RET® control-visc

The Magnetic Stirrer for Scientists

IKA®

designed
to work perfectly

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HUBERLAB.
committed to science

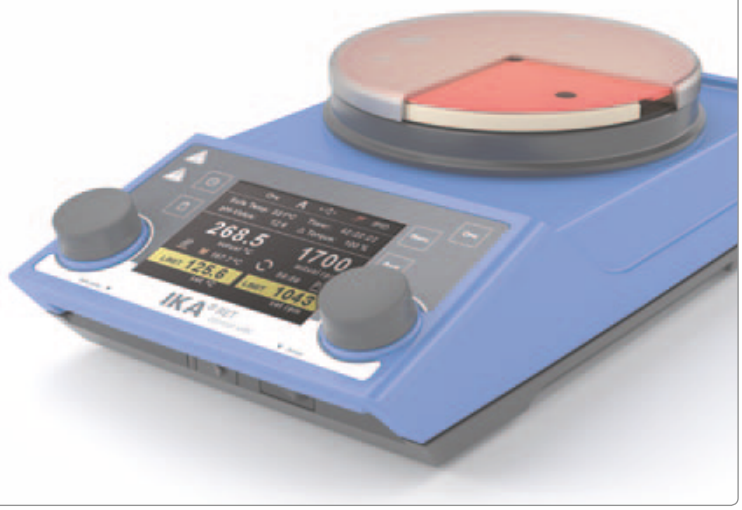
The RET® control-visc is the safest, strongest and most intelligent magnetic stirrer in its class.

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 made possible 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.

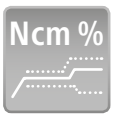
Insulated composite heating plate

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.



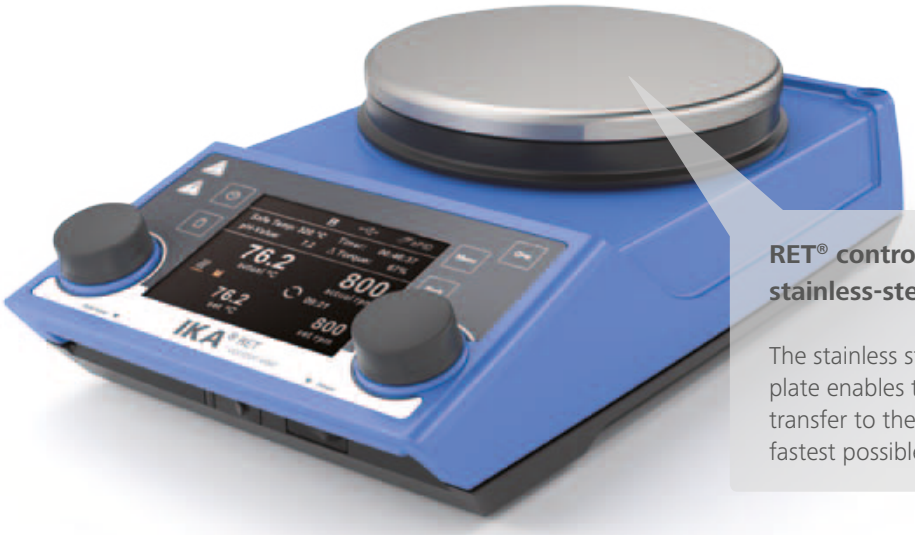
Sealed housing
to protect motor and display

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 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.

Unique
Torque trend measurement

Patented

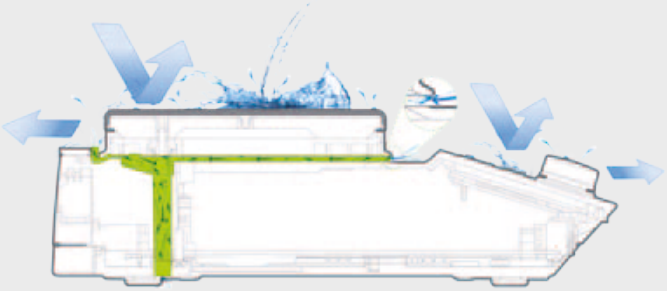
RET® control-visc white with ceramic coated heating plate

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.

> 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

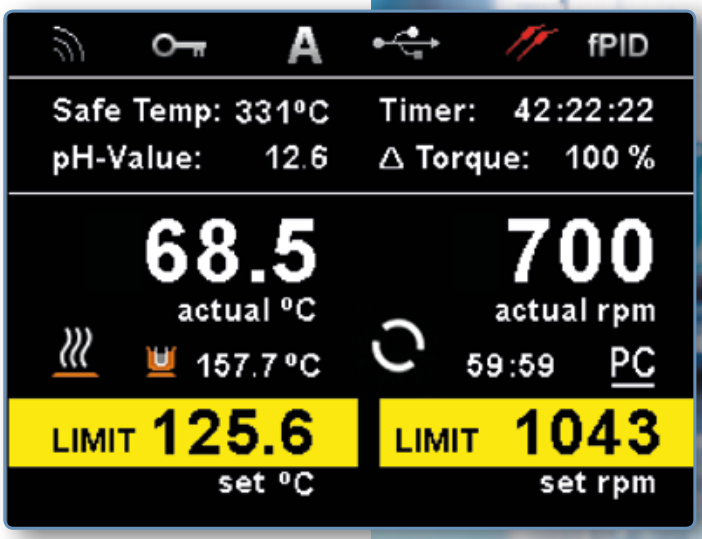
Sealed housing
to protect motor and display

> 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

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

"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.



