Stirrer

Inductive Magnetic Stirrer
Hotplate Stirrer



made in Germany

EMCLAB instruments - Germany

Product Overview

Single Point Stirrers

Pages 5-6

Model	Stirring Points	Stirring Volume	Controller	Heatable
IMS 1	1	1 - 10,000 ml	Internal	No
IMS 1 E	1	1 - 3,000 ml	Internal	No
IMS 1 XL	1	1 - 40 litres	Internal	No

Multiple Stirrers

Pages 7-8

Model	Stirring Points	Stirring Volume	Controller	Heatable
IMS 6	6	6 x 1,000 ml	Internal	No
IMS 15	15	15 x 250 ml	Internal	No
IMS 15 E	15	15 x 250 ml	Internal	No
IMS 4 MS	4	4 x 2,000 ml	Internal	No
IMS 8	8	8 x 600 ml	Internal	No
IMS 12	12	12 x 600 ml	Internal	No

Submersible Single Point Stirrers

Pages 9-10

Model	Stirring Points	Stirring Volume	Controller	Heatable
IMS mini Set	1	1 - 25 ml	External	No
IMS 1 XS	1	1 - 1,000 ml	External	No
IMS 1 W	1	1 - 3,000 ml	External	No

Submersible Multiple Stirrers

Page 11

Model	Stirring Points	Stirring Volume	Controller	Heatable
IMS 6 W	6	6 x 1,000 ml	External	No
IMS 15 W	15	15 x 250 ml	External	No

Control Units

Pages 12-13

Model	Speed Range	Stirring Power (max.)	Power Setting	SoftStart
C 1	120 - 1,200 rpm	10 W	-	✓
C 2	100 - 1,600 rpm	20 W	4 step	✓
C 4	100 - 2,000 rpm	40 W	10 step	✓

Stirring Hotplates

Pages 14-15

Model	Stirring Points	Stirring Volume	Speed Range	Controller	Heatable
Stirring Hotplate 6	6	6 x 1,000 ml	100 - 2,000 rpm	External included	Up to 200°C
Stirring Hotplate 15	15	15 x 250 ml	100 - 2,000 rpm	External included	Up to 200°C
DMSH-20D	1	Up to 20,000 ml (180 x 180 mm)	80 - 1,500 rpm	Internal	25 - 380°C
DMSH-30D	1	Up to 20,000 ml (260 x 260 mm)	80 - 1,500 rpm	Internal	25 - 380°C

Stirring Heating Blocks

Pages 16-17

Model	Stirring Points	Stirring Volume	Speed Range	Controller	Heatable
Stirring Drybath 15-100	15	1 - 150 ml	100 - 2,000 rpm	External included	Up to 200°C
Stirring Drybath 15-250	15	1 - 400 ml	100 - 2,000 rpm	External included	Up to 200°C
Stirring Drybath 8-250 ERL	8	1 - 250 ml	100 - 2,000 rpm	External included	Up to 200°C

Accessories

Pages 18-19

Various accessories: stirring bars, stabilizing rings, water baths, thermostat

Inductive Magnetic Stirrers IMS

Features:

- 100% wear-free
- No maintenance
- Ulra-robust construction
- Made for permanent operation
- 30% more stirring power than comparable systems
- Resistant stainless steel housing for easy cleaning
- Synchronous speed at all stirring points
- Super-flat, space-saving stirring drives – ideal for robotics
- Low energy consumption
- Developed and made in Germany

Our magnetic drives operate according to the principle of induction. This means that instead of conventional motors with pull magnets, they work with stationary coils, which are traversed by alternating currents. The thereby generated electromagnetic rotating field moves the magnetic stirring bar inside the vessel completely jerk-free even at low speeds.
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 +200 °C). All of our magnetic stirrers come with a 3 year warranty on functionality and wear freedom.

SoftStart

Our SoftStart technology allows a smooth start of stirring to increase operating safety. By starting at reduced speed, the stirring bar in the flask will first be caught and centered and then accelerated to the set speed.

Power Setting

Many of our stirrers have an integrated power setting with different modes. Adjusting the power allows you to adjust the stirrer's performance to your needs.
Stir with high power for large and viscous stirring volumes and reduce power for warming-free continuous operation.
Note:
When using an external controller, the stirrer's performance is depending on the controller that it is connected with.
The C1 controller does not support power setting.

