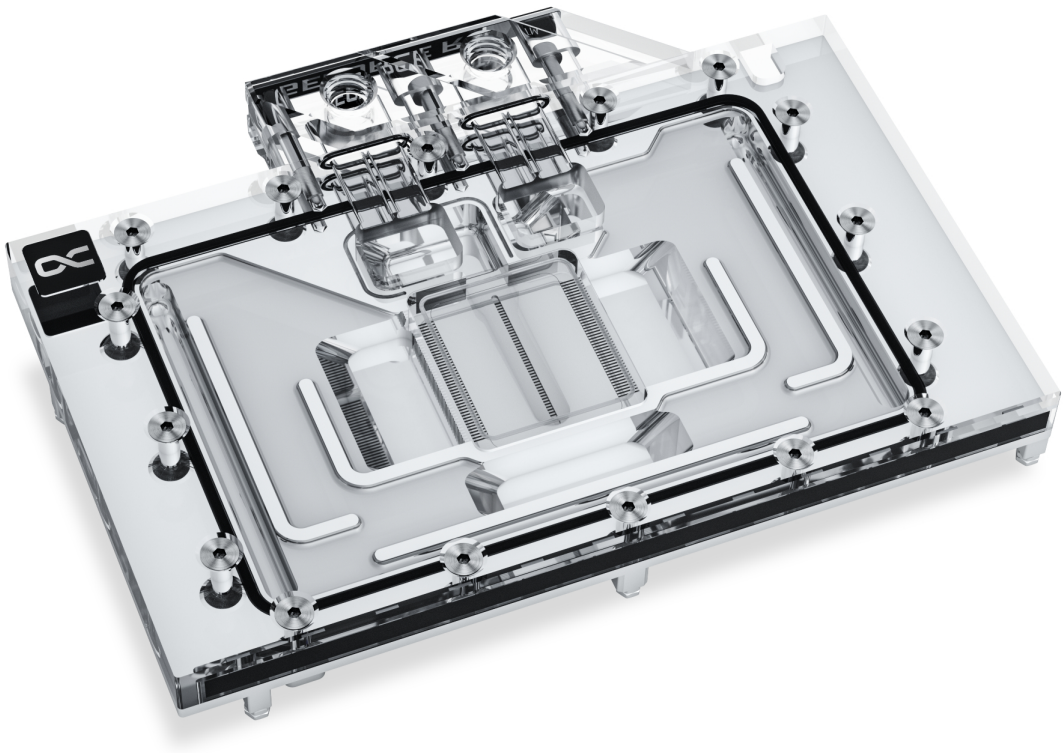
Download Center

Alphacool Eisblock Aurora Acryl GPX-N RTX 4090 Reference with Backplate

Alphacool article number: 13429



Quick Info

The next generation - the Alphacool Eisblock Aurora water cooler for Geforce RTX 4XXX graphics cards. In order to dissipate the enormous heat of this graphics card generation in the best possible way, numerous optimizations have been made to the water cooler compared to the previous model. The fin structure was adapted and enables a very good water flow while increasing the cooling surface. The modified jet plate with improved inflow engine ensures an optimal distribution of the water on the cooling fins.

- Optimised fin structure enables very good water flow & increase of cooling surface
- Modified jet plate ensures optimal distribution of the water on the cooling fins
- Chrome-plated copper cooler
- Visually calm & simple design with digital aRGB illumination

Compatibility

Attention! For PNY GeForce RTX 4090 the rear part of the PCB is not completly covered. This has no negative effect on the cooling performance!

Attention: Unfortunately Inno3D is using two different PCB Layouts. Please check your serial number. If it looks like following, it is not compatible with our water blocks: 32-879-xxxx8xxxx

_____

- Inno3D GeForce RTX 4090 iCHILL Black, 24GB GDDR6X (C4090-246XX-18330005)
- Inno3D GeForce RTX 4090 iCHILL Frostbite, 24GB GDDR6X (C4090-246XX-1833FB)
- Inno3D GeForce RTX 4090 iCHILL X3, 24GB GDDR6X (C40903-246XX-1833VA47)
- Inno3D GeForce RTX 4090 X3 OC, 24GB GDDR6X (N40903-246XX-18332989)
- PNY GeForce RTX 4090 XLR8 Gaming Verto Epic-X RGB Overclocked Triple Fan, 24GB GDDR6X (VCG409024TFXXPB1-O)
- PNY GeForce RTX 4090 XLR8 Gaming Verto Epic-X RGB Triple Fan, 24GB GDDR6X (VCG409024TFXXPB1)

