5 | 10 | 15 | Magnetic coil & Heating foil

RO 5 | 10 | 15 | Magnetic coil technology

The new 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 and can be used for volumes up to 6 l (H₂O).

The new 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 and can be used for volumes up to 6 l (H_3O).







Heating foil for homogeneous temperature distribution of the heating plate



Reverse rotation switch for better mixing results





Wear-free magnetic coils for consistent and silent operation



Eco-mode for a low self-warming of the



Digital display for precise monitoring of speed and temperature



Foil keypad for easy operation



Reverse rotation switch for better mixing results



Wear-free magnetic coils for consistent and silent operation



Eco-mode for a low self-warming of the



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.

Magnetic stirrers with heating | Technical data



RH basic | RH basic white

Technical data

Speed range

Speed display

Max. stirring quantity (H,O)

Motor rating input / output

Max. stirring bar length

Temperature range

Adjustable safety circuit

Set-up plate material

Set-up plate dimensions

Dimensions (W x D x H)

Permissible ambient temperature

Permissible relative moisture

Protection class acc. to

DIN EN 60529

Voltage

Frequency Interface

Price

Setting accuracy

Heating rate (1 | H₂O in H15)

Connection for ext. temp. sensor

Control accuracy with sensor

RH basic	RH basic white
15 l	
15 / 2 W	
50 – 2000 rj	om
_	
Scale	
80 mm	
600 W	
6 K/min	
50 − 320 °C	
- ±5K	
50 − 370 °C	
DIN 12878	
ETS-D5: ± 0.	5 K
ETS-D6: ± 0.	2 K
stainless stee	el 1.4301 white ceramic
Ø 135 mm	
160 x 246 x	90 mm
2 kg	
5 – 40 °C	
80%	
IP 21	
115 V	
50/60 Hz	
_	

\$ 549 | \$ 580

RH basic: Ident. No. 5019701
RH basic white: Ident. No. 5029701



RH digital | RH digital white

15
15 / 2 W
50 – 2000 rpm
_
LED
80 mm
600 W
6 K/min
50 – 320 °C
- ± 5 K
50 − 370 °C
DIN 12878
ETS-D5: ± 0.5 K
ETS-D6: ± 0.2 K
stainless steel 1.4301 white ceramic
Ø 135 mm
160 x 246 x 90 mm
2 kg
5 – 40 °C
80%
IP 21
115 V
50/60 Hz
_
¢ CO4 ¢ C40

\$ 604 | \$ 649

RH digital: Ident. No. 5019801
RH digital white: Ident. No. 4678001



RCT basic

Technical data Max. stirring quantity (H,0) 20 I Motor rating input / output 16 / 9 W Speed range 50 - 1500 rpm Speed display Max. stirring bar length 80 mm Heat output 600 W Heating rate (1 | H,O in H15) 6.5 K/min Temperature range RT - 340 °C Setting accuracy $\pm 1 \, K$ Adjustable safety circuit 50 - 370 °C Connection for ext. temp. sensor DIN 12878 PT 1000: \pm 1 K Control accuracy with sensor ETS-D5: ± 0.5 K | ETS-D6: ± 0.2 K Set-up plate material aluminium alloy Set-up plate dimensions Ø 135 mm Dimensions (W x D x H) 160 x 270 x 85 mm 2.5 kg Permissible ambient temperature 5 - 40 °C Permissible relative moisture 80% Protection class acc. to IP 42 DIN EN 60529 Voltage 115 V Frequency 50/60 Hz Interface

\$890

Ident. No. 3810001*

Price



RET basic

20 I 16 / 9 W 50 - 1700 rpm 80 mm 600 W 7 K/min RT - 340 °C ± 1 K 50 - 360 °C DIN 12878 PT 1000: ± 1 K ETS-D5: ± 0.5 K | ETS-D6: ± 0.2 K aluminum Ø 135 mm 160 x 270 x 95 mm 2.5 kg 5 - 40 °C 80% IP 42 115 V 50/60 Hz

