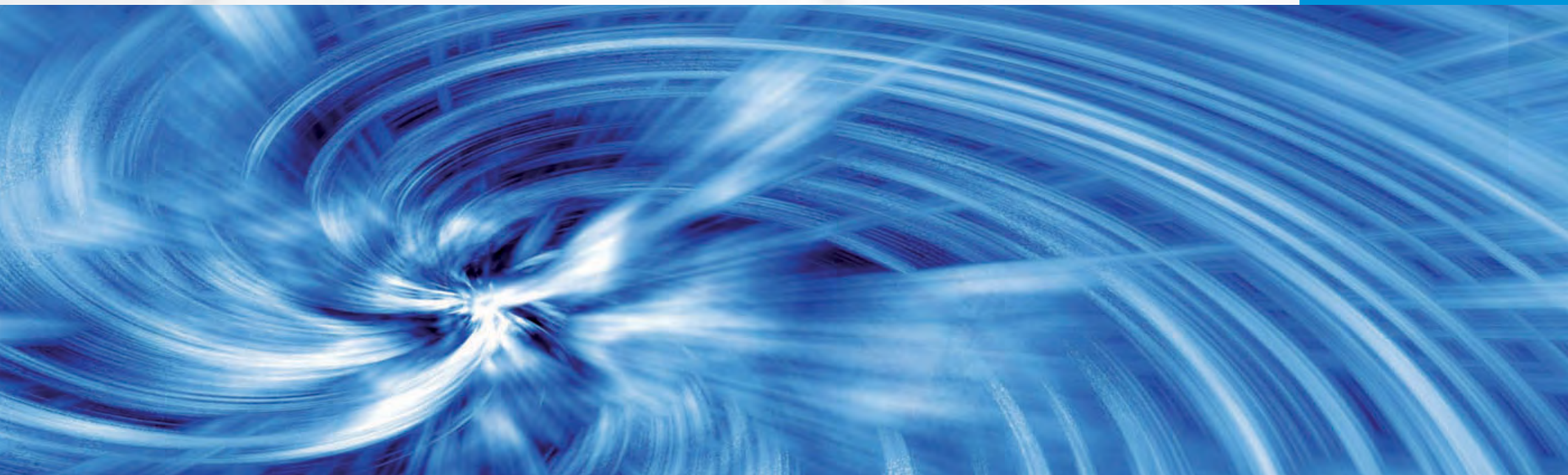




## MAGNETIC STIRRERS 2011

*magnetic<sup>e</sup> motion*





## emotion for motion

**2mag**  
*magnetic<sup>e</sup> motion*

- ⌘ Customer-oriented
- ⌘ Short communication ways – competent team
- ⌘ Direct access to experienced contact persons
- ⌘ Fast reactions
- ⌘ Innovative products
- ⌘ Well-proven concepts
- ⌘ Experience in the development and construction of inductive drive concepts as well as tempered systems for many years

The main importance of our passion lies upon our customers and our products!

[www.2mag.de](http://www.2mag.de)

What is the effect of a magnetic **north pole** without a **south pole**?  
What is the effect of an electric **+ pole** without a **- pole**?  
What is the effect of **techniques** without **competence**?  
What is the effect of a **product** without **passion**?  
What is the effect of a **supplier** without a **customer**?

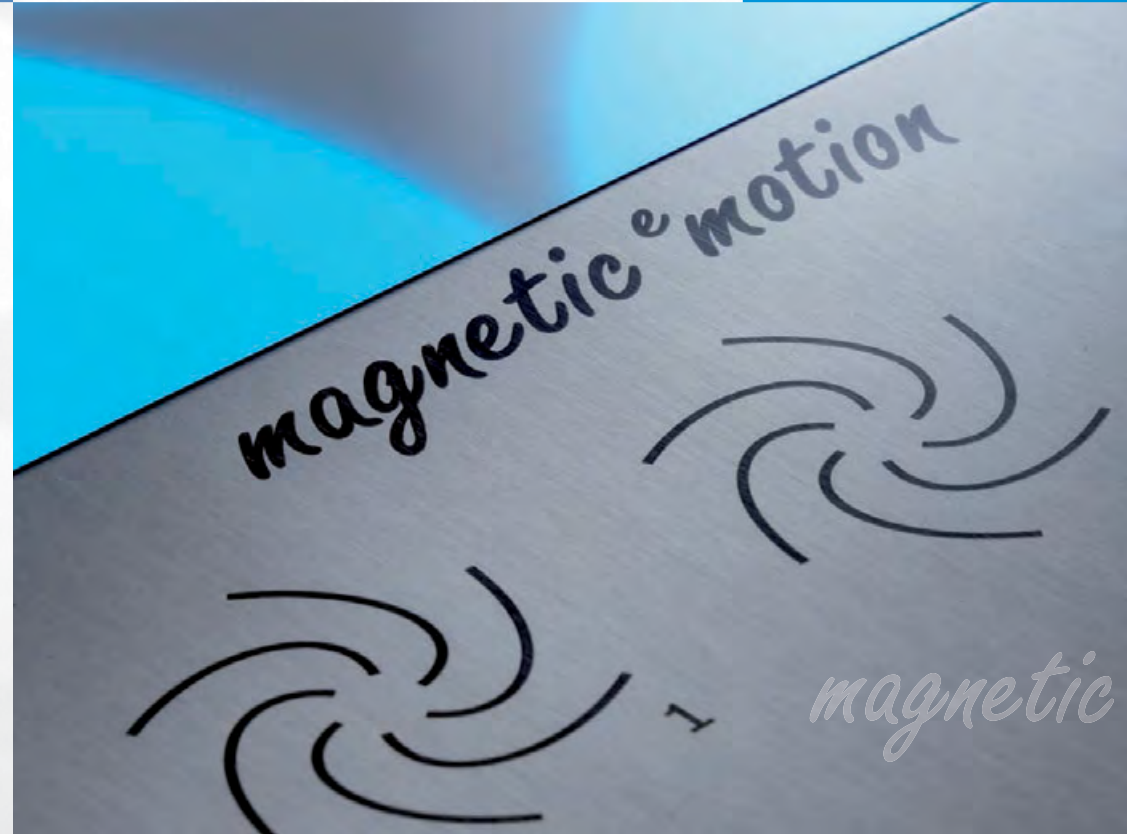
According to experience, always 2 are needed to achieve a successful dialogue and interaction. The main focus of our action and business philosophy are our customers and their needs and requirements.

2mag is providing you more than 30 years of competence in the conception, development, production and sales of magnetic and inductive drive concepts, as e.g. magnetic stirrers. This experience paired with a great passion and emotion for our customers – and our products – enables the fast and economic creation of solutions precisely for your needs.

„Customizing“, the manufacturing of special made products, is our business, our competence and our passion! Individual requests will result in individual – and even more important – also economically realizable solutions.

Ask us – test us – we are there for you!

*magnetic<sup>e</sup> motion*



*magnetic*

*e*motion

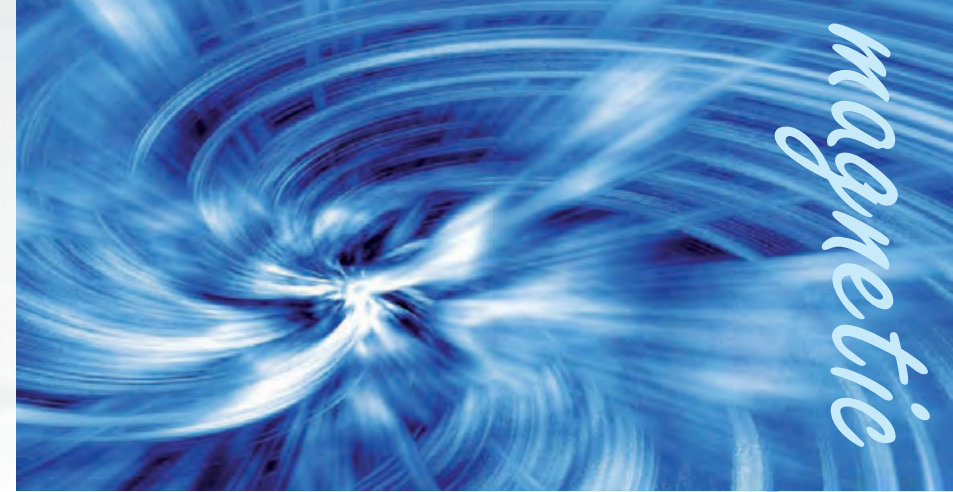
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## WELL-PROVEN CONCEPTS - INNOVATIVE PRODUCTS

- ⌚ 100% wear-free
- ⌚ No maintenance
- ⌚ 30% more stirring power than comparable systems
- ⌚ Super-flat, space-saving stirring drives – ideal for robotics
- ⌚ Synchronous speed at all stirring positions
- ⌚ Heat resistance up to +300 °C (on request)
- ⌚ Made for permanent operation
- ⌚ 3 years warranty on material and manufacturing defects
- ⌚ Individual configurations fast and economic realizable
- ⌚ More than 30 years experience with inductive and magnetic drive concepts

2mag  
*magnetic<sup>e</sup> motion*



*magnetic<sup>e</sup> motion*



*e*

## INDUCTIVE DRIVE - MAINTENANCE- AND WEAR-FREE

Our magnetic drives are working on the inductive principle. This means that instead of conventionally problematic motors with pull magnets, 2mag is working with stationary coils, which are defined flown through by alternating currents. The thereby generated electromagnetic rotating field is 100% wear- and maintenance-free.

The drive does not have any mechanically moved parts, as e.g. belts, bearings or motors. Therefore, the drives are reliable and absolutely wear-free even at high operation temperatures (up to +300 °C).