> 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 powered 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 IP42

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

RET® control-visc | Power

> RET® control-visc is the strongest magnetic stirrer in its class

Three components provide for an extraordinarily powerful magnetic stirrer:

1. high performance EC motor with 12W output
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

Heating surface

Heating foil

Compression plate

Insulation

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

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 performance powerful and efficient heat transfer into the sample

Heating rate
7 K/min for 1l H_2O at 600 W

> 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.

Easy operation and display of all relevant information at one glance

Set temperature

Set speed

Lock function

Operating mode

Temperature probe connected

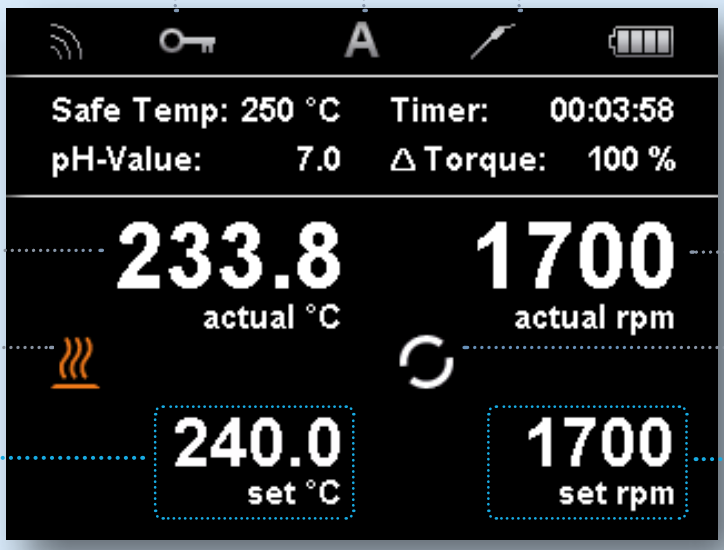
Shows safety temperature and up to three user-defined parameters