\$ 1,078

Ident. No. 3622001



RET® control- visc

20 I
16 / 9 W
50 - 1700 rpm
TFT
80 mm
600 W
7 K/min
RT - 340 °C
± 0.1 K
50 - 370 °C
DIN 12878
PT 100: ± 0.2 K
stainless steel 1 4301 Lwhite gramic

PT 100: ± 0.2 K

stainless steel 1.4301 | white ceramic
Ø 135 mm

160 x 270 x 85 mm
3 kg
5 - 40 °C

80%

IP 42

115 V

50/60 Hz

USB / RS 232

\$ 990 | \$ 999

RET® control- visc: Ident. No. 5020001** RET® control- visc white: Ident. No. 5030001**

Magnetic stirrers with heating | Technical data







Technical data
Max. stirring quantity (H ₂ O)
Motor rating input / output
Speed range
Speed display
Max. stirring bar length
Heat output
Heating rate (1 H ₂ O in H15)
Temperature range
Temperature display
Setting accuracy
Adjustable safety circuit
Connection for ext. temp. sensor
Control accuracy with sensor
Set-up plate material
Set-up plate dimensions
Dimensions (W x D x H)
Weight
Permissible ambient temperature
Permissible relative moisture
Protection class acc. to
DIN EN 60529
Voltage
Frequency
Interface

Price

C-MAG HS 4 5 I 15 / 1.5 W 100 - 1500 rpm scale 30 mm 250 W 2.5 K/min 50 - 500 °C LED ± 10 K 550 °C (fixed) ceramic 100 x 100 mm 150 x 260 x 105 mm 3 kg 5 − 40 °C 80% IP 21 115 V 50/60 Hz \$ 556 Ident. No. 3581001

C-MAG HS 7 10 l 15 / 1.5 W 100 - 1500 rpm scale 80 mm 1000 W 5 K/min 50 − 500 °C LED $\pm 10 \, K$ 550 °C (fixed) DIN 12878 $\pm 0.5~K$ ceramic 180 x 180 mm 220 x 330 x 105 mm 5 kg 5 - 40 °C 80% IP 21 115 V 50/60 Hz \$ 570 | \$ 835

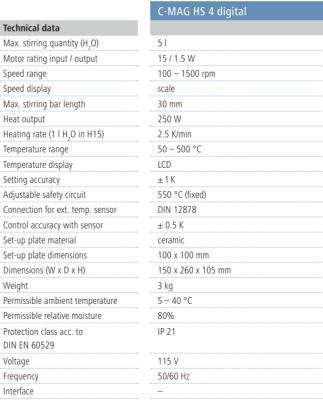
Ident. No. 3581201

C-MAG HS 7 Package: Ident. No. L005457

C-MAG HS 7:







\$ 567

Ident. No. 4240201



15 / 1.5 W 100 - 1500 rpm

80 mm

1000 W

5 K/min

LCD

±1K

50 - 500 °C

550 °C (fixed)

180 x 180 mm

220 x 330 x 105 mm

DIN 12878

 \pm 0.5 K

5 kg

80%

IP 21

115 V

50/60 Hz

\$ 606

Ident. No. 3487001

5 - 40 °C



5 - 40 °C

80%

IP 21

115 V

\$ 890

Ident. No. 4240401

50/60 Hz

27 26

Technical data

Speed range

Speed display

Heat output

Temperature range

Temperature display

Adjustable safety circuit

Set-up plate material

Set-up plate dimensions

Dimensions (W x D x H)

Permissible relative moisture

Protection class acc. to

DIN EN 60529

Voltage

Frequency

Interface

Price

Control accuracy with sensor

Setting accuracy

Max. stirring quantity (H,0)

Motor rating input / output

Max. stirring bar length

Heating rate (1 | H₂O in H15)

Multi-position stirrers with heating | Technical data

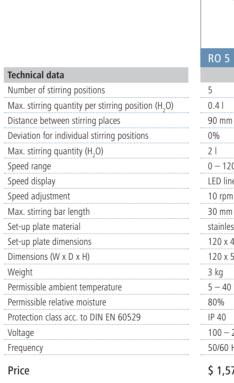
Multi-position stirrers without heating | Technical data