*magnetic*

Single stirring point	Multiple stirring points
up to 3 litres stirring volume, without motor	
MIX 1 eco	
accuMIX	
⌘ cuvetteMIXdrive 1	
⌘ MIXdrive 1 XS	
⌘ MIXdrive 1 eco	
⌘ MIXdrive 1 eco HT	
	MIX 15 eco
up to 10 litres stirring volume, without motor	
MIX 1	
	MIX 4 MS
	MIX 6
	MIX 15
⌘ MIXdrive 1	
⌘ MIXdrive 1 HT	
⌘ atexMIXdrive 1	
	⌘ MIXdrive 6
	⌘ MIXdrive 6 HT
	⌘ MIXdrive 15
	⌘ MIXdrive 15 HT
	⌘ MIXdrive 60
	⌘ MIXdrive 60 HT
up to 1,000 litres stirring volume, strong	
MIX 1 XL	
maxMIX	
⌘ MAXdrive	
⌘ FABdrive	
⌘ steriMIXdrive	
⌘ atexMIXdrive	
for cell cultures, warming-free	
bioMIX 1	
⌘ bioMIXdrive 1	
	⌘ bioMIXdrive 2
	⌘ bioMIXdrive 3
	⌘ bioMIXdrive 4
heated stirring systems	
hotMIX 1	
	⌘ STIRRING DRYBATH 15-100
	⌘ STIRRING DRYBATH 15-250
	⌘ STIRRING HOTPLATE 6
	⌘ STIRRING HOTPLATE 15
⌘ with external control unit (stirrer submersible - Not heated systems)	

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*motion*

## MULTIPLE STIRRERS

Designed for reliable mass screenings as well as chemical, biotechnical and medical applications of all kinds, developed for the hard daily lab use and uncompromising continuous operation.

### 2mag MIX 15

**Ultra-flat magnetic stirrer with 15 stirring positions, up to 3,000 ml stirring volume, suitable for 15 x 250 ml beaker glasses.**

Powerful 15 stirring positions, 100% maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept, extremely wide speed range of 100 to 2,000 rpm, 100% synchronized speed, jerk-free stirring even at low speeds, 4-step power settings of the stirrer, high power setting for viscous liquids and reduced power setting for long-term operation without any heating effects caused by the stirrer.

Clear digital display for settings of stirrer speed and power, SoftStart procedure for reliable catching/centering and safe acceleration of the stirring bar, QuickSet for quick setting of start- and maximum speed, automatic memory function to save the last settings, outstanding long-life cycle of the hermetically sealed drive system, resistant stainless steel housing for easy and fast cleaning.

3 years warranty on material and manufacturing, developed and made in Germany.

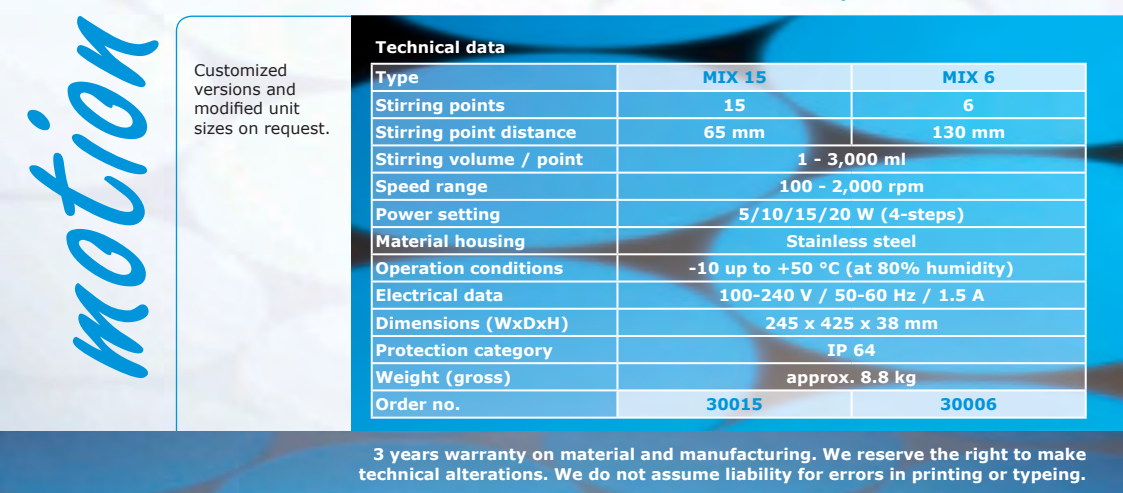


- ⌘ New developed, maintenance- and wear-free magnetic stirrer
- ⌘ For different vessel sizes
- ⌘ Outstanding long-life quality
- ⌘ 3 years warranty

### 2mag MIX 6

Identical to MIX 15, but with 6 stirring positions and suitable for 6 x 1,000 ml Erlenmeyer flasks, stirring positions distance 130 mm.

*magnetic<sup>e</sup> motion*



Customized versions and modified unit sizes on request.

#### Technical data

Type	MIX 15	MIX 6
Stirring points	15	6
Stirring point distance	65 mm	130 mm
Stirring volume / point	1 - 3,000 ml	
Speed range	100 - 2,000 rpm	
Power setting	5/10/15/20 W (4-steps)	
Material housing	Stainless steel	
Operation conditions	-10 up to +50 °C (at 80% humidity)	
Electrical data	100-240 V / 50-60 Hz / 1.5 A	
Dimensions (WxDxH)	245 x 425 x 38 mm	
Protection category	IP 64	
Weight (gross)	approx. 8.8 kg	
Order no.	30015	30006

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.

magnetic



## MULTIPLE STIRRERS

Designed for reliable mass screenings as well as chemical, biotechnical and medical applications.

### 2mag MIX 15 eco

**Ultra flat, wear-free magnetic stirrer with 15 stirring positions up to 1,500 ml stirring volume, suitable for 15 x 250 ml beaker glasses.**

Price-optimized magnetic stirrer with 15 stirring positions, 100% maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept for powerful mixing of solutions, speed range from 120 up to 1,200 rpm, 100% synchronized speeds, jerk-free stirring even at low speeds.

Clear digital display for stirrer speed setting, SoftStart procedure for reliable catching/centering and safe acceleration of the stirring bar. Automatic memory function to save the last settings, outstanding long-life cycle of the hermetically sealed drive system, resistant stainless steel housing for easy and fast cleaning.

3 years warranty on material and manufacturing, developed and made in Germany.

- Price-optimized, maintenance- and wear-free stirrer
- For different vessel sizes
- 3 years warranty



#### Technical data

Type	MIX 15 eco
Stirring points	15
Stirring point distance	65 mm
Stirring volume / point	1 - 1,500 ml
Speed range	120 - 1,200 rpm
Stirring power	10 W
Material housing	Stainless steel
Operation conditions	-10 up to +50 °C (at 80% humidity)
Electrical data	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH)	245 x 425 x 38 mm
Protection category	IP 64
Weight (gross)	approx. 8.8 kg
Order no.	30115

Customized versions and modified unit sizes on request.

magnetic<sup>e</sup> motion



motion

## MULTIPLE STIRRERS

Designed for reliable mass screenings as well as chemical, biotechnical and medical applications of all kinds, developed for the hard daily lab use and uncompromising continuous operation.

### 2mag MIX 4 MS

**Ultra-flat magnetic stirrer with 4 individually controlled stirring positions, up to 3,000 ml stirring volume, suitable for 4 x 2,000 ml Erlenmeyer flasks.**

4 powerful stirring positions, 100% maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept, individual and independent speed setting for each stirring drive (Master-Slave-Technology), also ON-/OFF function, synchronous speed mode for all positions, extremely wide speed range of 100 to 2,000 rpm, jerk-free stirring even at low speeds.

Clear digital display for settings of stirrer speeds, SoftStart procedure for reliable catching/centering and safe acceleration of the stirring bar, automatic memory function to save the last settings, outstanding long-life cycle of the hermetically sealed drive system, resistant stainless steel housing for easy and fast cleaning.

- Space saving
- Wear- and maintenance-free
- Individual speed setting
- Outstanding long-life quality
- 3 years warranty



*e*

*motion*



*magnetic*

3 years warranty on material and manufacturing, developed and made in Germany.

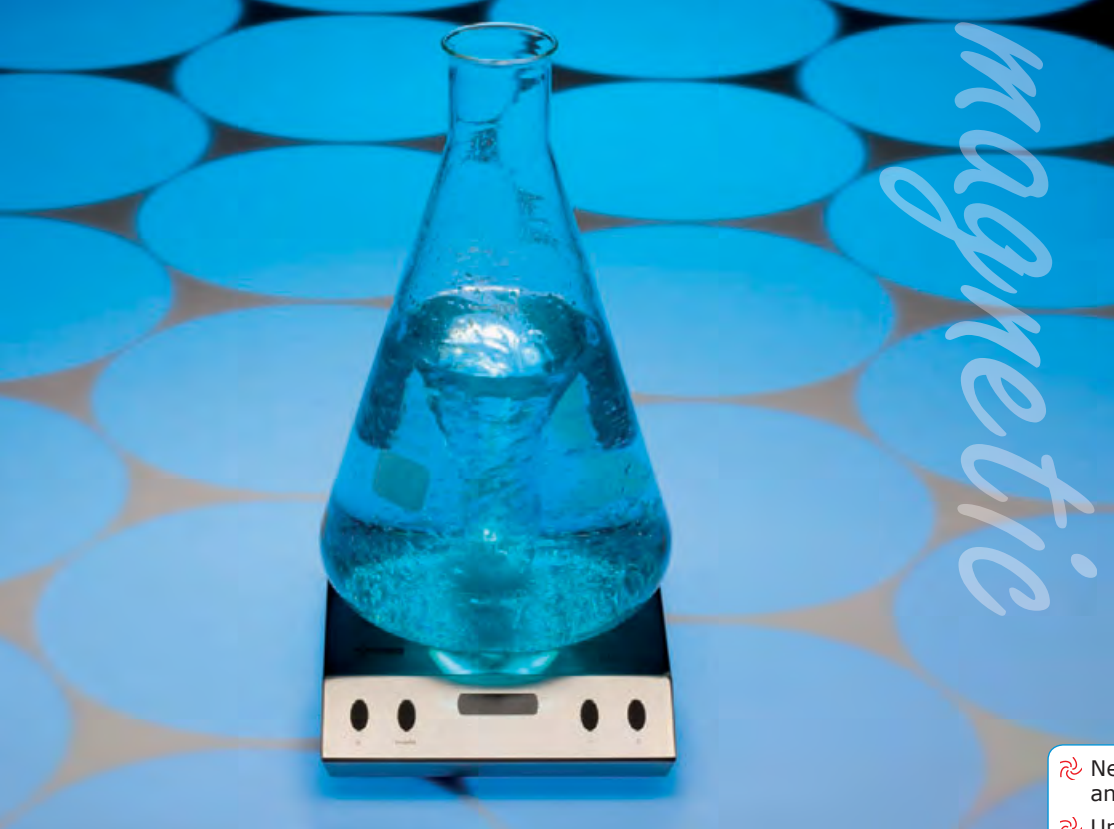
*magnetic<sup>e</sup> motion*

Customized versions and modified unit sizes on request.

