

# GUARDIAN™ 5000

## Hotplate Stirrers



### *Expertly Engineered Hotplate Stirrers with Premium Safety and Versatility Features for Everyday Use*

The Next Generation Guardian™ 5000 Hotplate Stirrers are engineered for safety and versatility across research, academic and industrial settings. They offer powerful heating and mixing, with premium hardware and software to support diverse users safely and reliably. Heating models reach up to 550 °C and feature 3 temperature control modes for quick heating or precise heating without overshoot. Select from 5 models with 3 plate sizes.

#### *Unique Features:*

- Our signature SafetyHeat™ and SmartHeat™ features combined with the new Run Dry Protection system plus the Time Run mode and the optional Splash Shield provide complete safety.
- The evolved SmartRate™ system supports heating & stirring from fast and intensive to soft and precise, with a range of accessories to empower a variety of applications.
- An intuitive user interface featuring a large, bright LCD screen with white characters & knob button(s), allows for user friendly operation. RS232 port included for remote control or data logging.

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## SmartHeat™

User is able to adjust Set Temperature upper limit of the Top Plate, from 0°C to Rated Max Temperature

## SafetyHeat™

Industry-leading early detection system that uses two independent safety controls to continuously monitor the electronics and shut off heating before an overtemperature condition occurs.

## SmartRate™

User is able to select the speed or temperature ramping rate

## Run Dry Protection System

Shuts off heating and alarms, if a probe-controlled heating is running without the probe tip submersed in the heating medium.



## Specifications

Model	e-G52HSRDA	e-G52HS10C	e-G52HS07C	e-G52HP07C	e-G52ST07C
Kit Model***	e-G52HSRDA -K1	e-G52HS10C -K1	e-G52HS07C -K1	e-G52HP07C -K1	--
Function	Heating and Stirring			Heating	Stirring
Top Plate Size	Ø 5.3 in / 13.5 cm	10 x 10 in / 26 x 26 cm	7 x 7 in / 18 x 18 cm		
Top Plate Material	Ceramic Coated Aluminum	Ceramic			
Housing Material	Painted Aluminum				
Display	4.5 x 1.2 in / 115 x 30 mm White Character LCD				
Timer	1 minute to 99 hours 59 minutes				
Temperature Range	Ambient + 5 °C – 360 °C	Ambient + 5 °C – 500 °C	Ambient + 5 °C – 550 °C		--
Temperature Increments & Readability	0.5 °C				--
Temperature Stability*	+/-1 % Plate, below 100 °C +/-1 °C and +/-0.5 % Probe, below 100 °C +/-0.5 °C				--
Temperature Calibration (SPC) Set Points	3 points for Plate and 3 points for Probe				--
Probe Connection	PT100, PT1000 (Class A)				--
Probe Temperature Measurement Accuracy	±0.2 °C + PT1000 (Class A) Tolerance**				--
Heating Power	600 W at 120 V 656 W at 230 V	1650 W at 120 V 2066 W at 230 V	1582 W at 120 V 1050 W at 230 V		--
Speed Range	50 - 1800 rpm			--	50 - 1800 rpm
Speed Stability*	+/-2 %			--	+/-2 %
Stirring Capacity (H <sub>2</sub> O)	20 L	22 L	20 L	--	20 L
Data Logging & Remote Control	built-in RS232; optional RS232-USB interface kit; optional RS232-Ethernet interface kit				
IP Rating	IP32				
Dimensions (L x W x H)	259 x 175 x 108 mm 10.21 x 6.87 x 4.26 inch	402 x 287 x 118 mm 15.84 x 11.28 x 4.65 inch	329 x 221 x 116 mm 12.94 x 8.69 x 4.56 inch		
Working Environment	41 °F – 104 °F, 80 %RH, non-condensing / 5 °C – 40 °C, 80 %RH, non-condensing				
Basic Model Net Weight	5.7 lb / 2.6 kg	14.8 lb / 6.7 kg	10.1 lb / 4.6 kg	8.6 lb / 3.9 kg	9.9 lb / 4.5 kg
Electrical (50/60 Hz)	100 - 120V, 8 A 220 - 240V, 4 A	100 - 120V, 15 A 220 - 240V, 10 A	100 - 120V, 15 A 220 - 240V, 7 A		100 - 120 V, 1 A 220 - 240 V, 1 A

\* Conditions permitting. Variations in temperature and speed measurement processes, vessel, ambient and sample will impact actual performance. To improve temperature accuracy of the system use the Single Point Calibration feature.