Technical data
Number of stirring positions
Max. stirring quantity per stirring position (H ₂ 0)
Distance between stirring places
Deviation for individual stirring positions
Max. stirring quantity (H ₂ O)
Speed range
Speed display
Speed adjustment
Max. stirring bar length
Heat output
Heating rate (1 H ₂ O in H15)
Temperature range heatig plate
Max. temperature medium (dep. on vessel)
Temperature display
Heat control accuracy
Set-up plate material
Set-up plate dimensions
Dimensions (W x D x H)
Weight
Permissible ambient temperature
Permissible relative moisture
Protection class acc. to DIN EN 60529
Voltage
Frequency

Price

RT 5	RT 10	RT 15
	-111-10	
5	10	15
0.4	0.4	0.4
90 mm	90 mm	90 mm
0%	0%	0%
21	4	61
0 — 1000 rpm	0 — 1000 rpm	0 — 1000 rpm
LED line	LED line	LED line
10 rpm steps	10 rpm steps	10 rpm steps
30 mm	30 mm	30 mm
175 W	375 W	580 W
3 K/min	3 K/min	3 K/min
RT – 120 °C	RT – 120 °C	RT – 120 °C
70 °C	70 °C	70 °C
LED	LED	LED
± 1 K	± 1 K	± 1 K
aluminium alloy	aluminium alloy	aluminium alloy
110 x 495 mm	180 x 495 mm	270 x 495 mm
120 x 610 x 60 mm	190 x 610 x 60 mm	280 x 610 x 60 mm
4 kg	7.5 kg	10.5 kg
5 – 40 °C	5 – 40 °C	5 – 40 °C
80%	80%	80%
IP 40	IP 40	IP 40
115 V	115 V	115 V
50/60 Hz	50/60 Hz	50/60 Hz
\$ 2,127	\$ 2,505	\$ 3,009
Ident. No. 3690601	Ident. No. 3691101	Ident. No. 3692601



0.4 | 90 mm 0% 2 | 0 - 1200 rpm LED line 10 rpm steps 30 mm stainless steel 1.4301 120 x 470 mm 120 x 570 x 60 mm 3 kg 5 - 40 °C 80% IP 40 100 - 240 V 50/60 Hz \$ 1,579 Ident. No. 3690500

10 0.41 90 mm 4 | 0 - 1200 rpm LED line 10 rpm steps 30 mm stainless steel 1.4301 190 x 470 mm 190 x 570 x 60 mm 5 kg 5 - 40 °C 80% IP 40 100 - 240 V 50/60 Hz \$ 1,946

Ident. No. 3691000

RO 10

RO 15 15 0.41 90 mm 0% 6 l 0 – 1200 rpm 10 rpm steps 30 mm stainless steel 1.4301 280 x 470 mm 280 x 570 x 60 mm 7 kg 5 − 40 °C 80% IP 40 100 - 240 V50/60 Hz \$ 2,313 Ident. No. 3692500

Magnetic stirrers without heating | Technical data







topolino	
0.25 l	
1 / 0.8 W	
300 — 1800 rpm	
_	
30 mm	
stepless	
synthetic (PP)	
Ø 80 mm	
95 x 115 x 37 mm	
0.32 kg	
5 – 40 °C	
80%	
IP 21	
100 – 240 V	
50/60 Hz	
\$ 85	
Ident. No. 3368001	

Technical data

Speed range

Speed display

Max. stirring quantity (H₂O)

Motor rating input / output

Max. stirring bar length

Speed adjustment

Set-up plate material

Set-up plate dimensions

Dimensions (W x D x H)