#### Technical data

Type	MIX 4 MS
Stirring points	4
Stirring point distance	140 mm
Stirring volume / point	1 - 3,000 ml
Speed range	100 - 2,000 rpm
Stirring power	28 W (4 x 7 W)
Material housing	Stainless steel
Operation conditions	-10 up to +50 °C (at 80% humidity)
Electrical data	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH)	245 x 425 x 38 mm
Protection category	IP 64
Weight (gross)	approx. 8.9 kg
Order no.	30404

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.



## SINGLE POINT STIRRERS

Designed for chemical, biotechnical and medical applications of all kinds, developed for the hard daily lab use and uncompromising continuous operation.

### 2mag MIX 1

**Ultra flat, wear-free magnetic stirrer with 1 large stirring position, up to 10,000 ml stirring volume, also suitable for viscous media.**

100% maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept for powerful mixing of solutions, extremely wide speed range from 100 to 2,000 rpm, jerk-free stirring even at low speeds, 4-step power settings for high power with regard to large and viscous stirring volumes and reduced power for the warming-free continuous operation.

Clear digital display for speed- and power settings, SoftStart procedure for reliable catching/centring and safe accelerating of the stirring bar.

*magnetic<sup>e</sup>motion*

QuickSet for quick setting of start- and maximum speed, automatic memory function to save the last settings, outstanding long-life cycle of the hermetically sealed drive system, resistant stainless steel housing for easy and fast cleaning.

3 years warranty on material and manufacturing, developed and made in Germany.

- 🌀 New developed, maintenance and wear-free magnetic stirrer
- 🌀 Up to 10 litres or for viscous media
- 🌀 Outstanding long-life quality
- 🌀 3 years warranty

#### Technical data

Type	MIX 1
Stirring points	1
Stirring volume / point	1 - 10,000 ml
Speed range	100 - 2,000 rpm
Power setting	5/10/15/20 W (4-steps)
Material housing	Stainless steel
Operation conditions	-10 up to +50 °C (at 80% humidity)
Electrical data	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH)	180 x 230 x 38 mm
Protection category	IP 64
Weight (gross)	approx. 4.0 kg
Order no.	30001

Customized versions and modified unit sizes on request.

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typeing.

*motion*



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magnetic



## SINGLE POINT STIRRERS

Designed for chemical, biotechnical and medical applications of all kinds, developed for the daily lab use and continuous operation.

### 2mag MIX 1 eco

**Ultra flat, wear-free magnetic stirrer with 1 stirring position, up to 3,000 ml stirring volume, also suitable for the operation with aggressive media.**

Price-optimized magnetic stirrer, 100% maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept for mixing of solutions, speed range from 120 up to 1,400 rpm, jerk-free stirring even at low speeds.

SoftStart for reliable catching/centring and safe accelerating of the stirring bar, fully encapsulated stainless steel housing, extremely robust construction.

3 years warranty on material and manufacturing, developed and made in Germany.

magnetic<sup>e</sup> motion

#### Technical data

Type	MIX 1 eco
Stirring points	1
Stirring volume / point	1 - 3,000 ml
Speed range	120 - 1,400 rpm
Stirring power	10 W
Material housing	Stainless steel
Operation conditions	-10 up to +50 °C (at 80% humidity)
Electrical data	100-240 V / 50-60 Hz / 0.7 A
Dimensions (WxDxH)	120 x 120 x 35 mm
Protection category	IP 64
Weight (gross)	approx. 1.7 kg
Order no.	30101

Customized versions and modified unit sizes on request.

- Price-optimized, maintenance- and wear-free magnetic stirrer
- Up to 3,000 ml stirring volume
- 3 years warranty



motion

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3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typeing.

## SINGLE POINT STIRRERS FOR BATTERY OPERATION

Designed for the mobile and mains-independent operation, ideal for chemical, biotechnical and medical applications, en route and far away from laboratory and infrastructure.

### 2mag accuMIX

**Ultra flat, wear-free magnetic stirrer with 1 stirring position, up to 3,000 ml stirring, volume, robust and firm construction for rechargeable battery- and mains operation.**

Mobile magnetic stirrer, 100% maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept for mixing of solutions, speed range from 120 up to 1,600 rpm, 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 12 V adapter cable for the operation at car sockets respectively cigarette lighter. SoftStart for reliable catching/centring and safe accelerating of stirring bar, stainless steel housing, very robust construction.

3 years warranty on material and manufacturing (except for batteries), developed and made in Germany.



- Battery operation
- Mobile use
- Up to 3,000 ml
- Robust and durable

motion



#### Included in delivery:

2mag magnetic stirrer accuMIX, power supply unit, 12 V car adapter cable, battery charger, 8 x rechargeable batteries (AA/Mignon, 2,700 mAh).

Customized versions and modified unit sizes on request.

#### Technical data

Type	accuMIX
Stirring points	1
Stirring volume / point	1 - 3,000 ml
Speed range	100 - 1,600 rpm
Stirring power (max.)	2 or 10 W (switchable)
Material housing	Stainless steel
Operation conditions	-10 up to +50 °C (at 80% humidity)
Electrical data	100-240 V / 50-60 Hz / 1.7 A
Dimensions (WxDxH)	215 x 130 x 40 mm
Protection category	IP 30
Weight (gross)	approx. 2.5 kg
Order no.	30401

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.

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## SINGLE POINT STIRRER FOR HIGHLY VISCOUS MEDIA AND LARGE VOLUMES

Designed for chemical and biotechnical applications of all kinds as e.g. within the field of quality insurance and pilot plant stations, developed for high demands, unbeaten strong as well as uncompromising continuous operation.

### 2mag maxMIX

**Unbeaten strong magnetic stirrer with large set-up area, up to 150 litres stirring volume, also suitable for highly viscous media, very strong magnetic coupling, therefore predestined for magnetic power transmission over wide distances (up to 60 mm), for thick vessel bottoms or for double-coat vessels.**

Maintenance-free 2mag-motor-drive with large speed range from 100 up to 1,200 rpm, fully encapsulated and tight stainless steel housing, IP65, extremely robust construction and performance, easy to clean under running water and firm, individual measurements on request.

Integrated control unit with strong 40 watts stirring power, large speed range from 100 up to 1,200 rpm, SoftStart-function (variable 10-60 seconds) for reliable catching/centring and safe accelerating of the stirring bar at different volumes and viscosities.

- ⌚ Up to 150 litres stirring volume
- ⌚ Compact dimensions
- ⌚ Ideal for viscous media
- ⌚ 3 years warranty

Digital display for speed- and SoftStart-setting, QuickSet for quick setting of the start-and maximum speed, QuickStop-function against after-run and glass breakage, storage of last function status when turning off, firm stainless steel housing, easy to clean.

3 years warranty on material and manufacturing, developed and made in Germany.

#### Technical data

Type	maxMIX
Stirring points	1
Stirring volume / point	1 - 150 litres
Stirring power (max.)	40 W
Softstart	variable 10-60 seconds
Material housing	Stainless steel
Operation conditions	-10 up to +50 °C (at 100% humidity)
Electrical data	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH)	265 x 320 x 68 mm
Protection category	IP 64
Weight (gross)	approx. 9.3 kg
Order no.	30501

Customized versions and modified unit sizes on request.

*motion*

*magnetic<sup>e</sup> motion*



# SINGLE POINT STIRRERS

Designed for chemical, biotechnical and medical applications of all kinds, extremely strong, developed for the hard daily lab use and uncompromising continuous operation.

## 2mag MIX 1 XL

**Ultra flat, strong magnetic stirrer with large set-up area and fully automatic stirring bar monitoring mixWATCH, up to 40 litres stirring volume, also suitable for highly viscous media, very strong magnetic coupling, therefore predestined for magnetic power transmission over wide distances or for thick vessel bottoms.**

Maintenance-free 2mag-motor-drive with large speed range from 60 up to 2,000 rpm, fully encapsulated and tight stainless steel housing (IP64), extremely robust construction and performance, easy to clean and firm.

Integrated controller with strong 20 watts stirring power, 4-step power setting for high power with regard to large and viscous stirring volumes and reduced power for the warming-free continuous operation, SoftStart-function (adjustable, 4 steps) for reliable catching/centring and safe accelerating of the stirring bar at different volumes and viscosities, adjustable interval times for automated restart of the stirrer after maximum 240 seconds.

magnetic<sup>e</sup> motion

- ⌘ New developed, maintenance and wear-free magnetic stirrer
- ⌘ Up to 40 litres, or for viscous media
- ⌘ mixWATCH stirring bar monitoring
- ⌘ Outstanding long-life quality
- ⌘ 3 years warranty



magnetic

Digital display for speed-, power-, SoftStart- and interval setting, QuickSet for quick setting of start-and maximum speed, QuickStop-function against after-run and glass breakage, storage of last function status when turning off.

3 years warranty on material and manufacturing, developed and made in Germany.

motion

Customized versions and modified unit sizes on request.

