



ORDERING INFORMATION

ORDER NO.	INSTRUMENTS	
2016-0110	ColdPlate	Professional heater-cooler thermoblock (-20 to 99°C, 25 K below RT)
2016-0111	ColdPlate slim	Professional heater-cooler thermoblock, low construction (-20 to 99°C, 25 K below RT)

ORDER NO.	ADAPTER PLATES
THERMO ADAPTER FOR MICROPLATES & PCR PLATES	
2016-1021	Adapter for microplate . Flat bottom standard
2016-1022	Adapter for microplate . Flat bottom High Base
2016-1024	Adapter for microplate . Flat bottom Low Base
2016-1032	Adapter for microplate . 96 well round bottom, type 2
2016-1041	Adapter for PCR Plate . 96 well . Eppendorf twin.tec®
2016-1051	Adapter for PCR Plate . 384 well . Eppendorf twin.tec®

THERMO ADAPTER FOR DEEP WELL & STORAGE PLATES	
2016-1121	Adapter for Deep Well Plate . Eppendorf® 96/1000 µl
2016-1131	Adapter for Deep Well Plate . Eppendorf® 96/500 µl
2016-1141	Adapter for Deep Well Plate . BRAND® 96/1100 µl U-bottom
2016-1151	Adapter for Deep Well Plate . NUNC® & Axygen® 96/2000 µl
2016-1161	Adapter for Deep Well Plate . Axygen® 96/0.6 ml V-bottom
2016-1171	Adapter for Storage Plate . Abgene® 96/2.2 ml MARK II square well
2016-1172	Adapter for Storage Plate . Abgene® & HJ-Bioanalytik® 96/0.8-1.2 ml round well
2016-1181	Adapter for Mega Block . Sarstedt® 96/2.2 ml
2016-1201	Adapter for Storage Plate . Corning® 96/320 µl V-bottom
2016-1211	Adapter for Masterblock . Greiner® 96/1.0 ml U-bottom

THERMO ADAPTER FOR CENTRIFUGE TUBES WITH CONICAL SHAPE	
2016-1061	Adapter for tubes . 24x 2.0 ml or 15x 0.5 ml
2016-1062	Adapter for tubes . 24x 1.5 ml or 15x 0.5 ml
2016-1063	Adapter for tubes . 40x 0.5 ml or 28x 0.2 ml
2016-1064	Adapter for tubes . 96x 0.2 ml

THERMO ADAPTER FOR FALCON® TUBES	
2016-1093	Adapter for 4x 50 ml FALCON® tubes
2016-1094	Adapter for 12x 15 ml FALCON® tubes

THERMO ADAPTER FOR TUBES/VIALS WITH CYLINDRICAL SHAPE	
2016-1067	Adapter for lysis tubes . 35x 0.5-2.0 ml Ø 10.2 mm
2016-1069	Adapter for glass vials . 35x 2.0 ml Ø 10.8 mm
2016-1071	Adapter for glass vials . 35x 2.0 ml Ø 12 mm
2016-1072	Adapter for glass vials . 20x 4.0 ml Ø 15 mm
2016-1073	Adapter for glass vials . 20x 4.0 ml Ø 17 mm
2016-1074	Adapter for glass vials . 20x 6.0 ml Ø 19 mm

Legal Notices & Trademarks

QINSTRUMENTS is owner of numerous patents worldwide. Please respect our intellectual property.
 WO2008135565, US8323588, EP2144716: Sample handling device for and methods of handling a sample
 WO2011113858, US9126162, EP2547431: Positioning unit for a functional unit
 WO2013113847, US10052598, EP2809436: Cog-based mechanism for generating an orbital shaking motion
 WO2013113849, US9371889, EP2809435: Mechanism for generating an orbital motion or a rotation motion by inverting a drive direction of a drive unit
 WO2014207243, US20160368003, EP3013480: Application-specific sample processing by modules surrounding a rotor mechanism for sample mixing and sample separation

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 Technical specifications are subject to change without notice.



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ColdPlate®

Professional heater-cooler thermoblock

Recommended for use with microplates for rapid cooling steps in range of -20 up to 99°C

HIGHLIGHTS

- Cooling & Heating in one unit
- Fully adjustable between **-20° to 99°C**
- Temperature range **24 K below RT**, max: 99 °C
- **Cooling/Heating speed 12 K/min** above RT
- Wide range of perfected thermo adapters
- **First-class** aluminium housing
- All parts inside
- Simple start-up
- 2 years full warranty