Permissible ambient temperature

Permissible relative moisture

Protection class acc. to

DIN EN 60529

Voltage

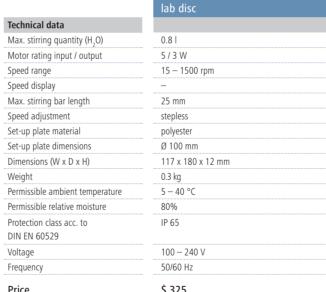
Price

Frequency

topolino mobil	Mini MR s
0.25	1 l
1 / 0.8 W	3 / 2 W
300 — 1800 rpm	0 — 2500 rpr
_	_
30 mm	30 mm
stepless	stepless
synthetic (PP)	polyester
Ø 80 mm	115 x 115 m
Ø 140 x 42 mm	114 x 127 x
0.60 kg	0.25 kg
5 – 40 °C	5 – 40 °C
80%	80%
IP 21	IP 42
100 – 240 V	100 - 240 V
50/60 Hz	50/60 Hz
\$ 239	\$ 190
Ident. No. 3381301	Ident. No. 3









Ident. No. 3907500 white Ident. No. 3765000 pattern Ident. No. 3916100 stream



l ldent. No. 4175400 red flag



big squid	
1.5	
3 / 2 W	
0 - 2500 rnm	
LED	
30 mm	
50 rnm stens	
nlass	
Ø 160 mm	
180 x 195 x 40 mm	
0.7 kg	
5 – 40 °C	
80%	
IP 54	
100 – 240 V	
50/60 Hz	
\$ 407	

	\$ 344			\$ 407	
A	Ident. No. 3671000	white ((A)	Ident. No. 3672000	white
B	Ident. No. 3698200	zebra	(B)	Ident. No. 3857200	frozen
(c)	Ident. No. 3698300	bubbles ((c)	Ident. No. 3857100	leaves
(D)	Ident. No. 3698400	wave ((D)	Ident. No. 3857300	twist
(E)	Ident. No. 4175500	Seleção			
(F)	Ident. No. 4175300	solar sphere			
(G)	Ident. No. 4175100	Stars and Stripes			
(H)	Ident. No. 4175200	Union Jack			

31

Voltage

Price

Frequency

Magnetic stirrers without heating | Technical data



Ident. No. 2621901

Ident. No. 2621801

Speed range

Voltage

Price

Frequency

Ident. No. 2812001



50/60 Hz

Ident. No. 3582401

\$ 726

Ident. No. 3582601

\$ 494

32 33

Voltage

Price

Frequency

\$ 474

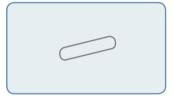
Ident. No. 3582201

Magnetic stirrers | Accessories

|--|

Stirring bars			
IKAFLON® round			
	Dimensions (L x Ø)	Ident. No.	Price
IKAFLON® 10 Set (5 Pcs) round PTFE-coated	10 x 6 mm	4488600	\$ 14
IKAFLON® 15 Set (5 Pcs) round PTFE-coated	15 x 6 mm	4488700	\$ 14
IKAFLON® 20 Set (5 Pcs) round PTFE-coated	20 x 8 mm	4488800	\$ 14
IKAFLON® 25 Set (5 Pcs) round PTFE-coated	25 x 8 mm	4488900	\$ 20
IKAFLON® 30 Set (5 Pcs) round PTFE-coated	30 x 8 mm	4489000	\$ 17
IKAFLON® 40 Set (5 Pcs) round PTFE-coated	40 x 8 mm	4489100	\$ 21
IKAFLON® 50 Set (5 Pcs) round PTFE-coated	50 x 8 mm	4489200	\$ 23
IKAFLON® 80 Set (5 Pcs) round PTFE-coated	80 x 10 mm	4489300	\$ 56
IKAFLON® 110 round PTFE-coated*	108 x 27 mm	0793300	\$ 579
IKAFLON® 155 round PTFE-coated*	153 x 27 mm	1129000	\$ 686