Actual heating plate or probe temperature

Heating activated

Actual speed

Motor status



Set temperature

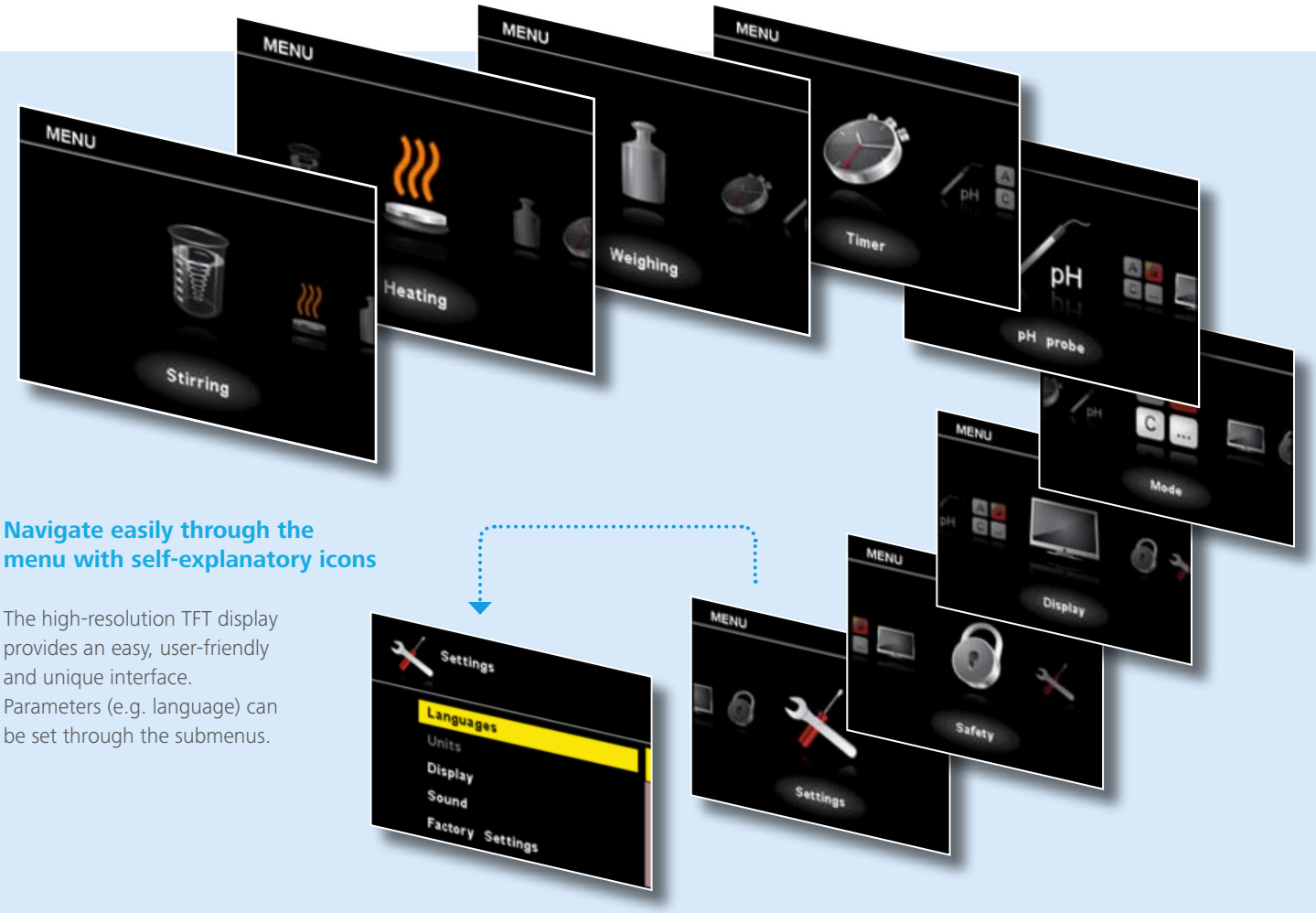
Set speed

> IKA® Magnetic Stirrer with Scientists

The Scripps Research Institute (TSRI) is a nonprofit research institution whose philosophy emphasizes the creation of basic knowledge in the biosciences for its application in medicine, the pursuit of fundamental scientific advances through inter-disciplinary programs and collaborations, and the education and training of researchers preparing to meet the scientific challenges of the future.

For more information on The Scripps Research Institute, see:
www.scripps.edu

For more information on Phil S. Baran and the Baran Laboratory, see:
www.scripps.edu/baran



Navigate easily through the menu with self-explanatory icons

The high-resolution TFT display provides an easy, user-friendly and unique interface. Parameters (e.g. language) can be set through the submenus.

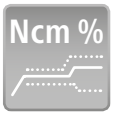
The heart of the RET® control-visc is the ARM-based microcontroller which is also used in smart phones and tablets. The use of the ARM-based microcontroller technology provides the intelligence of simple navigation, firmware update possibilty, weighing and torque trend measurement.

> Intelligent features

Integrated and patented weighing function

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

Measure weight changes of up to 5,000g	
tolerance	<500 g : +/-1g >500 g : +/-5g

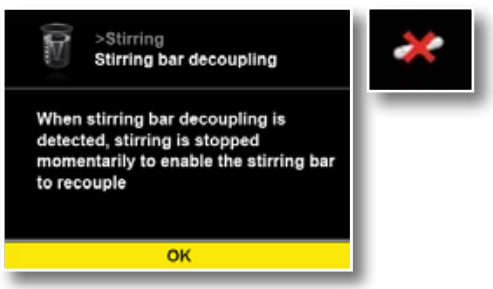


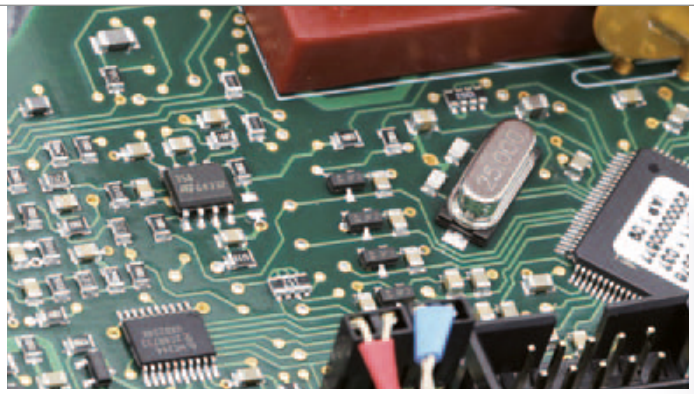
Torque trend measurement

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 +/-1%.

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.





> 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.

Firmware update tool
> Keep your device up-to-date
> Software upgrade features

The RET® control-visc has various interfaces: USB, RS 232 and Bluetooth

FUT

Firmware update tool

interfaces

Interface
The RET® control-visc has an RS232 and USB interface, connect the unit to a PC for controlling and updating the device

YOUR BENEFITS

Intelligent solutions
> User-friendly
> Simple navigation and easy operation
> Multilingual task menu
> User-defined display settings
> Integrated patented weighing function
> Unique torque trend measurement
> Stirring bar decoupling detection
> Firmware update tool
> labworldsoft® compatible

Integrated features

Safety

> Sealed housing
The housing is sealed to protect electronic components inside the device. Protection class IP 42.

> Three temperature safety protection features
Set temperature for sample heating, adjustable safety circuit to avoid overheating of the heating plate, and overheating protection of internal components.

> Three different operating modes
A Mode for regular operation, B Mode maintains preset parameters by the user from last operation when unit is powered on, C Mode for automatic restart after power outage to resume operation at preset settings.

> Optional safety-temperature confirmation
Safety temperature has to be confirmed when starting the device (this confirmation function is optional and can be turned off through the task 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 and/ or maximum value for each parameter.

> Lock function
"Key" lock to prevent changes of set values.

Power

> Outstanding motor performance
enables more stirring power (motor rating output: RH basic = 2 W, RCT basic = 9 W, RET® control-visc = 12 W)

> Innovative heating plate
Insulated composite heating plate results in efficient heating of the sample with minimal eddy current losses.

> High-efficient motor power
More stirring power through high-efficient motor.