Workstation

Our stirrers and controllers can be combined into a full workstation including water bath and thermostat. The variety of products allows customizing a workstation for individual needs and demands.
Contact us for further information on configuration of a workstation adapted to your requirements.



All inductive magnetic stirrers do not include the illustrated glass ware.

Single Point Stirrers

IMS 1

Up to 10,000 ml stirring volume, also suitable for viscous media.



100% maintenance-free and wear-free by inductive EMCLAB-Magnetic-Drive concept for powerful mixing of solutions, extremely wide speed range from 100 to 2,000 rpm.
4-step power setting 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, QuickSet for quick setting of start- and maximum speed. Automatic memory function to save the last settings.

Model	IMS 1 EMC-20043021
Stirring points	1
Stirring volume	1 – 10,000 ml
Speed range	100 – 2,000 rpm
Power setting	5/10/15/20 W
Dimensions (WxDxH)	188 x 238 x 38 mm
Housing material	Stainless steel
Operation conditions	-10°C - +50°C / 80% H
Electrical data	100-240 V/ 50-60Hz/ 0.7 A
Protection category	IP65
Weight (gross)	4.0 kg

IMS 1 E

Up to 3,000 ml stirring volume, also suitable for operation with aggressive media.



Price-optimized magnetic stirrer, 100% maintenance-free and wear-free by inductive EMCLAB-Magnetic-Drive concept for mixing of solutions, speed range from 120 up to 1,400 rpm.
Fully encapsulated stainless steel housing, extremely robust construction.

Model	IMS 1 E EMC-20043022
Stirring points	1
Stirring volume	1 – 3,000 ml
Speed range	120 – 1,400 rpm
Stirring power (max)	10 W
Dimensions (WxDxH)	120 x 120 x 35 mm
Housing material	Stainless steel
Operation conditions	-10°C - +50°C / 80% H
Electrical data	100-240 V/ 50-60Hz /0.7 A
Protection category	IP65
Weight (gross)	1.7 kg

IMS 1 XL

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 EMCLAB-motor-drive with large speed range from 70 up to 2,000 rpm, fully encapsulated and tight stainless steel housing (IP65), extremely robust construction and performance, easy to clean. 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 different volumes and viscosities, adjustable interval times for automated restart of the stirrer after max. 240 seconds.



Clear digital display for speed-, power-, SoftStart- and interval setting, QuickSet for quick setting of start and maximum speed, automatic memory function to save last settings.

Model	IMS 1 XL EMC-20043051
Stirring points	1
Stirring volume	1 – 40 litres
Speed range	70 – 2,000 rpm
Power setting	5/10/15/20 W
Acceleration	20/30/60/120 s
Interval	0 – 240 s (2-step)
Dimensions (WxDxH)	225 x 280 x 35 mm
Housing material	Stainless steel
Operation conditions	-10°C - +50°C / 95% H
Electrical data	100-240 V/ 50-60Hz /1.5 A
Protection category	IP65
Weight (gross)	4.0 kg

IMS 6 / IMS 15

With 6 stirring positions suitable for 6 x 1,000 ml Erlenmeyer flasks, or with 15 stirring positions suitable for 15 x 250 ml beaker glasses (tall form).



100% maintenance-free and wear-free by inductive EMCLAB-Magnetic-Drive concept, up to 3,000 ml stirring volume per stirring point, extremely wide speed range of 100 to 2,000 rpm, 100% synchronized speed, 4-step power setting, high power setting for viscous liquids and reduced stirring power for long-term operation without any heating effects caused by the stirrer.

Clear digital display for setting speed and power, SoftStart, QuickSet for quick setting of start- and maximum speed, automatic memory function to save last settings.

Model	IMS 6 EMC-20043040	IMS 15 EMC-20043041
Stirring points	6	15
Stirring points distance	130 mm	65 mm
Stirring volume/point	1 – 3,000 ml	1 – 3,000 ml
Speed range	100 – 2,200 rpm	100 – 2,200 rpm
Power setting	5/10/15/20 W (4-step)	5/10/15/20 W (4-step)
Dimension (WxDxH)	245 x 425 x 38 mm	245 x 425 x 38 mm
Housing material	Stainless steel	Stainless steel
Operation conditions	-10°C - +50°C / 80% H	-10°C - +50°C / 80% H
Electrical data	100-240 V/ 50-60Hz/ 1.5 A	100-240 V/ 50-60Hz/ 1.5 A
Protection category	IP65	IP65
Weight (gross)	8.8 kg	8.8 kg

IMS 15 E



15 stirring positions, up to 1,500 ml stirring volume, suitable for 15 x 250 ml beakers (tall form). 100% maintenance-free and wear-free by inductive EMCLAB-Magnetic-Drive concept for powerful mixing of solutions, speed range from 120 up to 1,200 rpm, 100% synchronized speeds. Clear digital display for speed setting, SoftStart, automatic memory function to save last settings.

