





4. Stirring, Shaking, Mixing Magnetic stirrers / hotplates/without heating

IP Protection classes

Characteristic 1 for protection against contact

- No special protection
- Protection from solid objects greater than 50mm in diameter
- Protection from object greater than 12mm in diameter
- Protection from object greater than 2.5mm in diameter Protection from object greater than 1mm in diameter
- Complete protection against contact, Protection against dust deposit
- Complete protection against contact, Protection from infiltration of dust

Characteristic 2 for waterproofing

- No waterproofing
- Protection from dripping water
- Protection from vertically dripping water (tilted up to 15°)
- Protection from sprayed water (tilted up to 60°)
- Protection from splashed water
- Protection from water projected from a nozzle
- Protection against heavy seas or powerful jets of water.
- Protection against immersion
- Protection against complete, continuous submersion in water.
- Protection against the ingress of water from all directions even under greatly high pressure on the housing. (High-pressure/steam cleaner, 80-100 bar)

Hanna

9.720 098

Hanna

Magnetic stirrer, non-electric, operated by water/air pressure

PP-ABS construction. This unique stirrer is operated either by water pressure between Kartell 1 and 2.5kg/cm² (15 to 40psi) or by air pressure. No electrical supply is needed, thus eliminating heat, electric shock and explosion hazards. Corrosion-proof, all-plastic construction. Can be used on the bench or clamped to a stand with a 12mm (1/2") diameter rod using the integral bosshead.

Dia.	Height	PK	Cat. No.
mm	mm		
129	61	1	9.303 043



Magnetic stirrer HI180

Without heating. Economical and lightweight stirrer.

- Housing material : ABS plastic

- Available in different colours

Speedsafe system ensures that maximum speed will never be exceeded.

Specifications

Max. stirring capacity (H₂O): 1000ml 100 to 1000rpm Speed: Power supply: 220V 127 x 51mm Dimensions (dia. x H) Weight: 650g

	0009		
Туре	Colour	PK	Cat. No.
HI 180A-2	light yellow	1	9.720 090
HI 180B-2	light green	1	9.720 091
HI 180C-2	light blue	1	9.720 092
HI 180D-2	yellow	1	9.720 093
HI 180E-2	green	1	9.720 094
HI 180F-2	dark blue	1	9.720 095
HI 180G-2	red	1	9.720 096
HI 180H-2	grey	1	9.720 097

Magnetic stirrer HI190

Compact and lightweight stirrer.

ivory

- speed is regulated by simply turning a button

- ABS plastic covered top plate

Specifications

HI 180I-2

Max. stirring capacity (H₂O): 1000ml 100 to 1000rpm Speed: Dimensions (WxDxH): 120 x 120 x 45mm

Туре	PK	Cat. No.
HI 190M-2	1	9.720 085







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4. Stirring, Shaking, Mixing

Magnetic stirrers / hotplates/without heating



1 Magnetic mini-stirrers topolino Ikamag®

Without heating. Extremely convenient magnetic mini-stirrer for mixing volumes up to 250ml.

- Durable, brushless motor

- Infinitely variable speed range
- Strong magnetic coupling

Specifications

 $\begin{array}{lll} \text{Stirring quantity (H_2O):} & 250\text{ml} \\ \text{Motor rating input/output:} & 1.1/0.8\text{W} \\ \text{Speed range:} & 300\text{ to } 1800\text{rpm} \\ \text{Weight:} & 300\text{g} \\ \text{Protection class acc. to DIN EN } 60529: & IP21 \\ \end{array}$

Tested to DIN EN IEC 61010-1.

Туре	Dimensions mm	PK	Cat. No.
topolino	95 x 115 x 40	1	9.720 220

Optional accessories: Ikaflon®- stirring bars, Trika®- stirring bars, RSE Stirring bar retriever



Magnetic stirrers, lab disc

Without heating. Lab disc is an innovative, very flat, magnetic stirrer. Its modern, toroidal coil technology with no moving parts guarantees a maintenance-free drive.

Lab disc can automatically change it's rotational direction every 30 secs. and therefore enhances mixing of the medium.

- High IP protection class (IP 65)
- Set-up plate and casing made from chemically resistant materials
- Slip-proof, safe stand

Specifications

Max. volume stirred (H₂O):

Motor rating input/output, W:

Speed range:

Max. stirrer bar L x dia.:

Usable plate area dia.:

Top plate:

Dimensions (WxDxH):

Weight:

800ml

800ml

800ml

90x

90x

90x

90mm

15 to 1500rpm

90x

90x

114 x 161 x 12mm

90x

114 x 161 x 12mm

90x

90x

114 x 161 x 12mm

Housing IP rating to DIN EN 60529: Tested to DIN EN IEC 61010-1.

Supply requirements: 100-240V 50/60Hz

Туре	Description	Dimensions (W x D x H)	Pan dim.	PK	Cat. No.
		mm	mm		
lab disc IKAMAG® EU/CH	White	117 x 180 x 12	Ø 100	1	9.720 480
lab disc IKAMAG® UK	White	117 x 180 x 12	Ø 100	1	4.008 137

IP65

Optional accessories: Ikaflon®- stirring bars, Trika®- stirring bars, RSE Stirring bar retriever



Accessories please see page 412.



Magnetic stirrer color squid Ikamag®

Without heating. Enhanced, small magnetic stirrers now with digital speed display (LED).

- electronically controlled motor for more capacity
- higher range of speeds from 0 to 2500rpm
- max. stirring quantity 1L
- excellent chemical resistance due to glass top and plastic base in TPE
- manufactured in recyclable materials



Specifications

Magnetic drive

Stirring volume (H₂O): 1L

Motor rating input/output: 3/2W

Speed display: digital (LED)

Speed range: 0 to 2500rpm

Max. magnetic bar (L x dia.): 30 x 8mm

Top plate

Material: glass

Dimensions: 115mm diameter

General data

Dimensions (WxDxH): 145 x 160 x 45mm

Weight: 0.55kg
Permissible ambient temperature: 5 to 40°C
Permissible relative humidity: 80%
Protection class acc. to DIN EN 60529: IP54

Supply requirements: 100 - 240V 50/60Hz

Tested to DIN EN IEC 61010-1.

Туре	PK	Cat. No.
color squid IKAMAG® EU/CH	1	9.720 365
color squid IKAMAG® UK	1	4.008 121

Optional accessories: Ikaflon®- stirring bars, Trika®- stirring bars, RSE Stirring bar retriever

2 Magnetic stirrer big squid Ikamag®

Without heating. Enhanced, small magnetic stirrers now with digital speed display (LED).

- electronically controlled motor for more capacity
- higher speed range from 0 to 2500rpm
- excellent chemical resistance due to glass top and plastic base in PA
- manufactured in recyclable materials

Specifications

Magnetic drive

Stirring volume (H₂O):1.5LMotor rating input/output:3/2WSpeed display:digital (LED)Speed range:0 to 2500rpmMax. magnetic bar (L x dia.):30 x 8mm

Top plate

Material: glass

Dimensions: 160mm diameter

General data

Dimensions (WxDxH): 180 x 135 x 40mm

Weight: 0.7kg
Ambient operating temperature: 5 to 40°C
Ambient operating humidity: 80% R.H.
Protection class acc. to DIN EN 60529: IP54

Supply requirements: 100-240V 50/60 Hz

Tested to DIN EN IEC 61010-1.

Туре	PK	Cat. No.
big squid IKAMAG® EU/CH	1	9.720 470
big squid IKAMAG® UK	1	4.008 122

Optional accessories: Ikaflon®- Stirring bars, Trika®- Stirring bars, RSE Stirring bar retriever



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2mag

4. Stirring, Shaking, Mixing

Magnetic stirrers / hotplates/without heating



Magnetic stirrer Ikamag® Mini MR standard

Without heating. - For stirring quantities up to 1L (H₂O).

- Infinitely variable speed from 0 to 2500rpm

- White top plate suitable for observing colour reactions

Specifications

Max. stirring volume, (H₂O): Motor rating, input/output: 3/2W Speed range: 0 to 2500rpm

115 x 115mm Polyester film Top plate: Size (WxDxH): 114 x 127 x 37mm

Weight: 0.25kg Protection to DIN EN 60529: IP42

Supply requirements: 100-240V 50/60 Hz.

Tested to DIN EN IEC 61010-1.

Туре	PK	Cat. No.
Mini MR standard IKAMAG® EU/CH	1	9.720 211
Mini MR standard IKAMAG® UK	1	6.202 536

Optional accessories: Ikaflon®- stirring bars, Trika®- stirring bars, RSE Stirring bar retriever



Magnetic stirrer SM27

For use in the field or inside incubators or gloveboxes where external power supply is impractical.

With BioCote, silver-based, antimicrobial protection. Maximum speed 1300 rpm.

Maximum volume stirred 1.5L (H₂O). Top plate 150 x 160mm.

Variable speed control with battery status indicator.

ABS casing 70mm high. Maximum operating conditions +60°C and 80% R.H. Weight 1.3kg.

Supplied with 4 x 1.5V size 'D' alkaline batteries giving up to 600 hours operation, and a 25mm PTFE coated follower. Accessory adapters are available for use on 230V 50Hz mains or 12V vehicle supply using the cigar lighter socket.

Туре	PK	Cat. No.
SM27	1	9.950 408



Accessories for magnetic stirrer, SM27

		Stuart
Description	PK	Cat. No.
Mains adapter, SM27/1 for UK / Ireland, 230 V 50Hz single phase supplies	1	9.950 409
Mains adapter, SM27/1 for continental Europe, 230 V 50Hz single phase supplies	1	9.950 410
Vehicle battery adapter, SM27/ 2 with cigarette lighter plug	1	9.950 411



Magnetic stirrer MIX 1 eco with internal control

Without heating. With non-mechanical, electronic induction drive. For routine work. SoftStart. Constant rotation speed even if the viscosity of the stirring medium changes.

3 years warranty. Made in Germany.

Specifications

-10 to +50°C at 80% R.H. max. Operating conditions:

Housing: Stainless steel IP 64

Protection category:

Туре	Rotation speed	Stirring capacity	Dimensions (W x D x H)	Rating	Weight	P	PK	Cat. No.
	rpm	ml	mm	w	kg			
MIX 1 eco	100 - 1400	1 - 3000	120 x 120 x 35	10	1.7		1	9.645 955

Magnetic stirrers / hotplates/without heating

2mag

Magnetic stirrer MIX 1 with internal control

Without heating. With non-mechanical, electronic induction drive, dust and watertight in easy-to-clean stainless steel housing. Constant speed irrespective of load even if viscosity changes. SoftStart. With large footprint and a strong and more penetrating magnetic field.

4 step control. Not suitable for use in incubators. With mains adapter.

3 years warranty. Made in Germany.

Specifications

Operating conditions: -10 to +50°C at 80% R.H. max.

