

# Carousel™

## Stirring Hotplates

Choice of three models;  
all offering improved  
safety, ease of use  
and faster heat-up  
times



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# Carousel Stirring Hotplates

Carousel stirring hotplates feature 800 watt heating power, chemical-resistant top plate and are available in three models to suit your chemistry and budget.

Includes  
**3 year**  
warranty



Carousel Standard, support rod, clamp and Heat-On 5 litre block

## Features include

- 800 watt heating power.
- Hotplate temperature range: 20 to 300°C.
- Speed range: 30 to 1400rpm.
- Chemical-resistant Kera-Disk top plate coating.
- 135mm top plate diameter.

## Kera-Disk® top plate

- Aluminium top plate allows for rapid heat transfer for fast heating.
- High performance, glass ceramic top coating is resistant to chemicals and scratches.

## Sealed housing

- The innovative, hermetically sealed housing helps prevent internal corrosion from aggressive liquids or vapours.
- Increases the lifespan and reduces maintenance and repairs.

## Suitable for unattended operation

- Designed and certified to conform to DIN EN 61010-1:2001 and DIN EN 61010-2-010:2003 for continuous, unattended operation.

## Stirring hotplate technical specifications

	Carousel Standard	Carousel Tech	Carousel Advanced
Speed (rpm)	100 to 1400	100 to 1400	30 to 1400
Speed accuracy (%)	± 2	± 2	± 1
Display	-	Digital	Digital
Analogue/digital interface	-	-	Yes
Heating power (W)	800 (600 for 115V)	800 (600 for 115V)	800 (600 for 115V)
Hotplate temperature (°C)	20 - 300	20 - 300	20 - 300
Medium temperature, max. (°C)	250	250	250
Accuracy temperature setting (K)	± 5	± 1	± 1
External temperature sensor	-	Pt1000	Pt1000
Temp. accuracy with external temp. sensor (K)	± 1	± 1	± 0.2
Sensor breakage protection	-	With Pt1000	With Pt1000
Temperature control	-	Microprocessor	Microprocessor
Temperature accuracy hotplate (K)	± 5	± 5	± 5
Safety circuit hotplate (°C)	25°C over hotplate temperature	25°C over hotplate temperature	10 - 25°C over nominal temperature
Stirring capacity, max (H2O)	20	20	20
Load, max (kg)	25	25	25
Power consumption (W)	820	820	825
Ambient temperature range (°C)	0 - 40	0 - 40	0 - 40
Max. relative humidity (%)	80	80	80
Max. permitted operation (%)	100	100	100
Plate diameter (mm)	ø 135	ø 135	ø 135
Plate material	Silumin with ceramic coating	Silumin with ceramic coating	Silumin with ceramic coating
Weight (kg)	2.9	2.6	2.6
Dimension l x w x h (mm)	173 x 277 x 94	173 x 277 x 94	173 x 277 x 94
Protection class	IP 32	IP 32	IP 32
Supply voltage	230 V/ 50 Hz or 115 V/ 60 Hz	230 V/ 50 Hz or 115 V/ 60 Hz	230 V/ 50 Hz or 115 V/ 60 Hz



Carousel Tech, Pt1000 and Carousel 6 Plus reaction station



Carousel Advanced, Pt1000 and Heat-On multi-well block



### Carousel Standard

- Large analogue knobs for convenient speed and temperature control.
- Powerful magnets provide superior coupling even at high speeds and viscosities.
- Stirring control features a smooth ramp to set speed which prevents decoupling.
- Separate on/off switch for heating prevents unintentional heat-up.
- When heating is switched on, the on/off button is illuminated for visual control.
- An independent safety circuit switches off the heating if the set hotplate temperature is exceeded by 25°C.
- Extra safety control circuit and hotplate cut-out via two independent temperature sensors.
- Optional plug-in Carousel temperature controller with stainless steel or glass temperature sensor for external control.
- Accuracy with temperature controller:  $\pm 1$  K
- Electronic triac guarantees long service life.
- Money saving standard package RR91290 includes: Standard stirring hotplate, temperature controller, support rod and sensor holder.