ColdPlate Order no. 2016-0110

A scientific innovation for laboratories

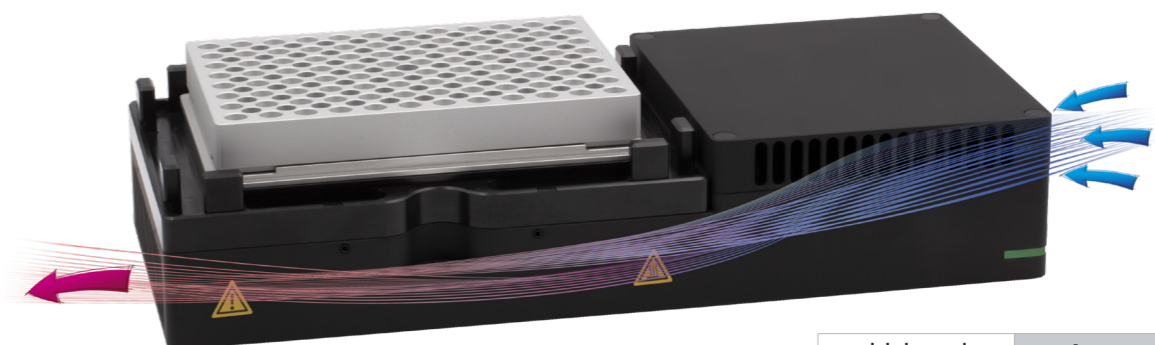
If you need to quickly and precisely control of the temperature processes on a robotic deck – go no further. The Heater-Cooler thermoblock provides highly accurate temperature control for the most demanding robotics applications. The module is only slightly larger than a standard microplate. Fully adjustable between -10°C and 99°C and well beyond the cooling & heating accuracies of most other brands, ColdPlate guarantees excellent temperature control for tubes, glass vials or microplates. A simple command set allows you to easily control hardware and sensors. The process parameters are constantly controlled and read out. QINSTRUMENTS provides approved SILA® drivers for all automation units.

Homogeneous and accurate temperature control

Many lab experiments require fast heating and cooling steps in a very accurate manner in range of 0 up to 99°C. Precise temperature control is achieved for the ColdPlate by using optimally balanced cooling and heating elements. The novel peltier technology in combination with minimized electronics and reliable algorithms ensure a long useful life in each lab automation project. ColdPlate is the ideal device to accurately set and maintain temperatures. By combining the cooling & heating operation in one smallest unit, the uniquely designed thermoblock provides control from -10 to 99 °C and an exceptionally speedy performance with 12 Kelvin/min.

Unique design meets HIGH-END technology

Unique and efficient design combined with the most compact housing result in beautiful and well-defined laboratory equipment. Therefore, the first-class finished aluminium housing gives the ColdPlate its essential functionality. It provides a high amount of security, device stability and ensures a long service life.



ColdPlate slim Order no. 2016-0111

TECHNICAL SPECIFICATIONS



SAMPLE	Microplates	All 6-, 12-, 24-, 48-, 96-, 384-, 1536-well plates of round-well, deep-well, v-well and square-well shape All microplates according SBS format . Supported microplate flange heights: 2.5 mm, 4.0 mm and 6.1 mm
	Standard tubes	0.2 2.0 ml standard microcentrifuge tubes
	Glass vials	0.5 6.0 ml vials with cylindrical shape
TEMPERATURE	Temperature range	-20°C to 99°C . up to 24 Kelvin under room temperature (depend on the used thermo adapter)
	Temperature setting	Adjustable from -20°C to 99.9°C . 0.1°C increment
	Temperature accuracy	±0.1°C
	Temperature uniformity	± 1.0°C at 4°C . ± 0.5°C at 45°C . ± 0.7°C at 75°C . ± 1.°C at 95°C
	Cooling/Heating speed above RT	ca. 12 K/min above RT . 6 min from RT to 95°C . 6min from 95°C to RT depend on the used thermo adapter
	Cooling/Heating speed below RT	ca. 6-12 K/min below RT . 4-5 min from RT to 4°C . 4-5 min from 4°C to ambient depend on the used thermo adapter
	DEVICE CONTROL	Electronic control board
Controller		Micro controller (32-Bit-ARM-Cortex-M3-Prozessor)
Operation control		Remote controlled
User interface		RS232 interface . USB via DIGITUS DA-70156 USB-Seriell Adapters . USB via MOXA USB-to-Serial Hub
Status & alarm		LED in corner area . green = ok . red = booting/alarm . yellow = no communication
ELECTRICAL	Operating Voltages	24 VDC input . I _{max} : 4.5 A . P _{eff} : 85 Watt . P _{max} : 108 Watt
	External power supply	External power supply 24VDC 120W (CE/UL/CSA approved, 85-264 VAC, 47-63 Hz, IEC/EN60320-1 C14)
	24 V DC connection	Prewired cable, length 2 m, barrel connector ID 2.5 x OD 5.5 mm
	RS-232 interface	Prewired cable, length 2 m, with RS-232 plug-in connector
PROPERTIES	Environment operating range	+5°C to 45°C (80 % max. relative humidity)
	Dimensions WxDxH	ColdPlate: 142 mm x 99 mm x 79.0 mm (without adapter) ColdPlate slim: 142 mm x 99 mm x 45.5 mm (without adapter)
	Weight	ColdPlate: 1.4 kg ColdPlate slim: 1.6 kg
	Housing Material	Aluminum anodized, black

