



# GUARDIAN™ 3000

Hotplate Stirrers



## *Affordable Digital Hotplate Stirrers Designed for Safety, Powerful Stirring and Fast Heating*

OHAUS Guardian 3000™ Hotplate Stirrers are designed for economical heating and stirring in all laboratory settings. The bright LCD display includes easy-to-read temperature and speed settings, intuitive icons and a prominent hot top indicator that lights up when the heater is above 40°C. Select from three plate sizes to suit your application. All models can be used with the optional temperature probe for precise temperature control of the sample.

### *Unique Features:*

- Industry leading safety at affordable prices. Guardian 3000 units offer safety, controlled heating and powerful stirring for general laboratory use - all at a competitive price point.
- SafetyHeat™ protects the lab. An industry-leading early detection system uses two independent safety controls to monitor the electronics and stop heating before an overtemperature condition occurs.
- Designed to last - the rugged metal housing has a spill-resistant design for long life in the lab under harsh conditions. The smooth, chemical-resistant ceramic top makes for easy clean ups.

# GUARDIAN™ 3000 Hotplate Stirrers

## Specifications

### Design to Last

The rugged metal housing has a spill-resistant design for long life in the lab under harsh conditions. The smooth, chemical-resistant full ceramic top makes for easy clean ups.



### 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.

### Hot Caution

In case the top plate temperature is over 40°C, a bright, ISO standard hot caution symbol illuminates for caution. Turning off the power switch, the symbol remain illuminates and the LCD displays "HOT" texts for additional caution.

### Power Switch

An easy-to-reach rocker switch to power on/off the unit. Protected by enclosure overhang from accidental spills.

| Model No.                                | e-G31HSRDA  | e-G31HS04C                                   | e-G31HS07C                                   |
|--|---|--|--|
| Kit Model**                              | e-G31HSRDA -K1  | e-G31HS04C -K1                               | e-G31HS07C -K1                               |
| Function                                 | Heating and Stirring  |  |  |
| Top Plate Size                           | Ø 5.3 in / 13.5 cm  | 4 x 4 in / 10.8 x 10.8 cm                    | 7 x 7 in / 18 x 18 cm                        |
| Top Plate Material                       | Ceramic Coated Stainless Steel  | Ceramic                                      |  |
| Control                                  | Digital   |  |  |
| Display                                  | 75 x 20 mm White Character LCD  |  |  |
| Temperature Range                        | Ambient + 5°C – 380°C   | Ambient + 5°C – 500°C                        |  |
| Set Temperature Increments               | 1°C   |  |  |
| Temperature Readability                  | 1°C   |  |  |
| Temperature Stability*                   | +/-3% Plate, below 100°C +/-2°C<br>and +/-2% Probe, below 100°C +/-2°C  |  |  |
| Temperature Calibration (SPC) Set Points | 1 point for Plate and 1 point for Probe                                 |  |  |
| Probe Connection                         | PT1000 (Class A)  |  |  |
| Heating Power                            | 500W at 120V<br>500W at 230V  | 1000W at 120V<br>1000W at 230V               |  |
| Speed Range                              | 80 - 1600 rpm   |  |  |
| Speed Stability*                         | +/-2%   |  |  |
| Stirring Capacity                        | 15 L H2O  |  |  |
| IP Rating                                | IP21  |  |  |
| Housing                                  | Painted Aluminum  |  |  |
| Dimensions<br>(L x W x H)                | 26.4 x 16.3 x 10.1 cm<br>10.4 x 6.4 x 4.0 in                            | 26.4 x 16.3 x 11.0 cm<br>10.4 x 6.4 x 4.3 in | 31.8 x 22.3 x 11.2 cm<br>12.5 x 8.8 x 4.4 in |
| Working Environment                      | 41°F – 104°F, 80%RH, non-condensing / 5°C – 40°C, 80%RH, non-condensing |  |  |
| Net Weight                               | 5.5 lb. / 2.5 kg  | 5.5 lb. / 2.5 kg                             | 8.6 lb. / 3.9 kg                             |
| Power Input                              | 550W at 120V<br>550W at 230V  | 1050W at 120V<br>1050W at 230V               |  |
| Electrical (50/60Hz)                     | 100-120V, 5A<br>220-240V, 4A  | 100-120V, 10A<br>220-240V, 7A                |  |

\* 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.