Model	IMS 15 E EMC-20043023
Stirring points	15
Stirring points distance	65 mm
Stirring volume/point	1 – 1,500 ml
Speed range	120 – 1,200 rpm
Stirring power (max.)	10 W
Dimensions (WxDxH)	245 x 425 x 38 mm
Housing material	Stainless steel
Operation conditions	-10°C - +50°C / 80% H
Electrical data	100-240 V/ 50-60Hz/ 0.7 A
Protection category	IP65
Weight (gross)	8.8 kg

Multiple Stirrers

IMS 4 MS

4 individually controlled stirring positions, suitable for 4 x 2,000 ml Erlenmeyer flasks.

100% maintenance-free and wear-free by inductive EMCLAB-Magnetic-Drive concept, power for up to 3,000 ml per stirring point, 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.

Clear digital display for setting speed for each stirring point, SoftStart, automatic memory function to save last settings.



Model	IMS 4 MS EMC-20043049
Stirring points	4
Stirring point distance	140 mm
Stirring volume/point	1 - 3,000 ml
Speed range	100 - 2,000 rpm
Stirring power (max.)	28 W (4 x 7 W)
Dimensions (WxDxH)	245 x 425 x 38 mm
Housing Material	Stainless steel
Operation conditions	-10 °C up to +50 °C (at 80% humidity)
Electrical data	100-240 V / 50-60 Hz / 1.5 A
Protection category	IP65
Weight (gross)	8.9 kg

IMS 8 / IMS 12

With 8 stirring positions, suitable for 8 x 600 ml beaker glasses (tall form), or with 12 stirring positions, suitable for 12 x 600 ml beaker glasses (tall form).

100% maintenance-free and wear-free by inductive EMCLAB Magnetic Drive concept, power for up to 3,000 ml per stirring point, extremely wide speed range of 100 to 1,600 rpm, 100% synchronized speed, jerk-free stirring even at low speeds, 4-step power setting of the stirrer, high stirring power for viscous liquids and reduced stirring power for long-term operation without any heating effects caused by the stirrer.

Clear digital display for setting speed and power, SoftStart, QuickSet for quick setting of start- and maximum speed, automatic memory function to save last settings.



Model	IMS 8 EMC-20043042	IMS 12 EMC-20043043
Stirring points	8	12
Stirring points distance	90mm	90mm
Stirring volume/point	1 – 3,000 ml	1 – 3,000 ml
Speed range	100 – 1,600 rpm	100 – 1,600 rpm
Power setting	5/10/15/20 W	5/10/15/20 W
Dimension (WxDxH)	185 x 420 x 38 mm	245 x 425 x 38 mm
Housing material	Stainless steel	Stainless steel
Operation conditions	-10°C - +50°C / 80% H	-10°C - +50°C / 80% H
Electrical data	100-240 V/ 50-60Hz/ 1.5 A	100-240 V/ 50-60Hz/ 1.5 A
Protection category	IP65	IP65
Weight (gross)	6.4 kg	8.8 kg

Submersible Single Point Stirrers

IMS with external controller:

100% maintenance-free and wear-free by inductive EMCLAB-Magnetic-Drive concept for mixing of solutions, speed range depends on controller, 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- or oil baths, suitable for the use in CO_2-incubators and ovens.
3 years warranty on material and manufacturing, developed and made in Germany.

IMS mini Set

Miniaturized, wear-free magnetic stirrer with for cuvettes, stirring volume up to 25 ml.

Ideal size for system integration e.g. in photometer. Extremely robust construction, easy to clean, maximum resistance, submersible up to +50 °C.
Fully encapsulated and hermetically sealed stainless steel housing, IP68, water-, dust- and germproof.