Casing: Stainless steel

Protection category: **IP 64**

Туре	Rotation speed	Stirring capacity	Dimensions (W x D x H)	Power	Weight	PK	Cat. No.
	rpm	ml	mm	W	kg		
MIX 1	100 - 2000	1 - 10000	188 x 230 x 38	20 (4-steps)	4.0	1	9.645 954

Magnetic stirrer MIX 1 XL with internal control

Ultra-flat, powerful magnetic stirrer for volumes from 100ml up to 40 litres, with long-range, 2mag magnetic field for stirring over long distances up to max. 40mm, ideal for heavy-walled, glass vessels, round bottom flasks or double-walled containers, wash- and abrasion-resistant, stainless steel housing, speed range 100 to 2000rpm with feedback control, quick stop within 2 sec., 4-step stirring power adjustment (5/10/15/20 Watt), digital speed display, 4-step soft start, mixing period intervals up to 240 sec. mixWatch (monitors stirring bar). 3 years warranty. Made in Germany.



Specifications

-10 to +50°C and max. 80% R.H. max. Ambient operating temperature:

Stainless steel

IP 64 Protection category:

Туре	Rotation speed	Stirring capacity	Dimensions (W x D x H)	Power	Weight	PK	
	rpm	ml	mm	W	kg		
MIX 1 XL	60 - 2000	500 - 40000	225 x 280 x 35	20 (4-steps)	4.0	1	6.2

Magnetic stirrer maxMIX with internal control

Without heating. For universal stirring applications in science and industry. Suitable for 2mag use with heavy-walled reservoir bases, round bottom flasks and jacketed reaction vessels. Can also stir over larger distances (max. 60mm). With long range, extremely powerful magnetic field, which produces dual torque when starting up. Offers optimal operation safety by consistent speed regulation and 3 second quick-stop without motor overrun. Adjuastable SoftStart, digital speed display. Can be cleaned under running water. Supplied with mains adapter for 230V 50/60 Hz. 3 years warranty. Made in Germany.



Specifications

Speed accuracy:

Digital display: Adjustable SoftStart (10 to 60 sec.) -10 to +50°C at 80% R.H. max. Operating conditions:

Stainless steel Housing:

Protection category: IP 64

Туре	Rotation speed	Stirring capacity	Dimensions (W x D x H)	Power	Weight	PK	Cat. No.
	rpm	ml	mm	W	kg		
maxMIX	100 to 1200	1 to 150000	265 x 320 x 68	40	9.3	1	9.645 975

Magnetic stirrer accuMIX with internal control

Mobile magnetic stirrer, 100% maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept for mixing of solutions, speed range from 120rpm up to 1600rpm, jerk-free stirring also at low speeds, two-step power setting for high power with regard to large and viscous stirring amounts and reduced power for battery-saving long-term operation. Constructed for the independent battery- and stationary mains operation, equipped with 8 commercially available high performance rechargeable batteries (Mignon/AA), universal charging/power supply device, intelligent battery charging station with single controlled charging slots as well as battery service function and 12V adapter cable for the operation at cigarette lighter car sockets.



Specifications

Operating conditions: -10°C to +50°C at 80% R.H. max.

Stainless steel Casina:

Protection category: IP 30

Туре	Rotation speed	Stirring capacity	Dimensions (W x D x H)	Power	Weight	PK	Cat. No.
	rpm	1	mm	W	kg		
accuMIX	100 - 1600	1 - 3000	215 x 130 x 40	2/10 (2-steps)	2.5	1	9.646 011

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Magnetic stirrers / hotplates/without heating



Magnetic stirrer for cell cultures with internal control bioMIX 1



2mag

Maintenance-free, 2mag stepper-motor drive for extremely slow and 100% jerk-free, gentle mixing of cell cultures, with extended speed range from 5rpm up to 250rpm, even and smooth stirring at slow speeds, power setting (10-steps) for high power when stirring large and viscous media volumes and reduced power for non-warming, continuous operation. Digital display for speed and power setting, SoftStart for reliable and safe acceleration of the stirring bar, QuickSet for rapid setting of start and maximum speed, memory of last working status when switched off, suitable for culture flasks with spinning propeller or spinning ball systems.

Please note - we recommend, due to reduced heat emission, the specially developed series bioMIXdrive

Specifications

for use in incubators.

-10 to +50°C at 80% R.H. max. Perm. operating temperature:

-40°C to 50°C, 10 to 95%, 500 to 1060hPa

Housing: Stainless steel

Protection class: **TP64**

Туре	Rotation speed	Stirring capacity	Dimensions (W x D x H)	Power	Weight	F	PK	Cat. No.
	rpm	ml	mm	W	kg			
bioMIX 1	5 - 250	5 - 5000	180 x 230 x 38	6 (10-steps)	4.0		1	9.646 001



Baffled flasks - please see page 13.



Magnetic stirrer with internal control MIX 4 MS



Powerful 4-position stirring, 100% maintenance-free and wear-free, 2mag magnetic 2mag induction drive concept, with individual and independent speed setting for each stirring position (Master-Slave-Technology), also On-/Off function, synchronous speed mode for all positions, extremely wide speed range of 100rpm to 2000rpm, jerk-free stirring even at low speeds. Clear digital display for settings of stirrer speeds, SoftStart procedure for reliable stirrer bar coupling/centring and safe acceleration, automatic memory function to save the last settings, outstanding long working life of the hermetically sealed drive system and resistant stainless steel housing for easy and fast cleaning.

Specifications

Housing: Stainless steel

Protection class: IP 64

Туре	Rotation speed	Stirring positions	Stirring capacity	Dimensions (W x D x H)	Rating	Weight	PK	Cat. No.
	rpm		ml	mm	W	kg		
MIX 4 MS	100 to 2000	4	1 to 3000	245 x 425 x 38	28	8.9	1	9.646 010



Multi-position magnetic stirrers MIX 6/15 with internal control

Without heating. With non-mechanical, electronic induction drive. Ideal for batch series 2mag stirring. Choice of 6-place, stirring position models which can stir up to 6 x 1L. Erlenmeyer flasks or 15-place models for up to 15 x 250ml beakers. Digital stirring speed display and soft-start function. With 4 adjustable power level stirring speeds (5 to 20W), easy to clean, hermetically sealed casing which can be washed under running water, ultra flat, space-saving profile and 100% synchronous speed control in all stirring positions. SoftStart. 3 years warranty, Made in Germay.

Specifications

Operating conditions: -10 to +50°C at 80% R.H. max.

Stainless steel Housina: IP 64

Protection category:

Туре	Rotation speed	Stirring positions	Stirring centre distances	Stirring capacity	Dimensions (W x D x H)	Weight	PK	Cat. No.
	rpm		mm	ml	mm	kg		
MIX 6	100 to 2000	6	130	1 to 3000	245 x 425 x 38	8.8	1	9.645 956
MIX 15	100 to 2000	15	65	1 to 3000	245 x 425 x 38	8.8	1	9.645 957

Magnetic stirrers / hotplates/without heating

Multi-position magnetic stirrers MIX 15 eco with internal control

Without heating. Non-mechanical, electronic induction drive. With 15 stirring positions, 2mag e.g. for 6 x 1L erlenmeyer flasks or 15 x 250ml beakers. Suitable for mass screening and biological applications, even in humidity incubators. With built-in controller, digital speed indicator and SoftStart drive. Supplied with mains adapter.

3 years warranty. Made in Germany.

Specifications

Operating conditions: -10 to + 50°C at 80% R.H. max.

Housing: Stainless steel

Protection category: IP 64

Туре	Rotation speed	Stirring positions	Stirring centre distances	Stirring capacity	Dimensions (W x D x H)	Power	Weight	PK	Cat. No.
	rpm		mm	ml	mm	W	kg		
MIX 15 eco	120 - 1200	15	65	1 - 1500	245 x 425 x 38	10	8.8	1	9.645 958

Magnetic stirrer steriMIXdrive with external control



Pressure, steam, vacuum and temperature resistant.

Maintenance-free 2mag-motor-drive with large speed range from 60rpm up to 1200rpm,

fully encapsulated, pressure and vacuum resistant stainless steel housing, IP68, temperature resistant up to +150°C, extremely robust construction and performance, easy to clean and firm. 3 years warranty. Made in Germany.



Specifications

-10 to +150°C at 100% R.H. max. Operating conditions: Stainless steel, hermetically sealed Casing:

Protection category: IP 68/IP 20 (control)

Туре	Rotation speed	Stirring capacity	Dimensions (W x D x H)	Rating	Weight	PK	Cat. No.
	rpm	1	mm	W	kg		
steriMIXdrive	-	1 - 40	140 x 140 x 32	20	9.0	1	9.646 035
steriMIXcontrol*	60 - 1200	-	200 x 175 x 48	20	1.8	1	9.646 036

^{*} Control unit.

Magnetic stirring atexMIXdrive 1 with external control





1 stirring position, 100% maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept for powerful mixing of solutions, jerk-free stirring even at low speeds.

Fully encapsulated and hermetically sealed stainless steel housing, IP68, water, dust and germproof, extremely robust construction and performance. Easy to clean and maximum resistance, submersible in water, oil baths, suitable for the use in CO2 incubators and ovens, temperate range up to +40°C. Certified according to ATEX II 2G Ex mb IIC T4.



Specifications

-10°C to +40°C at 100% R.H. max. Operating conditions:

+40°C immersed in water Stainless steel

Casing: Protection category: IP 68

Туре	Stirring capacity	Dimensions (W x D x H)	Power	Weight	PK	Cat. No.
	1	mm	W	kg		
atexMIXdrive 1	1 - 10000	180 x 180 x 38	20	3.5	1 6	.238 005
atexMIXcontrol cleanroom*	-	210 x 55 x 30	20 (4 steps)	3.6	1 9	.646 000

^{*} Control unit explosion protection zone 2.

Magnetic stirrers / hotplates/without heating



1 Magnetic stirrers MAXdrive with external control

Unheated. With extremely strong, magnetically coupled power for stirring very large volumes in heavy-walled vessels and over larger distances (max. 60mm).

Can be controlled remotely via a separate remote controller with digital speed indicator.

Continuous or timed operation is selectable. Fast stop in 2 secs without motor overrun. Running time can be preselected in accordance with the viscosity. Overload protected and housed in an easy to clean, hermetically sealed casing which can be washed under running water. Adjustable soft-start (10 to 60 sec.) based on viscosity of the sample. 3 years warranty. Made in Germany.

Specifications

Speed accurancy: ±0.25%

Operating conditions: -10 to +50°C at 95% R.H. max.

Case: Stainless steel
Portection according to DIN EN 60529: IP 65/20 (control)

Туре	Rotation speed	Stirring capacity	Dimensions (W x D x H)	Power	Weight	PK	Cat. No
	rpm	1	mm	W	kg		
MAXdrive	-	1 - 250	260 x 260 x 68	40	9.0	1	9.645 976
MAXcontrol*	100 - 1200	-	200 x 175 x 48	40	1.8	1	9.645 977

^{*} Control unit.

