



designed for scientists



MATRIX Orbital Delta Plus

/// Data Sheet

The all-rounder MATRIX Orbital Delta plus mixes, heats and cools reliably with variable inserts.

Whether blood samples, pharmaceutical agents, DNA/RNA samples or ELISA assays - reaction vials and plates with even the smallest volumes are reliably mixed and tempered in all laboratory applications. No cross-contamination and an optimal mixing result.

In addition, MATRIX Orbital Delta plus comes with numerous user-friendly features:



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- Large and clear display with a convenient menu structure allows for an intuitive operation
- Firm quick-release fastener for quick and easy changing of the inserts/attachments as well as an automatic attachment detection
- Quick and effective mixing of liquids with up to 3,000 rpm and 3 mm shaker diameter
- Reduced waiting time through fast heating and cooling rates of up to 6 °C/min (heating) or 2.5 °C/min at set-point temperature above the ambient temperature (cooling, 0.5 °C/min at set-point temperature between ambient temperature and 15 °C below ambient temperature)
- Automatic performance of mixing, heating and cooling tasks through programmable ramps
- Wide range of inserts for reaction vessels and plates
- Intelligent speed adaption to insert, attachment and filling volume
- Aluminum die cast housing ensures secure positioning, excellent stability and everyday robustness

The device is ideally suited for numerous applications in laboratories, such as:

- Tempering / mixing of samples
- Synthesis of cDNA
- Enzyme-catalysed linking of RNA or DNA (ligation)
- Lysis reactions
- Structural change of DNA, RNA and proteins (denaturation)



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Technical Data

Type of movement	orbital
Shaking stroke [mm]	3
Maximun load [kg]	0.3
Motor rating output [W]	88
Permissible ON time [%]	100
Speed min (adjustable) [rpm]	300
Speed range [rpm]	0 - 3000
Speed display	TFT
Speed deviation [rpm]	±30
Speed adjustment	10 RPM Steps
Timer	yes
Timer display	TFT
Time setting min. [s]	1
Time setting max. [min]	6000
Operating mode	timer, continuous and program operation
Working with microtiter plates	yes
Working temperature min. [°C]	room temp. -15
Temperature setting range min. [°C]	1
Heating temperature max. [°C]	100
Heat output [W]	100
Heat control	TFT
Set temperature resolution [°C]	±1
Temperature control accuracy [°C]	±0.5(@ 20°C ... 45°C)
Temperature stability [°C]	0.5
Temperature homogeneity [°C]	±0.5(@ 20°C ... 45°C)
Heating rate [°C/min]	6
Temperature display	yes
Cooling Rate [°C/min]	2.5
Cooling Power [W]	72
Number of exchangable attachments	10
Dimensions (W x H x D) [mm]	216 x 127 x 351
Weight [kg]	10
Permissible ambient temperature [°C]	5 - 40
Permissible relative humidity [%]	80
Protection class according to DIN EN 60529	IP 21
RS 232 interface	yes
USB interface	yes
Voltage [V]	100 - 240
Frequency [Hz]	50/60
Power input [W]	230
Power input max. [W]	230
Fuse	2x T4A 250V



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The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.