Including C 1 controller featuring SoftStart for reliable catching/centering and safe accelerating of the stirring bar, 10 watts stirring power, speed range from 100 up to 1,200 rpm,

Model	IMS mini Set EMC-20043066
Stirring points	1
Stirring volume	1 – 25 ml
Stirring power (max.)	10 W
Dimensions (WxDxH)	13 x 13 x 6 mm
Housing material	PUR
Operation conditions	-10°C up to +50°C in air/ up to +50°C in water
Operation voltage (max.)	48 VDC
Protection category	IP68
Weight (gross)	0.1 kg

Model	C 1 controller
Speed range	120 – 1,200 rpm
Stirring power (max.)	10 W
Dimensions (WxDxH)	65 x 50 x 45 mm
Housing material	Plastic
Operation conditions	0 °C up to +40 °C / 80% H
Electrical data	100-240 V/ 50-60 Hz/ 0.75 A
Protection category	IP20
Weight (gross)	0.5 kg

Submersible Single Point Stirrers

IMS 1 XS

Submersible up to +50 °C, stirring volume up to 1,000 ml, ideal size for integration.



100% maintenance-free and wear-free by inductive EMCLAB-Magnetic-Drive concept for powerful mixing of solutions. Fully encapsulated and hermetically sealed stainless steel housing, M4 thread integrated in stainless-steel bottom plate (not HT-version), IP68, water-, dust- and germproof, extremely robust construction, easy to clean, maximum resistance, submersible in water- or oil baths, suitable for the use in CO_2-incubators and ovens.

Two different versions available: Basic-version up to +50 °C, on request: **HT-version** up to +95 °C submerged in water baths and up to +200 °C in ovens. Please order controller separately!* (page 12-13)

Model	IMS 1 XS EMC-20043045
Stirring points	1
Stirring volume	1 – 1,000 ml
Stirring power (max.)	10 W
Dimensions (WxDxH)	48 x 48 x 18 mm
Housing material	Stainless steel
Operation conditions	-10°C up to +50°C in air/ up to +50°C in water
Operation conditions (HT)	Up to 200°C in air, up to +95°C in water
Operation voltage (max.)	48 VDC
Protection category	IP68
Weight (gross)	0.25 kg

**Compatible with controllers C1, C2 (only in combination with plug-for-4)*

IMS 1 W / IMS 1 W HT

Submersible up to +50 °/+95 °C in water, stirring volume up to 3,000 ml.



1 stirring position, 100% maintenance-free and wear-free by inductive EMCLAB-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, easy to clean, maximum resistance, submersible in water- or oil baths, suitable for the use in CO_2-incubators and ovens.

Two different versions available: Basic-version up to +50 °C, **HT-version** up to +95 °C submerged in water baths and up to +200 °C in ovens. Please order controller separately!* (page 12-13)

Model	IMS 1 W EMC-20043032	IMS 1 W HT EMC-20043032
Stirring points	1	1
Stirring volume	1 – 3,000 ml	1 – 3,000 ml
Speed range	depends on controller	depends on controller
Stirring power (max.)	10 W	10 W
Dimensions (WxDxH)	120 x 120 x 35 mm	120 x 120 x 35 mm
Housing material	Stainless steel	Stainless steel
Operation conditions	-10°C up to +50°C in air/ up to +50°C in water	Up to 200°C in air, up to +95°C in water
Operating voltage (max.)	48 VDC	48 VDC
Protection category	IP68	IP68
Weight (gross)	1.5 kg	1.5 kg

**Compatible with controllers C1, C2 (only in combination with plug-for-4), C4 (only in combination with plug-for-4/8)*

Submersible Multiple Stirrers

IMS 6 W / IMS 15 W

Submersible up to +50 °/+95 °C in water, stirring volume up to 3,000 ml.

Ultra-flat, 100% maintenance- and wear-free magnetic stirrer with inductive EMCLAB-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, easy to clean, maximum resistance, submersible in water- or oil baths, suitable for the use in CO_2-incubators and ovens.
Two different versions available: Basic-version up to +50 °C, **HT-version** up to +95 °C submerged in water baths and up to +200 °C in ovens.
Please order controller separately!* (page 12-13)

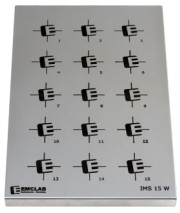


IMS 6 W / IMS 6 W HT

6 stirring positions, up to 3,000 ml stirring volume, suitable for 6 x 1000 ml Erlenmeyer flasks.