^{*} Used for large magnetic stirrers like Maxi MR 1 digital

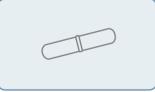


IKAFLON® glass round			D.'
	Dimensions (L x Ø)	Ident. No.	Price
IKAFLON® glass 25 Set (5 Pcs) round	25 x 6 mm	4492200	\$ 21
IKAFLON® glass 30 Set (5 Pcs) round	30 x 6 mm	4492400	\$ 22
IKAFLON® glass 40 Set (5 Pcs) round	45 x 8 mm	4492600	\$ 23
IKAFLON® glass 50 Set (5 Pcs) round	50 x 8 mm	4492800	\$ 25



IKAFLON® power SmSo

	Dimensions (L x Ø)	Ident. No.	Price
IKAFLON® 20 Set (5 Pcs) power SmSo PTFE-coated	20 x 6 mm	4493000	\$ 37
IKAFLON® 30 Set (5 Pcs) power SmSo PTFE-coated	30 x 6 mm	4493200	\$ 50
IKAFLON® 50 Set (5 Pcs) power SmSo PTFE-coated	50 x 8 mm	4493400	\$ 63



IKAFLON® slide round

	Dimensions (L x Ø)	Ident. No.	Price
IKAFLON® 25 Set (5 Pcs) slide round PTFE-coated	25 x 6 mm	4493800	\$ 17
IKAFLON® 30 Set (5 Pcs) slide round PTFE-coated	30 x 6 mm	4494000	\$ 17
IKAFLON® 40 Set (5 Pcs) slide round PTFE-coated	40 x 8 mm	4494200	\$ 25
IKAFLON® 50 Set (5 Pcs) slide round PTFE-coated	50 x 8 mm	4494400	\$ 33



IKAFLON® ellipse

	Dimensions (L x Ø)	Ident. No.	Price
IKAFLON® 20 Set (5 Pcs) ellipse PTFE-coated	20 x 10 mm	4494600	\$ 23
IKAFLON® 25 Set (5 Pcs) ellipse PTFE-coated	25 x 12 mm	4494800	\$ 25
IKAFLON® 30 Set (5 Pcs) ellipse PTFE-coated	32 x 16 mm	4495000	\$ 33
IKAFLON® 35 Set (5 Pcs) ellipse PTFE-coated	35 x 15 mm	4495200	\$ 48
IKAFLON® 40 Set (5 Pcs) ellipse PTFE-coated	40 x 20 mm	4495400	\$ 54
IKAFLON® 50 Set (5 Pcs) ellipse PTFE-coated	50 x 20 mm	4495600	\$ 76
IKAFLON® 60 Set (5 Pcs) ellipse PTFE-coated	64 x 20 mm	4495800	\$ 110
IKAFLON® 70 Set (5 Pcs) ellipse PTFE-coated	70 x 20 mm	4496000	\$ 132



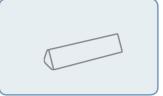


Dimensions (L x Ø)	Ident. No.	Price
10 x 10 mm	4496200	\$ 22
20 x 20 mm	4496400	\$ 29
25 x 25 mm	4496600	\$ 28
30 x 30 mm	4496800	\$ 42
38 x 38 mm	4497000	\$ 46
	10 x 10 mm 20 x 20 mm 25 x 25 mm 30 x 30 mm 38 x 38 mm	10 x 10 mm 4496200 20 x 20 mm 4496400 25 x 25 mm 4496600 30 x 30 mm 4496800 38 x 38 mm 4497000



IKAFLON® bone

	Dimensions (L x Ø)	Ident. No.	Price
IKAFLON® 37 Set (5 Pcs) bone PTFE-coated	35 x 8 x 20 mm	4497200	\$ 67
IKAFLON® 54 Set (5 Pcs) bone PTFE-coated	55 x 8 x 20 mm	4497400	\$ 81



TRIKA®

I		Dimensions (L x Ø)	Ident. No.	Price
I	TRIKA® 25 Set (5 Pcs) PTFE-coated	25 x 8 mm	4499300	\$ 17
I	TRIKA® 35 Set (5 Pcs) PTFE-coated	35 x 9 mm	4499400	\$ 24
I	TRIKA® 55 Set (5 Pcs) PTFE-coated	55 x 14 mm	4499500	\$ 44
	TRIKA® 80 Set (5 Pcs) PTFE-coated	80 x 17 mm	4499600	\$ 62