Scope of delivery

1x Eisblock Aurora Acryl GPX-N RTX 4090 Reference	2x 8x100x3mm Pad
1x Backplate	1x Thermal grease
4x 84x8x1mm Pad	1x Putty tool
1x 15x15x1mm Pad	5x M2x5 Screw
2x 105x8x1mm Pad	5x EVA Washer
2x 50x15x1mm Pad	1x M2x5 Screw
1x 40x15x1mm Pad	1x PCI Bracket
1x 45x45x3mm GPU-Pad	5x M2x11 Screw
1x 15x15x3mm Pad	1x ARGB Adaptor
1x 8x40x3mm Pad	2x G1/4“ Plugs
2x 8x51x3mm Pad	1x Plug tool

Technical data cooler

L x W x H	198,60 x 144,29 x 35,89mm
Material cooler	chrome-plated copper
Material cooler top	acrylic
Max working temperature	60°C
Pressure tested	0,8 bar
Threads	4 x G1/4"
Thickness cooling fins	0,4mm
Distance cooling fins	0,4mm
Illumination	digital aRGB LEDs
Power connector digital aRGB LEDs	3-Pin JST
Power digital aRGB LEDs	5V
Number of digital aRGB LEDs	12

Technical data backplate

L x W x H	198,60 x 119,69 x 6mm
Material	aluminium
Color	black

Download links

Manual	13429_Alphacool_Eisblock_Aurora_Acryl_GPX-N_RTX_4090_Reference_with_Backplate_Manual.pdf
Product pictures	13429_Alphacool_Eisblock_Aurora_Acryl_GPX-N_RTX_4090_Reference_with_Backplate_pics.zip
EU-DoC / CE / RoHS	Alphacool_EuDoc_CE_RoHS_13429.pdf

Packaging dimensions per unit

L x W x H	352 x 170 x 45 mm
Weight	1660 g

Other data

Certificates	CE, FC, RoHS
EAN	4250197134293
Customs code	84195080900

Article text

The next generation - the Alphacool Eisblock Aurora water cooler for Geforce RTX 4XXX graphics cards. In order to dissipate the enormous heat of this graphics card generation in the best possible way, numerous optimizations have been made to the water cooler compared to the previous model. The fin structure was adapted and enables a very good water flow while increasing the cooling surface. The modified jet plate with improved inflow engine ensures an optimal distribution of the water on the cooling fins.

Important note: The RTX 4090 Eisblock Aurora Reference cooler is not compatible with Nvidia's Geforce RTX 4090 Founders Edition. The RTX 4090 FE is compatible with the following cooler: Alphacool Eisblock Aurora Acryl GPX-N RTX 4090 Founders Edition with Backplate (Art. 13456)

Technical Highlights

The fin structure of this Eisblock cooler generation was developed together with Nvidia board partners. The fin thickness is 0.4 mm, the distance between the cooling fins is 0.4 mm. This ensures a very good water flow while increasing the cooling surface. The jet plate has a revised inlay that spreads the water pressure better over the fins thus optimizing the heat absorption. The adjusted water inflow gives the water a better angle of inflow.

Chrome-plated copper

The cooler is made entirely of chrome-plated copper. A chrome plating is much harder than a nickel plating and therefore less sensitive to acids, scratches and damage. It completely eliminates the risk of chipping nickel plating. Additionally, chrome plating looks much more homogeneous and provides a shine that cannot be achieved by nickel plating. Chrome-plated coolers have previously only been used in the industrial sector in areas where extreme influences act on the coolers.