\*\*PT1000 Class A Tolerance:  $\pm(0.15\text{ }^\circ\text{C} + 0.002 \times T\text{ }^\circ\text{C})$ , T is Set Temperature

\*\*\* Kit-1 ("K1") has the Temperature Probe 30500590 and the Probe Holder Kit 30973298 included in package.

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## Accessories

Item No.	Description	e-G52HSRDA	e-G52HS10C	e-G52HS07C	e-G52HP07C	e-G52ST07C
30973654	Probe PT100(A) -40~400C 25cm SS316/304	●	●	●	●	
30500590	Probe PT1000(A) -40~400C 20cm SS316/304	●	●	●	●	
30500592	Probe PT1000(A) -40~400C 25cm SS316/304	●	●	●	●	
30973655	Probe PT1000(A) -40~400C 25cm Hastelloy	●	●	●	●	
30500591	Probe PT1000(A) -40~200C 20cm PTFE	●	●	●	●	
30500593	Probe PT1000(A) -40~200C 25cm PTFE	●	●	●	●	
30304101	Interface Kit, RS232-USB	●	●	●	●	●
30304102	Interface Kit, RS232-Ethernet	●	●	●	●	●
30973298	Probe Holder Kit-1	●	●	●	●	●
30400145*	Ultra Flex Support Kit	●	●	●	●	●
30400146	Support Rod And Clamp Kit	●	●	●	●	●
30400147	Spinbar 2.5 cm PTFE	●	●	●		●
30400148	Spinbar 3.8 cm PTFE	●	●	●		●
30400149	Spinbar 7 cm PTFE	●	●	●		●
30400150	Spinbar 10 cm with Pivot Ring PTFE	●	●	●		●
30726783**	Spinbar with a Pivot 3.8 cm PTFE	●	●	●		●
30500598	Stir Bar Retriever	●	●	●		●
30392195	Clamp, Holder, CLC-CLMPHA	●	●	●	●	●
30500597	Vessel Clamp	●	●	●	●	●
30392314	Clamp, Specialty, Column, CLS-COLMNSS	●	●	●	●	●
30392315	Clamp, Specialty, Column, CLS-COLMNSM	●	●	●	●	●
30392316	Clamp, Specialty, Column, CLS-COLMNSL	●	●	●	●	●
30392317	Clamp, Specialty, Column, CLS-COLMNSX	●	●	●	●	●
30392318	Clamp, Specialty, Nester, CLS-NESTXS	●	●	●	●	●
30910731	Splash Shield for e-G52XX07C			●	●	●
30910732	Splash Shield for e-G52HS10C		●			
30910733	Splash Shield for e-G52HSRDA	●				
30910734	Silicone Cover for e-G52HSRDA	●				
30500570	Base Plate 135 mm	●				
30500571	Handles for Base Plate	●				
30500572	Sectional Block 12 mm Vials	●	●	●	●	
30500573	Sectional Block 15 mm vials	●	●	●	●	
30500574	Sectional Block 17 mm Vials	●	●	●	●	
30500575	Sectional Block 21 mm Vials	●	●	●	●	
30500576	Sectional Block 28 mm Vials	●	●	●	●	
30500577	Sectional Block 12 mm Test Tubes	●	●	●	●	
30500578	Sectional Block 16 mm Test Tubes	●	●	●	●	
30500579	Sectional Block 20 mm Test Tubes	●	●	●	●	
30500580	Sectional Block 25 mm Test Tubes	●	●	●	●	
30500581	Uni Block 12 mm Vials	●	●	●	●	
30500582	Uni Block 15 mm vials	●	●	●	●	
30500583	Uni Block 17 mm Vials	●	●	●	●	
30500584	Uni Block 21 mm Vials	●	●	●	●	
30500585	Uni Block 28 mm Vials	●	●	●	●	
30500586	Uni Block 12 mm Test Tubes	●	●	●	●	
30500587	Uni Block 16 mm Test Tubes	●	●	●	●	
30500588	Uni Block 20 mm Test Tubes	●	●	●	●	
30500589	Uni Block 25 mm Test Tubes	●	●	●	●	
30392233***	Clamp, Specialty, Rod, CLS-RODS	●				