Model	IMS 6 W EMC-20043033	IMS 6 W HT EMC-20043037
Stirring points	6	6
Stirring volume	1 – 3,000 ml	1 – 3,000 ml
Stirring points distance	130 mm	130 mm
Speed range [rpm]	depends on controller	depends on controller
Stirring power (max.)	40 W	40 W
Dimensions (WxDxH)	245 x 375 x 38 mm	245 x 375 x 38 mm
Housing material	Stainless steel	Stainless steel
Operation conditions	-10°C up to +50°C in air/ up to +50°C in water	-10°C up to +200°C in air/ up to +95°C in water
Operation voltage (max.)	48 VDC	48 VDC
Protection category	IP68	IP68
Weight (gross)	8.9 kg	8.9 kg

**Compatible with controllers C1, C2, C4*



IMS 15 W / IMS 15 W HT

15 stirring positions, up to 3,000 ml stirring volume, suitable for 15 x 250 ml beakers (tall form).

Model	IMS 15 W EMC-20043034	IMS 15 W HT EMC-20043038
Stirring points	15	15
Stirring volume	1 – 3,000 ml	1 – 3,000 ml
Stirring point distance	65 mm	65 mm
Speed range [rpm]	depends on controller	depends on controller
Stirring power (max.)	40 W	40 W
Dimensions (WxDxH)	245 x 375 x 38 mm	245 x 375 x 38 mm
Housing material	Stainless steel	Stainless steel
Operation conditions	-10°C up to +50°C in air/ up to +50°C in water	-10°C up to +200°C in air/ up to +95°C in water
Operation voltage (max.)	48 VDC	48 VDC
Protection category	IP68	IP68
Weight (gross)	9.5 kg	9.5 kg

**Compatible with controllers C1, C2, C4*

Control Units

C 1 Controller

Price-optimized control unit for the connection of 1 submersible stirrer IMS.

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



Model	C 1 controller EMC-20043025
Speed range	120 – 1,200 rpm
Stirring power (max.)	10 W
Dimensions (WxDxH)	65 x 50 x 45 mm
Housing material	Plastic
Operation conditions	0 °C up to +40 °C / 80% H
Electrical data	100-240 V/ 50-60 Hz/ 0.75 A
Protection category	IP20
Weight (gross)	0.5 kg

C 2 Controller

Universal control unit for the connection of 1 submersible stirrers IMS.*
Control unit with 20 watts stirring power, speed range from 100 up to 1,600 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 stirrer speed- and power setting, SoftStart for reliable catching/centering 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.



Model	C 2 controller EMC-20043028
Speed range	100 – 1,600 rpm
Stirring power (max.)	20 W
Power setting	4 step (25/50/75/100%)
Dimensions (WxDxH)	200 x 155 x 38 mm
Housing material	Stainless steel
Operation conditions	0°C up to 40°C (at 80 % humidity)
Electrical data	100-240 V/ 50-60 Hz/ 1.5 A
Protection category	IP20
Weight (gross)	1.4 kg

**If using C 2 controller for IMS XS 1 or IMS 1 W (HT) only available for 2 or 4 stirrers with plug-for-4*

C 4 Controller

Powerful control unit, for IMS W series, developed for demanding daily lab use and uncompromising continuous operation. For the connection of 2 submersible stirrers IMS.*

Powerful 40 watts stirring power, wide speed range from 100 up to 2,000 rpm, jerk-free stirring even at low speeds, power setting (10-steps) for high power concerning large and viscous volumes and reduced power for warming-free continuous operation.

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

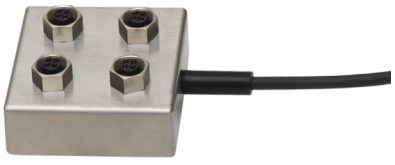


Model	C 4 controller EMC-20043039
Speed range	100 – 2,000 rpm
Stirring power (max.)	40 W
Power setting	10 step (4 - 40 W)
Dimensions (WxDxH)	200 x 155 x 38 mm
Housing material	Stainless steel
Operation conditions	0°C up to 40°C (at 80 % humidity)
Electrical data	100-240 V/ 50-60 Hz/ 1.5 A
Protection category	IP20
Weight (gross)	1.9 kg

**If using C 4 controller for IMS 1 W (HT) only available for 2 / 4 stirrers with plug-for-4 or 4 / 6 / 8 stirrers with plug-for-8*

Plug-for-4 / Plug-for-8

Distributor for synchronized operating of multiple stirrer with C2, C4 controller. Identical operation conditions, synchronous speeds, same stirring power, space-saving, sealed stainless steel housing.



