Life Science

Hybridization Ovens

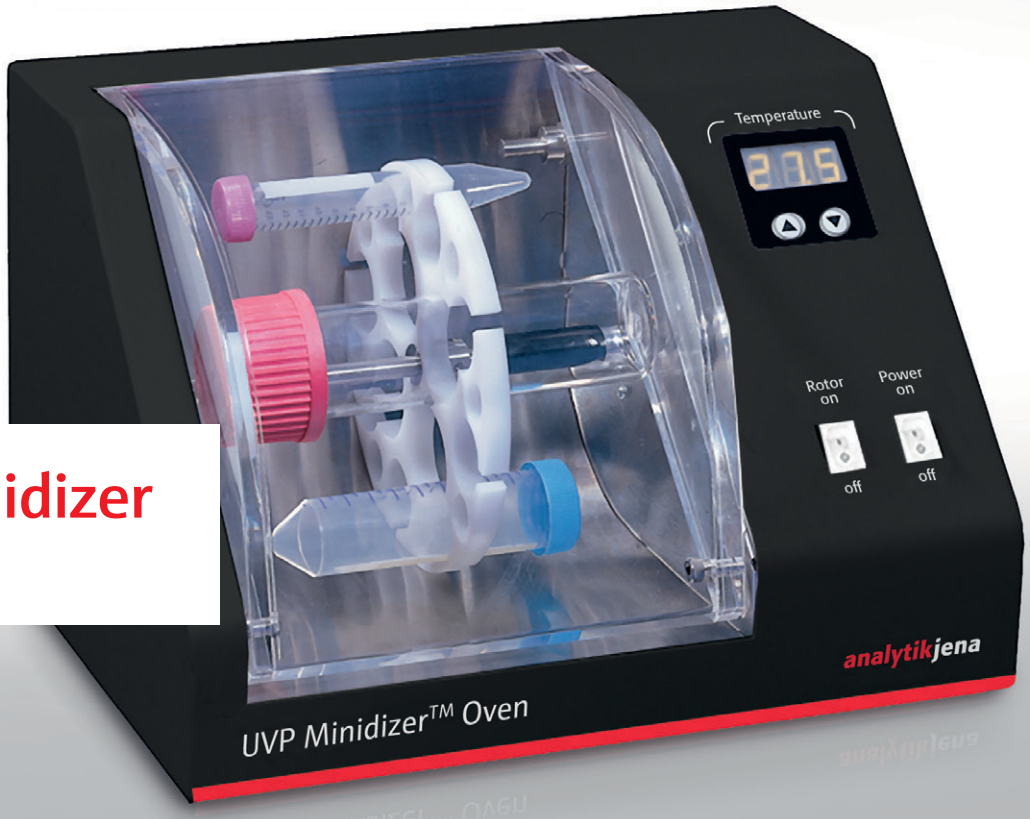
Versatile instruments for common hybridization applications

analytikjena
An Endress+Hauser Company

OV 500 Minidizer Hybridization Oven

The OV 500 Minidizer Hybridization Oven is a cost-effective device with low space requirements for temperature incubation of membranes during blotting procedures.

The Minidizer operates with a state-of-the-art microprocessor as well as temperature and variable speed controls. The instrument enables consistent saturation of samples, whether it is used for washing or hybridizing.



OV 500 Minidizer

Hybridization Oven

- Microprocessor controlled incubation temperature
- LCD display for easy operation
- Rotation speed set at 12 rpm
- Temperature range: Ambient +10°C to 80°C max.
- 3/8" thick acrylic door for easy viewing of samples and blocking of ß-emission
- Easy to clean interior made of stainless steel

- Cover swings open for easy access to the bottle carousel; the carousel pops out of chamber for easy insertion of bottles
- Carousel capacity: 4 × 35 mm × 150 mm bottles, 8 × 50 ml tubes or 8 × 15 ml tubes

Technical data

Temperature	
Min. Temperature	10 °C über RT
Max. Temperature	80 °C
Temperature Accuracy	± 0.5 °C bis 68 °C
Temperature Uniformity	± 0.1 °C bis 68 °C
Display	LCD
Sample Capacity	
Bottles (15 cm)	4
50 ml tubes	8
15 ml tubes	8
Dimensions	
Footprint (W × D)	33 × 20 cm
Height	23 cm
Weight	5.1 kg
Rotation Speed	
Carousel	12 upm
Electrical	
115 V	60 Hz
230 V	50 Hz
100 V	50 Hz
Additional Specifications	
Working conditions	5 °C bis 40 °C, max. 2,000 m
Indoor Use	The oven is designed for operation inside a building only
Main supply	Not to exceed 10% of the nominal supply voltage
Maximum power consumption	500 Watts

OV 1000 Hybridization Oven

The OV 1000 Hybridization Oven provides uniform temperature and rotation controls for thorough mixing of materials.

Oven is ideal for Southern, Northern, and Western blots, in situ hybridization and binding nucleic acids to nitrocellulose or nylon-reinforced transfer membranes or other media. Precise microprocessor rotation speed and variable speed control settings enable consistent sample saturation. A touch-sensitive key pad allows for precise temperature control and an internal circulating fan maintains temperature uniformity. A large LED display shows the current chamber temperature. Internal stainless steel construction enables the environment to be kept clean.