* Control unit

Please order control unit separately



Magnetic stirrer FABdrive with external control

NEW!

2mag

Maintenance-free 2mag-motor-drive with large speed range from 80rpm up to 990rpm. Fully encapsulated and tight stainless steel housing, IP65, extremely robust construction and performance, easy to clean under running water. Individual measurements on request. 3 years warranty. Made in Germany.

Specifications

Operating conditions: $-10 \text{ to } +50 ^{\circ}\text{C} \text{ at } 95 \% \text{ R.H. max.}$

Casing: Stainless steel

Protection category: IP 65

Туре	Rotation speed	Stirring capacity	Dimensions (W x D x H)	Power	Weight	PK	Cat. No.
	rpm	1	mm	W	kg		
FABdrive	-	1 - 1000	180 x 180 x 75	100	9.0	1	9.645 990
FABcontrol*	80 - 990	-	200 x 175 x 48	100	2.0	1	9.645 991

Accessories for magnetic stirring systems

NEW!)

2mag

Description	PK	Cat. No.
Extension cable for MIXdrive, 3m	1	9.646 041
Extension cable for bioMIXdrive, 3m	1	9.646 042
Extension cable for MAXdrive/FABdrive, 3m	1	9.646 043
Connection cable 12 V car battery for MIX 1 eco	1	9.646 044
Mobile stand mixCADDY for MAXdrive/FABdrive	1	9.646 045

We can Supply this manufactorer's whole product range!





Multi-position magnetic stirrers MIXdrive with external control



Without heating. With non-mechanical, electronic induction drive and dust/watertight housing. Ideal for batch series stirring and for use in water baths. Choice of 6-place stirring position models which can stir up to 6 x 1L erlenmeyer flasks, 15-place models for up to 15 x 250ml beakers and 60-place models for small sample containers and, using appropriate test tube stands, up to 60 test tubes or centrifuge tubes. Available as eco 10W, high-power 20W or ultra high-power 40W version. Preselectable mixing power. SoftStart. With external control unit. 3 years warranty. Made in Germany.

2mag

Sprecifications

Operating conditions:

-10°C to +50°C at 100% R.H. max.

Operating temp. range

in air and water +50°C

Standard: HT-Version:

in air (ovens) +200°C, in water +95°C

Stirrer unit housing:

Stainless steel

Protection category:

IP 68

Туре	Stirring positions	Stirring centre distances	Stirring capacity	Dimensions (W x D x H)	Weight	PK Cat. No.
		mm	ml	mm	kg	
MIXdrive 1	1		1 to 10000	180 x 180 x 38	3.3	1 9.645 959 1
MIXdrive 1 HT (+200°C)	1		1 to 10000	180 x 180 x 38	3.3	1 9.645 960
MIXdrive 1 eco	1		1 to 3000	120 x 120 x 35	1.5	1 9.645 961
MIXdrive 1 eco HT (+200°C)	1		1 to 3000	120 x 120 x 35	1.5	1 9.645 962
MIXdrive 1 XS	1		1 to 1000	48 x 48 x 18	0.3	1 9.645 985
MIXdrive 1 XS HT (+200°C)	1		1 to 1000	48 x 48 x 18	0.3	1 9.645 986
cuvetteMIXdrive 1	1		1 to 25	12.5 x 12.5 x 6	0.1	1 9.645 987 4
MIXdrive 6	6	130	1 to 3000	245 x 375 x 38	8.9	1 9.645 963 2
MIXdrive 6 HT (+200°C)	6	130	1 to 3000	245 x 375 x 38	8.9	1 9.645 964
MIXdrive 15	15	65	1 to 3000	245 x 375 x 38	9.5	1 9.645 965 3
MIXdrive 15 HT (+200°C)	15	65	1 to 3000	245 x 375 x 38	9.5	1 9.645 966
MIXdrive 60	60	32,5	1 to 500	245 x 375 x 38	9.5	1 9.645 967
MIXdrive 60 HT (+200°C)	60	32,5	1 to 500	245 x 375 x 38	9.5	1 9.645 968

Please order control unit MIXcontrol separately.





9.645 963





Control units for mixers MIXdrive

2mag

Туре	Rotation speed	Dimensions (W x D x H)	Rating	Weight	PK Cat. No.
	rpm	mm	W	kg	
MIXcontrol eco	120 to 1200	65 x 50 x 45	10	0.5	1 9.645 969
MIXcontrol 20	100 to 1600	200 x 155 x 38	20	1.4	1 9.645 970
MIXcontrol 40	100 to 2000	200 x 155 x 38	40	1.4	1 9.645 971 6





9.645 971

2man

Stuart

IKA

Magnetic stirrers / hotplates/without heating



Accessories for mixer MIXdrive

		zmag
Description	PK	Cat. No.
distriBOX 4 (4-way header)	1	9.645 972
distriBOX 8 (8-way header)	1	9.645 973
mixBATH (stainless steel bath, electropolished), fits for MIXdrive 6/15/60 (also HT)	1	9.645 974



Magnetic stirrer CB161

Speed range 100 to 1500rpm. Maximum volume stirred is 15L. Glass ceramic top plate 160 x 160mm. Overall 190 x 300 x 100mm (WxDxH).

Electronic variable speed control with off position.

With **BioCote** silver based antimicrobial protection.



Туре	PK	Cat. No.
CB161	1	9.950 413



Magnetic stirrers C-MAG MS 4/C-MAG MS 7/C-MAG MS 10 Ikamag®

Without heating. With glass ceramic top plate which offers excellent chemical resistance.

- powerful motor for stirring quantities of up to 5l, 10l, or 15l (H₂O)





9.720 494



9.720 495

- raised control panel for protection against leaking liquids

Specifications

Magnetic stirrer

Stirring volume (H₂O) C-MAG MS 4: 51 C-MAG MS 7: 101 C-MAG MS 10: 151 15/1.5W Motor rating input/output: Speed range: 100 to 1500rpm Speed display: scale Max. magnetic bar (L x dia.) C-MAG MS 4: 30 x 8mm C-MAG MS 7/MS 10: 80 x 10mm

Set-up plate

Material: glass ceramic

Dimensions (WxDxH) C-MAG MS 4: 100 x 100mm C-MAG MS 7: 180 x 180mm C-MAG MS 10: 260 x 260mm

Protection class acc. to DIN EN 60529: IP 21

Tested to DIN EN IEC 61010-1.

Туре	Dimensions (W x D x H)	Weight	PK Cat. No.
	mm	kg	
C-MAG MS 4	150 x 260 x 105	3	1 9.720 49
C-MAG MS 7	220 x 330 x 105	5	1 9.720 49
C-MAG MS 10	300 x 415 x 105	6	1 9.720 49

Optional accessories: Ikaflon®- stirring bars, Trika®- stirring bars, RSE Stirring bar retriever

4. Stirring, Shaking, Mixing Magnetic stirrers / hotplates/without heating

Magnetic stirrer, KMO2 basic, Ikamag®

Without heating. Small but very powerful magnetic stirrer.

- strong magnetic field resists stirrer bar decoupling
- opto-electronic speed control motor
- adjustable speed up to 1100rpm
- stainless steel housing for easy cleaning and sterilization
- with M10 thread for support rod H 16 V



Specifications

 $\begin{array}{lll} \mbox{Max. volume stirred (H_2O):} & \mbox{5L} \\ \mbox{Motor rating input/output:} & \mbox{14/4W} \\ \mbox{Speed range (rpm):} & \mbox{0 to 1100rpm} \\ \end{array}$

Speed indication: Scale

Surface: 140 x 120mm, stainless steel (AISI 304)

Dimensions (WxDxH): 140 x 200 x 75mm

Weight: 1.4kg Housing IP rating to DIN EN 60529: IP21

Supply requirements: 230V 50/60Hz

Tested to DIN EN IEC 61010-1.

Туре	PK	Cat. No.
KMO 2 basic IKAMAG®	1	9.720 210
KMO 2 basic IKAMAG® UK	1	4.007 982

Optional accessories: Ikaflon®- stirring bars, Trika®- stirring bars, RS 1 Stirring bar set, RSE Stirring bar retriever, support rod H 16V

Magnetic stirrers, Ikamag® Midi MR 1 digital

Without heating.

- high power
- flat stable stainless steel housing
- non-locking motor
- adjustable speed
- LED digital speed display
- 0 to 56 minute timer, or continuous operation



391

Specifications

 $\begin{array}{lll} \mbox{Motor rating input/output:} & 70/19W \\ \mbox{Max. volume stirred (H$_2O):} & 50L \\ \mbox{Speed range:} & 0 \ \mbox{to 1000rpm} \end{array}$

Top plate: 350 x 350mm, Stainless steel (AISI 304)

Dimensions WxDxH: 360 x 430 x 110mm

Weight: 10.7kg
Protection system to DIN EN 60529: IP21

Supply requirements: 230V 50/60Hz

Tested to DIN EN IEC 61010-1.

Туре	PK	Cat. No.
Midi MR 1 digital Ikamag®	1	9.720 306

Optional accessories: Ikaflon®- stirring bars, Trika®- stirring bars, RSE Stirring bar retriever

Accessories please see page 412.





Heidolph

6.201 570

IKA

4. Stirring, Shaking, Mixing

Magnetic stirrers / hotplates/without heating







Magnetic stirrers without heating

Hei-Mix D/Hei-Mix L - For gentle stirring in biology and microbiology

Top plate is insulated from the motor and protects your heat sensitive samples from any thermal damage

- To treat your sample gently and protect it from damage the rotation speed ramps up slowly until it has reached the pre-programmed speed
- Top plate diameter of 145mm and a speed range from 100rpm to 1400rpm is ideal for quantities up to 201
- Hermetically sealed housing prevents corrosion and increases the service life of your unit
- You can even work with dry ice, a robust thermal insulation prevents corrosion inside the housing thus minimising any dripping of condensate on the electronic components
- These models come with a top plate material of finest quality stainless steel

Hei-Mix S

- Stirs quickly and efficiently with an extended speed range up to 2200rpm
- Long lasting polyamide housing and PVDF top plate material
- Ideal for titrations due to white colored top plate
- Space saving unit for efficiently-mixing sample sizes up to 5I. Small footprint of 126 x 80 x 140mm (W x H x D) only, and the top plate comes with a diameter of 104mm

Туре	Rotation speed	Stirring capacity	Plate material	Dimensions (W x D x H)	Protection- level	PK	Cat. No.
	rpm	ml		mm			
Hei-Mix D	1400	20000	V2A	173 x 277 x 94	32	1	9.720 138 1
Hei-Mix D UK	1400	20000	V2A	173 x 277 x 94	32	1	9.720 133
Hei-Mix L	1400	20000	V2A	173 x 277 x 94	32	1	9.720 137
Hei-Mix L UK	1400	20000	V2A	173 x 277 x 94	32	1	9.720 135



Hei-Mix S UK

9.720 205



9.720 206

9.720 207

Multi-position magnetic stirrers, Ikamag® RO 5/10/15 Power series

Without heating. For 5, 10, or 15 stirring positions.