Carousel Standard



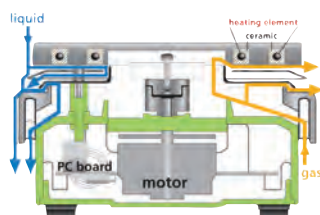
Carousel Tech  
Upgrade with an optional Pt1000 temperature sensor



Carousel Advanced  
Upgrade with an optional Pt1000 temperature sensor



Carousel Tech, pt1000 temp. probe and  
Carousel 12 Plus reaction station



Hermetically sealed housing for long life

### Carousel Tech

All of the features of the Standard, but with the added advantage and control of speed and temperature control via a digital display.

- Accurate illuminated digital display of temperature and speed with both set and actual values displayed.
- Optional Pt1000 temperature sensor with stainless steel or glass coated probe for precise temperature control and overshoot prevention:  $\pm 1$  K accuracy.
- To protect your sample from overheating a safety circuit switches off the heating if temperature sensor is not immersed in the medium.
- Money saving Tech package RR91291 includes: Tech stirring hotplate, Pt1000 temp. sensor, support rod and sensor holder.

### Carousel Advanced

All of the features of the Carousel Tech, plus:

- RS232 interface for optional PC control.
- Speed range: 30 to 1400rpm, with superior accuracy:  $\pm 1$  %.
- Optional Pt1000 temperature sensor with stainless steel or glass coated probe for precise temperature control and overshoot prevention:  $\pm 0.2$  K accuracy.
- Residual heat indicator provides a clear warning of when the top plate surface is above 50°C, minimising the chances of accidents.
- Independent safety circuit switches off the heating at an operator pre-determined value between 10°C and 25°C above set point.
- Additional operational safety step is required to change parameters, which prevents unwanted changes to actual settings.

Carousel Temp. Controller	
Temperature range	-50 to +300°C
Resolution	1°C
Accuracy	$\pm 1$ °C
Measuring cycle	1.5 sec
Control accuracy	$\pm 0.5$ °C
Metal sensor	Pt1000, V2A
Glass sensor	Pt1000, glass
Sensor length	210mm
Cable length	700mm
Min. immersion depth	20mm
Ambient temp.	-5 to +60°C
Housing	Polyamide
Weight	0.3kg
Dimensions lwxhxh	54 x 22 x 126mm
Protection class	IP40
Power supply	8 - 15 V

### Standard Stirring Hotplates

RR91200	Carousel Standard Stirring Hotplate 230v UK Plug
RR91200/EURO	Carousel Standard Stirring Hotplate 230v Euro Plug
RR91200/SWISS	Carousel Standard Stirring Hotplate 230v Swiss Plug
RR91200/USA	Carousel Standard Stirring Hotplate 115v US Plug

### Tech Stirring Hotplates

RR91203	Carousel Tech Stirring Hotplate 230v UK Plug
RR91203/EURO	Carousel Tech Stirring Hotplate 230v Euro Plug
RR91203/SWISS	Carousel Tech Stirring Hotplate 230v Swiss Plug
RR91203/USA	Carousel Tech Stirring Hotplate 115v US Plug

### Tech Stirring Hotplates + Pt1000

RR91206	Carousel Tech Stirring Hotplate + Pt1000 230v UK Plug
RR91206/EURO	Carousel Tech Stirring Hotplate + Pt1000 230v Euro Plug
RR91206/SWISS	Carousel Tech Stirring Hotplate + Pt1000 230v Swiss Plug
RR91206/USA	Carousel Tech Stirring Hotplate + Pt1000 115v US Plug

### Tech Stirring Hotplates - Packages

*Includes Tech Stirring Hotplate, Pt1000 S/Steel Sensor, Support Rod and Sensor Clamp.*

RR91291	Carousel Tech Package 230v UK Plug
RR91291/EURO	Carousel Tech Package 230v Euro Plug
RR91291/SWISS	Carousel Tech Package 230v Swiss Plug
RR91291/USA	Carousel Tech Package 115v US Plug

### Advanced Stirring Hotplates

RR91204	Carousel Advanced Stirring Hotplate 230v UK Plug
RR91204/EURO	Carousel Advanced Stirring Hotplate 230v Euro Plug
RR91204/SWISS	Carousel Advanced Stirring Hotplate 230v Swiss Plug
RR91204/USA	Carousel Advanced Stirring Hotplate 115v US Plug

### Advanced Stirring Hotplates + Pt1000

RR91205	Carousel Advanced Stirring Hotplate + Pt1000 230v UK Plug
RR91205/EURO	Carousel Advanced Stirring Hotplate + Pt1000 230v Euro Plug
RR91205/SWISS	Carousel Advanced Stirring Hotplate + Pt1000 230v Swiss Plug
RR91205/USA	Carousel Advanced Stirring Hotplate + Pt1000 115v US Plug