Technical data	
Type	MIX 1 XL
Stirring points	1
Stirring volume / point	500 ml - 40 litres
Speed range	60 - 2,000 rpm
Power setting	5/10/15/20 W (4-steps)
Acceleration	adjustable, 20/30/60/120 s
Interval	adjustable, 0 - 240 s
Material housing	Stainless steel
Operation conditions	-10 up to +50 °C (at 80% humidity)
Electrical data	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH)	225 x 280 x 35 mm
Protection category	IP 64
Weight (gross)	approx. 4.0 kg
Order No.	30201

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.



magnetic

## 2mag STIRRING BAR MONITORING

Designed for chemical, biotechnical and medical applications of all kinds, extremely strong, developed for the hard daily lab use and uncompromising continuous operation

### 2mag mixWATCH




**Stirring bar monitoring with fully automatic trim of the maximum reachable speed for a reliable and unattended operation of the stirrer.**

An absolutely innovation is the integrated contact-free stirring bar control mixWATCH.

In case of the magnetic coupling's separation between the magnetic stirrer and the stirring bar during the acceleration phase e.g. caused by too high set speed or changing viscosities, the magnetic stirrer will be stopped, the stirring bar centred and started again. The set speed level will be reduced automatically by 100 rpm to ensure a reliable stirring process.

This control cycle is operated as long as a safe acceleration of the stirring bar is guaranteed.

e

-  Contact-free
-  Automatically
-  Integrated in MIX 1 XL



mixWATCH is ensuring a very high process safety, e.g. with using of closed non-glass vessels or at unattended overnight operation.

MIX 1 XL and steriMIXdrive are equipped as standard with mixWATCH.

magnetic <sup>e</sup>motion



motion

2mag - MIXphilosophy

MIXdrive + MIXcontrol = unbeaten resistant and efficient stirring system

The individual combination possibilities of three control unit types MIXcontrol with the stirring drives MIXdrive always offer you the maximum quality for the optimum value for money exactly complementary to your needs.

The control units MIXcontrol define thereby the performance of the stirrers and the operation comfort.

The stirring drives MIXdrive are the indestructible equipment for your tasks in all days' laboratory work. No matter whether you decide for a serial device or a custom-made device, our aim is always: quality, stability and a reliable and affordable solution for exactly your needs.

All MIXdrive are, with regard to the inner life, technically identical and can be combined with any of the 3 different control units MIXcontrol.

We offer you different stirring combinations for your individual applications. In case there will be no adequate stirrer available for you, we will be able to shortly work out a solution according to your needs.

Ask us – test us – we are there for you!



magnetic<sup>e</sup>motion



2mag - MIXphilosophy Combination possibilities of stirring systems				
Stirring drive		+	Control unit	
<b>Basic</b> up to +50 °C (in air) up to +50 °C (submersed)	MIXdrive 60	MIXcontrol 40	MIXcontrol 20	MIXcontrol eco
	MIXdrive 15			
	MIXdrive 6			
	MIXdrive 1	MIXcontrol 20		MIXcontrol eco
	MIXdrive 1 eco	MIXcontrol eco		
	MIXdrive 1 XS			
	cuvetteMIXdrive			
<b>HT</b> (High Temperature) up to +200 °C (in air) up to +95 °C (submersed)	MIXdrive 60 HT	MIXcontrol 40	MIXcontrol 20	MIXcontrol eco
	MIXdrive 15 HT			
	MIXdrive 6 HT			
	MIXdrive 1 HT	MIXcontrol 20		MIXcontrol eco
	MIXdrive 1 eco HT	MIXcontrol eco		
	MIXdrive 1 XS HT			

## STIRRING SYSTEMS WITH EXTERNAL CONTROL

Designed for chemical, biotechnical and medical applications of all kinds, developed for maximum requirements, maximum mechanical, thermal and chemical stability as well as uncompromising continuous operation.

### 2mag MIXdrive 15

**Ultra flat, wear-free magnetic stirring system with 15 stirring points, suitable for 15 x 250 ml beaker glasses.**

15 stirring positions, 100% maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept for powerful mixing of solutions, 100% synchronized speeds, 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-respective oil baths, suitable for the use in CO<sub>2</sub>-incubators and ovens.

2 different temperature areas available:

**Basic-version** up to +50 °C, **HT-version** up to +95 °C submerged in water baths and up to +200 °C in ovens, individual dimensions on request.

3 years warranty on material and manufacturing, developed and made in Germany.

*motion*



*magnetic*

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- ⌚ Wear-free magnetic stirrer, up to +200 °C
- ⌚ Submersible, up to +95 °C
- ⌚ Extremely robust construction
- ⌚ Integrable in systems

*magnetic e motion*

### 2mag MIXdrive 6

Identical to MIXdrive 15, but with 6 stirring positions, suitable for 6 x 1,000 ml Erlenmeyer flasks. Stirring point distance 130 mm.

### 2mag MIXdrive 60

Identical to MIXdrive 15, but with 60 stirring points (6x10), suitable for synchronous operation of 60 testing tubes, ideal for integration. Stirring point distance 32,5 mm.

Customized versions and modified unit sizes on request.

Technical data			
Type	MIXdrive 15	MIXdrive 6	MIXdrive 60
Stirring points	15	6	60
Stirring point distance	65 mm	130 mm	32,5 mm
Stirring volume / point	1 - 3,000 ml	1 - 3,000 ml	1 - 500 ml
Stirring power (max.)	40 W		
Material housing	Stainless steel		
Operation conditions	-10 up to +50 °C (at 100% humidity)		
Operation conditions	+50 °C in water (HT up to +95° / +200° in air)		
Operating voltage (max.)	48 VDC		
Dimensions (WxDxH)	245 x 375 x 38 mm		
Protection category	IP 68		
Weight (gross)	approx. 8.9 kg	approx. 9.5 kg	approx. 9.7 kg
Order no.	40015	40006	40060
Order no. HT Version	40215	40206	40260

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.



## STIRRING SYSTEMS WITH EXTERNAL CONTROL

Designed for chemical, biotechnical and medical applications of all kinds, developed for maximum requirements, maximum mechanical, thermal and chemical stability as well as uncompromising continuous operation.

### 2mag MIXdrive 1

**Ultra flat, wear-free magnetic stirrer with 1 stirring position, suitable for vessels up to 10,000 ml.**

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-respective oil baths, suitable for the use in CO<sub>2</sub>-incubators and ovens.

2 different temperature areas available:

**Basic-version** up to +50 °C, **HT-version** up to +95 °C submerged in water baths and up to +200 °C in ovens, individual dimensions on request.

3 years warranty on material and manufacturing, developed and made in Germany.

*magnetic<sup>e</sup>motion*

### 2mag MIXdrive 1 eco

**Ultra flat, wear-free magnetic stirrer with 1 stirring position, suitable for vessels up to 3,000 ml.**

Identical to MIXdrive 1, but for maximum 3,000 ml and compact dimensions.

- ⌘ Wear-free magnetic stirrer, up to +200 °C
- ⌘ Submersible, up to +95 °C
- ⌘ Extremely robust construction
- ⌘ Integrable in systems

#### Technical data

Type	MIXdrive 1	MIXdrive 1 eco
Stirring points	1	1
Stirring volume / point	1 - 10,000 ml	1 - 3,000 ml
Stirring power (max.)	40 W	20 W
Material housing	Stainless steel	
Operation conditions	-10 up to +50 °C (at 100% humidity)	
Operation conditions	+50 °C in water (HT up to +95° / +200° in air)	
Operating voltage (max.)	48 VDC	
Dimensions (WxDxH)	180 x 180 x 38 mm	120 x 120 x 35 mm
Protection category	IP 68	
Weight (gross)	approx. 3.3 kg	approx. 1.5 kg
Order no.	40001	40101
Order no. HT Version	40201	40301

Customized versions and modified unit sizes on request.

*e*

*motion*



3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typeing.

## STIRRING SYSTEMS WITH EXTERNAL CONTROL

Designed for chemical, biotechnical and medical applications of all kinds, developed for maximum requirements, maximum mechanical, thermal and chemical stability as well as uncompromising continuous operation.

### 2mag MIXdrive 1 XS

**Ultra flat, wear-free magnetic stirrer with 1 stirring position, optimized for stirring volume up to 1,000 litres, ideal size for integration.**

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, thread M4 integrated in stainless-steel bottom plate (not HT-version), IP68, water-, dust- and germproof, extremely robust construction and performance, easy to clean and maximum resistance, submersible in water- resp. oil baths, suitable for the use in CO<sub>2</sub>-incubators and ovens.

2 different temperature ranges available:

**MIXdrive Basic-Version** up to +95 °C, **MIXdrive HT-Version** up to +200 °C submerged in water baths and up to +200 °C in ovens, individual dimensions on request.

- ⚡ Wear-free magnetic stirrer up to +200°C
- ⚡ Submersible, up to +95 °C
- ⚡ Maximal resistance
- ⚡ Integrable in systems



magnetic

3 years warranty on material- and manufacturing, developed and made in Germany.

magnetic<sup>e</sup>motion



motion

Customized versions and modified unit sizes on request.

#### Technical data

Type	MIXdrive 1 XS
Stirring points	1
Stirring volume / point	1 - 1.000 ml
Stirring power (max.)	10 W
Material housing	Stainless steel
Operation conditions	-10 up to +50 °C (at 100% humidity)
Operation conditions	+50 °C in water (HT up to +95° / +200° in air)
Operating voltage (max.)	48 VDC
Dimensions (WxDxH)	48 x 48 x 18 mm
Protection category	IP 68
Weight (gross)	approx. 0.25 kg
Order no.	40300
Order no. HT Version	40303

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.

# magnetic

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3 years warranty on material- and manufacturing, developed and made in Germany.