IKAFLON® beaker

	(Ø x Height in mm, for beaker)	Ident. No.	Price
IKAFLON® 67 beaker PTFE-coated	67 x 21 mm with 50 x 8	4497600	\$ 375
IKAFLON® 74 beaker PTFE-coated	74 x 29 mm with 60 x 9	4497800	\$ 388
IKAFLON® 103 beaker PTFE-coated	103 x 32 mm with 80 x 10	4498000	\$ 559
IKAFLON® 125 beaker PTFE-coated	125 x 48 mm with 106 x 25	4498200	\$ 714



IKAFLON® crown

	(Ø x Height in mm)	Ident. No.	Price
IKAFLON® 9 Set (5 Pcs) crown PTFE-coated	9 x 6 mm	4498400	\$ 19



Magnetic stirrers | Accessories



Dry heating block square series				
Sily incurring block square series	Hole Ø	Dimensions	Ident. No.	Price
H 135.10 square carrier without handle	_	160 x 160 mm	0025000832	\$ 129
H 135.11 square carrier with handle	_	160 x 160 mm	0004448200	\$ 147
H 135.101 Block 16 x 4 ml	15.2 mm	79 x 79 mm	0025000626	\$ 61
H 135.102 Block 16 x 8 ml	17.5 mm	79 x 79 mm	0025000627	\$ 66
H 135.103 Block 9 x 16 ml	20.5 mm	79 x 79 mm	0025000628	\$ 67
H 135.104 Block 4 x 20 ml	28.5 mm	79 x 79 mm	0025000629	\$ 58
H 135.105 Block 4 x 30 ml	28.5 mm	79 x 79 mm	0025000630	\$ 66
5 H 135.106 Block 4 x 40 ml	28.5 mm	79 x 79 mm	0025000631	\$ 74
H 135.107 Block 100 ml	_	79 x 79 mm	0025000632	\$ 59
6 H 135.108 Block 250 ml	_	79 x 79 mm	0025000633	\$ 70

100 ml Flask heating block series

	Max. Outer Ø	Inner Ø	Ident. No.	Price
(7) H 135.20 Flask carrier	142 mm	_	0025000634	\$ 121
H 135.21 flask carrier	142 mm		0004448300	\$ 129
H 135.201 Flask inlay	_	33.8 mm	0025000636	\$ 35
H 135.202 Flask inlay	_	43.8 mm	0025000637	\$ 36
H 135.203 Flask inlay	_	52.8 mm	0025000638	\$ 35

250 ml flask heating block series

Price	Ident. No.	Inner Ø	Max. Outer Ø	
On request	0025003280		142 mm	(9) H 135.25 flask carrier 250 ml without handle
On request	0020007954		142 mm	H 135.26 flask carrier 250 ml with handle



500 ml flask heating block series

	Max. Outer Ø	Inner Ø	Ident. No.	Price
(10) H 135.30 flask carrier 500 ml without handle	142 mm	_	0025000639	\$ 129
H 135.31 flask carrier 500 ml with handle	142 mm		0004448400	\$ 147
H 135.301 flask inlay 100 ml	-	66.3 mm	0025000641	\$ 78
H 135.302 flask inlay 250 ml	_	88 mm	0025000642	\$ 78

1000 ml flask heating block series

		Max. Outer Ø	Inner Ø	Ident. No.	Price
(12	H 135.40 flask carrier 1000 ml without handle	166.3 mm	_	0025000833	\$ 187
(13	H 135.41 flask carrier 1000 ml with handle	166.3 mm		0004448500	\$ 212
(14) H 135.401 flask inlay 500 ml	_	108 mm	0025000644	\$ 134