> Heating plate with stainless steel surface
enables quickest and safest heating of the sample.

> Heating plate with white ceramic coating
allows for excellent chemical resistance.

> Temperature control with dual temperature sensor
Simultaneous control of the temperature of the heating plate and the sample.

> Three different temperature control modes
aPID (PID*): slow, but accurate heating of the medium; no overshooting of the temperature
fPID: rapid heating and high control accuracy, minor overshooting is possible
2-pt: faster than aPID, overshooting of sample temperature of up to 10 °C
* PID: a proportional- integral-derivative controller

Intelligence

> **Integrated weighing function**
Perform simple weighing tasks without taking the sample off the device.

> **High-resolution TFT display**
Lets the user see all relevant data clearly and simultaneously.

> **Bluetooth interface**
Integrated Bluetooth interface (to use with labworldsoft® and PC connection)

> **Torque trend measurement**
Relative viscosity changes can be measured with this feature.

> **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.

> **pH measurement**
Measuring pH values is possible with pH sensors (BNC-connector); available through IKA® or other manufacturers.

> **Labworldsoft®**
Specifically designed and developed by IKA®, this software allows for the RET® control-visc and other lab equipment from other manufacturers to be operated. For more information, please go to http://www.ika.com.

> **Software update**
Keep your device software up-to-date with the integrated firmware update function. You can update through the USB interface of the stirrer and your PC.

> **Multilingual menu**
The user can change the display language, there are 9 languages to choose from.

> **Display view**
can be modified by the user, certain values can be shown or hidden.

> **Error code display**
When an error occurs, the code is shown on the display. Please refer to the manual for further details.

> **Reset**
The device can be reset to factory defaults.

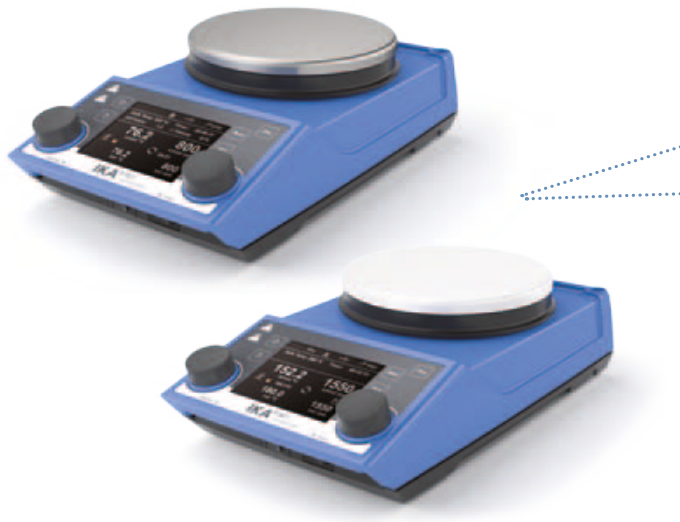
> **“HOT” warning**
When the device is off and the heating plate is hot, the display shows the warning “HOT” and the current heating plate temperature. The display turns off completely when the temperature of the heating plate drops below 50 °C.

> **Interval mode**
The stirring function can be programmed to stop and automatically restart in intervals adjustable by the user.

> **Sensor calibration**
Temperature and pH sensors can be calibrated through the RET® control-visc against a known calibrated source (i. e. tempereature device and pH buffer solution respectively).

> **Timer function**
Stop the heating process automatically after a specified time (max. 99:59:59)

Technical data



Technical data	RET® control-visc | RET® control-visc white replaces RET control-visc and RET control/t
Max. stirring quantity (H_2O)	20 l
Motor rating input / output	22 / 12 W
Speed range	50 – 1700 rpm
Heat output	600 W
Temperature range	RT – 340 °C
Adjustable safety circuit	50 – 380 °C
Control accuracy with sensor	PT 100: ± 0.2 K
Heating plate material	stainless steel 1.4301 | white ceramic
Heating plate dimensions	Ø 135 mm
Dimensions (W x D x H)	160 x 270 x 85 mm
Weight	3 kg
Permissible ambient temperature	5 – 40 °C
Price	**1.043,- EUR | 1.066,- EUR**
	Ident. No. 0005020000 | 0005030000