Model	Plug-for-4 EMC-20043035	Plug-for-4 EMC-20043059
Distributor	4-fold	8-fold
Housing material	Stainless steel	Stainless steel
Dimension (WxDxH)	48 x 48 x 25 mm	48 x 92 x 25 mm
Number of stirrers (in pairs only)	2 / 4	2 / 4 / 6 / 8

Hotplate Stirrer

Stirring Hotplate 6 / Stirring Hotplate 15

With 6 stirring positions suitable for 6 x 1,000 ml Erlenmeyer flasks or
with 15 stirring positions suitable for 15 x 250 ml beaker glasses (tall form).

- Fast heating-up
- Developed and made in Germany

Stirring

Powerful 6 or 15 stirring points, maintenance-free and wear-free by inductive EMCLAB-Magnetic-Drive concept, extremely wide speed range of 100 to 2,000 rpm, 100% synchronized speed, jerk-free stirring even at low speeds, 10-step power setting of the stirrer, high power setting for viscous liquids and reduced stirring power for long-term operation without any heating effects caused by the stirrer. Clear digital display for setting stirrer speed, stirrer power and temperature of the integrated heater, SoftStart for reliable catching/centering and safe accelerating 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 stirring power loss, caused by heating, which can reach up to 40% at high temperatures, independent over-heating protection inside the plate.

Including separate controller 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.



Model	Hotplate 6 EMC-20043052	Hotplate 15 EMC-20043065
Stirring points	6	15
Stirring point distance	130 mm	65 mm
Stirring volume/stirring point	1 – 1,500 ml	1 – 1,000 ml
Stirring power (max.)	40 W Power setting 4 – 40 W (10-step)	40 W Power setting 4 – 40 W (10-step)
Temperature (max.)	+200°C	+200°C
Speed range	100 – 2,000 rpm	100 – 2,000 rpm
Dimensions (WxDxH)	250 x 430 x 75 mm	250 x 430 x 75 mm
Heating power (max.)	1,200 W	1,200 W
Operating voltage (max.)	230 V	230 V
Protection category	IP20	IP20
Weight (gross)	15 kg	15 kg

Without the illustrated Erlenmeyer flasks.

Hotplate Stirrer

Hotplate Stirrer DMSH-20D / DMSH-30-D

Excellent hotplate stirrer for most general heating and stirring applications.



Features:

- Simple handling
- Fast start-up
- Ceramic coated plate – chemical and acid resistant
- High scratch prevention
- One-knob-operation with Jog Shuttle control system (simple turn & push operation)
- Storage function for the set values
- Digital LCD with back-light function
- Digital timer function incl. 99 hours / 59 min settable
- Alarm function for error status and timer-end
- Locking mode supported for experimental safety
- Encl. temperature sensor Pt 100,standrod holder and clamp
- German technology, produced in South Korea, checked and certified in Germany

Model	DMSH-20D-Set EMC-20043010	DMSH-30D-Set EMC-20043001
Dimension of work plate	180 x 180 mm	260 x 260 mm
Work plate material	Ceramic coated	Ceramic coated
Housing material	Powder coated Aluminum	Powder coated Aluminum
Stirring quantity (max.)	20	20
Motor range	4 W	9 W
Speed range	80 ~ 1500 rpm	80 ~ 1500 rpm
Speed control resolution	5 rpm	5 rpm
Temperature range	25 – 380°C	25 – 380°C
Temperature accuracy	±0.3°C at set temperature	±0.3°C at set temperature
Temperature display resolution	0.1°C	0.1°C
Temperature control resolution	0.5°C	0.5°C
Heating power	600 W	1200 W
Controller	Digital Feedback Controller with Jog Shuttle Switch (turn + push)	Digital Feedback Controller with Jog Shuttle Switch (turn + push)
Display	Digital LCD	Digital LCD
Timer	99h 59min (continuous function included)	99h 59min (continuous function included)
Dimensions (WxDxH)	206 x 307 x 99 mm	286 x 387 x 99 mm
Weight (gross)	3.3 kg	6.7 kg
Power supply	AC 230 V 1N~, 50/60 Hz	AC 230 V 1N~, 50/60 Hz