2000 ml flask heating block series

_		Max. Outer Ø	Inner Ø	ldent. No.	Price
(15)	H 135.50 flask carrier 2000 ml without handle	194.7 mm	_	0025000834	\$ 228
(16)	H 135.51 flask carrier 2000 ml with handle	194.7 mm		0004448600	\$ 262
	H 135.501 flask inlay 1000 ml	-	131.8 mm	0025000645	\$ 197

Available Q1/2016 Available Q2/2016



Electronic contact	tnermometers	
	Ident. No.	Price
1 ETS-D5	3378000	\$ 342
Electronic contact thern	nometer, -50 — 450 °C, 0.1 K	resolution

2 ETS-D6 3378100 \$ 78
Electronic contact thermometer. Similar to ETS-D5,

Electronic contact thermometer. Similar to ETS-D5, additionally comes equipped with integrated pH measuring instrument (without pH electrode)

260 mm length

Temperature sens		
	Ident. No.	Price
H 62.51	2735451	\$ 189
Temperature sensor, st	ainless steel, Ø 3 mm,	

H 66.51 2735551 \$ 235
Temperature sensor, stainless steel, glass-coated,

Ø 6 mm, 260 mm length
H 66.53 4499900

H 66.53 4499900 \$ 320

Temperature sensor, coated with SafeCoat,
Ø 3 mm, 260 mm length

ETS-D5 / D6 Acces	ssories	
	Ident. No.	Price
5) H 70	2735600	\$ 122
Extension cable, 1 m		

Temperature sensors for RCT / RET basic and C-MAG HS digital series

7 PT 1000.70 3736000 \$ 260
Temperature sensor, stainless steel, glass-coated, Ø 7 mm, 230 mm length

8 PT 1000.80 \$ 180

Temperature sensor, stainless steel, Ø 3 mm,
150 mm length

4480600

\$ 206

Temperature sensor, stainless steel, coated with SafeCoat, Ø 3 mm, 230 mm length

PT 1000.90



Magnetic stirrers | Accessories

Advantages beaker, stainless steel

- > No eddy current losses
- > High magnetic adhesion force
- > Very good heat transfer (3 L beaker and up: due to a round deepening area for fitting heating plates with Ø 135 mm)

Oil bath attachments			
	Ident. No.	Price	
H 29	2829400	\$ 307	
	ent, 1 l, aluminum, inner	-:11.	

H 30 2829500 \$ 361 Oil bath attachment, 1.5 I, aluminum, inner

Ø 136 – 190 mm, 110 mm height for use with oil only

	Beakers		
(14)	H 1000	4444401	\$ 485
	Beaker, stainless steel, 1	l, inner Ø 160 mm,	
	79 mm height		

H 1500 4444501 \$ 421

Beaker, stainless steel, 1.5 I, inner Ø 140 mm,
160 mm height

H 3000 4444503 \$ 470

Beaker, stainless steel, 3 I, inner Ø 180 mm,
119 mm height

H 5000 4444505 \$ 582

Beaker, stainless steel, 5 I, inner Ø 220 mm,
142 mm height

H 8000 4444508 \$ 890

Beaker, stainless steel, 8 I, inner Ø 265 mm,
162 mm height



	Protective covers H 102 Cover for RH basic	4281600	\$ 4	
	H 103 Cover for RH digital	4299100	\$ 4	
19)	H 100 Cover for RET basic and	3661000 d RCT basic	\$ 4	
	H 104 Cover for RET control-v	4209500	\$ 4	
	Other accessories			
20)	H 11 (Euro USA	IIV CU plug)		
20)	n II (Eulo USA	•	<i>k</i> 2.	
		1091500	\$ 3	
		3564500		
		2410700		
		1091600		
	Mains cable, spare			
21)	H 16 V	1545100	\$ 38	
۷)	Support rod, Ø 10 mm,		, J.	
	Support rou, & To min,	450 mm lengui		
22)	H 16.1	5000500	\$ 34	
_	Extension for support ro	od		
	11.44	2.427700	ć a	
23)	H 44	2437700	\$ 20	
	Boss head clamp			
24)	H 38	3547700	\$ 22	
<u> </u>	Holding rod	***************************************		
			_	
		0020003416	On reques	
	Heating jacket for beak	er 600 ml		
	HG 1000	0020003415	On reques	
	Heating jacket for beak	er 1000 ml		
	BC 1000	0020003417	On reques	
	Beaker cap			
	C-MAG Adapter	0025001022	On reques	
	Heating block Adapter		On reques	
	Treating Dioek / Raupter			
	Stirring bars			
25)	RS 1	1358600	\$ 26	
	Consisting of IKAFLON®	(10 – 80 mm) ar	nd	
	TRIKA® (25 and 40 mm) magnetic stirring bars			
	RS 2	4499100	\$ 27	
	Consisting of IKAFLON [®] 40 slide round, 40 ellip			
	and 25 bone magnetic		LIUSS, J CIUWII	
	z == ==== magnette			