For max. 400ml (H₂O) stirring volume per stirring position. Speed range 0 to 1100rpm.

Super flat, new design. With profiled, stainless steel surface to protect against liquid penetration and for easy cleaning. Incl. non-slip mat (PUR). Multiple, 1×5 , 2×5 , or 3×5 -stirring position platform arrays enable optimum use of bench space. Distance between stirring position centres: 90mm. Supply requirements: 230V 50 Hz.

Accessory thermostatic bath fittings are available on request.

126 x 140 x 80

Specifications

Motor rating Input/Output, W:

RO 5: 7.2/1.8 RO 10: 14.4/3.6 RO 15: 21.6/5.4 Scaled dial (1 - 10) Speed setting:

Protection class acc. DIN EN 60529:

230V 50/60Hz Supply requirement: Tested to DIN EN IEC 61010-1.

Туре	Dimensions (W x D x H)	Weight	Stirring positions		Cat. No.
	mm	g			
RO 5	122 x 552 x 65	2300	5	1	9.720 205 4
RO 10	182 x 552 x 65	3200	10	1	9.720 206
RO 15	272 x 552 x 65	4700	15	1	9.720 207 6
0-4:1		Chimina have Trilled C	cionia a la acca	DCE Ctiming has not discount	

IP42

Optional accessories: Ikaflon®- Stirring bars, Trika®- Stirring bars, RSE Stirring bar retriever

Magnetic stirrer, Variomag Mono Direct

With non-mechanical, electronic induction drive. For routine work.

Constant rotation speed even if the viscosity of the stirring medium changes.

With separate power supply 230V - 50/60Hz.

Specifications

-10 to +40°C at 95% R.H. max. Operating conditions:

Housing: Stainless steel Colour:

Grey

Туре	Rotation speed	Stirring capacity	Dimensions (W x D x H)	Power	PK	Cat. No.
	rpm	ml	mm	W		
Mono Direct	130 - 1200	1 - 3000	180 x 215 x 35	1-5	1	9.720 501



Single magnetic stirrer systems, Variomag Mini, Micro, Compact und Maxi

Variomag Mini for stirring very small volumes in cuvets or special autoanalyzer vials. Very suitable for integration in measuring systems, e.g. photospectrometers. Operating conditions: -10 to +56°C at 95% RH.

Thermo Scientific

Thermo Scientific

Variomag Micro with thread on housing base for attaching to analytical instruments or mounting on a stand. Operating conditions: -10 to +120°C at 95% RH or 0 to +95°C immersed in water.

Variomag Compact for routine use, ideal in water baths.

Operating conditions: -10 to +120°C at 56% in air, 0 to +50°C immersed in water.

Variomag Maxi with larger plate and a stronger and further-reaching magnetic field.

For larger stirring volumes and media which are difficult to mix, e.g. samples which tend to form sediments.

Operating conditions: -10 to +120°C at 56% in air, 0 to +50°C immersed in water. Available with three different controllers.

Туре	Rotation speed	Power	Dimensions (W x D x H)	PK Cat. No.
	rpm	w	mm	
Mini with Telemodul	130 - 1000		12 x 12 x 5	1 9,720 539
Mini with Telemodul 20 C	130 - 1400	0.5/0.1/0.15/0.2		1 9.720 541
Micro Telemodul	130 - 1000		48 x 48 x 15	1 9.720 540
Micro Telemodul 20 C	130 - 1400	2/4/6/8	48 x 48 x 15	1 9.720 542
Compact with Telemodul	130 - 1000	5	120 x 120 x 35	1 9.720 545
Compact with Telemodul 20 C	130 - 1400	3/6/9/12	120 x 120 x 35	1 9.720 547
Maxi Telemodul	130 - 1000	6	180 x 180 x 35	1 9.720 548
Maxi Telemodul 20 C	130 - 1400	4.5/9/13.5/18	180 x 180 x 35	1 9.720 636
Maxi Telemodul 40 C	100 - 2000	3/36	180 x 180 x 35	1 9.720 637







9.720 545

Magnetic stirrers / hotplates/without heating



Large Volume Stirrers Variomag Mobil 10 and Mobil 25

(NEW!

Thermo Scientific

Variomag Mobil 10 and Mobil 25 Large Volume Stirrers have the power to stir and mix volumes up to 10L and they are ideal for hard-to-stir viscous liquids.

- Compact space-saving design
- Gradual low-shear acceleration on start-up
- Quick Stop function stops the drive within three seconds, minimising after runs and reducing the risk of breakage
- Easy to clear
- Variomag Mobil 25 can be used in autoclaves, water baths and climatic chambers (can be used at temperatures up to 121°C and high pressure up to 2 bars)
- Requires external Telemodul 10 M controller (needs to be ordered separately)

Specifications

Operating conditions:

Mobil 10: -10 to +56°C at 95% R.H. Mobil 25: -10 to +121°C at 95% R.H.

Туре	Rotation speed	Stirring capacity	Chamber dimensions (Dia. x H)	Power	Weight	PK	Cat. No.
			mm				
	rpm	ml		W	kg		
Mobil 10	-	100 - 10000	128 x 32	10	0.7	1	4.010 022
Mobil 25	-	100 - 10000	128 x 32	10	1.7	1	4.010 023
Telemodul 10 M*	100 - 1000	-	-	-		1	4.010 027

^{*} Controller, 230V.



2 Magnetic stirrer, Variomag Maxi Direct

With non-mechanical, electronic induction drive and dust/watertight,

Thermo Scientific

easy-clean stainless steel housing. Constant speed irrespective of load even if viscosity changes.

With large footprint and a strong and more penetrating magnetic field. Not suitable for use in incubators. With mains adapter.

Specifications

Stirrer:

80rpm to 2000rpm

Speed range: Operating conditions:

-10 to +40°C at 95% R.H. max.

Casing:

Stainless steel

Туре	Stirring capacity ml	Power Dimensions (W x D x H) W mm	PK	Cat. No.
Maxi	Direct 100 - 5000	5 - 20 180 x 215 x 35	1	9.720 618



Multi-position magnetic stirrers, Variomag Poly 15

With non-mechanical, electronic induction drive. With 15 stirring spaces, for e.g. 6 \times 1L erlenmeyer flasks or 15 \times 250ml beakers. For mass screening and biological applications, even in humidity incubators. With built-in controller, digital speed indicator and soft-start drive. With mains adaptor.

Thermo Scientific

Specifications

Stirring positions: 15

Operating conditions: -10 to +40°C at 95% R.H. max. Housing: stainless steel, powder coated

Colour: gr

Туре	speed	(W x D x H)	Power	PK	Cat. No.
	rpm	mm	W		
Poly 15	130 - 990	240 x 420 x 35	10	1	9.720 650



4 Magnetic stirrer, Variomag Power Direct

Super flat, powerful magnetic stirrer for volumes from 100ml up to 40L, with long-range, Thermo Scientific magnetic field for stirring over long distances up to max. 40mm, ideal for thick-walled, glass vessels, round bottom flasks or double-walled containers, wash- and abrasion-resistant, stainless steel housing, speed range 100rpm to 2000rpm with feedback control, quick stop within 2 sec., 4-step stirring power adjustment (5W/10W/15W/20W), digital speed display, bi-directional RS232 interface allowing up to 14 units to be directly and individually controlled by the user's PC and 24V d.c. output, a.c. adapter for 100 - 240V. Ambient operating temperature: -10 to +40°C.

Туре	Rotation speed	Dimensions (W x D x H)	Power	Weight	PK	Cat. No.
	rpm	mm	W	kg		
Power Direct	100 - 2000	240 x 295 x 35	5/10/15/20	2.5	1	9.720 595

Magnetic stirrers / hotplates/without heating- hotplates/with heating

Multi-position magnetic stirrers, Multipoint

With non-mechanical, electronic induction drive. Ideal for batch series stirring.

Choice of 6-place, stirring position models which can stir up to 6 x 1 liter erlenmeyer flasks or

15-place models for up to 15 x 250ml beakers. With digital stirring speed display and soft-start function. With 4 adjustable power level stirring speeds (5 to 20W), easy to clean, hermetically sealed casing which can be washed under running water, ultra flat, space-saving profile and 100% synchronous speed control in all stirring positions. Supplied with mains adapter for 230 V 50/60 Hz.

Operating conditions: -10 to +40°C at 95% R.H. max.

Housing: Stainless steel



Туре	Stirring positions	Stirring centre distances	Stirring capacity	Rotation speed	Dimensions (W x D x H)	PK	Cat. No.
		mm	ml	rpm	mm		
Multipoint 6	6	130	1 - 3000	80 - 2000	240 x 420 x 35	1	9.720 624
Multipoint 15	15	65	1 - 3000	80 - 2000	240 x 420 x 35	1	9.720 625

LLG-RCT standard safety control

Magnetic stirrer with new technology and new functions:

- integrated temperature control
- incl. Pt1000 temperature sensor (PT 1000.60)
- exact temperature and speed setting via digital display, even when switched off
- digital display of set safety temperature limit
- hot top indicator, hot surface warning to prevent burns
- digital error code display
- with adjustable safety circuit of heating plate temperature (+50 to +360°C)
- safety magnetic stirrer with heating, suitable for unsupervised operation
- DIN 12878 connector for attaching a contact thermometer, e.g. ETS-D5; enables precise temperature control directly in the heated medium
- enhanced safety due to improved heat control technology
- enclosed assembly (IP42) guarantees long service life
- highly polished, aluminum hotplate for optimal heat transfer
- improved magnetic coupling
- supplied with housing protection cover H 89

Specifications

Drive unit

Stirring quantity (H_2O): 20L Motor rating input/output: 16/9W Speed display: digital Speed range: 50 to 1500rpm

Speed range: 50 to 1500rp
Max. magnetic bar (L x dia.): 80 x 10mm

Heating function

digital Speed display: Heat output: 600W Heating rate (1 litre H₂O in H 15): 6.5K/min Temperature range: RT to 310°C Setting accuracy: ±1K Temp. variation without temp. sensor: ±2K Adjustable safety circuit: 50 to 360°C Digital temperature limit display: 50 to 360°C

Control accuracy with sensor: $PT 1000/\pm 1K$ $ETS-D5/\pm 0.5K$

Heating plate

Material: aluminium alloy Dimensions: 135mm dia.

General data

Dimensions (WxDxH): $160 \times 270 \times 85$ mm Weight: 2.5kg

Operating temperature range: 5 to 40°C
Operating humidity range: 80% R.H.
Protection class acc. to DIN EN 60529: IP42

Tested to DIN EN IEC 61010-1.