The oven accommodates multiple bottle sizes, arrangements, and positions to meet a variety of mixing requirements. The rotary wheel holds twenty 35 x 150 mm bottles or 35 x 100 mm bottles, ten 35 x 300 mm bottles, or a combination of the various sizes. The rotary wheel can be removed and replaced with a rocker tray or rocker plate to create a rocking motion and to accomodate various types of flasks. The removable protective trays allow for easy cleanup of spilled media.

- Carousel for multiple bottle sizes and off-set bottle positioning
- Variable rotor speed 10 – 15 rpm
- Microprocessor controlled incubation temperature
- LED display for easy operation
- Temperature range: Ambient +10 °C to 99.9 °C maximum
- Easy to clean interior made of stainless steel
- Removable protective tray to allow easy cleanup of spilled media
- Glass door for easy viewing of samples and blocking of ß-emission from the hybridization chamber
- Oribital motion tray or rocker tray as optional accessory available
- Carousel capacity: 20 × 35 mm × 150 mm bottles or 10 × 35 mm × 300 mm bottles

OV 1000

Hybridization Oven

OV 2000 Hybridization Oven

Self-contained unit provides the unique combination of a hybridization oven and a 254 nm ultraviolet crosslinker.

The hybridization unit shares the same features with the OV 1000 and is meant to be used for common blotting procedures.

The ultraviolet crosslinker portion of the OV 2000 provides uniform shortwave (254 nm) ultraviolet radiation exposure maintained by five 254 nm UV tubes. UV output is measured by an internal sensor and is controlled by an on-board microprocessor. The crosslinker features an internal interlocking system for added safety. The hybridization oven and crosslinker com-ponents have separate power supplies and may operate independently.

Upper chamber (Oven):

- The upper chamber is the hybridization unit and has the same features as the OV 1000

Lower chamber (Crosslinker):

- Shortwave 254 nm, 8 Watt, UV-tubes
- Preset and manual controls for ultraviolet or time exposures
- Microprocessor measures and controls UV output, ensuring maximum energy efficiency
- Large LED display continuously displays time or energy settings
- Window on the door allows viewing of the process yet blocks UV radiation
- Oribital motion tray or rocker tray as optional accessory available
- Carousel capacity:
  20 × 35 mm × 150 mm bottles or
  10 × 35 mm × 300 mm bottles

OV 2000

Hybridization Oven

OV 4000 Hybridization Oven

The OV 4000 is designed with two separate chambers offering several motion functions: shaking, orbital rocking and rotating all in one unit.

Two chambers operate independently and allow hybridization and blotting procedures requiring different containers, motions or temperature settings.

The upper chamber can be used with a reciprocating shaker tray, an orbital rocker tray, or an acrylic carousel. The lower chamber shares the same features with the OV 1000.

Upper chamber (Oven):

- The lower chamber has the same features as the OV 1000

Lower chamber (Crosslinker):

- Uses a roller action to operate the shaker tray (included) or optional acrylic carousel or orbital tray
- Shaker tray, for replacement of flasks or other containers, operates at 54–106 cycles/min.
- Carousel (acrylic) rests on the rollers and rotates at 10–20 rpm; carousel holds eight 35 × 150 mm or four 35 × 300 mm bottles or eight 50 ml conicals
- Orbital tray motion ranges from 1–30 rpm at 0°, 0.5° or 1.0°
- Temperature range: Ambient +10 °C to 80 °C maximum