### Pt1000 Temperature Sensors and Accessories

RR91226	Pt1000 S/S Sensor for Tech & Advanced Stirring Hotplates
RR91227	Pt1000 Glass Coated Sensor for Tech & Advanced Stirring Hotplates
RR91229	Support Rod (13mm x 425mm)
RR91235	Pt1000 Clamping System + Support Rod and Cable Guide
RR91236	Pt1000 Clamping System + Support Rod and Cable Guide (bath from 3 to 5 litres)

RR71127	Support Rod (13mm x 500mm)
RR71125	Support Rod (13mm x 340mm)
RR71120	Support Rod Hotplate Adapter (extension plate)

### Heating Accessories

RR91220	1 litre PTFE Coated Heating Bath
RR91221	2 litre PTFE Coated Heating Bath
RR91222	4 litre PTFE Coated Heating Bath
RR91223	1 litre Heating Bath
RR91224	2 litre Heating Bath
RR91225	4 litre Heating Bath
RR91230	Support Rod for 4 litre Heating Bath (13mm x 475mm)
RR91231	Silicone Protective Cover for RR91202 & RR91204
RR91232	Holding Bracket & Clamp
RR91233	Silicone Protective Cover for RR91200
RR91234	RS232 Interface Cable - 15 Pin to 9 Pin
RR61085	145mm Adapter Plate for 135mm Hotplates
RR71110	Retort Clamp to 85mm
RR71115	Boss Head 16mm

### High Performance PTFE Stirring Bars

RR98091	Cross Shape Stirring Bar 16.5mm Rare Earth, pk 20
RR98075	Cross Shape Stirring Bar 10mm, pk 40
RR99064	Elliptical Stirring Bar 25mm Rare Earth, pk 10
RR98097	Elliptical Stirring Bar 15mm Rare Earth, pk 20
RR98096	Elliptical Stirring Bar 10mm Rare Earth, pk 40
RR99607	Pivot Ring PTFE Magnetic Stirring Bar (12 x 4.5mm), pk 40
RR99613	Pivot Ring PTFE Magnetic Stirring Bar (15mm), pk 40
RR98070	Octagonal PTFE Magnetic Stirring Bar (13mm), pk 20
RR98071	Pivot Ring PTFE Magnetic Stirring Bar (12 x 6mm), pk 40
RR98113	Cylindrical PTFE Magnetic Stirring Bar Rare Earth (12mm), pk 20
RR98095	PTFE Magnetic Stir Bar Evaluation Kit (3 each of above bars), pk 30
RR98094	PTFE Magnetic Stir Bar Retriever 350mm
RR98114	Stirring Bar Restraint



RR91291 Carousel Tech Package with accessories



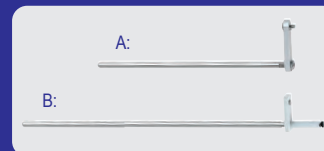
RR91204 Carousel Advanced



RR91226 Pt1000 Stainless Steel Sensor



RR91228 Temperature Sensor Holder



A: RR71125 Support Rod with RR71120 Support Rod Hotplate Adapter  
B: RR91230 Support Rod for 4 litre Bath



RR91220 - 1 litre PTFE Coated Heating Bath



RR91221 - 2 litre PTFE Coated Heating Bath



RR91222 - 4 litre PTFE Coated Heating Bath



RR91233 Silicone Protective Cover for RR91200



RR71110 Retort Clamp & RR71115 Boss Head



RR61085 - 145mm Adapter Plate for 135mm Hotplates



RR91232 Holding Bracket & Clamp



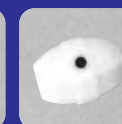
RR98091 Rare Earth Cross Shape Stirring Bar



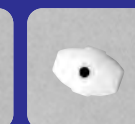
RR98075 Cross Shape Stirring Bar



RR99064 Rare Earth Elliptical Stirring Bar



RR98097 Rare Earth Elliptical Stirring Bar



RR98096 Rare Earth Elliptical Stirring Bar



RR99607 Pivot Ring Stirring Bar



RR99613 Pivot Ring Stirring Bar



RR98070 Octagonal Stirring Bar



RR98071 Pivot Ring Stirring Bar



RR98113 Rare Earth Cylindrical Stirring Bar

 **radleys**  
innovations for chemistry

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