1293100

\$ 96

(26) RSE

Stirring bar remover

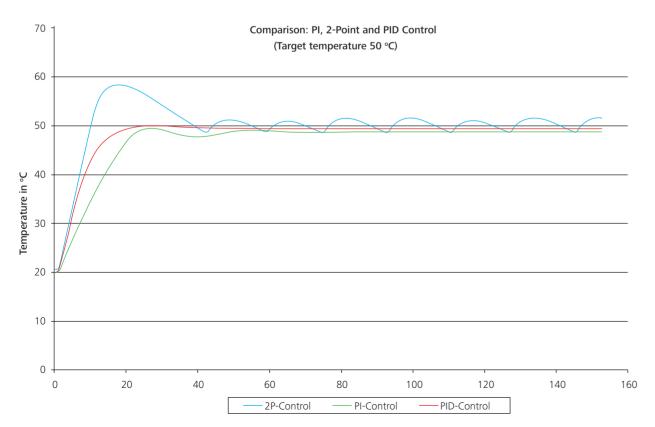
Excellent temperature control is a critical factor in heating operations to effectively address rheological changes in samples. The ETS-D5 can be attached to all IKA® magnetic stirring and heating devices with DIN bushing 12878 class 2, and also from other providers.

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!



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?

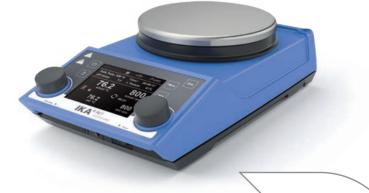
A magnetic stirrer is constructed for working with aqueous solutions or low viscous medium up to 100 mPas.

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.



Please visit www.ika.com

IKA®+

Application Support!

For questions regarding applications and processes, you can call our hotline number: +1 800 733-3037 E-Mail: sales@ika.net

* Monday — Friday from 8:30 - 17:30





During manufacturing, IKA® focuses on high quality, not only with well-trained and experienced personnel, but also with standardized processes and quality checks.

The assembly of the printed circuit boards is fully automated and includes an automated 100% quality control check of every PCB.



It is important that IKA® products work for your application. We are introducing a new program: product solutions tailored to your needs.

Should you not find the appropriate device in our standard product range, please send us your requested specifications through the online form. Our team will determine its feasibility and offer a solution to you.

Please visit www.ika.com/customizingcenter to review already implemented product modifications.



Worldwide service network – direct contact in your region

Our dedicated team of engineers provides comprehensive worldwide technical service. Please feel free to contact IKA® directly or your dealer in case of any service questions.

For spare parts IKA® guarantees 10 years of availability. In the event of an equipment malfuncation or technical questions regarding devices, maintenance and spare parts, please call us at +1 800 733-3037 or send an email to sales@ika.net



IKA® Application Support

Our Application Center spans 400sqm and offers modern facilities for presenting and testing lab devices and processes. This brings us even closer to our customers and improves our service. Here, prospective buyers and customers can test processes that involve stirring, shaking, dispersing, grinding, heating, analyzing and distilling.

Call us at +1 800 733-3037 or send an email to sales@ika.net or visit our website at www.ika.com/applicationsupport



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