

# VWR Dry Block Heaters

Quality

Selection

Value



# VWR Analogue Dry Block Heaters

- Multi-purpose use
- Heats from ambient to 150 °C
- Holds interchangeable VWR modular heating blocks
- Analogue controls

These multi-purpose units are ideal for incubation and activation of cultures, enzyme reactions, immunoassays, melting/boiling points and a wide variety of other laboratory procedures.

**Two separate temperature adjustment knobs**, providing low temperature and high temperature control. Low range knob adjusts from ambient to 100 °C and high range knob adjusts from 75 °C to 150 °C.

**High wattage**, constant-temperature dry block heaters are economical, versatile and compact. Each of the five models accepts separate interchangeable modular heating blocks, which accommodate various sample enclosures such as micro-tubes, centrifuge tubes, vials, microplates, and PCR strips or tubes. Each block has a thermometer well for measuring block temperature. Anodized aluminum modular heating blocks provide superior temperature stability and heat transfer. Modular blocks are sold separately. Will accept blocks from older VWR units.

**Temperature stability** is defined as the fluctuations in temperature once the unit has reached set point and cycles the heater on and off to maintain that set-point. This is measured in one single thermometer-well in the block.

**Uniformity** is defined as the difference in temperature from one end of the block to the other or from one block to another block of the same type.

**CAUTION!** To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.



460-3252



460-3249

## Specifications



Size	Temperature Range	Stability @ 37 °C	Uniformity w/in the Block @ 37 °C	Uniformity Across Similar Blocks @ 37 °C	Stability @ 60 °C	Uniformity w/in the Block @ 60 °C	Uniformity Across Similar Blocks @ 60 °C	Heat-Up Time to 100 °C
1 block	Low Range: ambient +5 °C to 100 °C	±1.5 °C	±0.4 °C	N/A	±3.0 °C	±0.6 °C	N/A	45 min.
2 block		±2.0 °C		±0.5 °C	±4.0 °C		±0.8 °C	50 min.
3 block	±2.0 °C	±0.6 °C		±4.0 °C	±1.0 °C		60 min.	
4 block	High Range: 75 °C to 150 °C	±2.5 °C		±0.7 °C	±5.0 °C		±1.2 °C	70 min.
5 block		±2.5 °C		±0.8 °C	±5.0 °C		±1.3 °C	75 min.
6 block		±2.5 °C		±0.9 °C	±5.0 °C		±1.4 °C	75 min.

\* Performance data was calculated using an external RTD temperature probe inserted into the thermowell.

**Ordering Information:** Units include a 234 cm detachable, 3-wire cord and plug.

## Analogue Dry Block Heaters

Block Capacity	Dimensions (L x W x H)	Electrical (50/60 Hz)	Ship Weight	Cat. No. w/Euro plug	Cat. No. w/UK plug	Cat. No. w/Swiss plug
1	31.5 x 20.3 x 8.9 cm	230V   0.5 amps   110 watts	2.6 kg	460-3249	460-3250	460-3251
2	39.1 x 20.3 x 8.9 cm	230V   0.9 amps   210 watts	2.9 kg	460-3252	460-3253	460-3254
3	46.7 x 20.3 x 8.9 cm	230V   0.9 amps   210 watts	3.6 kg	460-3255	460-3256	460-3257
4	42.9 x 20.3 x 8.9 cm	230V   1.3 amps   310 watts	3.9 kg	460-3258	460-3259	460-3260
6	53.1 x 20.3 x 8.9 cm	230V   1.7 amps   410 watts	4.5 kg	460-3261	460-3262	460-3263

# VWR Digital Dry Block Heaters

- Exceptional temperature uniformity and stability
- Optional external temperature probe
- Heats from ambient to 120 °C
- LED display

Designed for applications that require repeatable results and superior temperature stability. These multi-purpose units are ideal for incubation and activation of cultures, enzyme reactions, immunoassays, melting/boiling points, and a wide variety of other laboratory procedures.

**Micro-processor PID control**, with optional external probe, offers a temperature stability and uniformity of  $\pm 0.2$  °C.

**Easy-to-use controls** with independent LED displays show actual and set-point temperatures. Controls allow users to adjust temperature set-point in  $\pm 0.1$  °C increments.

