# MS-H-PRO<sup>A</sup>

**LCD Digital Magnetic Hotplate Stirrer**

Three heating models for selecting（fast heating, standard heating and stable heating）

# MS-H-PRO<sup>+</sup>

**LCD Digital Magnetic Hotplate Stirrer**

# MS-H-Pro<sup>T</sup>

**LCD Digital Magnetic Hotplate Stirrer with Timer**

# MS-H-S

**Analog Magnetic Hotplate stirrer**

# Features

- Brushless DC motor is maintenance free and explosion-proof
- Digital temperature control up to 340°C
- Digital speed control up to 1500rpm
- Maximum stirring quantity of $H_2O$ is 20L
- Safety circuits provide overheating protection
- "HOT" warning flashes if plate temperature is above 50°C even when hotplate is turned off
- Wide range timer function from 1 min to 99h 59min (MS-H-Pro<sup>T</sup> only)
- High-resolution LCD display shows actual temperatures and speed (MS-H-Pro<sup>T</sup> displays the time)
- External temperature control is possible by connecting the temperature sensor (PT 1000)with accuracy at ±0.2°C
- Work plate with ceramic coating provides good chemical-resistantperformance
- Remote function provides PC control and data transmission
- Wide variety of accessories available to choose

# Security

- International safety certification: CE, CTÜVuS, FCC and other product safety cert,certifications issued by TUV Rheinland
- Safety circuits provide overheating protection
- "HOT" warning flashes if the work plate temperature is above 50°C
- Brushless DC motor is maintenance free and exposion-proof
- Fully enclosed aluminum alloy housing with good heat dissipation performance and reliable protection capability

External sensor　　RS232 connector　　Wide range of accessories　　Chemical resistance　　Brushless DC motor

| Specifications | MS-H-Pro^A | MS-H-PRO^+ | MS-H-PRO^T | MS-H-S | MS-H380-Pro | MS-H280-Pro |
|---|---|---|---|---|---|---|
| Work plate Dimension [W x D] | Ø135mm（5 inch） | Ø135mm（5 inch） | Ø135mm（5 inch） | Ø135mm（5 inch） | 140x140mm | Ø135mm（5 inch） |
| Work plate material | Aluminum cover with ceramic coating | stainless steel cover with ceramic coating | stainless steel cover with ceramic coating | stainless steel cover with ceramic coating | Aluminum cover with ceramic coating | stainless steel cover with ceramic coating |
| Motor type | Brushless DC motor | Brushless DC motor | Brushless DC motor | Brushless DC motor | Brushless DC motor | Brushless DC motor |
| Stirring positions | 1 | 1 | 1 | 1 | 1 | 1 |
| Max. stirring quantity, [$H_2O$] | 20L | 20L | 20L | 20L | 5L | 3L |
| Max. magnetic bar[length] | 80mm | 80mm | 80mm | 80mm | 50mm | 50mm |
| Speed range | 100~1500rpm resolution ±1rpm | 100~1500rpm resolution ±1rpm | 100~1500rpm resolution ±1rpm | 0~1500rpm | 200~1500rpm | 200~1500rpm |
| Speed display | LCD | LCD | LCD | Scale | LCD | LED |
| Temperature display | LCD | LCD | LCD | Scale | LCD | LED |
| Heating temperature range | Room temp.~340℃, increment 1℃ | Room Temp.~340℃, increment 1℃ | Room Temp.~340℃, increment 1℃ | Room Temp.~340℃ | Room Temp~380℃ | Room Temp~280℃ |
| Heating liquid temperature control accuracy | ±1℃(<100℃) ±1%(>100℃) | ±1℃(<100℃) ±1%(>100℃) | ±1℃(<100℃) ±1%(>100℃) | – | ±1℃(<100℃) ±1%(>100℃) | ±1℃ (<100℃) ±1% (>100℃) |
| Overheating temperature protection | 420℃ | 420℃ | 420℃ | 420℃ | 420℃ | 320℃ |
| Temperature display accuracy | ±0.1℃ | ±0.1℃ | ±0.1℃ | – | ±0.1℃ | ±1℃ |
| External temperature sensor | PT1000 (accuracy±0.2℃) | PT1000 (accuracy±0.2℃) | PT1000 (accuracy ±0.2℃) | – | PT1000 (accuracy±0.2℃) | PT1000 (accuracy±0.2℃) |
| "Hot" warning | 50℃ | 50℃ | 50℃ | – | – | 50℃ |
| Data connector | RS232 | RS232 | RS232 | – | – | – |
| Protection class | IP21 | IP21 | IP21 | IP21 | IP21 | IP42 |
| Timer function | – | – | 1min to 99h59min | – | – | – |
| Motor rating input | 18W | 18W | 18W | 18W | 2.4W | 5W |
| Motor rating output | 10W | 10W | 10W | 10W | 1.8W | 3W |
| Power | 650W | 550W | 550W | 530W | 510W | 515W |
| Heating output | 600W | 500W | 500W | 500W | 500W | 500W |
| Voltage,Frequency | 100~120/200~240V, 50/60Hz | 100~120/200~240V, 50/60Hz | 100~120/200~240V, 50/60Hz | 100~120/200~240V, 50/60Hz | 100~120/200~240V, 50/60Hz | 100~120/200~240V, 50/60Hz |
| Dimension [WxDxH] | 280x160x100mm | 160x280x100mm | 160x280x100mm | 160x280x100mm | 320x180x108mm | 150x260x100mm |
| Weight | 2.8kg | 2.8kg | 2.8kg | 2.8kg | 2.2kg | 1.8kg |
| Permissible ambient temperature and humidity | 5~40℃,80%RH | 5~40℃,80%RH | 5~40℃,80%RH | 5~40℃,80%RH | 5~40℃,80%RH | 5~40℃,80%RH |