Without the illustrated Erlenmeyer flasks

Stirring Heating Blocks

Stirring Drybath 15-100 / EMCLAB Stirring Drybath 15-250

Stirring-heating block combination with 15 bore holes, suitable for 100 ml laboratory bottles and for 150 ml beakes tall form (ø 57.5 mm, depth 48 mm, distance 65 mm) or with 15 bore holes suitable for 250 ml laboratory bottles and for 400 ml beakers tall form (ø 71.5 mm, depth 78 mm, distance 84 mm).



- Fast heating-up
- Developed and made in Germany

Stirring

maintenance-free and wear-free by inductive EMCLAB-Magnetic-Drive concept, extremely wide speed range of 100 to 2,000 rpm, 100% synchronized speed, 10-step power setting of the stirrer, high stirring power for viscous liquids and reduced stirring power for long-term operation without any heating effects caused by the stirrer, clear digital display for setting stirrer speed, stirrer power and temperature of the integrated heater, SoftStart for reliable catching/centering and safe accelerating 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 stirring power loss, caused by heating, which can reach up to 40% at high temperatures, independent over-heating protection inside the plate.

Including separate controller 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.

Model	Stirring Drybath 15-100 EMC-20043049	Stirring Drybath 15-250 EMC-20043050
Stirring points	15	15
Stirring point distance	65 mm	84 mm
Bore holes Ø/T	Ø 57.5 / 48 mm	Ø 71.5 / 78 mm
Stirring volume/stirring point	1 – 150ml	1 – 400 ml
Stirring power (max.)	40 W	40 W
Power setting	4 – 40 W (10-step)	4 – 40 W (10-step)
Temperature (max.)	+200°C	+200°C
Speed range	100 – 2,000 rpm	100 – 2,000 rpm
Operating voltage (max.)	230 V	230 V
Heating power (max.)	1,000 W	1,000 W
Dimensions (WxDxH)	280 x 430 x 120 mm	335 x 515 x 150 mm
Protection category	IP20	IP20
Weight (gross)	23 kg	31 kg

Without the illustrated laboratory bottles.

Stirring Heating Blocks



Stirring Drybath 8-250 ERL

Stirring-heating block combination with 8 stirring positions (ø 87.2 mm, depth 78 mm, distance 100/140 mm), suitable for 250 ml Erlenmeyer flasks.

- Fast heating-up
- Developed and made in Germany

Stirring

Maintenance-free and wear-free by inductive EMCLAB-Magnetic Drive concept, extremely wide speed range of 100 to 2,000 rpm, 100% synchronized speed, jerk-free stirring even at low speeds, 10-step power setting of the stirrer, high stirring power for viscous liquids and reduced stirring power 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 for reliable catching/centering and safe accelerating of the stirring bar.

Heating

Massive heating block made of resistant aluminium alloy, PTFE-coated for increased chemical resistance and easier cleaning, contact adapters for an optimal heat transfer, lowest possible temperature gradient inside the stirring vessels, integrated electrical heater, maximum heating temperature +200 °C.PowerDetect for automatic compensation of stirring power loss, caused by heating, which can reach 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-heating protection inside the plate.

Including separate controller 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. Including 8 contact adapters for an optimized heat transfer.

Model	Stirring Drybath 8-250 ERL EMC-20043067
Stirring points	8
Stirring point distance	100 / 140 mm
Bore holes Ø/T	Ø 87.2 / 78 mm
Stirring volume/stirring point	1 – 250ml
Stirring power (max.)	40 W
Power setting	4 – 40 W (10-step)
Temperature (max.)	+200°C
Speed range	100 – 2,000 rpm
Operating volate (max.)	230 V
Heating power (max.)	1,000 W
Dimensions (WxDxH)	335 x 515 x 150 mm
Protection category	IP20
Weight (gross)	38 kg

Without the illustrated Erlenmeyer flasks.