Free delivery worldwide | 2 years full warranty | Expert support

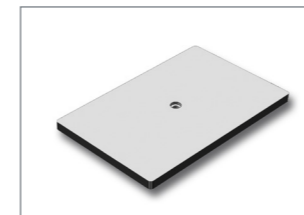
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CHANGEABLE THERMO ADAPTER PLATES

A variety of standardized thermo adapter plates

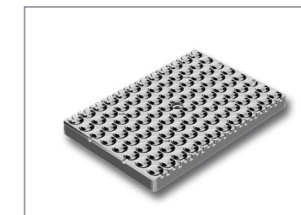
For all automation units QINSTRUMENTS offers high precision adapter plates to allow a perfect fit for all kinds of standard tubes, vials, microplates and other different disposables. The adapter plates are optimized for an excellent heat transfer to the disposables and enhance the uniformity over all wells and the heat up or cool down time. The exchange of adapter plates can be performed very easily within one minute.



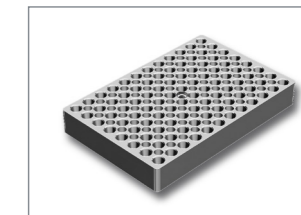
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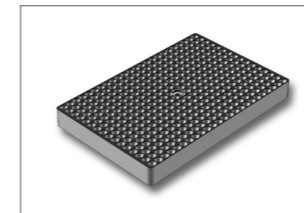
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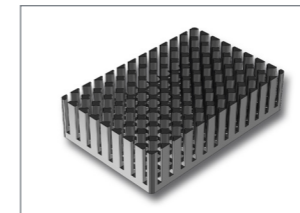
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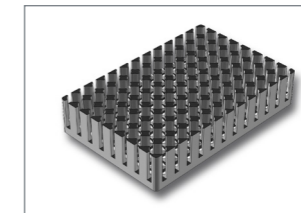
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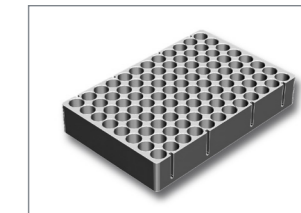
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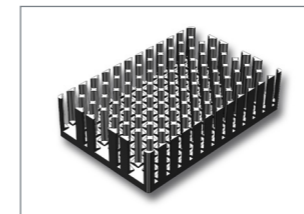
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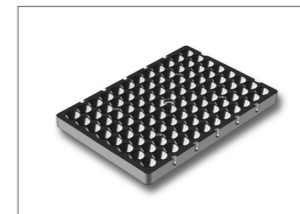
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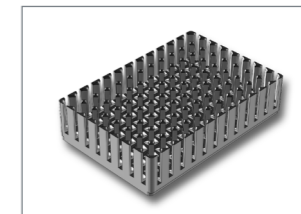
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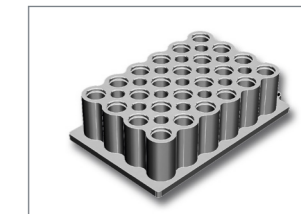
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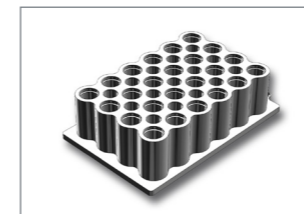
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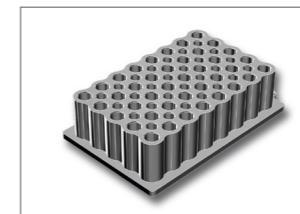
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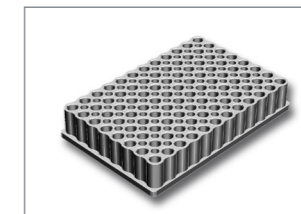
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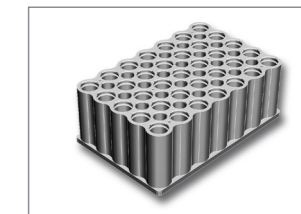
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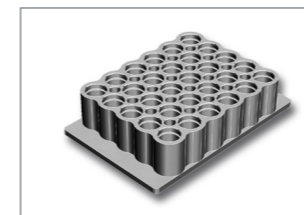
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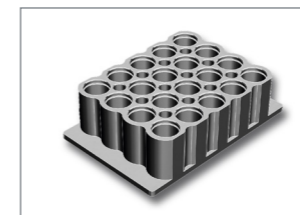
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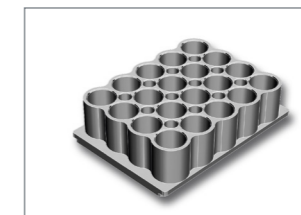
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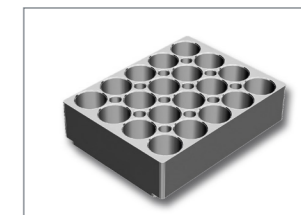
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Order no. 2016-1072



Order no. 2016-1073



Order no. 2016-1074



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