\*30400145 needs a separate double clamp or hook clamp for securing on Guardian 5000

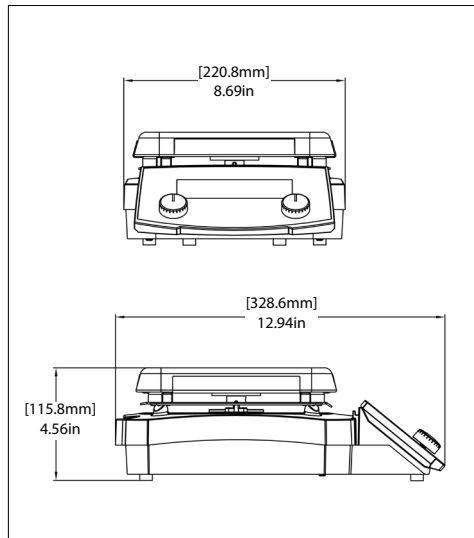
\*\*30726783 pack of 5 spinbars

\*\*\*30392233 is for use with the 30500570 Base Plate only

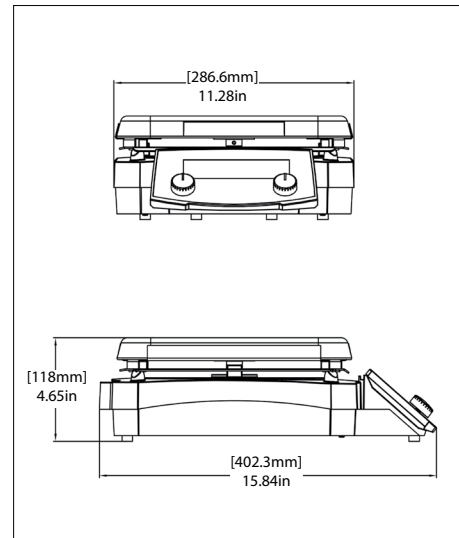
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## Outline Dimensions

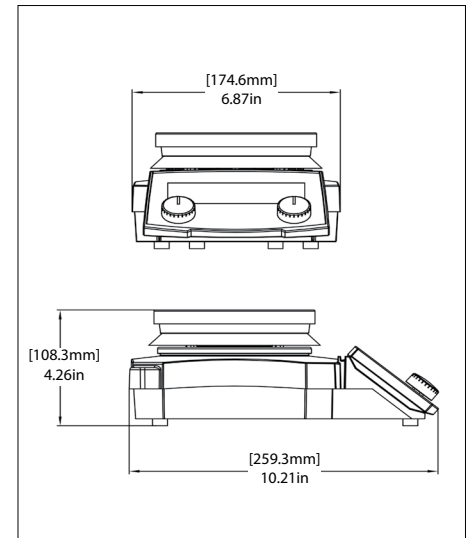
e-G52HS07C, e-G52HP07C, e-G52ST07C



e-G52HS10C



e-G52HSRDA



## Other Features and Equipment

ON/OFF switch, Green indicator lights when unit is heating and stirring, probe in use icon, Single Point Calibration icon, rotary switch knob control, 2x built-in support rod holders, text and symbol HOT caution indicators, large dip angle front panel for easy monitoring from a distance, smooth enclosure surfaces for easy cleaning, audible alarm, IP32 Ingress Protection, robust full metal housing, ceramic square top plate or ceramic-coated aluminum round top plate, high performance SmCo magnet.

## Compliance

- **Product Safety:** IEC/EN 61010-1; IEC/EN 61010-2-010; IEC/EN 61010-2-051; CAN/CSA C22.2 61010-1; CAN/CSA C22.2 61010-2-010; CAN/CSA C22.2 61010-2-051; UL 61010-1; UL 61010-2-010; UL 61010-2-051;
- **Electromagnetic Compatibility:** IEC/EN 61326-1 Class A, Industrial environments; Canada ICES-003 Class A; FCC Part 15 Class A
- Compliance Marks: TÜV SÜD; CE; UKCA; RCM; WEEE
- Other: IP32

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The management system governing the manufacture of this product is ISO 9001:2015 certified.