- 🌀 New developed magnetic stirrer
- 🌀 Wear-free magnetic stirrer
- 🌀 Ideal for integration
- 🌀 Outstanding long-life quality
- 🌀 3 years warranty

## Technical data

Type	cuvetteMIXdrive 1
Stirring points	1
Stirring volume / point	1 - 25 ml
Stirring power (max.)	10 W
Material housing	Stainless steel
Operation conditions	-10 up to +50 °C (at 100% humidity)
Operation conditions	+50 °C in water, submersed
Operating voltage (max.)	48 VDC
Dimensions (WxDxH)	12.5 x 12.5 x 6 mm
Protection category	IP 68
Weight (gross)	approx. 0.1 kg
Order no.	40400
Order no. HT Version	not available

Customized versions and modified unit sizes on request.

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.

## STIRRING SYSTEMS WITH EXTERNAL CONTROL

Designed for chemical, biotechnical and medical applications of all kinds, developed for high requirements, high resistance as well as uncompromising continuous operation.

### 2mag cuvetteMIXdrive 1

**Miniaturized, wear-free magnetic stirrer with 1 stirring position for cuvettes, optimized for stirring volume up to 25 ml, ideal size for system integration e.g. in photometer.**

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

Fully encapsulated and hermetically sealed stainless steel housing, thread M1.4 integrated (bottom), IP68, water-, dust- and germproof, extremely robust construction and performance, easy to clean and maximum resistance, submersible in water- resp. oil baths, suitable for the use in CO<sub>2</sub>-incubators and ovens.

magnetic<sup>e</sup> motion

motion





*magnetic*

## 2mag MIXcontrol eco

**Price-optimized control unit for small to medium volumes and the connection of 1 stirring drive MIXdrive.**

Control unit with 10 watts stirring power, speed range from 100 up to 1,200 rpm, SoftStart for reliable catching/centring and safe accelerating of the stirring bar.

Interfaces (0-10 volts, 4-20 mA, RS 232, USB, Ethernet), customized software adaption and stirring bar monitoring on request.

3 years warranty on material and manufacturing, developed and made in Germany.

### Technical data

Type	MIXcontrol 20	MIXcontrol eco
Speed range	100 - 1,600 rpm	120 - 1,200 rpm
Stirring power (max.)	20 W	10 W
Power setting	25/50/75/100% (4-steps)	-
Material housing	Stainless steel	Plastics molding
Operation conditions	0 up to +40 °C (at 80% humidity)	
Electrical data	100-240 V / 50-60 Hz / 1.5 A	100-240 V / 50-60 Hz / 0.75 A
Dimensions (WxDxH)	200 x 155 x 38 mm	65 x 50 x 45 mm
Protection category	IP 20	IP 20
Weight (gross)	approx. 1.4 kg	approx. 0.5 kg
Order no.	90200	90100

Customized versions and modified unit sizes on request.

*e*

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.

## CONTROL UNITS

Designed for all stirring drives MIXdrive.

### 2mag MIXcontrol 20

**Universal control unit for the connection of 1 stirring drive MIXdrive.**

Control unit with 20 watts stirring power, speed range from 100 up to 1,600 rpm, jerk-free stirring also at low speeds, 4-step power setting (25/50/75/100%), not suitable for using MIXdrive in incubators.

Clear digital display for speed- and power settings, SoftStart for reliable catching/centring and safe accelerating of the stirring bar. QuickSet for quick setting of start- and maximum speed, automatic memory function to save the last settings, resistant stainless steel housing, easy to clean.

Interfaces (0-10 volts, 4-20 mA, RS 232, USB, Ethernet), customized software adaption and stirring bar monitoring on request.

3 years warranty on material and manufacturing, developed and made in Germany.

*magnetic<sup>e</sup> motion*



*motion*

CONTROL UNITS

Designed for all stirring drives MIXdrive.

2mag MIXcontrol 40

Powerful control unit, for 2mag MIXdrive series, developed for the hard daily lab use and uncompromising continuous operation, e.g. in incubators.

Powerful control unit for the connection of up to 2 stirring drives MIXdrive, powerful 40 watts stirring power, wide speed range from 100 up to 2,000 rpm, jerk-free stirring also at low speeds.

Power setting (10-steps) for high power with regard to large and viscous stirring amounts and reduced power for the warming-free continuous operation e.g. in incubators.

Clear digital display for speed- and power settings, SoftStart for reliable catching/centring and safe accelerating of the stirring bar. QuickSet for quick setting of start- and maximum speed, automatic memory function to save the last settings, resistant stainless steel housing, easy to clean.

magnetic<sup>e</sup>motion

- Maximum performance
- Connection for 2 stirring drives
- For using MIXdrive in incubators



magnetic



Interfaces (0-10 volts, 4-20 mA, RS 232, USB, Ethernet), customized software adaption and stirring bar monitoring on request.

3 years warranty on material and manufacturing, developed and made in Germany.

motion

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Customized versions and modified unit sizes on request.

Technical data	
Type	MIXcontrol 40
Speed range	100 - 2.000 rpm
Stirring power (max.)	40 W
Power setting	10 - 100% (10-steps)
Material housing	Stainless steel
Operation conditions	0 up to +40 °C (at 80% humidity)
Electrical data	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH)	200 x 155 x 38 mm
Protection category	IP 20
Weight (gross)	approx. 1.4 kg
Order no.	90400

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.

magnetic



- ⌚ Up to 1,000 litres stirring volume
- ⌚ For industrial processes
- ⌚ Stirring over wide distances
- ⌚ Ideal for highly viscous media
- ⌚ Outstanding long-life quality
- ⌚ 3 years warranty

## SINGLE POINT STIRRING SYSTEMS FOR HIGHLY VISCOUS MEDIA AND LARGE VOLUMES

Designed for chemical and biotechnical applications of all kinds as e.g. within the field of quality insurance and pilot plant stations, developed for highest demands, unbeaten strong, high stability as well as uncompromising continuous operation.

### 2mag FABdrive

**Unbeaten strong magnetic stirrer with very compact housing dimensions, up to 1,000 litres stirring volume, also suitable for highly viscous media, very strong magnetic coupling, therefore predestined for magnetic power transmission over wide distances (up to 150 mm), for thick vessel bottoms or for double-coat vessels, ideal for the integration into process engineering systems and industrial processing.**

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

3 years warranty on material and manufacturing, developed and made in Germany.

magnetic<sup>e</sup>motion

### 2mag FABcontrol

**Control unit for the connection of magnetic stirrer FABdrive, powerful 100 watts stirring power, large speed range from 80 up to 990 rpm, variable SoftStart-function for reliable catching/centring and safe accelerating of the stirring bar at different volume and viscosities.**

Digital display for speed- and SoftStart-setting (variable, 10-60 seconds) and live speed, QuickSet for quick setting of the start- and maximum speed, QuickStop-function against after-run and glass breakage, Beep-function at falling below set speed, storage of last function status when turning off, firm stainless steel housing, easy to clean. Interfaces (0-10 volts, 4-20 mA, RS 232, USB, Ethernet), customized software adaption and stirring bar monitoring on request. 3 years warranty on material and manufacturing, developed and made in Germany.

#### Technical data

Type	FABdrive	FABcontrol
Stirring volume / point	1 – 1,000 litres	-
Speed range	-	80 – 990 rpm
Stirring power (max.)	-	100 W
SoftStart	variable 10-60 seconds	
Material housing	Stainless steel	
Operation conditions	-10 up to +50 °C (at 95% humidity)	0 up to +40 °C (at 80% humidity)
Operating voltage/ Electrical data	48 VDC	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH)	180 x 180 x 75 mm	200 x 175 x 48 mm
Protection category	IP 65	IP 20
Weight (gross)	approx. 9.0 kg	approx. 2.0 kg
Order no.	50101	94102

Customized versions and modified unit sizes on request.

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typeing.



motion

# SINGLE POINT STIRRING SYSTEMS FOR HIGHLY VISCOUS MEDIA AND LARGE VOLUMES

Designed for chemical and biotechnical applications of all kinds as e.g. within the field of quality insurance and pilot plant stations, developed for highest demands, unbeaten strong, high stability as well as uncompromising continuous operation.

## 2mag MAXdrive

Unbeaten strong magnetic stirrer with large set-up area, up to 250 litres stirring volume, also suitable for highly viscous media, very strong magnetic coupling, therefore predestined for magnetic power transmission over wide distances (up to 60 mm), for thick vessel bottoms or for double-coat vessels, ideal for the integration into process engineering systems.

Maintenance-free 2mag-motor-drive with large speed range from 100 up to 1,200 rpm. Fully encapsulated and tight stainless steel housing, IP65, extremely robust construction and performance, easy to clean under running water and maximum firm, individual measurements on request.

3 years warranty on material and manufacturing, developed and made in Germany.

magnetic<sup>e</sup> motion

- Up to 250 litres stirring volume
- Stirring over wide distances
- Ideal for highly viscous media
- Outstanding long-life quality
- 3 years warranty



motion



magnetic

## 2mag MAXcontrol

Control unit for the connection of MAXdrive, powerful 40 watts stirring power, large speed range from 100 up to 1,200 rpm, variable SoftStart-function for reliable catching/centring and safe accelerating of the stirring bar at different volumes and viscosities.

Digital display for speed- and SoftStart-setting (variable 10-60 seconds), QuickSet for quick setting of the start-and maximum speed, QuickStop-function against after-run and glass breakage, storage of last function status when turning off, firm stainless steel housing, easy to clean.

Interfaces (0-10 volts, 4-20 mA, RS 232, USB, Ethernet), customized software adaption and stirring bar monitoring on request.

3 years warranty on material and manufacturing, developed and made in Germany.

Customized versions and modified unit sizes on request.

Technical data		
Type	MAXdrive	MAXcontrol
Stirring volume / point	1 - 250 litres	-
Speed range	-	100 - 1,200 rpm
Stirring power (max.)	-	40 W
SoftStart	variable 10-60 seconds	
Material housing	Stainless steel	
Operation conditions	-10 up to +50 °C (at 95% humidity)	0 up to +40 °C (at 80% humidity)
Operating voltage/ Electrical data	48 VDC	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH)	260 x 260 x 68 mm	200 x 175 x 48 mm
Protection category	IP 65	IP 20
Weight (gross)	approx. 9.0 kg	approx. 1.8 kg
Order no.	50001	94400

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.