Туре	PK	Cat. No.
RCT Standard safety control incl. Pt1000	1	9.720 250

Optional accessories:

Electronic contact thermometer ETS-D5, Ikaflon® stirring bars, Trika® stirring bars, RS 1 stirring bar set, RSE Stirring bar remover, Quarter System, Reaction block System



IKA

4. Stirring, Shaking, Mixing

Magnetic stirrers / hotplates/with heating



Magnetic stirrer/hotplate RH basic 2 IKAMAG®

Low-priced, magnetic stirrer/hotplate, with heating, with stainless steel top plate.

- fixed overtemperature safety cut-out at 400°C

- soft-start motor

Specifications

Stirring volume: 10L

Motor rating input/output: 15/2W

Speed indication: Scale (0 to 6)

Speed range 100 to 2000rpm

Heating power: 400W

Hosting rate (1 litro water): 21//min

Heating rate (1 litre water): 3K/min
Temperature range: Amb. to +320°C

Hotplate surface: Stainless steel (AISI 304), 125mm dia.

Dimensions WxDxH: 168 x 220 x 105mm

Weight: 2.4kg
Protection class acc. to DIN EN 60529: IP21

Supply requirement: 230V 50/60 Hz Tested to DIN EN IEC 61010-1.

 Description
 PK
 Cat. No.

 RH basic 2 IKAMAG*
 1
 9.720 402

Optional accessories: Ikaflon®- stirring bars, Trika®- stirring bars, RSE Stirring bar retriever



Magnetic stirrer C-MAG HS 4/C-MAG HS 7/C-MAG HS 10 Ikamag®

With heating. Ceramic hotplate which offers excellent chemical resistance.

- powerful motor for stirring quantities of up to 5L, 10L or 15L (H₂O)
- fixed safety circuit of 550°C
- Hot Top indicator hot surface warning to prevent burns
- exact temperature setting via digital display (LED)
- digital error code display
- elevated control panel for protection against spilled liquids

C-MAG HS 7 and C-MAG HS 10:

Connection acc. to DIN 12878 for attaching a contact thermometer, e.g. ETS-D5; enables precise temperature control.

Specifications Magnetic stirrer

 Stirring quantity (H₂O)

 C-MAG HS 4:
 5L

 C-MAG HS 7:
 10L

 C-MAG HS 10:
 15L

 Motor rating input/output:
 15/1.5W

 Speed range:
 100 to 1500rpm

Protection class according to DIN EN 60529: IP21 Speed display: scale

Max. magnetic bar (L x dia.)

C-MAG HS 4: 30 x 8mm C-MAG HS 7/HS 10: 80 x 10mm

Heating function

Temperature display: digital Heat output digital

C-MAG HS 4: 250W C-MAG HS 7: 1000W C-MAG HS 10: 1500W

Fixed safety circuit: Control accuracy with sensor

C-MAG HS 4:

C-MAG HS 7/HS 10: ETS-D5/±0.5K

Top plate

Material: glass ceramic

Dimensions

C-MAG HS 4: 100 x 100mm
C-MAG HS 7: 180 x 180mm
C-MAG HS 10: 260 x 260mm







Туре	Dimensions (W x D x H)	Weight	PK Cat. No.
	mm	kg	
C-MAG HS 4	150 x 260 x 105	3	1 9.720 490
C-MAG HS 4 UK	150 x 260 x 105	3	1 4.008 087
C-MAG HS 7	220 x 330 x 105	5	1 9.720 491 2
C-MAG HS 7 UK	220 x 330 x 105	5	1 4.008 090
C-MAG HS 10	300 x 415 x 105	6	1 9.720 492
C-MAG HS 10 UK	300 x 415 x 105	6	1 4.008 093

Optional accessories: Ikaflon®- stirring bars, Trika®- stirring bars, RS 1 Stirring bar set, RSE Stirring bar retriever, H 16 V Support rod, HS 7 and HS 10 additionally: Electronical thermometer ETS-DS

4 Magnetic stirrer C-MAG HS 7 Package

C-MAG HS 7 Package includes:

Magnetic stirrer/hotplate C-MAG HS 7, ETS-D5 Electronic contact thermometer, H 38 Holding rod, H 16 V Support rod and H 44 Bosshead.

Туре	PK	Cat. No.
C-MAG HS 7 Package	1	6.235 183



ΙΚΑ

550°C

Magnetic stirrers / hotplates/with heating



Magnetic stirrer/hotplate, RCT basic safety control IKAMAG®

With heating. The new improved version with novel technology for high performance:

- safety magnetic stirrer with heating, suitable for unsupervised operation
- integral temperature control
- Pt1000 temperature sensor (PT1000.60) included
- 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 for hotplate temperature (50 to 360°C)
- DIN 12878 connection for a contact thermometer, e.g. ETS-D5, enabling precise temperature control
- enhanced safety thanks to improved heat control technology
- enclosed housing (IP42) guarantees long service life
- highly polished aluminium hotplate for optimum heat transfer
- strong magnetic coupling
- supplied with housing protection cover H100 and PT1000.60 temperature probe

Specifications

Magnetic stirrer:

20L Stirring quantity max. per stirring position (H₂O): Motor rating input/output, W: 16/9 digital Speed display: Speed range: 50 to 1500rpm

Heating capacity:

Heat output: 600W Heating rate (1litre H₂O in H15): 6.5 K/min Amb. to 310°C Temperature range: Control accuracy: ±1 K Temperature variance without sensor: ±2 K Adjustable safety area: 50 to 360°C Indication of temperature restricting with digital indication: 50 to 360°C Sensor in medium/ control accuracy: Pt1000/±1 K

Usable plate area:

Plate material: aluminium allov Dimensions: 135 mm dia.

General information:

Dimensions (W x D xH): 160 x 270 x 85mm

Weight: 2.5kg Protection class according to DIN EN 60529: IP42 Supply requirement: 230V 50/60 Hz

Tested to DIN EN IEC 61010-1.

Туре	PK	Cat. No.
RCT basic safety control	1	9.720 240
RCT basic safety control UK	1	6.230 573

Optional accessories: Electronic contact thermometer ETS-D5, Ikaflon®-Stirring bars, Trika®-Stirring bars, RS 1 Set of stirring bars, RSE Stirring bar retriever, Protective hood H 100, PT 1000.60, Quarter System



Accessories please see page 412.

We can supply this manufactorer's whole product range! **KA**®





ETS-D5/±0.5 K (Cat. No. 9.720 241)

IKA

IKA

Magnetic stirrer/hotplates, RET basic C safety control

With heating. The classic, now with a new design, functions and features.

- wide speed range from 50rpm to 1700rpm
- integral temperature control
- Pt1000 temperature sensor (PT 1000.60) included
- 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
- adjustable hotplate temperature (50 to 360°C) safety circuit
- safety magnetic stirrer with heating, suitable for unsupervised operation
- DIN 12878 socket for connecting a contact thermometer, e.g. ETS-D5, enabling precise temperature control
- excellent safety level thanks to improved heat control technology
- enclosed assembly (IP42) guarantees long service life
- very broad temperature range (Amb. to 340°C)
- extremely fast heating times

Tested to DIN EN IEC 61010-1.

- electronic speed control
- strong magnetic coupling
- H100 protection cover supplied and PT1000.60 temperature probe





Specifications

Magnetic stirring:

Volume stirred (water):

Motor rating input/output:

Speed adjustment:

Dial

Speed range:

For to 1

Speed range: 50 to 1700rpm Maximum magnetic stirrer bar (L x dia.): 80 x 10mm

Heating

Heat output: 600W Heating rate (1 | H₂O in H15): 7 K/min Temperature range: Amb. to 340°C 1 ±K Accuracy: Speed control: stepless min 50°C Adjustable safety circuit: max 360°C Connection for ext. temperature sensor: DIN 12 878 PT 1000/ ±1 K Control accuracy with temp. probe: ETS-D $5/\pm0.5~K$

Hotplate material:

Dimensions:

Stainless steel

dia. 135mm

Dimensions (WxDxH):

160 x 270 x 95mm

Weight: 2.5kg Protection system to DIN EN 60529: IP 42

Supply requirements: 230V 50/60Hz

Туре	PK	Cat. No.
RET basic safety control	1	9.720 248
RET basic safety control UK	1	4.008 113

Optional Accessories: Electronic contact thermometer: ETS-D5, IKAFLON®- Stirring bars, TRIKA®-Stirring bars, RS 1 Set of stirring bars, RSE Stirring bar remover, Protection cover H 100, Temperatur sensors: PT 1000.60, PT 1000.70, Synthesis attachements: Reaction block system, Quarter System.



Magnetic stirrers / hotplates/with heating



Magnetic stirrer/hotplates, RET control/t IKAMAG® safety control



IKA

RET control/t IKAMAG® safety control. New safety magnetic stirrer with heating, suitable for unsupervised operation.

- Timer: min. 1 min/max. 9 h 59 min

- Option: 1 sensor for medium temperature (PT 100) or 2 separate temperature sensors for heat transfer fluid and medium (PT 1000) available (automatic identification)
- 2 adjustable safety circuits
- Stirring bar crack detection
- Setting acc. medium temperature: 0.5 K
- HOT warning display indicating any residual heat when unit is switched off
- Easy-to-read backlit LCD display
- Actual medium temperature resolution displayed: 0.5 K (RT to 100°C); 1 K (from 100°C upwards)
- Fuzzy control and microprocessor technology guarantee maximum control accuracy
- PC control via RS 232 interface, with optional safety function
- Software labworldsoft® is available to control and document all measured values via PC
- 3 modes of operation, e.g. stirring and heating functions can be secured against inadvertent changes of set parameters
- Enclosed assembly (IP 42) guarantees long service life
- Incl. protection cover H 99

Specifications

Drive unit:

 $\begin{array}{lll} \text{Stirring quantity (H_2O):} & 20L \\ \text{Motor rating input/output:} & 12/5W \\ \text{Speed display:} & \text{digital} \\ \text{Speed range:} & 0 \text{ to } 1200\text{rpm} \\ \end{array}$

Heating function:

Heat output: 600 W
Heating rate (1 litre H₂O): 7K/min
Temperature range: Amb. +340°C
Setting accuracy (up to 100°C/from 100°C): 0.5/1K
Adjustable safety circuit: 50 to 350°C
Control accuracy with sensor: 0.2K

Heating plate

Material: stainless steel Dimensions: stainless steel 135mm dia.

General data

Dimensions (WxDxH): 160 x 280 x 97mm

Weight: 2.8 kg Protection class acc. to DIN EN 60529: IP42

Supply requirements: 230 V 50/60Hz

Tested to DIN EN IEC 61010-1.