**Timer** will display elapsed time or when programmed to user defined limit, will count down to zero and shut off unit.

**Audible alarm** will sound when time reaches zero.

**Optional external temperature probe kit** monitors actual block or sample temperature. LED display on front panel will show actual probe temperature and adjust heater output to maintain user defined set-point. All dry block heaters include a built-in support rod holder for mounting the probe kit. Kit includes stainless steel RTD probe, 45.7 cm vertical support rod, thermometer/probe extension clamp and hook connector.

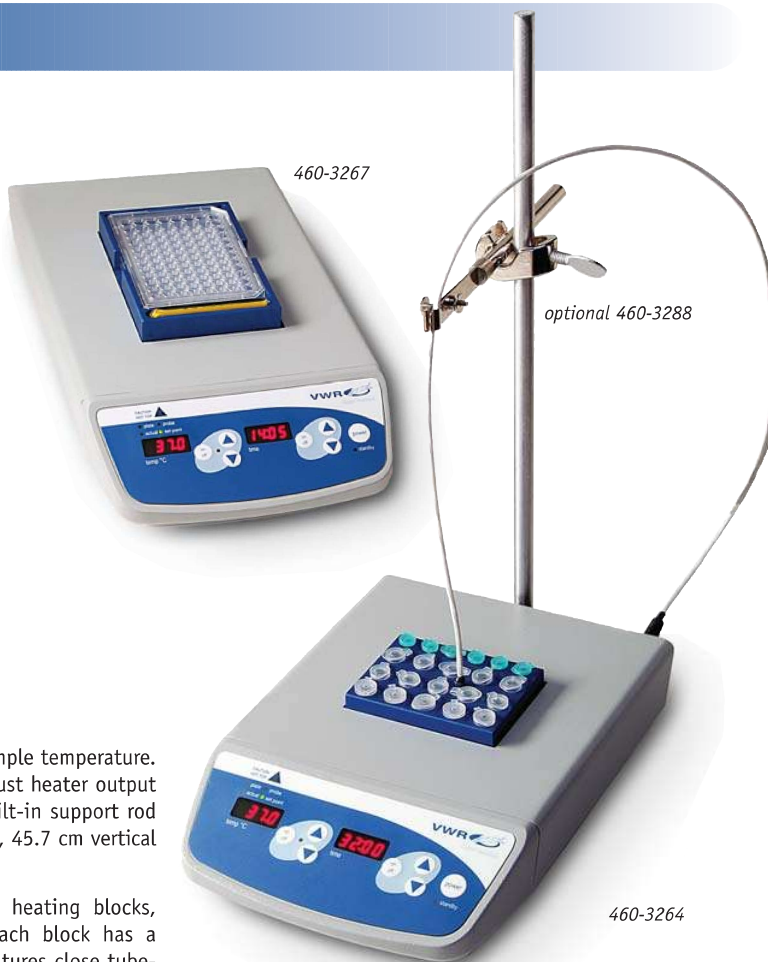
Each of the five models accepts separate interchangeable modular heating blocks, accommodating various tube sizes from 0.2 ml micro to 50 ml. Each block has a thermometer well for measuring block temperature. Efficient heater features close tube-and-block contact with a low density design for exceptional temperature uniformity.

**Calibration mode** allows operator to adjust temperature display to match an external thermometer. When measuring your Dry Block Heater it is recommended that you use either a glass thermometer inserted into the thermowell or an electronic surface temperature probe. Modular blocks are sold separately. Will accept blocks from older VWR units.

**Temperature stability** is defined as the fluctuations in temperature once the unit has reached set point and cycles the heater on and off to maintain that set-point. This is measured in one single thermometer-well in the block

**Uniformity** is defined as the difference in temperature from one end of the block to the other or from one block to another block of the same type.

**CAUTION!** To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.



## Specifications



Size	Temperature Range	Stability @ 37 °C	Uniformity w/in the Block @ 37 °C	Uniformity Across Similar Blocks @ 37 °C	Stability @ 60 °C	Uniformity w/in the Block @ 60 °C	Uniformity Across Similar Blocks @ 60 °C	Heat-Up Time to 100 °C
1 block	ambient +5 °C to 120 °C	$\pm 0.2$ °C	$\pm 0.2$ °C	N/A	$\pm 0.4$ °C	$\pm 0.4$ °C	N/A	45 min.
2 block				$\pm 0.3$ °C			$\pm 0.5$ °C	50 min.
3 block				$\pm 0.4$ °C			$\pm 0.7$ °C	55 min.
4 block				$\pm 0.5$ °C			$\pm 0.8$ °C	60 min.
6 block				$\pm 0.6$ °C			$\pm 1.0$ °C	65 min.

