

NEW

The World Best Quality with Cost-Effectiveness!!



WiseStir[®] MSH-20D
〈Digital Package Type
Hotplate Stirrer〉



WiseStir[®] MSH-20A
〈Premium-analog Type
Hotplate Stirrer〉



WiseTherm[®] HP-20D
〈Digital Type Hotplate〉

Wisdom

WiseStir[®] and WiseTherm[®]

- Magnetic Stirrers
- Magnetic Stirrer with Heater
- Hotplate Stirrers
- Hotplates

WiseStir[®] MS-20A and MSH-20A NEW Premium-analog Magnetic Stirrers & Hotplate Stirrers

WiseTherm[®] HP-20A NEW Premium-analog Hotplates

» Application & Features

- Mixing liquids, Stirring, Heating and Controlling
- Superior Temperature Uniformity :
less than 3% on the plate at current temperature (*HP-20A, MSH-20A*)
- Superior Linearity for the control of Temperature & Stirring Speed :
by Specially Designed Control Circuitry.
- Excellent for Sample Drying and most General Lab
- Smart Design of Body : made by Aluminum Die-Casting.
- Coated Plate - Chemical / Acid Resistance
- Maximum Temperature of 380°C (*HP-20A, MSH-20A*)
- Free Voltage (AC 80V~240V, 50~60Hz) by SMPS (*MS-20A*)



WiseStir[®] MSH-20A
<Premium-analog Hotplate Stirrer>

» Ordering Information and Technical Data

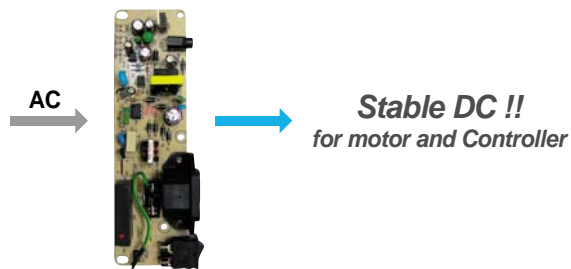
❖ Please refer to the last page!

Premium Quality !
Happy Price ! So ! Wise !

Specialized Features Only Wisdom Special Features made by High-Technology

Long Life Power & Mechanism!

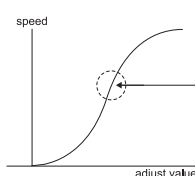
SMPS (Switching Mode Power Supply)
Use with Safety & Regular DC !!



SSR (Solid State Relay)
Not use with contact type Relay !!
No Electronic Harm!

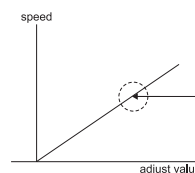
Realize **Long Life Cycle!**

High Stability in Very Low & High-speed



General Phase Control
Use with AC !!

Very Sensitive point and so hard
to control Stirring Speed!!
Also easy to loosen a Stir bar



PWM Control
Use with DC !!

Super linearity for the control of
Temperature & Stirring Speed!

Realize **Stable & Easy to Use!**

WiseStir[®] MS-20D and MSH-20D NEW Fully Digital Magnetic Stirrers & Hotplate Stirrers

WiseTherm[®] HP-20D NEW Fully Digital Hotplates



» Application & Features

- Mixing liquids, Stirring, Heating and Controlling
- Superior Temperature Uniformity :
Less than 3% on the plate at current temperature (*HP-20D, MSH-20D*)
- The Ergonomic Article for precise-control of HEAT, STIRRING-speed, and TIME Jog-Shuttle switch (Turn + Push)
- Accurate Temp. Control of the sample in the vessel using Optional PT100 Sensor
- Digital LCD for indication Temperature, RPM and Timer
- User's self-compensation function : to control Difference between Real Temp. ($\pm 10^{\circ}\text{C}$)
- Digital Feedback control by High-Performance Microprocessor
- Storage function for the set values : Temperature, RPM and Timer
- Locking Mode for Experimental Safety supported
- Digital Timer function included : 99hr 59min settable
- Smart Design of Body : made by Aluminum Die-Casting.
- Ceramic Coated Plate - Chemical/Acid Resistance
- Alarm function : for Error Status of Timer-end

» Ordering Information and Technical Data

❖ Please refer to the last page!