## STIRRING SYSTEMS WITH EXTERNAL CONTROL

Designed for chemical, biotechnical and medical applications of all kinds, developed for maximum requirements, maximum stability as well as uncompromising continuous operation in explosion protection zones.


### 2mag atexMIXdrive

**Explosion protected, ultra flat, wear-free magnetic stirrer with 1 stirring position, for up to 10,000 ml.**

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- resp. oil baths, suitable for the use in CO<sub>2</sub>-incubators and ovens, temperate range up to +40 °C, certified according to ATEX II 2G Ex mb IIC T4.

2 years warranty on material- and manufacturing, developed and made in Germany.

 **Note:** Alternatively the control unit MIXcontrol 20 can be used by operating the control unit outside the explosion protected zone.

*magnetic<sup>e</sup>motion*

### atexMIXcontrol / atexMIXcontrol cleanroom

**Explosion protected control unit for the connection of 1 stirring drive atexMIXdrive.**

20 watts stirring power, speed range from 100 up to 2,000 rpm, jerk-free stirring even at low speeds, 4-step power setting (25/50/75/100%). Clear digital display for speed- and power settings, SoftStart for reliable catching/centring and safe accelerating of the stirring bar, QuickSet for quick setting of start- and maximum speed, automatic memory function to save the last settings, explosion protected housing, operation temperature up to +40°C, certified according to ATEX II 2G EEx de IIC T6.

atexMIXcontrol cleanroom is made for use in clean rooms.

#### Technical data

Type	atexMIXdrive	atexMIXcontrol	atexMIXcontrol cleanroom
Stirring points	1		-
Stirring volume	1 - 10,000 ml		-
Speed range		100 - 2,000 rpm	
Stirring power	max. 20 W	20 W	
Acceleration		25/50/75/100% (4-steps)	
Housing material	stainless steel	aluminium / plastics	aluminium
Operation conditions	0 up to +40 °C (at 80% humidity)		
Operating voltage	100-240 V / 50-60 Hz / 1.5 A		
Dimensions (WxDxH)	180 x 180 x 38 mm	360 x 460 x 200 mm	210 x 55 x 30 mm
Protection category	IP 68	IP 65	IP 65
Weight (gross)	approx. 3.5 kg	approx. 15 kg	approx. 3.6 kg
Order No.	49001	99200	99300

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typeing.

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 **Hint:** atexMIXcontrol cleanroom certified according to ATEX II 3G Ex nAC IIC T6

*motion*

## STIRRING SYSTEMS WITH EXTERNAL CONTROL

Designed for operation in pressure, vacuum and steam up to +150°C, e.g. in steam sterilizers

### 2mag steriMIXdrive

**Ultra flat, compact and strong magnetic stirrer with fully automatic stirring bar monitoring mixWATCH, up to 40 litres stirring volume, also suitable for highly viscous media, very strong magnetic coupling, therefore predestined for magnetic power transmission over wide distances or for thick vessel bottoms.**

Maintenance-free 2mag-motor-drive with large speed range from 60 up to 2,000 rpm, 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 on material- and manufacturing defects, developed and made in Germany.

*magnetic motion*

- Ultra-flat magnetic stirrer
- Steam-, pressure- and vacuum resistant
- Up to +150°C
- Up to 40,000ml stirring volume
- Outstanding long-life quality
- 3 years warranty



*magnetic*

steriMIXcontrol is equipped as standard with **mixWATCH**

### steriMIXcontrol

**Powerful control unit with 20 watts stirring power and mixWATCH stirring bar monitoring, SoftStart-function for reliable catching/centring and safe accelerating of the stirring bar at different volumes and viscosities, adjustable interval times for automated restart of the stirrer after max. 240 sec.**

Digital display for speed- and interval setting, QuickSet for quick setting of start- and maximum speed, QuickStop-function against after-run and glass breakage, storage of last function status when turning off. Interfaces on request.

Customized versions and modified unit sizes on request.

#### Technical data

Type	steriMIXdrive	steriMIXcontrol
Stirring volume / point	1 - 40 litres	-
Speed range	-	60 - 2,000 rpm
Stirring power (max.)	-	20 Watt
Material housing	Stainless steel, hermetically closed	
Operation conditions	-10 bis +150 °C (at 100% humidity)	
Operating voltage/ Electrical data	48 VDC	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH)	260 x 260 x 68 mm	200 x 175 x 48 mm
Protection category	IP 68	IP 20
Weight (gross)	approx. 9.0 kg	approx. 1.8 kg
Order no.	40700	95200

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.

# SINGLE POINT STIRRING SYSTEM FOR CELL CULTURES AND TISSUE CULTURES

Designed for careful and protective mixing of cell suspensions and culture broths, developed for high demands and uncompromising continuous operations.

## 2mag bioMIX 1

**Price optimized maintenance-free magnetic stirrer with 1 stirring point, large surface, space saving, also suitable for viscous culture media.**

Maintenance-free 2mag-stepper-motor-drive for extremely slow and 100% jerk-free and gentle mixing of cell cultures, extended speed range from 5 up to 250 rpm, jerk-free, even and smooth stirring also at slow speeds, power setting (10-steps) for high power with regard to large and viscous stirring amounts and reduced power for the warming-free continuous operation.

Digital display for speed- and power setting, SoftStart for reliable and safe accelerating of stirring bar, QuickSet for quick setting of start- and maximum speed, saving of last working status when turning off, suitable for culture flasks with spinning propeller- and spinning ball systems.

magnetic<sup>e</sup> motion

- Price optimized
- Space saving
- Germ-proof, easy to clean
- Outstanding long-life quality
- 3 years warranty

Fully encapsulated and water resistant stainless steel housing, germ-proof, IP64, easy to clean and firm, robust construction and performance, ultra-flat design.

3 years warranty on material and manufacturing, developed and made in Germany.

motion



**Hint:** For using in incubators we recommend due to the minimized temperature emission the especially developed series **bioMIXdrive**

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Technical data	
Typ	bioMIX 1
Stirring points	1
Stirring volume / point	5 - 5,000 ml
Speed range	5 - 250 rpm
Stirring power (max.)	6 W
Leistungseinstellung	10-steps (10 - 100%)
Material housing	Stainless steel
Operation conditions	-10 up to +50 °C (at 80% humidity)
Operating voltage	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH mm)	180 x 230 x 38 mm
Protection category	IP 64
Weight (gross)	approx. 1.4 kg
Order no.	85001

Customized versions and modified unit sizes on request.

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.



# STIRRING SYSTEMS FOR CELL CULTURES

Designed for careful and protective mixing of cell suspensions and culture broths, developed for highest demands as well as warming-free and uncompromising continuous operations for e.g. in CO<sub>2</sub>-incubators.

## 2mag bioMIXdrive 1 / 2 / 3 / 4

**Warming- and maintenance-free magnetic stirrer with 1, 2, 3 or 4 stirring points, large surface, also suitable for viscous culture media.**

Maintenance-free 2mag-stepper-motor-drive for extremely slow and 100% jerk-free and gentle mixing of cell cultures, extended speed range from 5 up to 250 rpm, jerk-free, even and smooth stirring also at slow speeds, suitable for culture flasks with spinning propeller- and spinning ball systems.

Fully encapsulated and hermetically closed stainless steel housing, IP68, water-, dust- and germ-proof, extremely robust construction and performance, easy to clean and maximum firm, submersible in water baths, designed for the warming-free long term operation in CO<sub>2</sub>-incubators, individual measurements on request.

3 years warranty on material and manufacturing, developed and made in Germany.

- Water- and germ-proof
- Warming-free long term operation in CO<sub>2</sub>-incubators
- Outstanding long-life quality
- 3 years warranty

magnetic<sup>e</sup>motion

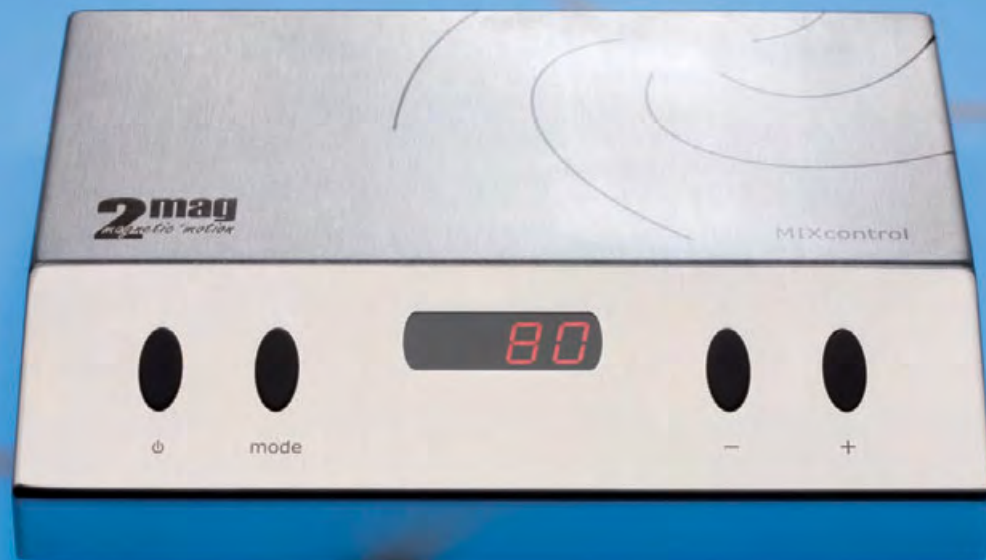
### Technical data

Type	bioMIXdrive 1	bioMIXdrive 2	bioMIXdrive 3	bioMIXdrive 4
Stirring points	1	2	3	4
Stirring point distance	-	140		
Stirring volume / point	5 - 5,000 ml			
Speed range	5 - 250 rpm			
Stirring power (max.)	6 W / position			
Material housing	Stainless steel			
Operation conditions	-10 up to +50 °C (at 100% humidity)			
Operation conditions	+50 °C submerged in water			
Operating voltage	48 VDC			
Dimensions (WxDxH mm)	180 x 180 x 38	130 x 270 x 38	130 x 410 x 38	270 x 270 x 38
Protection category	IP 68			
Weight (gross)	approx. 2.3 kg	approx. 2.5 kg	approx. 3.5 kg	approx. 4.7 kg
Order no.	80001	80002	80003	80004

Customized versions and modified unit sizes on request.