Туре	PK	Cat. No.
RET control/t IKAMAG® safety control	1	6.237 544
Ontional aggregation Magnetic stirring have IVAELONISTRIVAG 25 DC 1 Cot of magnetic stirring have DCE Ctirring have removed		

Optional accessories: Magnetic stirring bars: IKAFLON®TRIKA® 25, RS 1 Set of magnetic stirring bars, RSE Stirring bar remover, Temperature sensors: PT 100.50 , PT 100.51, labworldsoft®, H 16 V Support rod, H 16.1 Extension, H 38 Holding rod, H 44 Boss head clamp, H 11 Mains cable optional with Euro plug, CH plug, UK plug or US plug, Quarter System, Reaction block System

Temperature sensor for RET control/t

IKA

Туре	Description	Immersion depth	PK	Cat. No.
		mm		
PT 100.50	AISI 316 Ti	230	1	9.720 350 2
PT 100.51	Borosilicate glass 3.3	230	1	9.720 351



9.720 350 9.720 351

Magnetic stirrers / hotplates/with heating

Electronic Contact thermometer ETS-D5

3 possible operation modes guarantee optimum adjustment to your application:

Operating mode A: Suitable for work with varying parameters (from -50°C to 450°C).

Adjustable safety temperature

Operating mode B: Suitable for repeated operation under uniform conditions and parameters

Operating mode C: Suitable for unsupervised operation

- with optimised PID control
- reset function
- includes stainless steel sensor probe H 62.51
- for all magnetic stirrers with a DIN 12878 class 2 contact thermometer connection, e.g. IKA®, Heidolph and Corning with adapter AD-C1.



Specifications

Temperature

Measuring range: -50 to 450°C Resolution: $\pm 0.1 K$ Accuracy*: ±0.2K 0.1KControl accuracy: Control accuracy (with sensor) ±0.5K 8 to 16V d.c. Voltage: Current (at 9V) 15 mA

DIN 12878 Class 2 Connection: 0 to 60°C Operating range: Max. R.H.: 80% Protection class: IP54

6-pole, DIN 45322 Connector:

Weight: 0.2kg

Tested to DIN EN IEC 61010-1.

Туре	Dimensions (W x D x H) mm	PK	Cat. No.
ETS-D5	82 x 22 x 83	1	9.720 241

Dimensions without sensor. *Sensor: PT1000 DIN IEC 751 Class A

Accessories for ETS D5 contact thermometer



		INA
Туре	Description	PK Cat. No.
H 44	Bosshead	1 9.232 994
H 16 V	Stainless steel support rod	1 9.720 257
H 62.51	Replacement sensor, stainless steel	1 9.232 998
H 66.51	Stainless steel sensor, glass sleeved	1 9.232 999 4
H 70	Extension cable, 1 metre	1 9.233 000
H 11	Replacement power cable	1 9.720 276
H 38	Holding rod	1 9.232 996



Magnetic stirrers / hotplates/with heating



1 Synthesis attachments for RCT basic, RET basic and RET control

The carrier plate can be fitted with four identical, or differing, aluminium quarter segments,

allowing up to 36 reaction vessels to be processed at the same time. The aluminium quarters guarantee optimal heat transfer throughout the process with no interference to the magnetic field.

This ensures that all the containers are processed at the same temperature and the contents are uniformly mixed.

The different colours used for the various quarters makes them easier to distinguish.

- multiple syntheses with only one magnetic stirrer
- uniform mixing in every vessel
- high-precision thermal conduction directly into the quarters
- same temperature in all vessels
- wide range of applications thanks to interchangeable quarters
- safe and clean working

Туре	Description	PK	Cat. No.
H 135.3	Base plate	1	9.720 269
H 135.313	Quarter 4ml vial	1	9.720 273
H 135.314	Quarter 8ml vial	1	9.720 274
H 135.315	Quarter 16ml vial	1	9.720 275
H 135.310	Quarter 20ml vial	1	9.720 270
H 135.311	Quarter 30ml vial	1	9.720 271
H 135.312	Quarter 40ml vial	1	9.720 272

Overall accessories for IKA magnetic stirrers

IKA

IKA

Туре	Description	For model	PK	Cat. No.
PT 1000.60	Temperature sensor	RCT / RET basic safety control	1	6.229 702
PT 1000.70	Temperature sensor, glass-coated	RCT basic , afety control, RET basic	1	6.231 283
H 99	Protective cover	RET series	1	9.910 322
H 100	Protective cover	RCT basic, RET basic	1	6.226 736
labworldsoft	Software for control and data collection	RET control-visc series	1	9.910 320



Synthesis attachments for RCT basic, RET basic and RET control/t

Reaction Block System

IKA

The reaction block allows syntheses to be carried out in round flasks at temperatures of up to 180°C. This system ensures optimal heat transfer from the heating plate directly into the medium. Uniform mixing is also guaranteed because there is no interference to the magnetic field from the aluminium blocks. The PTFE coating prevents burning and ensures that working with the system is safe. Reaction blocks are available in three standard sizes.

These can be adapted to various flask sizes using the appropriate inserts.

- high-precision thermal conduction directly into the reaction block
- PTFE coating protects against burning
- wide range of applications thanks to exchangeable inserts
- safe and clean working

Туре	Description	PK	Cat. No.
H 135.4	Reaction block flasks 100ml	1	9.720 277
H 135.410	Flask insert 10ml	1	9.720 277
H 135.411	Flask insert 25ml	1	9.720 279
H 135.412	Flask insert 50ml	1	9.720 280
H 135.5	Reaction block flasks 500ml	1	9.720 281
H 135.510	Flask insert 200ml	1	9.720 284
H 135.511	Flask insert 250ml	1	9.720 285
H 135.512	Flask insert 300ml	1	9.720 286
H 135.6	Reaction block flasks 1000ml	1	9.720 294
H 135.610	Flask insert 500ml	1	9,720 295

Magnetic stirrer/hotplates, multi-position, RT 5/10/15 power IKAMAG®

With heating. High performance, multi-position magnetic stirrer/hotplates with integral temperature control. Precise temperature distribution on the heating plate makes it possible to perform experiments up to a medium temperature of $+70^{\circ}$ C. Simultaneously operating stirrers.

Absolute consistency over sample conditions for the individual samples.

Specifications

Speed range:0 to 1100rpmDeviation for individual stirring positions:5%Maximum hotplate temperature:120°CMax. capacity per stirring position:0.4LStirring point separation:90mmMotor rating input/output:RT5: 7.2/1.8W

RT10: 14.4/3.6W RT15: 21.6/5.4W Scale (1 to 10)

Speed indication: Scale (1 to 10)
Temperature range (surface): Amb. to 120°C

Max. temperature medium (dep. on vessel):70°CTemperature consistancy in the medium:±2 KProtection class (DIN EN 60529):IP42

Supply requirement: 230V 50/60Hz

Tested to DIN EN IEC 61010-1.

Туре	Dimensions (W x D x H)	Weight Stirring positions	Heating power	PK	Cat. No.
	mm	g	w		
RT 5 power	138 x 552 x 65	3000 5	175	1	9.720 600 1
RT 10 power	198 x 552 x 65	4200 10	375	1	9.720 601 2
RT 15 power	288 x 552 x 65	6000 15	580	1	9.720 602

Optional accessories: IKAFLON®- Stirring bars, TRIKA® stirring bars, RSE Stirring bar remover.





E & OE. 403

ΙΚΑ

Safe Heating and Mixing

The extended heating capacity of **800 W** reduces heat-up times by **35 %** compared to other units at 600 W



Even if the stirrer is exposed to highest temperatures, damage to is categorically ruled out – all models come with a **fire-resistant aluminum die-cast housing**

A separate on/off button for heating **prevents unintentional heat-up** – the button is illuminated for visual control



Magnetic stirring hotplates MR Hei-Standard/Hei-Tec/Hei-End

Safe Heating and Mixing

Heidolph

- Variable speed is adjustable from 30rpm till 1400rpm at an accuracy of ±1% for gentle mixing
- Safety circuits avoid an overheat situation of your hotplate. If the temperature overshoots, heating will be powered off immediately
- The strong magnetic field allows for stirring of even higher viscosity media or stirring a volume of 20L of water with ease
- The hotplate reaches a maximum temperature of 300°C with the 800W heating power in a significantly reduced time

MR Hei-Standard - Model for standard applications without display

- For your protection, an independent safety circuit will switch off heating if hotplate temperature goes above 25°C of set temperature
- Upgrade this magnetic stirrer with the optional digital thermometer, EKT Hei-Con, that provides precise temperature control to give you temperature overshoot protection and reproducible results
- Separate on/off switch for heating prevents an unintentional heat up. When heating is switched on, the on/off button is illuminated for visual control
- Large analog knobs allow for convenient speed setting from 100rpm to 1400rpm at an accuracy of $\pm 2\%$ and temperature setting up to 300°C

MR Hei-Tec - Model for higher requirements and reproducible results

- This units features a digital display and allows for easy setting and monitoring values on the illuminated read out
- For your protection, an independent safety circuit will switch off heating of hotplate temperature goes above 25°C of set temperature
- Digital speed setting from 100rpm to 1400rpm at an accuracy of 2% and temperature setting up to 300°C
- Upgrade this magnetic stirrer with the optional digital thermometer, EKT Hei-Con, that provides precise temperature control to give you temperature overshoot protection and reproducible results
- Separate on/off switch for heating prevents an unintentional heat up. If heating is switched on, the on/off button is illuminated for visual control

MR Hei-End - Model for highest safety

- Separate on/off switch for heating prevents an unintentional heat up. If heating is switched on, the on/off button in illuminated for visual control
- An independent safety circuit switches off heating at an operator pre-programmed temperature value between 10 to 25°C above your set temperature
- Additional operational safety step is required to change parameters which prevents unwanted changes to the actual setting
- Digital display allows for easy setting and monitoring values on the illuminated read out. Speed setting from 30rpm to 1400rpm at an accuracy of 1% and temperature setting up to 300°C
- Hotplate residual heat indicator in the digital display illuminates when unit is turned off and hotplate temperature is above 50°C to prevent accidental operator injury
- To protect your sample from overheating, a safety circuit switches off heating if the temperature sensor is not immersed in your media vessel

Specifications

Speed, max.: 1400rpm
Heating power: 800W
Hot plate temperature: 20 to 300°C
Medium temperature, max.: 250°C
Temperature accuracy: ±1°C

Accuracy temperature setting (with EKT Hei-Con) $\pm 1^{\circ}\text{C}/\pm 0.2^{\circ}\text{C}$ (MR Hei-End)

Stirring capacity, max. (H₂0): 20 litres

Dimensions (WxDxH): 173 x 277 x 94mm

Weight: 2.6kg/2.9kg (MR Hei-Standard)
Protection class (DIN 60529): IP32

Diameter Hotplate: 145mm

1		Kera-Disk
	*	
	9,720,156	

9.720 156



9.720 145



9.720 183

Туре	PK Cat. No.
MR Hei-Standard	1 9.720 156
MR Hei-Standard UK	1 6.229 358
MR Hei-Tec	1 9.720 145 💆
MR Hei-Tec UK	1 6.240 766
MR Hei-End	1 9.720 183 3
MR Hei-End with 2 Lemo-Con	1 9.720 184
MR Hei-End UK	1 9.720 131