Stirring bar triangular

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



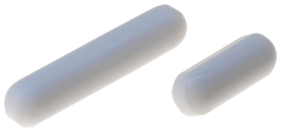
The stirring bars SB 25 and SB 40 are designed for strong stirrers and viscous media. More than 4x higher torque transmissible, unbeatable increased mixing effect in comparison to conventional stirring bars, high energetic and long-term stable magnetic field, no demagnetization effect, concave design 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, even and sealed PTFE cover, FDA-conform, steam sterilizable at 121°C, improvedperformances for all types of magnetic stirrers.

Model	SB 25 EMC-20043027	SB 40 EMC-20043026
Material	PTFE (cover), SmCo (magnet)	PTFE (cover), SmCo (magnet)
Shape	triangular, concave	triangular, concave
Dimensions	Ø 14 x 25 mm	Ø 28 x 40 mm
Weight	20 g	60 g

Stirring bar cylindrical

Stirring bars circular, smooth and PTFE-coated for universal applications, steam sterilizable at 121°C.



Model	SB 8 9197509	SB 10 91987681	SB 12 91989401
Material	PTFE (cover)	PTFE (cover)	PTFE (cover)
Shape	Cylindrical, circular	Cylindrical, circular	Cylindrical, circular
Dimension	Ø 3 x 8 mm	Ø 8 x 25 mm	Ø 8 x 40 mm
Weight	approx. 2 g	approx. 5 g	approx. 10 g

Stirring bar retriever

For the removal of stirring bars from aggressive liquids. Prevents loss of stirring bars. Universal chemical resistance also in aggressive media, ideal for fast removal of heavy and big magnetic stirring bars with a weight up to 400 g.



Model	SBR 250 9197725
Material	PTFE (cover)
Dimension	Ø 8 x 250 mm
Weight	approx. 38 g

Stabilizing ring

Suitable for Erlenmeyer flasks, etc.
The weight of the ring prevents flasks from floating when placed in a water bath



Model	SR 50 EMC-5660	SR 70 EMC-5661
Material	18/10 steel PVC coated	18/10 steel PVC coated
Dimension	Ø 50 mm	Ø 70 mm
Weight	207 g	340 g

Without the illustrated Erlenmeyer flasks.

Water Bath WB E

Durable, robust stainless steel bath, easy to clean, suitable for IMS W (HT) and IMS 1 XS. Fitting for immersion thermostats (heating/ cooling), easy to clean, even weld and electropolished, framed ridge formed as handle, integrated drain makes emptying liquid easy and safe, 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 IMS 6 or IMS 15.



Model	WB E EMC-20043068
Material	Stainless steel
Dimension (WxDxH)	277 x 537 x 175 mm (inner) - 315 x 575 x 190 mm (outer)
Weight	5.5 kg

Water Bath WB

Water bath made of PMMA for numerous applications:
stirring – heating – cooling.
Ideal suitable for submersible stirrers IMS W and IMS 1 XS with external controller.
Fitting for immersion thermostats (heating - cooling) including mount bridge.
Made of transparent PMMA, easy to clean, chemical resistant, durable up to 50°C.



Model	WB 1 EMC-20043029	WB 2 EMC-20043029
Material	PMMA transparent	PMMA transparent
Dimension (WxDxH)	350 x 570 x 230 mm	350 x 320 x 230 mm
Weight	5,2 kg	4,2 kg

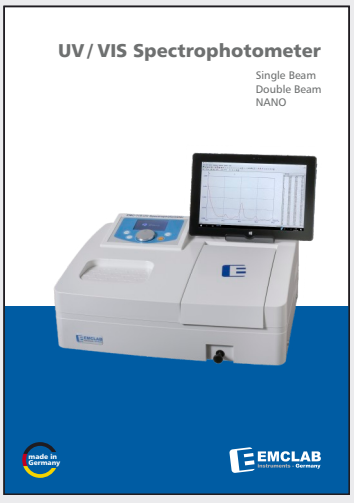
Immersion thermostat

Immersion thermostat suitable for water baths. Universally usable screw clamp in the scope of delivery to be very easily mounted. The thermostat is fitted with a powerful pressure/suction pump and meets the requirements of Safety Class III (FL) for the use with flammable fluids.



Model	KISS-E 2035.0012.98
Temperature range	25 – 200°C
Temperature stability	±0,05°C
Heating capacity	2 kW
Pump pressure	14 l/min
Pump pressure	0.25 bar
Pump suction	10,5 l/min
Pump suction	0.17 bar
Voltage / Frequency	AC 230 V 1~ 50/60 Hz







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