Protection class according to DIN EN 60529

3 Year warranty*

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

CE

Protection class according to DIN EN 60529: IP 42

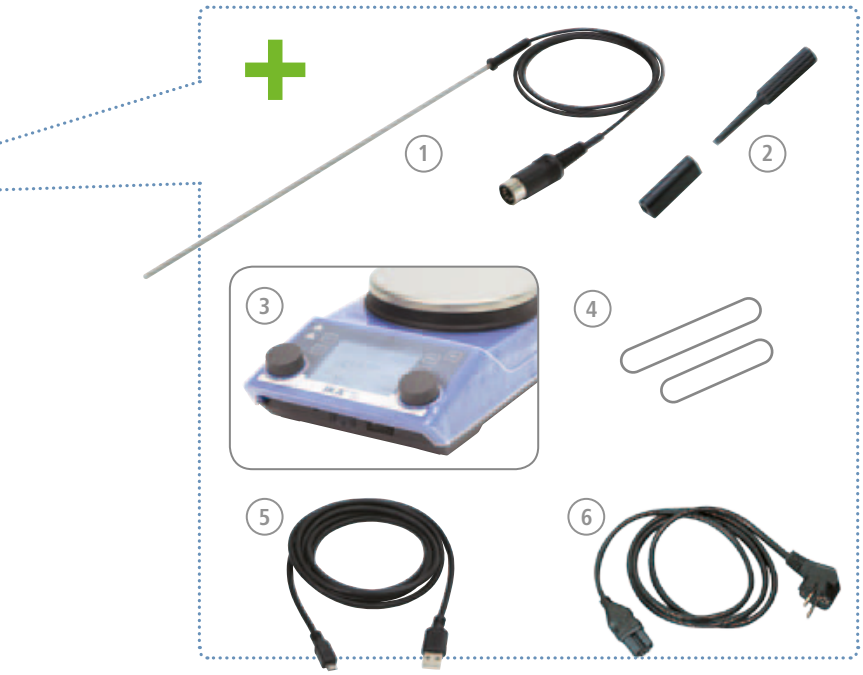
Overview IKA® magnetic stirrers

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.

Technical data	RH basic 2	RH basic	RH digital
Display	Scale	Scale	LED
Max. heating plate temperature	320°C	320°C	320°C
Heat output	400 W	600 W	600 W
Max. stirring quantity (H_2O)	10 l	15 l	15 l
Heating plate material	stainless steel	stainless steel - composite / white ceramic	stainless steel - composite / white ceramic
Connection for ext. temp. sensor	–	ETS-D x ✓	ETS-D x ✓
Integrated temperature regulation	–	–	–
Control accuracy with integrated temperature regulation			
Interface for external control > labworldsoft	–	–	–
Weighing, torque trend, pH	–	–	–
Firmware update tool	–	–	–
Protection class according to DIN EN 60529	IP 21	IP 21	IP 21
	Basic stirring and heating functionality.	Basic stirring and heating functionality with composite heating plate in stainless steel or white ceramic coated. External temperature control possible by connecting a contact thermometer (only ETS-D series)	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 ETS-D series). Digital LED display for speed and temperature.

IKA®+

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

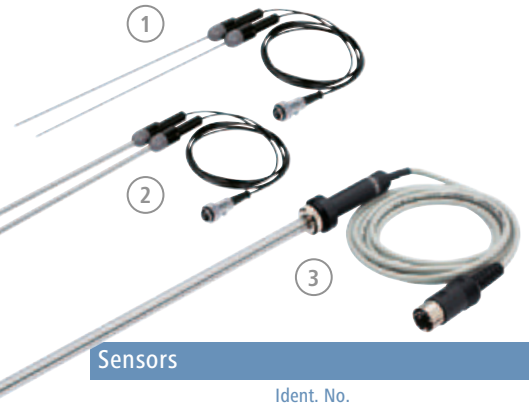


The RET® control-visc comes with the following accessories

1. **PT 100.70 temperature sensor**
   Temperature sensor, stainless steel
2. **Safety circuit tool**
   Tool to adjust safety circuit
3. **H 104 protective cover (transparent)**
   Cover for RET® control-visc
4. **Magnetic stirring bars**
   IKAFLON® 30 round PTFE-coated
   IKAFLON® 40 round PTFE-coated
5. **USB Cable**
6. **Power plug H 11**
   Mains cable, plug depending on region

C-MAG HS 7	C-MAG 7 digital	RCT basic	RET® basic	RET® control- visc
LED / Scale	LCD/ Scale	LED	LED	high-res TFT
500°C	500°C	310°C	340°C	340°C
1000 W	1000 W	600 W	600 W	600 W
15 l	15 l	20 l	20 l	20 l
white ceramic	white ceramic	aluminum alloy	stainless steel - composite	stainless steel - composite / white ceramic
ETS-D x ✓	PT 1000 ✓	PT 1000 ✓	PT 1000 ✓	PT 100 ✓
–	precise ✓	yes ✓	yes ✓	high- precision ✓
	+/- 0.5 K	+/- 1 K	+/- 1 K	+/- 0.2 K
–	–	–	–	RS 232/ USB ✓
–	–	–	–	yes ✓
–	–	–	–	yes ✓
IP 21	IP 21	IP 42	IP 42	IP 42
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.	Basic stirring and heating functionality with full-ceramic square plate to realize higher temperatures. External temperature control is possible by connecting the included temperature sensor (PT 1000) to have precise temperature control accuracy of up to +/- 0.5K. Digital LCD display for set and actual heating plate temperature.	Extended stirring and heating performance with aluminum alloy heating plate. External temperature control is possible by connecting the included temperature sensor (PT 1000). Digital LED display for speed and temperature.	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.	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 (+/- 0.2K). High-resolution TFT display enables easy operation.