\* Performance data was calculated using an external RTD temperature probe inserted into the thermowell.

**Ordering Information:** Units include a 234 cm detachable, 3-wire cord and plug.

## Digital Dry Block Heaters

Block Capacity	Dimensions (L x W x H)	Electrical (50/60 Hz)	Ship Weight	Cat. No. w/Euro plug	Cat. No. w/UK plug	Cat. No. w/Swiss plug
1	31.5 x 20.3 x 8.9 cm	230V   0.5 amps   110 watts	2.6 kg	460-3264	460-3265	460-3266
2	39.1 x 20.3 x 8.9 cm	230V   0.9 amps   210 watts	2.9 kg	460-3267	460-3268	460-3269
3	46.7 x 20.3 x 8.9 cm	230V   0.9 amps   210 watts	3.6 kg	460-3270	460-3271	460-3272
4	42.9 x 20.3 x 8.9 cm	230V   1.3 amps   310 watts	3.9 kg	460-3273	460-3274	460-3275
6	53.1 x 20.3 x 8.9 cm	230V   1.7 amps   410 watts	4.5 kg	460-3276	460-3277	460-3278
Optional External Temperature Probe Kit Including Rod and Attachment				460-3288	460-3288	460-3288

## VWR Modular Heating Blocks and Accessories

Constructed from a solid anodized aluminum block, the close contact of tubes to block walls allows for maximum heat retention. Each block has a thermometer well for measuring block temperature. **CAUTION!** To avoid possible electrical hazard, do not fill well or block with water or other liquids. Units are designed as a dry bath/incubator.

**Single block dimensions (L x W x H):** 9.5 x 7.6 x 5.1 cm, **Double block dimensions (L x W x H):** 15.2 x 9.5 x 5.7 cm (only fits 2/4/6 block heaters)

### Microcentrifuge Tubes

Single block.

Brand/Sample Type	Well Dia.	No. of Wells	Well Depth	Cat. No.
VWR 0.5 ml tube	7.9 mm	30	27.6 mm	460-3211
VWR 1.5 ml tube	11.1 mm	20	39.1 mm	460-3235
Eppendorf™ 1.5 ml tube	11.5 mm	20	36.9 mm	460-3212
VWR/Eppendorf™ 2 ml tube	11.5 mm	20	38.1 mm	460-3245
Corning™ 2 ml tube	10.9 mm	20	38.1 mm	460-3246



### Titre Plate

Double block, only fits 2/4/6 block heaters. Ideal for 96-well or 384-well titre plates. Recessed well for better stability, flat surface good for flat and round bottom plates.

Sample Type	Well Depth	Cat. No.
Titre plate	13.5 mm	460-3238



### Conical-Bottom Centrifuge Tubes

Single block.

Sample Type	Well Dia.	No. of Wells	Well Depth	Cat. No.
15 ml tube	17.1 mm	12	44.5 mm	460-3221
50 ml tube	29.0 mm	5	47.6 mm	460-3223



### Standard Round Bottom Test Tubes

Single block.

Sample Type	Well Dia.	No. of Wells	Well Depth	Cat. No.
6 mm tube	8.3 mm	30	48.4 mm	460-3213
10 mm tube	10.7 mm	24	48.4 mm	460-3214
12/13 mm tube	13.9 mm	20	48.4 mm	460-3216
12/13 mm tube	13.9 mm	16	48.4 mm	460-3215
15/16 mm tube	17.5 mm	12	48.4 mm	460-3217
17/18 mm tube	19.1 mm	12	48.4 mm	460-3243
20 mm tube	21.0 mm	8	48.4 mm	460-3218
25 mm tube	26.2 mm	6	48.4 mm	460-3219
35 mm tube	35.0 mm	4	47.6 mm	460-3222



### Combination Blocks

Single block. These blocks have been designed for variable sized samples.