\*\* 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-G31HS04C | e-G31HS07C | e-G31HSRDS |
|------------|---|------------|------------|------------|
| 30500590   | Probe PT1000(A) -40~400C 20cm SS316/304 | ●          | ●          | ●          |
| 30500591   | Probe PT1000(A) -40~200C 20cm PTFE      | ●          | ●          | ●          |
| 30500592   | Probe PT1000(A) -40~400C 25cm SS316/304 | ●          | ●          | ●          |
| 30500593   | Probe PT1000(A) -40~200C 25cm PTFE      | ●          | ●          | ●          |
| 30973655   | Probe PT1000(A) -40~400C 25cm Hastelloy | ●          | ●          | ●          |
| 30973298   | Probe Holder Kit-1                      | ●          | ●          | ●          |
| 30983667   | Connecting Clamp S/S Grip 13mm & 13mm   | ●          | ●          | ●          |
| 30983668   | Support Rod S/S D13 x L450 mm THR.M10   | ●          | ●          | ●          |
| 30500597   | Vessel Clamp                            | ●          | ●          | ●          |
| 30500598   | Stir Bar Retriever                      | ●          | ●          | ●          |
| 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    | ●          | ●          | ●          |
| 30400147   | Spinbar 2.5 cm PTFE                     | ●          | ●          | ●          |
| 30400148   | Spinbar 3.8 cm PTFE                     | ●          | ●          | ●          |
| 30400149   | Spinbar 7 cm Oval PTFE                  | ●          | ●          | ●          |
| 30400150   | Spinbar 10 cm with Pivot Ring PTFE      | ●          | ●          | ●          |
| 30692826   | Thermometer Holder Economic Kit         | ●          | ●          | ●          |
| 30726783*  | Spinbar 3.8 cm with Pivot Ring PTFE     | ●          | ●          | ●          |
| 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         |            |            | ●          |

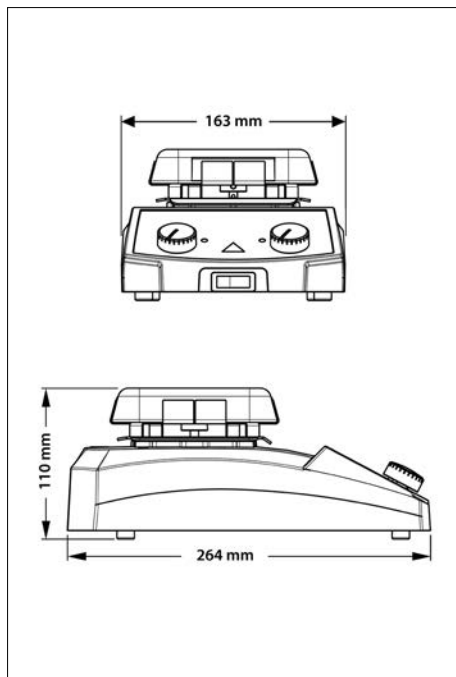
\* pack of 5 spinbars

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

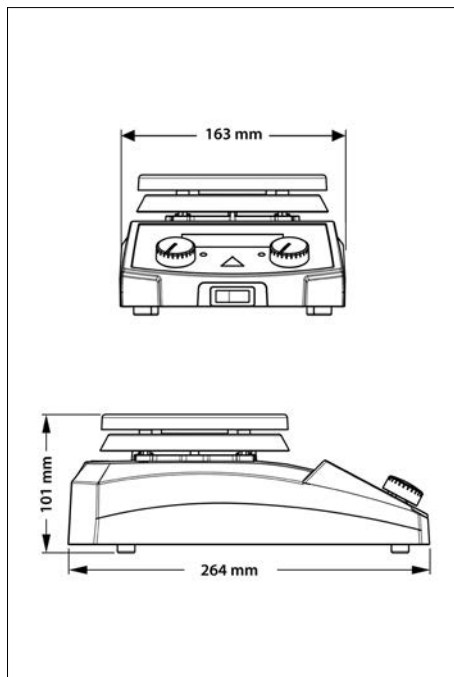
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## Outline Dimensions