Magnetic stirrers / hotplates/with heating



1 Contact thermometer EKT Hei-Con

- For precise temperature control we recommend the optional EKT Hei-Con which is suitable for the MR Hei-Standard and MR Hei-Tec models

Heidolph

- Take advantage of the built-in Fuzzy-Logic controller that ensures a fast heat up while preventing over heating.
- Works efficiently in a very hot environment or under steamy conditions
- Double-spaced digital display for convenient monitoring of the illuminated read out
- By pressing the MAX-button you can see the max. temperature at which the unit for safety reasons will power off
- All heat settings of the hotplate will be indicated on the EKT Hei-Con display
- To make troubleshooting easy, a sensor feature signals if any short-circuit or breakage occurs on the display, to inform operator of disruption
- Equipment automatically switches off heating if the temperature sensor is not in contact with the media or if it is removed from the vessel unintentionally

Accessories:

- Temperature sensors are available in two different options stainless steel or glass coated sensor for improved chemical resistance
- Please order stay bar and temperature sensor holder separately

Specifications

Power supply:

Temperature range: -50 to +300°C Resolution: 1°C Accuracy of measurement: ±1°C Measuring cycle: 1.5 sec Control accuracy: ±0.5°C Pt 1000, V2A Temperature sensor EKT Hei-Con: Temperature sensor EKT Hei-Con G: Pt 1000, glass Sensor length: 210mm Cable length: 700mm Min. immersion depth: 20mm -5 to +60°C Ambient temperature range: Housing: Polyamid Weight: 0.3kg Dimension (L x W x H): 54 x 22 x 126mm Protection (DIN EN 60529): IP 40

Туре	Description	PK	Cat. No.
EKT Hei-Con	stainless steel sensor (V2A)	1	9.720 168
FKT Hai-Con G	alace coated concor	1	9 720 169

8 - 15V

Accessories for Contact Thermometer EKT Hei-Con		
		Heidolph
Description	PK	Cat. No.
Support rod for Contact Thermometer	1	9.730 018
Temperature sensor holder	1	9.730 017



Heidolph

Complete packages Magnetic stirrers

Safe Heating and Mixing

Package MR Hei-Standard

- Magnetic Stirrer MR Hei-Standard
- EKT Hei-Con with temperature sensor
- Support Rod for EKT Hei-Con
- Clamp for temperature sensor

Packages Heat-On

Package MR Hei-Tec Multi-Well

- Magnetic Stirrer MR Hei-Tec
- EKT Hei-Con with temperature sensor
- Support Rod for EKT Hei-Con
- Heat-On Multi-Well system including Multi-Well Holder and the following inserts: 2 x 25ml, 2 x 50ml, 2 x 100ml
- 2 x Retort Clamp, 2 x Boss Head

Package MR Hei-Standard Multi-Well

- Magnetic Stirrer MR Hei-Standard
- EKT Hei-Con with temperature sensor
- Support Rod for EKT Hei-Con
- Heat-On Multi-Well system including Multi-Well Holder and the following inserts: 2 x 25ml, 2 x 50ml, 2 x 100ml
- 2 x Retort Clamp, 2 x Boss Head

Package StarFish

Package MR Hei-End Multi-Workstation

- Magnetic Stirrer MR Hei-End
- Temperature sensor Pt 1000
- Base plate
- MonoBlock for 5 x 250ml Flasks
- 2 x 100ml Flask Insert
- 2 x 50ml Flask Insert
- 1 x 25ml Flask Insert
- 5-way Clamp (Velcro Strap)
- 5-way Clamp (Silicone Strap & Long Handle)
- 2 x Water Manifold
- 1 x Gas/Vacuum Manifold
- 650mm Split Rod





Туре	PK	Cat. No.
MR Hei-Standard package	1	9.720 157
MR Hei-Standard package UK	1	6.240 340
MR Hei-End Multi-Workstation package	1	9.720 159
MR Hei-Standard Multi-Well package	1	9.720 178
MR Hei-Tec Multi-Well package	1	9.720 189

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Heidolph

4. Stirring, Shaking, Mixing

Magnetic stirrers / hotplates/with heating



1 2 Accessories for Magnetic Stirrers - Safe Heating and Mixing

Heat-On Blocks

These attachments are by far the safest, fastest and most efficient method for heating and mixing solutions in round bottom flasks from 10ml to 5L.

Heat-On aligns accurately to every flask insuring maximum surface contact and fast heat transfer. Eliminates the mess from cleaning flasks after removing from an oil bath or hazardous spills when an oil bath slips off a stirring plate. As a result oil as a heat transfer media is made redundant and your lab is a safer place with the Heat-On block system.

- This unique design prevents glass breakage and protects you from spilled chemicals or solvents
- The high temperature range provides unlimited safety for applications up to 260°C
- A unique PFA coating on the aluminum Heat-On body allows for superior chemical resistance and many years of service life
- 150ml of water boils in less than 11 minutes

Multi-Well Holder and Inserts

This unique Multi-Well Holder is designed to hold either one or two inserts for flasks. The inserts are available for 10ml, 25ml, 25ml, 100ml and 150ml flasks. Flask inserts also feature cut-away sides for use with two or three neck flasks and accepts the optional safety lifting handles.

Туре	Description	PK	Cat. No.
Heat-On Multi-Well Basic	1 Multi-Well Holder, 3 inserts	1	9.720 195
Heat-On Multi-Well	1 Multi-Well Holder, 6 inserts	1	9.720 196



Heated magnetic stirrer hotMIX 1 with internal control

NEW!

Price-optimized magnetic stirrer, 100% maintenance-free and wear-free by inductive 2mag magnetic drive 2mag concept for mixing of solutions, speed range from 100rpm up to 1600rpm, jerk-free stirring even at low speeds. SoftStart for reliable catching/centring and safe accelerating of the stirring bar, resistant stainless steel housing for easy and fast cleaning, spill over protection, extremely robust construction. Hot plate made from resistant aluminium alloy, max. heating temperature +200°C, socket for contact thermometer (accessory), warning-LED in case of hot plate, 3 integrated over temperature protection loops against overheating.

Specifications

Operating conditions: -10°C to $+40^{\circ}\text{C}$ at 80% R.H. max.

Casing: Stainless steel

Protection category: IP 20

Type Hot Rotati plate speed	capacity	(W x D x H)				
rpm	ml	mm	W	kg		
hotMIX 1 Aluminium 100 to	1600 1 to 2000	120 x 140 x 80	10	2.0	1	6.238 077
hotMIX 1 PTFE 100 to	1600 1 to 2000	120 x 140 x 80	10	2.0	1	9.646 030



Accessories for heatable magnetic stirrer

NEW

Designed for all hotMIX stirrers. Precise and fast control by Fuzzy-Logic-Technology,

measuring range -50°C up to +300°C, accuracy ±1°C, identification of probe breakdown

and probe short circuit, safety- and control circuit according to DIN 12878 Class 1 and 2,

display background illumination, LED indication for control status, IP 65, approx. 150 g, incl. clamp for support rod.

Туре	PK	Cat. No.
Contact thermometer mixTHERM with Pt1000 sensor	1	9.646 031

4. Stirring, Shaking, Mixing Magnetic stirrers / hotplates/with heating

Heated mixing systems with external control, STIRRING DRYBATH

(NEW!)

2mag

For viscosity control, R&D, combinatorial chemistry, biological applications, elution of plastics. For quality control of nutrients, chemistry and wastewater technologies.

Mixing: maintenance-free, 2mag induction motor, 4-point power setting for efficiency with high viscosity media and reduced power for permanent running without heating samples. Digital display for speed range, power and temperature. Soft-start for precise control of stirring bar.

Heating: PTFE-coated, solid aluminium heating block, resp. heating plate for high chemical resistance, with safety overheat cut-out. Stainless steel housing.

Includes separate control system for stirring and heating. 3 years warranty. Made in Germany.



9.645 952

Specifications

Speed range: 100 to 2000 rpm
Stirring power: 10/20/30/40 W (4-steps)

Max. temperature: +200°C

Туре	Stirring positions	Stirring centre distances	Block hole Dia. x depth		Dimensions (W x D x H)	Weight	PK Cat. No.
		mm	mm	ml	mm	kg	
6* **	6	130		1 - 1500	250 x 430 x 75	15.0	1 6.241 000
15* **	15	65		1 - 1000	250 x 430 x 75	15.0	1 9.646 017
15-100*	15	65	57,5/48	1 - 150	295 x 445 x 110	23.0	1 9.645 952 1
15-250*	15	84	71,5/78	1 - 400	345 x 525 x 140	31.0	1 9.645 953

^{*} with SafeControl.

^{**}Heating plate.

Accessories for heatable mixing systems		NEW!
		2mag
Description	PK	Cat. No.
External temperature sensor Pt100	1	9.646 020
Extension for SafeControl, switchable external sensor, required for external temperature sensor Pt100	1	9.646 021
State aid for the vertical position of the control unit, including mounting material	1	9.646 022
Control unit SafeControl, replacement	1	9.646 023

Laboratory hotplate/stirrer SLR

For stirring, heating and controlling. As well as the ability for rapid and temperature-controlled heating, many applications also require liquids to be stirred.

SI Analytics GmbH

You can use the SLR hotplate/stirrer to provide gentle or vigorous liquid stirring and, if required, gradual heating or cooling. All functions are displayed on the clear LCD panel and can be monitored. The stirrer and heater are individually controlled via manual control knobs. The stirrer can be set from 100rpm to 1100rpm x 10rpm. increments. The average rpm is shown as a bar graph. True running is achieved even at the lower end of the rpm range. Heating can also be adjusted over 24 steps attaining an average of 0.9kW at the top of the range. It is possible to regulate temperatures between 25°C and 200°C with variations of between ± 2 and ± 5 °C using the Pt1000 temperature sensor, depending on the liquid volume, heat capacity and ambient temperature conditions. The display panel informs the user at 5 second intervals of the pre-set desired temperature and the actual temperature. The average thermal energy generated is also shown as a bar graph.



Туре	Zones	Heated zone	Surface	Rating	Stirrer	Dimensions (W x D x H)	PK	Cat. No.
		mm	mm	W		mm		
SLR	1	155 dia.	235 x 235	900	integral	240 x 370 x 85	1	9.720 130

Stuart

Stuart

4. Stirring, Shaking, Mixing

Magnetic stirrers / hotplates/with heating



1 2 Magnetic Stirrer/Hotplate, CB162

Maximum speed 1500rpm, volume stirred 15L and maximum temperature 450°C. With glass ceramic top plate 160mm x 160mm, microprocessor controlled heating with separate safety circuit to prevent overheating, variable speed control with off position, stirrer 'on' and heater 'on' warning lamps.

With facility for mounting a 12.5mm diameter retort rod at rear of the case.