3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typeing.



*magnetic*

## CONTROL UNITS

Designed for stirring drives bioMIXdrive.

### 2mag bioMIXcontrol

**Efficient control unit, for 2mag bioMIXdrive series, developed for the hard daily lab use and uncompromising warming-free continuous operation.**

Control unit for the connection of 1 stirring drive bioMIXdrive 1, 2, 3, 4 or 6 with 6 watts / stirring point, without any own-generated heating effect, extended speed range from 5 to 250 rpm, jerk-free stirring, even and smooth stirring also at slow speeds.

Power setting (10-steps) for high power with regard to large and viscous stirring amounts and reduced power for the warming-free continuous operation e.g. in CO<sub>2</sub>-incubators.

Digital display for speed- and power setting, SoftStart for reliable and safe accelerating of stirring bar, QuickSet for quick setting of start- and maximum speed, storage of last working status when turning off, firm stainless steel housing, easy to clean.

Interfaces (0-10 volts, 4-20 mA, RS 232, USB, Ethernet), customized software adaption and stirring bar monitoring on request.

3 years warranty on material and manufacturing, developed and made in Germany.

*magnetic<sup>e</sup> motion*

### 2mag bioMIXcontrol S

**Powerful control unit - stackable!**

Identical to bioMIXcontrol, but with stackable housing, vertical control panel, dimensions 215 x 120 x 50 mm.

#### Technical data

Typ	bioMIXcontrol	bioMIXcontrol S
Speed range	5 - 250 rpm	
Stirring power	4 - 40 W (10-steps)	
Material housing	Stainless steel	
Operation conditions	-10 up to +50 °C (at 80% humidity)	
Electrical data	100-240 V / 50-60 Hz / 1.5 A	
Dimensions (WxDxH)	200 x 155 x 38 mm	215 x 120 x 50 mm
Protection category	IP 20	
Weight (gross)	approx. 1.4 kg	
Order no.	98400	98500

Customized versions and modified unit sizes on request.

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*motion*

CONTROL UNITS

Designed for stirring drives bioMIXdrive.

2mag bioMIXcontrol MS4

Efficient control unit, for 4 drives 2mag bioMIXdrive 1, developed for the hard daily lab use and uncompromising warming-free continuous operation.

Control unit for the connection of 4 stirring drive bioMIXdrive 1, individual and independent speed setting for each stirring drive (Master-Slave-Technology), also ON-/OFF function, synchronous speed mode for all drives, extended speed range from 5 to 250 rpm, 6 watts/stirring point without any own-generated heating effect, automatic power setting for the warming-free continuous operation e.g. in CO<sub>2</sub>-incubators, jerk-free stirring, even and smooth stirring also at slow speeds.

Digital display for speed setting, SoftStart for reliable and safe accelerating of stirring bar, QuickSet for quick setting of start- and maximum speed, storage of last working status when turning off, firm stainless steel housing, easy to clean.

magnetic<sup>e</sup>motion



motion

Interfaces (0-10 volts, 4-20 mA, RS 232, USB, Ethernet), customized software adaption and stirring bar monitoring on request.

3 years warranty on material and manufacturing, developed and made in Germany.

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Customized versions and modified unit sizes on request.

Technical data

Type	bioMIXcontrol MS4
Speed range	5 – 250 rpm (4x individual setting)
Connection sockets	4 (for bioMIXdrive 1 only)
Stirring power (max.)	6 watts / position (automatic)
Material housing	Stainless steel
Operation conditions	0 °C up to +40 °C (at 80% humidity)
Operating voltage	100-240 V / 50-60 Hz / 1.5 A
Dimensions (WxDxH)	200 x 155 x 38 mm
Protection category	IP 20
Weight (gross)	approx 2.5 kg
Order no.	98604

3 years warranty on material and manufacturing. We reserve the right to make technical alterations. We do not assume liability for errors in printing or typing.

magnetic



## HEATABLE SINGLE POINT STIRRER

Developed for stirring and temperating jobs in daily lab use.

### 2mag hotMIX 1

**Smallest hot plate magnetic stirrer of the world. Compact, powerful and very robust magnetic stirrer with aluminium hot plate, unbeaten space-saving and also suitable for the operation with viscous and aggressive media.**

Price-optimized magnetic stirrer, 100% maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept for mixing of solutions, speed range from 100 up to 1,600 rpm, 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, with resistant PTFE-coating available, 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.

3 years warranty on material and manufacturing, developed and made in Germany.

- 🌀 New developed stirrer
- 🌀 Maintenance and wear-free
- 🌀 Fast electrical heating
- 🌀 Robust, long-life quality
- 🌀 3 years warranty

*magnetic<sup>e</sup>motion*

### 2mag hotMIX 1 PTFE

Identical to hotMIX 1, but with PTFE-coated hot plate for increased chemical resistance and easier cleaning.

#### Technical data

Type	hotMIX 1	hotMIX 1 PTFE
Stirring points	1	
Heating output	500 Watt	
Stirring volume	1 - 2,000 ml	
Stirring power (max.)	10 W	
Max. temperature	up to +200 °C	
Speed range	100 - 1,600 rpm	
Material heating plate	aluminium alloy	aluminium alloy PTFE coated
Material housing	Stainless steel	
Operation conditions	-10 °C up to +40 °C (at 80% humidity)	
Electrical data	230 volts / 550 watts	
Protection category	IP 20	
Dimensions (WxDxH)	120 x 140 x 80 mm	
Weight (gross)	approx. 2 kg	
Order No.	61001	61101

#### Optional

2mag mixTHERM  
Contact thermometer  
for exact medium  
temperature control

2mag mixCONTACT  
Adapter plates for  
fast, power-saving  
heating-up



## MULTIPLE STIRRING HOTPLATES

For mass screenings, incubating or concentrating of probes, evaporating of solvents, simple and easy system integration.

### 2mag STIRRING HOTPLATE 15

**Stirring-heating plate with 15 stirring positions, universally applicable for miscellaneous vessel sizes and shapes, stirring point distance 65 mm, suitable for 15 x 250 ml beaker glasses.**

**Stirring** - Powerful 15 stirring points, maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept, extremely wide speed range of 100 to 2,000 rpm, 100% synchronized speed, jerk-free stirring even at low speeds, 4-step power settings of the stirrer, high power setting for viscous liquids and reduced power setting for long-term operation without any heating effects caused by the stirrer, clear digital display for settings of stirrer speed, stirrer power and temperature of the integrated heater, SoftStart procedure for reliable catching/centering and safe acceleration of the stirring bar.

**Heating** - Heating plate made of resistant aluminium alloy, PTFE-coated for increased chemical resistance and easier cleaning, fast heating-up by powerful integrated electrical heater, homogenous temperature distribution, maximum heating temperature +200 °C, PowerDetect for automatic compensation of physically determined loss in stirring power which can come up to 40% at high temperatures, independent over-temperature protection inside the plate.

Separate control unit for operation of magnetic stirrer and integrated heater, for long-term protection of the electronics against aggressive liquids and gases as well as thermal influences, stainless steel housing.



- 🌀 New developed magnetic stirrer
- 🌀 Maintenance- and wear-free
- 🌀 Fast heating-up
- 🌀 Energy-saving
- 🌀 For all vessel sizes and shapes
- 🌀 Simple system integration
- 🌀 Durable quality
- 🌀 3 years warranty

### 2mag STIRRING HOTPLATE 6

Identical to STIRRING HOTPLATE 15, but with 6 stirring positions and stirring point distance 130 mm, suitable for 6 x 1,000 ml Erlenmeyer flasks.

*magnetic motion*

Incl. separate control unit for operation of magnetic stirrer and integrated heater.

#### Optional

**2mag SAFECONTROL**  
Control unit with independent adjustable over-temperature limiter for the additional protection of the heating controller against technical defects or unintended operation errors.

#### Technical data

Type	HOTPLATE 6	HOTPLATE 15
Stirring points	6	15
Stirring point distance	130 mm	65 mm
Stirring volume / point	1 - 1,500 ml	1 - 1,000 ml
Stirring power (max.)	10/20/30/40 W (4-steps)	
Max. temperature	up to +200 °C	
Speed range	100 - 2,000 rpm	
Operation conditions	0 °C up to +40 °C (at 80% humidity)	
Electrical data	230 volts / 1,200 watts	
Dimensions (WxDxH)	250 mm x 430 mm x 75 mm	
Protection category	IP 20	
Weight (gross)	approx. 15 kg	
Order no. mit BasicControl	66006	66015
Order no. mit SafeControl	66206	66215

3 years warranty on material and manufacturing. We reserve the right to make technical alterations.  
We do not assume liability for errors in printing or typing.





## 2mag STIRRING DRYBATH 15-250

Identical to STIRRING DRYBATH 15-100, but with 15 stirring positions, 15 bore holes,  $\varnothing$  71,5 mm, depth 78 mm, distance 84 mm, suitable for 250 ml lab-flasks (e.g. Schott) and for 400 ml beaker glasses.

- 🌀 New developed magnetic stirrer
- 🌀 Maintenance- and wear-free
- 🌀 Fast heating-up
- 🌀 Energy-saving
- 🌀 Insulated frame
- 🌀 Durable quality
- 🌀 3 years warranty

### Technical data

Type	DRYBATH 15-100	DRYBATH 15-250
Stirring points	15	15
Stirring point distance	65 mm	84 mm
Bore hole $\varnothing$ /T	57.5 / 48 mm	71.5 / 78 mm
Stirring volume / point	1 - 150 ml	1 - 400 ml
Stirring power (max.)	40 W	
Power setting	25/50/75/100% (4-steps)	
Max. temperature	+200 °C	
Speed range	100 - 2,000 rpm	
Electrical data	230 volts / 1.000 watts	
Dimensions (WxDxH)	295 x 445 x 110	345 x 525 x 140
Weight (gross)	approx. 23 kg	approx. 31 kg
Order no. with BasicControl	61100	61250
Order no. with SafeControl	62100	62250

Incl. separate control unit for operation of magnetic stirrer and integrated heater.