**Fully Digital Function !
High Precision ! So ! Wise !**

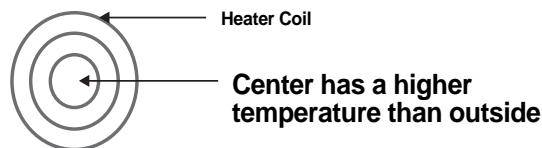
WiseStir[®] MSH-20D Package <Fully Digital Hotplate Stirrer Set>

Accessories for *HP-20D, MSH-20D*

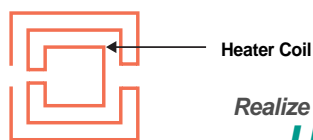
DH.WMH503030	SS200, Direct contact Temperature Sensor (PT100)
DH.WMH503031	SS210, Teflon Coated Temperature Sensor (PT100)
DH.WMH503036	RD200, Stand Rod, Stainless Steel $\phi 12 \times L450$ mm
DH.WMH503012	CL220, Holder + Clamp for Temp. Sensor

Superior Temperature Uniformity!

compare of temperature general heater coil
with DAIHAN's heater coil



General Heater Coil



DAIHAN's Heater coil

Realize Less than 3%!!
Uniformity!

High-Performance MicroProcessor

DAIHAN Scientific's Technology !!



Realize
**Precision &
Easy to Use!**

*For only Digital model

- Wise Jog Shuttle Controller
- User Self-Compensation Function
- Precise Digital Feedback control of Temperature & Stirring Speed
- Many Convenient Function
 - Timer, Alarm, Storage for set values,
 - Locking mode for Experimental safety support

WiseStir® Hotplate Stirrers & Magnetic Stirrers

WiseTherm® Hotplates

NEW

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Ordering Information and Technical Data

» Premium - analog Type



Model	MSH-20A Hotplate Stirrer	MS-20A Magnetic Stirrer	HP-20A Hotplate
High Uniformity Designed Heater Coil	YES	none	YES
Super linearity PWM controller	YES	YES	none
SMPS for Stable DC Supply	Supply Stable DC to motor and controller		
SSR (none contact relay)	To prevent an Electronic Shock		
Stirring Capacity (H ₂ O)	Max. 20 Lit.	Max. 20 Lit	none
Motor Rating (W) (Input / Output)	9 / 4	9 / 4	none
Speed Range (rpm)	0 ~ 1500	0 ~ 1500	none
Temp. Range (°C)	Max. 380°C	none	Max. 380°C
Heating Power (W)	600 W	none	600 W
Plate Size (mm)	180 × 180		
Dimension (W × D × H)	206 × 307 × 99		
Weight (kg)	3.3	3.1	2.8
Power Supply	AC 230V, 50/60Hz	Free Voltage (AC 80V ~ 240V, 50/60Hz)	AC 230V, 50/60Hz
Ordering Number	DH.WMH03120	DH.WMS03122	DH.WHP03120

» Fully Digital Type



Model	MSH-20D Hotplate Stirrer	MS-20D Magnetic Stirrer	MSH-20D-Set Hotplate Stirrer Package	HP-20D Hotplate
Digital Feedback control by High-Performance Microprocessor	High Precision working and goal to accurate result.			
Wise Jog Shuttle Controller (Turn & Push)	Supply "Easy to Use" working environment.			
Digital LCD for indication	Show all information for your experiment.			
Storage function (Temp., RPM and Timer)	Very convenient function when you work in same condition repeatedly			
Locking mode	Don't be afraid of changing set value during a run.			
Digital Timer function with Alarm	0 sec (∞) ~ 99hr 59min			
SMPS for Stable DC Supply	Supply Stable DC to motor and controller			
SSR (none contact relay)	To prevent an Electronic Shock			
User's self-compensation function	YES	none	YES	YES
Can control that keeps very accurate temp. using PT100 sensor	none		YES	none
High Uniformity Designed Heater Coil	YES	none	YES	YES
Stirring Capacity (H ₂ O)	Max. 20 Lit.	Max. 20 Lit.	Max. 20 Lit	none
Motor Rating (W) (Input / Output)	9 / 4	9 / 4	9 / 4	none
Speed Range (rpm)	80 ~ 1500	80 ~ 1500	80 ~ 1500	none
Temp.	Range (°C)	Max. 380°C	Max. 380°C	Max. 380°C
	Accuracy	±0.3°C at Set Temp.	none	±0.3°C at Set Temp.
Heating Power (W)	600 W	none	600 W	600 W
Temp. Control Resolution (°C)	0.5	none	0.5	0.5
Temp. Display Resolution (°C)	0.1	none	0.1	0.1
Plate Size (mm)	180 × 180			
Dimension (W × D × H)	206 × 307 × 99			
Weight (kg)	3.3	3.1	3.3	2.8
Power Supply	AC 230V, 50/60Hz	Free Voltage (AC 80V ~ 240V, 50/60Hz)	AC 230V, 50/60Hz	AC 230V, 50/60Hz
Ordering Number	DH.WMH03020	DH.WMS03022	DH.WMH03021	DH.WHP03020

❖ Note! Others Specifications are available upon customer's request

Distributor