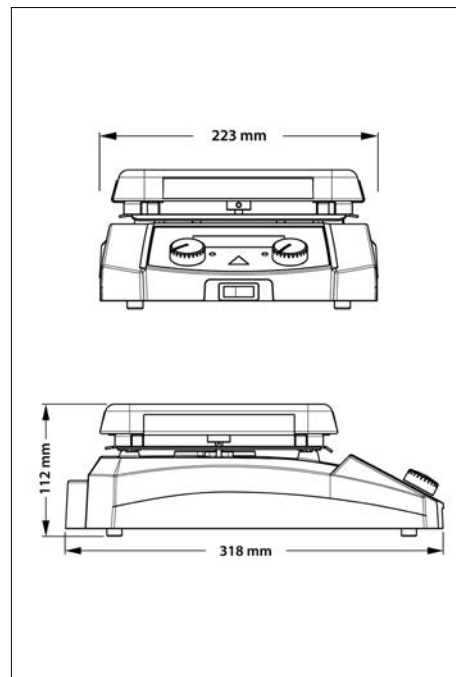
e-G31HS04C



e-G31HSRDS



e-G31HS07C



## 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, 1x built-in support rod holder, text and symbol HOT caution indicators, smooth enclosure surfaces for easy cleaning, audible alarm, IP21 Ingress Protection, robust full metal housing, ceramic square top plate or ceramic-coated stainless steel round top plate, high performance SmCo magnet.

## Compliance

- **Product Safety:** CE, TUV TÜV SÜD certified to 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:** Canada ICES-003 Class A; FCC Part 15 Class A

**Multi-Purpose & Specialty Clamps**

**A LabLok Clamp for Every Application—Choose From Over 85 Options to Hold Everything in Your Lab**

LabLok Clamps are designed to securely grip and position laboratory apparatus. Extension arm clamps with a 360° extension allow placement of apparatus at various distances from lab frames and are easily secured with national holders, swivel, fixed position and thermometer clamps easily hold apparatus near the lab frame or stand and have a built-in holder for simple attachment to lab frames or apparatus. Flow control clamps available in 7 styles.

**Standard Features:**

- **Choice of Stainless Steel or Zinc to Best Suit Your Application**  
Corrosion resistant stainless steel clamps provide excellent chemical resistance, durability, and can be autoclaved. Nickel-plated zinc clamps offer high tensile strength at an economical price.
- **Secure Any Glassware and Apparatus with Steady 2 and 3 Prong Clamps**  
Prevent accidents in the lab! Versatile multi-purpose LabLok clamps securely hold glassware and irregularly shaped objects. Select from a variety of grip sizes, prong styles and adjustment types.
- **Specialty Designed Clamps for a Precise Fit**  
Choose from a variety of specialty LabLok clamps with adjustable features to provide an exact fit for lab ware such as thermometers, thermocouples, columns, funnels, and round bottom flasks.

**Rods, Frames and Supports**

**LabLok Ensures Secure Support for Holding Your Labware and Apparatus with Over 130 Options**

LabLok offers the largest selection of Lab-Frame Kits, Lab Lifts, Rods, Support Stands and Connectors in the industry to safely hold labware. Whether you need a standard lab frame or need to create a unique set up, we have options to fit any space or application. Dependable connectors secure rods and clamps to meet your requirements, and the unique holders in a variety of sizes and materials accommodate different rods up to 24 mm in diameter.

**Unique Features:**

- **Select the Right Material for the Job**  
Corrosion resistant lab-frames, rods and connectors are available in premium stainless steel, offering high chemical resistance and durability. Aluminum offers reliable strength at a lighter weight.
- **Flexibility and Versatility for your Lab**  
Simply lift lab set up! Thirteen lab-frame kit options are available with four designed to fit in fume hoods. Build your own support system choosing from a wide selection of rods, bases and connectors.
- **Outstanding Convenience with Exceptional Stability and Durability**  
Lab lifts offer convenient adjustable lifting platforms with exceptional strength and durability for holding small lab equipment such as glassware, hot plates, and water baths at different heights.

**ACHIEVER™ 5000**  
Overhead Stirrer

**Reliable Overhead Stirrers with Excellent Performance for Everyday Use**

Ohrus Acheiver 5000™ Overhead Stirrers are designed for powerful, precise stirring, safety and simplicity in all applications. The sealed design has an IP64 rating and ensures safe mixing performance even in the most demanding applications. The keypad check and software controlled speed ramping provides easy set up and safe stirring to protect the sample and user. Select from five models with up to 240 mm torque and up to 160 L volume capacity.

**Unique Features:**

- **Powerful mixing and constant speed is assured with the brushless motor and torque compensation technology**—ensuring accurate, controlled stirring of viscous liquids with quiet operation.
- **Simply set up with the Keyless-Clamp—no tools required**. Change shafts quickly and easily with one handed operation. This unique design will save time and effort for everyone in the lab.
- **Designed for safety**. The lock button prevents accidental speed changes and the motor is controlled using technology simply shuts off stirring before an overload condition occurs to protect the sample.
- **Compact and easy to use**. Single touch control combined with the bright digital display allows for precise setting and monitoring. Customize the your application with over 12 accessories.