OV 4000

Hybridization Oven

Technical data

Oven	OV 1000	OV 2000	OV 4000	
Number of Hybridisation chambers	1	1 plus Crosslinker	2	
Temperature			**Untere Kammer**	**Obere Kammer**
Min. Temperature	10 °C über RT	10 °C über RT	10 °C über RT	10 °C über RT
Max. Temperature	99.9 °C	99.9 °C	99.9 °C	80 °C
Temperature Accuracy	± 0.3 °C bis 68 °C	± 0.3 °C bis 68 °C	± 0.3 °C bis 68 °C	± 0.3 °C bis 68 °C
Temperature Uniformity	± 0.1 °C bis 68 °C	± 0.1 °C bis 68 °C	± 0.1 °C bis 68 °C	± 0.1 °C bis 68 °C
Display	LED	LED	LED	LED
Rotation Speed				
Rotor Speed	10–15 upm	10–15 upm	10–15 upm	12–20 upm
Sample Capacity				
Bottles (30 cm)	10	10	10	4
Bottles (15 cm)	20	20	20	8
Reciprocating Shaker				
Shaker tray	–	–	–	YES
Shaking speed	–	–	–	54–106 upm
Crosslinker				
UV-Crosslinker	–	YES, 5 × 8 W 254 nm bulbs	–	–
Max. UV energy setting	–	999,900 microjoules per cm^2	–	–
Preset or user-selected UV time exposure settings	–	Internal interlocking safety system	–	–
Display	–	Tactile membrane keypad	–	–
Dimensions				
Footprint (W x D)	40 cm × 38 cm	40 cm × 38 cm	45 cm × 38 cm	45 cm × 38 cm
Height	45 cm	61 cm	72 cm	72 cm
Weight	19.5 kg	27.2 kg	34.0 kg	34.0 kg
Interior hybridization chamber	35.6 × 27.3 × 27.3 cm	35.6 × 27.3 × 27.3 cm	35.6 × 27.3 × 27.3 cm	35.6 × 27.3 × 27.3 cm
Interior Crosslinker	–	28.8 × 9.5 × 29.2 cm	–	–
Electrical				
	115 V, 60 Hz	115 V, 60 Hz	115 V, 60 Hz	115 V, 60 Hz
	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz
	100 V, 50 Hz	100 V, 50 Hz	100 V, 50 Hz	100 V, 50 Hz
Heating element				
	1.250 W	1.250 W	1.250 W	500 W
Additional Specifications				
Working conditions	5 °C bis 40 °C, max. 2,000 m	5 °C bis 40 °C, max. 2,000 m	5 °C bis 40 °C, max. 2,000 m	5 °C bis 40 °C, max. 2,000 m
Usage	The oven is designed for operation inside a building only			
Main supply	Not to exceed 10 % of the nominal supply voltage			
Maximum power consumption	1,210 W	1,150 W	950 W	950 W
Orbital motion tray				
Rotation speed	30 upm @ 2° Winkel	30 upm @ 2° Winkel	30 upm @ 2° Winkel	30 upm @ 2° Winkel
Maxium load	1,36 kg	1,36 kg	1,36 kg	1,36 kg
Rocker tray				
Shaking speed	7–14 upm	7–14 upm	7–14 upm	7–14 upm
Shaking angle	12°	12°	12°	12°
Zweite Rotisserie				
	–	–	YES	YES

Order information

Hybridization Ovens

Order number	Instrument
OV 500 Minidizer Hybridization Oven	
849-30004-2	OV 500 Minidizer Hybridization Oven, 230 V (UK plug and Euro)
849-30004-3	OV 500 Minidizer Hybridization Oven, 230 V (UK plug)
849-30004-4	OV 500 Minidizer Hybridization Oven, 115 V (US plug)
849-30004-5	OV 500 Minidizer Hybridization Oven, 100 V (US plug)
OV 1000 Hybridization Ovens	
849-30001-2	OV 1000 Hybridization Oven, 230 V, UK and Euro plug
849-30001-3	OV 1000 Hybridization Oven 230 V, Euro plug
849-30001-4	OV 1000 Hybridization Oven 115 V, US plug
849-30001-5	OV 1000 Hybridization Oven 100 V, US plug
OV 2000 Hybridization Ovens	
849-30002-2	OV 2000 Hybridization Oven 230 V, UK and Euro plug
849-30002-3	OV 2000 Hybridization Oven 230 V, Euro plug
849-30002-4	OV 2000 Hybridization Oven 115 V, US plug
849-30002-5	OV 2000 Hybridization Oven 100 V, US plug
OV 4000 Hybridisierungsofen	
849-30003-2	OV 4000 Hybridization Oven 230 V, UK and Euro plug
849-30003-3	OV 4000 Hybridization Oven 230 V, Euro plug
849-30003-4	OV 4000 Hybridization Oven 115 V, US plug
849-30003-5	OV 4000 Hybridization Oven 100 V, US plug

Accessories for Ovens

Order number	Accessories Ovens
849-30080-0	Hybridisierungsflasche groß, 30 × 3,5 cm inkl. Deckel, O-Ring und PFTE-Dichtung
849-30081-0	Hybridisierungsflasche medium, 15 × 3,5 cm inkl. Deckel, O-Ring und PFTE-Dichtung
849-30082-0	Hybridisierungsflasche klein, 10 × 3,5 cm inkl. Deckel, O-Ring und PFTE-Dichtung
849-30083-0	Deckel für Hybridisierungsflaschen inkl. O-Ring und PFTE-Dichtung
849-30084-0	Nylonnetze 15 × 10 cm
849-30085-0	Nylonnetze 23 × 23 cm
849-30058-0	Rotisserie für vier übergroße Flaschen (für OV 1000, OV 2000 und OV 4000)
849-30059-0	Rotisserie, Metall für 10 × 50 ml konische Gefäße (für OV 1000, OV 2000 und OV 4000)
849-30057-0	Rotisserie, Acryl (für obere Kammer OV 4000)
849-30050-0	Wippschüttler (für OV 1000, OV 2000 und OV 4000)
849-30051-0	Orbitalschüttler (für OV 1000, OV 2000 und OV 4000)

Accessories Crosslinker

Order number	Accessories Crosslinker OV 2000
849-30220-0	UV tube, 365 nm Longwave
849-30221-0	UV tube, 302 nm Midrange
849-30222-0	UV tube, 254 nm Shortwave
849-00014-0	Sensor, UVX-36 Longwave
849-00013-0	Sensor, UVX-31 Midrange
849-00012-0	Sensor, UVX-25 Shortwave

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