Accessories



Sensors

	Ident. No.	Price
(1) PT 1000.50*	0003367600	201,- EUR
Temperature sensor, dual, stainless steel, Ø 3 mm, 230 mm length		
(2) PT 1000.51*	0003377700	233,- EUR
Temperature sensor, dual, stainless steel, glass-coated, Ø 3 mm		
PT 1000.53*	0004499800	243,- EUR
Temperature sensor, dual, coated with SafeCoat, 230 mm length		
PT 100.50	0002601900	169,- EUR
Temperature sensor, stainless steel, d. 3 mm, 230 mm length		
(3) PT 100.51*	0002600300	201,- EUR
Temperature sensor, stainless steel, glass-coated, Ø 8 mm, 230 mm length		
PT 100.53	0004499700	206,- EUR
Temperature sensor, stainless steel, coated with SafeCoat, Ø 3 mm, 230 mm length		
pH 5000.1	0020004404	on request
pH sensor, pH 0-14, BNC connector, 1 m cable		

Stainless steel vessels

	Ident. No.	Price
(1) H 1000	0004444401	274,- EUR
Beaker, stainless steel, 1 l, inner Ø 160 mm, 79 mm height		
(2) H 1500	0004444501	265,- EUR
Beaker, stainless steel, 1.5 l, inner Ø 140 mm, 160 mm height		
(3) H 3000	0004444503	266,- EUR
Beaker, stainless steel, 3 l, inner Ø 180 mm, 119 mm height		
(4) H 5000	0004444505	329,- EUR
Beaker, stainless steel, 5 l, inner Ø 220 mm, 142 mm height		
(5) H 8000	0004444508	503,- EUR
Beaker, stainless steel, 8 l, inner Ø 265 mm, 162 mm height		

*** Only available for RET® control-visc**

Synthesis blocks

Dry heating block square series (1)

	Hole Ø	Dimensions	Ident. No.	Price
H 135.10 Square carrier without handle	–	160 x 160 mm	0025000832	99,50 EUR
H 135.101 Block 16 x 4 ml	15.2 mm	79 x 79 mm	0025000626	37,- EUR
H 135.102 Block 16 x 8 ml	17.5 mm	79 x 79 mm	0025000627	40,50 EUR
H 135.103 Block 9 x 16 ml	20.5 mm	79 x 79 mm	0025000628	40,50 EUR
H 135.104 Block 4 x 20 ml	28.5 mm	79 x 79 mm	0025000629	34,50 EUR
H 135.105 Block 4 x 30 ml	28.5 mm	79 x 79 mm	0025000630	40,50 EUR
H 135.106 Block 4 x 40 ml	28.5 mm	79 x 79 mm	0025000631	45,- EUR
H 135.107 Block 100 ml	–	79 x 79 mm	0025000632	36,- EUR
H 135.108 Block 250 ml	–	79 x 79 mm	0025000633	42,50 EUR

100 ml Flask heating block series

	Max. Outer Ø	Inner Ø	Ident. No.	Price
H 135.20 Flask carrier 100 ml without handle	142 mm	–	0025000634	87,- EUR
H 135.201 Flask inlay 10 ml	–	33.8 mm	0025000636	20,50 EUR
H 135.202 Flask inlay 25 ml	–	43.8 mm	0025000637	20,50 EUR
H 135.203 Flask inlay 50 ml	–	52.8 mm	0025000638	20,50 EUR

500 ml Flask heating block series

H 135.30 Flask carrier 500 ml without handle	142 mm	–	0025000639	99,50 EUR
H 135.301 Flask inlay 100 ml	–	66.3 mm	0025000641	46,50 EUR
H 135.302 Flask inlay 250 ml	–	88 mm	0025000642	47,50 EUR

1000 ml Flask heating block series (2)

H 135.40 Flask carrier 1000 ml without handle	166.3 mm	–	0025000833	144,- EUR
H 135.401 Flask inlay 500 ml	–	108 mm	0025000644	81,50 EUR

2000 ml Flask heating block series

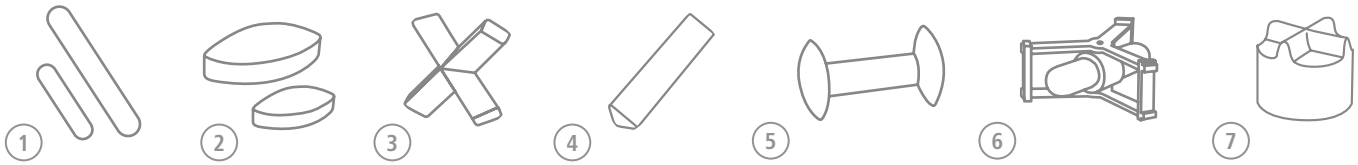
H 135.50 Flask carrier 2000 ml without handle	194.7 mm	–	0025000834	178,- EUR
H 135.501 Flask inlay 1000 ml	–	131.8 mm	0025000645	119,- EUR

3000 ml Flask heating block series

H 135.60 Flask carrier 3000 ml without handle	218.3 mm	–	0025000835	258,- EUR
H 135.601 Flask inlay 2000 ml	–	162 mm	0025000648	189,- EUR

5000 ml Flask heating block series

H 135.70 Flask carrier 5000 ml without handle	259.7 mm	–	0025000836	389,- EUR
H 135.701 Flask inlay 3000 ml	–	194.5 mm	0025000651	331,- EUR