Overall (WxDxH) 190mm x 300mm x 110mm.

Weight 3.4 kg. For 90-250V 50/60Hz single phase supplies. Hotplate rating 550W.

With BioCote, silver-based, antimicrobial protection.

Туре	PK	Cat. No.
CB162	1	9.950 419



9.645 333

Stirrer hotplates, CB302 and SB302

- choice of robust aluminium or chemically resistant, ceramic top plate
- flashing "Hot" warning light to warn when top plate is too hot to touch
- independent safety circuit to protect against overheating
- Powerful stirring action up to 1500rpm and volumes of up to 15L
- ideal for handling large vessels
- fitting for retort rod and supplied complete with 2mm x 25mm PTFE coated stir bars.

Model CB302 has a glass ceramic top that has excellent chemical and temperature resistance. The chemical properties make the surface very easy to keep clean and the thermal properties allow very high plate temperatures while ensuring the edges stay cooler, reducing the chance of accidental burns.

Model SB302 has a robust aluminium/silicon alloy top plate. The very good heat transmission of this material gives rapid heating and ensures even temperature distribution across the whole of the plate.

With BioCote, silver based, antimicrobial protection.



Specifications

Plate dimensions: Heated area: Heater Power: Stirrer speed range: Overall dimensions (WxDxH):

Weight:

Supply requirements: Maximum stirring capacity: Max. plate temperature:

CB302/SB302

300 x 300mm

200 x 200mm/300 x 300mm

1200W/600W 100 to 1500rpm 300 x 365 x 105mm

7kg 230V, 50Hz

450°C/300°C

Туре	Description	PK Cat. No.
CB302	Ceramic plate, 1200W	1 9.645 333
SB302	Aluminium plate, 600W	1 9.645 334
SR1	Retort Rod 600 x 12.5mm	1 9.645 335

We can **SUPPly** this manufactorer's whole product range! Stuart



Magnetic stirrers / hotplates/with heating- hotplates/Accessories

Magnetic stirrer/ hotplate SB162

Maximum speed 1500rpm, volume stirred 15L, and temperature 325°C.

Cast aluminium/silicon alloy hotplate 160mm x 160mm, accommodating beakers up to 15L capacity.

With microprocessor speed and temperature control with separate safety circuit, arbitrary scaled dial setting, stirrer 'on' and heater 'on' warning indicators and facility for mounting a 12.5mm retort rod at the rear of the case.

Overall 190mm x 300mm x 112mm WxDxH. Hotplate rating 750W.

With BioCote, silver-based, antimicrobial protection.

Туре	PK	Cat. No.
SB162	1	9.950 416





Stuart

(NEW!)

Magnetic stirrer/hotplate, 3-Position, SB162-3

Maximum speed 1500rpm and maximum temperature 325°C.

With 3 independently adjustable aluminium hotplates 160mm x 160 mm,
overheat protection mechanism and warning light which switches on when the plate temperature exceeds 50°C.
With facility for mounting a 12.5mm retort rod at the rear of each plate and 3mm x 25mm PTFE coated followers.
Overall (WxDxH) 600mm x 270mm x 110mm. Weight 11kg. For 230V 50/60 Hz single phase supplies.
Hotplate 2250W. With BioCote, silver-based, antimicrobial protection.





5 LLG-Magnetic stirring bars, cylindrical, PTFE

Suitable for many applications. Further sizes available on request.

Length	Dia.	PK	Cat. No.
mm	mm		
12	3	10	9.198 766
10	6	10	9.198 910
20	6	10	9.198 920
25	6	10	9.198 925
30	6	10	9.198 930
40	8	10	9.198 940
45	8	10	9.198 945
50	8	10	9.198 950
25	8	10	9.198 767





Magnetic stirrers / hotplates/Accessories



Magnetic stirring bars, cylindrical, PTFE

Encapsulated in PTFE. Cylindrical. Round, smooth surface. Versatile. Further sizes available on request.

BRAND

Length	Dia.	PK	Cat. No.
mm	mm		
2.5	2.5	1	9.197 502
3.5	3.5	1	9.197 505
5.0	2.0	1	9.197 503
6.0	3.0	1	9.197 506
7.0	2.0	1	9.197 504
8.0	3.0	1	9.197 509
10.0	3.0	1	9.197 507
10.0	6.0	1	9.197 510
12.0	4.5	1	9.197 512
13.0	3.0	1	9.197 508
15.0	6.0	1	9.197 515
15.0	4.5	1	9.197 514
20.0	6.0	1	9.197 520
25.0	6.0	1	9.197 525
30.0	6.0	1	9.197 530
35.0	6.0	1	9.197 535
40.0	8.0	1	9.197 540
45.0	8.0	1	9.197 545
50.0	8.0	1	9.197 550
60.0	9.0	1	9.197 560
70.0	9.0	1	9.197 570
80.0	9.0	1	9.197 580



Magnetic stirring bars Ikaflon®, cylindrical, PTFE

Round profil	e, PTFE coated.		IKA
Length	Dia.	PK	Cat. No.
mm	mm		
10	6	1	9.197 646
15	6	1	9.197 647
20	8	1	9.197 648
25	8	1	9.197 649
25 30	8	1	9.197 650
40	8	1	9.197 651
50	8	1	9.197 653
80	10	1	9.197 656
110	27	1	9.197 661



Magnetic stirring bars, triangular, PTFE

Triangular. Wedge-shaped, ideal for dissolving solids and re-suspending sediments due to scraping action. Angular surface produces high turbulence, even at low stirring speeds.

NEW! BRAND

9.197 657

Length	Dia.	PK	Cat. No.
mm	mm		
12	6	1	7.019 669
20	8	1	7.019 670
25	8	1	9.197 652
25	14	1	7.019 672
35	10	1	7.019 673
40	14	1	9.197 654
50	12	1	7.019 675
55	14	1	9.197 655
80	14	1	9.197 658



4 Magnetic stirring bars, Trika®, triangular, PTFE

 $\label{thm:control_profile} \mbox{Triangular profile, PTFE coated, for liquid suspensions.}$

IKA

Length	PK	Cat. No.
mm		
25	1	9.197 659
40	1	9.197 660

Magnetic stirrers / hotplates/Accessories

Magnetic stirring bar Asteroid 40, triangular, PTFE

(NEW)

More than 4x higher torque transmissible. Unbeatably enhanced mixing effect in 2mag comparison to conventional stirring bars. Strong, stable, long-lasting magnetic field, with no demagnetization effect. Concave design for minimal surface contact and reliable rotation, triangular shape for powerful shear force and enhanced mixing at lower rotational speeds. 300% less PTFE abrasion than comparable round shape stirring bars, significantly higher rotation speeds achievable, high quality, even and sealed PTFE encapsulation. Conform to FDA requirements, steam sterilisable at 121°C. Multiple enhancements against all types of magnetic stirrers.



Length	Dia.	Weight	PK	Cat. No.
mm	mm	kg		
40	28	0.06	1	9.646 040

Magnetic stirring bar set, RS 1

Comprises of one each of a plain and a cylindrical Ikaflon®stirring bar, 10mm to 80mm long and 25mm and 40mm long Trika® triangular bars.

IKA

Туре	PK	Cat. No.
Set-RS 1	1	9.197 686



Magnetic stirring bars, dumbbell, PTFE

Plastibrand®. PTFE. Dumbbell-shaped. Excellent centring, low surface contact and high turbulence even at low stirring speeds, ends 20mm diameter. Stem diameter 8mm.

(NEW! BRAND

Length	PK	Cat. No.
mm		
37	1	9.197 643
55	1	9.197 645



Magnetic stirring bars, oval, PTFE

Encapsulated in PTFE. Oval. Ideal for round bottom flasks.

BOLA

(NEW)

Length	Dia.	PK	Cat. No.
mm	mm		
20	10	1	9.197 590
25	12	1	9.197 591
30	15	1	9.197 592
35	15	1	9.197 593
40	20	1	9.197 594
50	20	1	9.197 595
65	20	1	9.197 596
70	20	1	9.197 597



LLG-Magnetic stirring bars, PTFE, spherical

For test tubes or vigorous, eccentric stirring.

Dia.	PK	Cat. No.
mm		
12	10	9.198 912



Magnetic stirring bars, spherical, PTFE

For test tubes or vigorous, eccentric stirring.

Dia.	PK	Cat. No.
mm		
12	1	9.197 599



Magnetic stirrers / hotplates/Accessories



Magnetic stirring bars STARHEAD®, Type DS6600, PTFE

Type DS6600. PTFE-coated Alnico-V-Magnet. Symmetrical stirring fins above and below generate a strong vortex action, even at low speeds. For flat or round bottom containers. Resistant to chemicals and temperatures up to $\pm 260^{\circ}$ C. Autoclavable.

Nalgene

BOLA

(NEW

Dia.	Height	Туре	PK	Cat. No.
mm	mm			
10	8	DS6600	1	9.198 211
14	12	DS6600	1	9.198 212
17	13	DS6600	1	9.198 213
22 30	15	DS6600	1	9.198 214
30	12	DS6600	1	9.198 215
35	12	DS6600	1	9.198 216
40	14	DS6600	1	9.198 217
58	15	DS6600	1	9.198 218



Magnetic Stirring Beakerliner, PTFE

PTFE-encapsulated magnetic core (Alnico 5) axially mounted in a guide cage made of PTFE, universal chemical resistance. No shear action on the bottom of the beaker, smooth running in glass beakers also on an uneven bottom.

The cage acts like a baffel and thus provides optimum mixing results.

Beaker capacity	Ext. diam.	Height	Length	Dia.	PK	Cat. No.
ml	mm	mm	mm	mm		
250, 400	67	21	50.0	8.0	1	9.197 585
600, 800, 1000	74	29	60.0	9.0	1	9.197 586
2000	103	32	80.0	10.0	1	9.197 587
3000, 5000	125	48	106.0	25.0	1	9.197 588



LLG-Magnetic Stirring Bar Retrievers, PTFE

Magnetic bar retriever is an essential tool to pick up the magnetic bars. It has a powerful magnet sealed in one end and a long stem of total 300mm length.

Length	Dia.	PK	Cat. No.
mm	mm		
300	8	1	4.008 501



4 Magnetic Stirring Bar Retrievers, PTFE

PTFE-encapsulated stirring bar retriever with strong permanent magnet (Alnico 5), universal chemical resistance. For the removal of stirring bars from aggressive liquids, prevents loss of stirring bars. Lower end diameter 10mm.

Length	Dia.	PK	Cat. No.
mm	mm		
150	8	1	9.197 717
250	8	1	9.197 725
300	8	1	6.078 872



Magnetic Stirring Bar Retrievers, PE

PE. With fully encapsulated magnet at one end and a retaining ring at the other.

VITLAB

(NEW!)

BOLA

Length	PK	Cat. No.
mm		
300	1	9.197 740
450	1	9.197 742