### Optional

**2mag SAFECONTROL**  
Control unit with independent adjustable over-temperature protection for the additional protection of the heating controller against technical defects or unintended operation errors.

Customized versions (bore hole diameter and -depth, different unit sizes and hole patterns, coated frames for highest chemical resistance etc.) on request.

## MULTIPLE STIRRING HEATING BLOCKS

For viscosity measurements, R&D, combinatorial chemistry, biological applications, testing the solution behavior of synthetic materials, quality control in food, chemical and waste water technology, simple and easy system integration

### 2mag STIRRING DRYBATH 15-100

**Stirring-heating block combination with 15 stirring positions, 15 bore holes,  $\varnothing$  57.5 mm, depth 48 mm, distance 65 mm, suitable for 100 ml lab-flasks (e.g. Schott) and for 150 ml beaker glasses.**

**Stirring** - Maintenance-free and wear-free by inductive 2mag-Magnetic-Drive concept, extremely wide speed range of 100 to 2,000 rpm, 100% synchronized speed, jerk-free stirring even at low speeds, 4-step power settings of the stirrer, high power setting for viscous liquids and reduced power setting for long-term operation without any heating effects caused by the stirrer, clear digital display for settings of stirrer speed, stirrer power and temperature of the integrated heater, SoftStart procedure for reliable catching/centering and safe acceleration of the stirring bar.

**Heating** - Massive heating block made of resistant aluminium alloy, PTFE-coated for increased chemical resistance and easier cleaning, lowest possible temperature gradient inside the stirring vessels, integrated electrical heater, maximum heating temperature +200 °C, PowerDetect for automatic compensation of physically determined loss in stirring power which can come up to 40% at high temperatures, specially made insulated stainless steel frame for energy- and time saving heating process, additionally for a homogenous temperature distribution and protection against accidental contact, independent over-temperature protection inside the plate.

Separate control unit for operation of magnetic stirrer and integrated heater, for long-term protection of the electronics against aggressive liquids and gases as well as thermal influences, stainless steel housing.

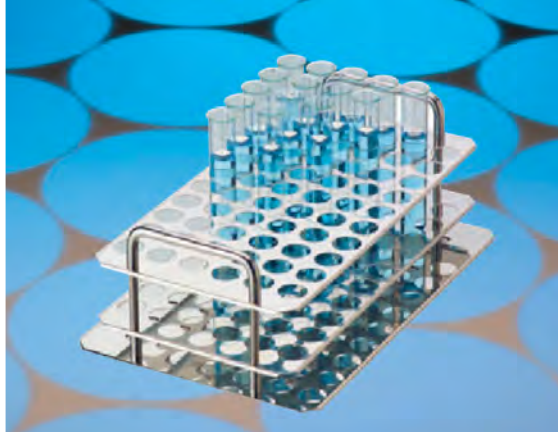


## ACCESSORIES

Designed for all stirring drives MIXdrive.

### 2mag mixRACK

For exactly centred positioning of test tubes on the stirring points, rack function, can be used to carry all test tubes at once, two convenient handles, stainless steel construction.



*motion*

#### Technical data

Type	mixRACK
Dimensions (WxDxH)	on request
Material	stainless steel
Weight (gross)	approx. 1.2 kg
Order no.	on request

3 years warranty on material and manufacturing.  
We reserve the right to make technical alterations.  
We do not assume liability for errors in printing or typing.

*magnetic<sup>e</sup>motion*

## ACCESSORIES

Designed for all stirring drives MIXdrive.

### 2mag mixBATH

Durable, robust stainless steel bath, easy to clean, suitable for MIXdrive 6/15/60, fitting for immersion thermostats (heating/cooling), easy to clean, even weld and electro-polished, framed ridge formed as handle, exact positioning of the stirrer in the case of use the stirrer under the bath, stirring point mark inside the bath, left-/right stop for optimized thermostat positioning (circulation pump) for use with MIXdrive 6 resp. MIXdrive 15.



#### Technical data

Type	mixBATH
Inner Dimensions (WxDxH)	277 x 537 x 175 mm
Outer Dimensions (WxDxH)	315 x 575 x 190 mm
Weight (gross)	ca. 5,5 kg
Order no.	40950

3 years warranty on material and manufacturing.  
We reserve the right to make technical alterations.  
We do not assume liability for errors in printing or typing.

**2mag**  
*magnetic<sup>e</sup>motion*

## ACCESSORIES

Designed for all stirring drives MIXdrive.

### 2mag distriBOX 4 / distriBOX 8

4-fold respectively 8-fold distributor for synchronized operating of 4 or 8 stirring drives with one MIXcontrol 20 or MIXcontrol 40, identical operation conditions, synchronous speeds, same stirring power, space-saving, sealed stainless steel housing.



#### Technical data

Typ	distriBOX 4	distriBOX 8
Dimensions (WxDxH)	48 x 48 x 25 mm	48 x 92 x 25 mm
Order no.	49004	49008

#### Technical data

Cords	MIXdrive	bioMIXdrive	MAXdrive/FABdrive
Length	3 m	3 m	3 m
Order no.	46100	46200	46300

3 years warranty on material and manufacturing.  
We reserve the right to make technical alterations.  
We do not assume liability for errors in printing or typing.

### 2mag extension cords

Extension cord for MIXdrive, length 3m.  
Extension cord for bioMIXdrive, length 3m.  
Extension cord for MAXdrive / FABdrive, length 3m.

*magnetic<sup>e</sup>motion*

## ACCESSORIES

Designed for all hotMIX stirrers.

### 2mag mixTHERM

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.



#### Technical data

Typ	mixTHERM
Measuring range	-50 °C up to +300 °C
Order no.	61099

Typ	mixCONTACT
Size	250ml Erlenmeyer flasks
Order no.	68250

3 years warranty on material and manufacturing.  
We reserve the right to make technical alterations.  
We do not assume liability for errors in printing or typing.

### 2mag mixCONTACT

Especially for the used vessels designed adapter plates, made from resistant aluminium alloy, for significant better heat transfer and faster and energy-saving heating-up of the samples.

Depending on the vessel on request.

## STIRRING BARS

Designed for all stirring drives.  
For chemical, biotechnical and medical applications of all kinds.

### 2mag ASTEROID 40

**New developed, high-effective stirring bar, ideal for large mixing volumes, viscous media, stirring over wide distances or for disadvantageous vessel bottoms.**

More than 4x higher torque transmissible, unbeatable increased mixing effect in comparison to conventional stirring bars, high energetic and long-term stable magnetic field, no demagnetization effect, concave design for a minimum of bearing surface and reliable rotation, triangular shape for powerful shear force, better mixing effect at lower rotation speed.

300% less PTFE abrasion than comparable round shape stirring bars, significantly higher rotation speed reachable, high quality, even and sealed PTFE cover, FDA-conform, steam sterilizable at 121°C.

Multiple improved performances  
for all types of magnetic stirrers.

*magnetic<sup>e</sup>motion*



*magnetic*



*motion*

### 2mag mixCADDY

Mobile stand, suitable for stirring drives MAXdrive and FABdrive as well as control units **MAXcontrol** and **FABcontrol**, large surface for vessel and containers up to 57 cm diameter, load up to 250 kg.

Robust design made from resistant stainless steel, electro-polished, closed profiles, easy to care, heavy duty rollers, lockable, hand forklift accessible to transfer heavy vessels, integrated mount for control unit, easy ergonomic operation, protected cable routing inside the profiles.

#### Technical data

Typ	ASTEROID 40	mixCADDY
Material	PTFE	stainless steel
Dimensions (WxDxH)	-	104 x 52 x 81 cm
Weight (gross)	approx. 0.06 kg	approx. 35 kg
Form	triangel, concave	-
Material (magnet)	SmCo	-
Dimensions D x L	Ø 28 x 40 mm	-
Order no.	44040	49400

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## CUSTOMIZED STIRRING SYSTEMS FOR INDIVIDUAL REQUIREMENTS

### 2mag Customized Stirrers

2mag is providing you more than 30 years of competence in the conception, development, production and sales of magnetic and inductive drive concepts, as e.g. magnetic stirrers.

This experience paired with a great passion and emotion for our customers – and our products – enables the fast and economic creation of solutions precisely for your needs.

„Customizing“, the manufacturing of special made products, is our business, our competence and our passion!

Individual requests will result in individual – and even more important – also economically realizable solutions.

Ask us – test us – we are there for you!

*magnetic<sup>e</sup>motion*

### 2mag MIX 60 customized

Identical to MIX 15, but with 60 stirring positions, suitable for 60 x Ø 20 mm test tubes.

### 2mag bioMIXdrive 6 customized

Identical to bioMIX 1, on request with 6 stirring positions, individual dimensions and stirring point distances.

### 2mag MIX 4 customized

Identical to MIX 6, on request with 4 stirring positions, individual dimensions and stirring point distances.

*motion*



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## 2mag AGITATION - the world is moving

2mag is not only active and successful in the field of laboratory equipment.

Also for the international famous light-design company Ingo Maurer in Munich we created a soundless magnetic drive for an exclusive illuminating and furnishing object. Further appliances not really typical for the laboratory field are to be developed by us with a lot of passion – be surprised!

2mag – your contact for sophisticated and also fulfillable solutions for your needs and issues in the range of mixing, tempering and dosing.

Ask us – test us – we are there for you!

☐

I am interested in 2mag products.  
Please contact me.

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Department

Name / First name

Street

Zip / Town

Country

Please fax to 2mag: +49 (89) 14 33 43 69

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Stamp



Delirium Yum  
Light object, designed by Ingo Maurer and Sebastian Hepting  
www.ingo-maurer.com

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