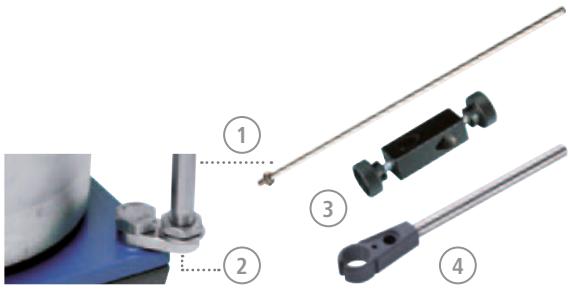
Stirring bars

IKAFLON® round	Ident. No.	Dimensions (L x Ø)	Price
IKAFLON® 10 Set (5 Pcs) round PTFE-coated	0004488600	10 x 6 mm	6,40 EUR
IKAFLON® 15 Set (5 Pcs) round PTFE-coated	0004488700	15 x 6 mm	6,40 EUR
IKAFLON® 20 Set (5 Pcs) round PTFE-coated	0004488800	20 x 8 mm	6,40 EUR
IKAFLON® 25 Set (5 Pcs) round PTFE-coated	0004488900	25 x 8 mm	9,70 EUR
IKAFLON® 30 Set (5 Pcs) round PTFE-coated	0004489000	30 x 8 mm	8,10 EUR
IKAFLON® 40 Set (5 Pcs) round PTFE-coated	0004489100	40 x 8 mm	9,80 EUR
IKAFLON® 50 Set (5 Pcs) round PTFE-coated	0004489200	50 x 8 mm	11,70 EUR
IKAFLON® 80 Set (5 Pcs) round PTFE-coated	0004489300	80 x 10 mm	28,- EUR
IKAFLON® glass 25 Set (5 Pcs) round	0004492200	25 x 8 mm	11,40 EUR
IKAFLON® glass 30 Set (5 Pcs) round	0004492400	30 x 8 mm	11,90 EUR
IKAFLON® glass 40 Set (5 Pcs) round	0004492600	40 x 8 mm	13,- EUR
IKAFLON® glass 50 Set (5 Pcs) round	0004492800	50 x 8 mm	14,- EUR
IKAFLON® 15 Set (5 Pcs) power SmSo PTFE-coated	0004493000	15 x 9 mm	18,60 EUR
IKAFLON® 30 Set (5 Pcs) power SmSo PTFE-coated	0004493200	30 x 12 mm	28,- EUR
IKAFLON® 50 Set (5 Pcs) power SmSo PTFE-coated	0004493400	50 x 21 mm	34,- EUR
IKAFLON® Slide round			
IKAFLON® 25 Set (5 Pcs) slide round PTFE-coated	0004493800	25 x 6 mm	8,- EUR
IKAFLON® 30 Set (5 Pcs) slide round PTFE-coated	0004494000	30 x 6 mm	8,60 EUR
IKAFLON® 40 Set (5 Pcs) slide round PTFE-coated	0004494200	40 x 8 mm	14,40 EUR
IKAFLON® 50 Set (5 Pcs) slide round PTFE-coated	0004494400	50 x 8 mm	16,60 EUR
IKAFLON® ellipse			
IKAFLON® 20 Set (5 Pcs) ellipse PTFE-coated	0004494600	20 x 10 mm	12,70 EUR
IKAFLON® 25 Set (5 Pcs) ellipse PTFE-coated	0004494800	25 x 12 mm	13,90 EUR
IKAFLON® 30 Set (5 Pcs) ellipse PTFE-coated	0004495000	30 x 15 mm	18,30 EUR
IKAFLON® 35 Set (5 Pcs) ellipse PTFE-coated	0004495200	35 x 15 mm	23,50 EUR
IKAFLON® 40 Set (5 Pcs) ellipse PTFE-coated	0004495400	40 x 20 mm	29,50 EUR
IKAFLON® 50 Set (5 Pcs) ellipse PTFE-coated	0004495600	50 x 20 mm	41,50 EUR
IKAFLON® 60 Set (5 Pcs) ellipse PTFE-coated	0004495800	64 x 20 mm	60,50 EUR
IKAFLON® 70 Set (5 Pcs) ellipse PTFE-coated	0004496000	70 x 20 mm	73,- EUR
IKAFLON® cross			
IKAFLON® 10 Set (5 Pcs) cross PTFE-coated	0004496200	10 x 10 mm	10,90 EUR
IKAFLON® 20 Set (5 Pcs) cross PTFE-coated	0004496400	20 x 20 mm	13,90 EUR
IKAFLON® 25 Set (5 Pcs) cross PTFE-coated	0004496600	25 x 25 mm	15,90 EUR
IKAFLON® 30 Set (5 Pcs) cross PTFE-coated	0004496800	30 x 30 mm	20,50 EUR
IKAFLON® 38 Set (5 Pcs) cross PTFE-coated	0004497000	38 x 38 mm	25,50 EUR
IKAFLON® bone			
IKAFLON® 37 Set (5 Pcs) bone PTFE-coated	0004497200	37 x 8 x 20 mm	37,50 EUR
IKAFLON® 54 Set (5 Pcs) bone PTFE-coated	0004497400	54 x 8 x 20 mm	45,- EUR
TRIKA®			
TRIKA® 25 Set (5 Pcs) PTFE-coated	0004499300	25 x 8 mm	8,70 EUR
TRIKA® 40 Set (5 Pcs) PTFE-coated	0004499400	35 x 9 mm	13,50 EUR
TRIKA® 55 Set (5 Pcs) PTFE-coated	0004499500	55 x 14 mm	21,50 EUR
TRIKA® 80 Set (5 Pcs) PTFE-coated	0004499600	80 x 18 mm	30,- EUR
IKAFLON® beaker		Dimensions (Ø x H)	
IKAFLON® 67 beaker PTFE-coated	0004497600	67 x 21 mm	208,- EUR
IKAFLON® 74 beaker PTFE-coated	0004497800	74 x 29 mm	215,- EUR
IKAFLON® 103 beaker PTFE-coated	0004498000	103 x 32 mm	310,- EUR
IKAFLON® 125 beaker PTFE-coated	0004498200	125 x 48 mm	396,- EUR
IKAFLON® crown			
IKAFLON® 9 Set (5 Pcs) crown PTFE-coated	0004498400	9 x 6 mm	9,- EUR