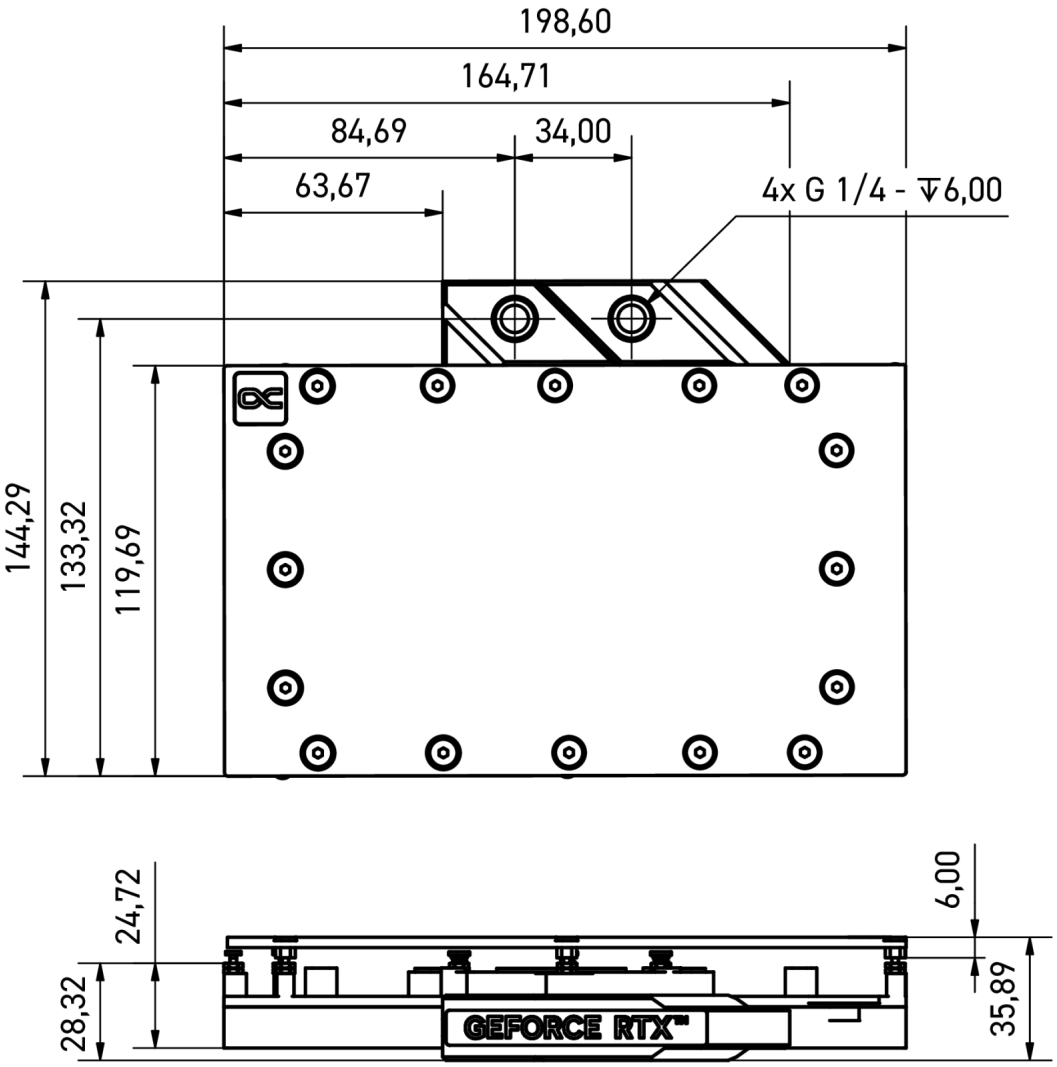
Design

The Aurora design of the Geforce RTX 4XXX Eisblock generation is visually calmer and simpler. Only one O-ring runs around the entire cooler. The design around the cooling fins and jetplate makes for a cleaner look. The illumination of the digitally addressable RGB LEDs is even better distributed throughout the cooler as a result of the chrome plating. The terminal's design is in line with the classic Aurora design.

Thermal paste & thermal pads

The included thermal compound is Alphacool's Subzero. With a thermal conductivity of 16 W/mk, it is one of the highest performing thermal pastes on the market. The electrically non-conductive thermal compund is particularly well suited for high contact pressures, but can still be processed perfectly due to its viscosity of 850,000 TF. Alphacool Soft Pads with 1mm thickness are used on the voltage converter and the graphics memory. The thermal conductivity of the pads is 7W/mk. The pads for the back of the PCB are 3mm thick and have a thermal conductivity of 3W/mk.

Figure


198,60
164,71
84,69
34,00
63,67
4x G 1/4 - ↧6,00
144,29
133,32
119,69
24,72
28,32
6,00
35,89
GEFORCE RTX™