Sample Type	Well Dia.	No. of Wells	Well Depth	Cat. No.
Test tube combination	8.3 mm	6	48.4 mm	460-3220
6 mm, 12/13 mm, 25 mm	13.9 mm	5	48.4 mm	
	26.2 mm	3	48.4 mm	
Centrifuge tube combination	11.1 mm	4	39.1 mm	460-3247
1.5 ml, 15 ml, 50 ml	17.1 mm	3	44.5 mm	
	29.0 mm	2	47.6 mm	
Micro-tube combination	7.9 mm	6	27.6 mm	460-3248
0.5 ml, 1.5 ml, 2 ml	11.1 mm	10	39.1 mm	
	11.5 mm	5	38.1 mm	



## Vials

Single block. Designed for sample/serum and scintillation vials.

Sample Type	Well Dia.	No. of Wells	Well Depth	Cat. No.
12 mm vial	12.7 mm	20	30 mm	460-3279
15 mm vial	15.8 mm	20	35 mm	460-3280
16 mm vial	16.4 mm	15	45 mm	460-3287
17 mm vial	17.8 mm	12	45 mm	460-3281
19 mm vial	19.7 mm	12	45 mm	460-3282
21 mm vial	21.7 mm	9	45 mm	460-3283
23 mm vial	23.8 mm	8	45 mm	460-3284
25 mm vial	25.8 mm	8	45 mm	460-3285
28 mm vial	28.8 mm	6	45 mm	460-3286



## PCR - Plates, Tubes, Strips

Single and double block. Tapered tube wells for 0.2 ml tubes. Spaced for easy access and removal.

Sample Type	Block Size	Well Dia.	No. of Wells	Well Depth	Cat. No.
96-well PCR plate	double	6.4 mm	96	15.5 mm	460-3226
10 x 8 tube strips	single	6.4 mm	80	15.5 mm	460-3224
Individual tubes	single	6.4 mm	64	20.2 mm	460-3225



## Cuvette

Single block. Two parallel slots fit 6 cuvettes in each slot, side-by-side for excellent stability and heat transfer.

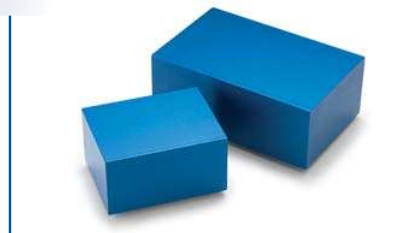
Sample Type	No. of Wells	Well Depth	Cat. No.
12.5 mm cuvettes	2 x 6 cuvettes	25.4 mm	460-3237



## Solid Blocks

Single or double block. For use as a low-temperature hotplate or for custom drilling to make your own custom block.

Block Size	Dimension (L x W x H)	Cat. No.
Single	9.5 x 7.6 x 5.1 cm	460-3236
Double	15.2 x 9.5 x 5.7 cm	460-3239



## Stainless Steel Sand Baths

Ideal for irregular vessels. Stainless steel construction for superior corrosion resistance. Designed to hold sand, stainless steel shot (or pearls) or non-volatile liquids.

Block Size	Dimension (L x W x H)	Cat. No.
1 block heater	9.5 x 7.6 x 6.4 cm	460-3227
2 block heater	9.5 x 14.9 x 6.4 cm	460-3228
3 block heater	9.5 x 22.4 x 6.4 cm	460-3229
4 block heater	14.7 x 19.1 x 6.4 cm	460-3230
6 block heater	14.7 x 28.7 x 6.4 cm	460-3231

Accessory	Cat. No.
Sand, 0.454 kg	460-3232
Stainless steel shot (or pearls), 0.454 kg	460-3233



## Low Temperature Covers

Plexiglass cover reduces air flow for additional temperature stability in low-temperature applications. Two sides are open.

Block Size	Dimension (L x W x H)	Max. Tube Height	Cat. No.
2 block cover	16.5 x 16.5 x 4.1 cm	89 mm	460-3240
2 block cover	16.5 x 16.5 x 11 cm	206 mm	460-3289
4 block cover	21.6 x 21.6 x 4.1 cm	89 mm	460-3241
6 block cover	31.8 x 21.6 x 4.1 cm	89 mm	460-3242