Lifts

LABLIFT m	0004022400	198,- EUR

Manual scissor lift



Other accessories

	Ident. No.	Price
H 16 V (1)	0001545100	47,50 EUR
Support rod, Ø 10 mm, 450 mm length		
H 16.1 (2)	0005000500	12,80 EUR
Extension for support rod		
H 44 (3)	0002437700	21,- EUR
Boss head clamp		
H 38 (4)	0003547700	21,- EUR
Holding rod		

YOUR BENEFITS

Dual sensors (PT 1000.50, PT 1000.51, PT 1000.53) can be connected

> Precise temperature control

> Safe handling of highly temperature sensitive fluids

IKA stainless steel vessels ensure:

> Optimized heat transfer

> Outstanding magnetic adhesion and

> Fits securely on the heating plate

IKA® offers more

Modern manufacturing

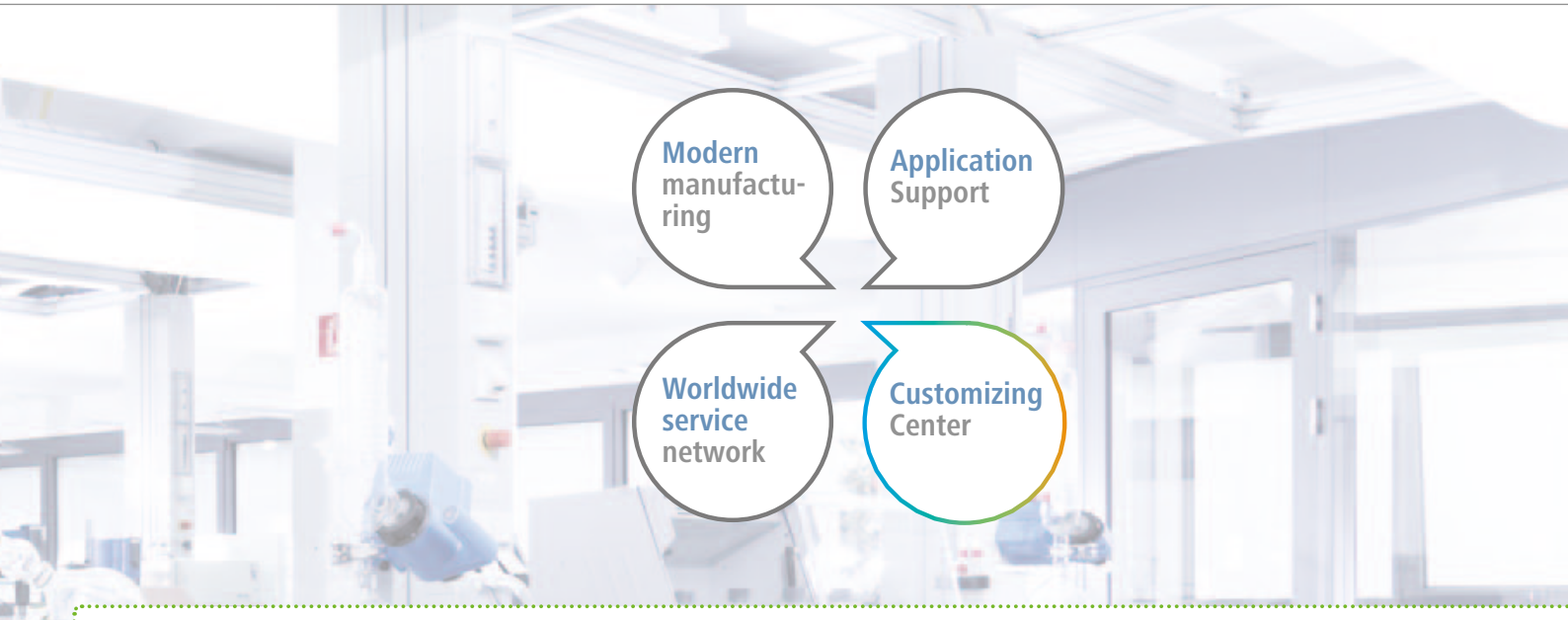
During manufacturing, IKA® focuses on high quality, not only with well-trained and experienced personnel, but also with standardized processes and quality checks.

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

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 00 8000 4524357 (00 8000 IKAHELP) or send an email to service@ika.com



Customizing Center

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.

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.

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