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Alphacool Core Storm 420mm ST30 water cooling Set

Alphacool article number: 11988

Quick Info

With the Core Storm water cooling kit, Alphacool provides all the components needed to get started in the world of water cooling. The set is aimed not only at beginners, but also at enthusiasts. The selected components are optimally matched and come from Alphacool's DIY program. The choice of materials is still uncompromisingly based on copper or brass for all metals in order to guarantee performance-oriented CPU cooling. Due to the included quick-release fastener, additional components like radiators or GPU coolers can be integrated afterwards without having to drain or rebuild the water loop.

- Water cooling set for starters & enthusiasts
- Performance-oriented water cooling with digital aRGB illumination
- Expandable without the need to empty/rebuild the water circuit
- Optimally matched components from Alphacools DIY range

Compatibility

Intel: 775 / 1056 / 1155 / 1150 / 1151 / 1200 / 2011 / 2011-3 / 2066 / 1700 / 1851

AMD: AM2 / AM2+ / AM3 / AM3+ / FM1 / FM2 / FM2+ / AM4 / AM5

Scope of delivery

- 1x Eisblock XPX Aurora CPU Cooler
- 6x Fitting Eiszapfen 13/10mm G1/4"
- 2x Fitting Angled 90° HF 13/10mm G1/4"
- 1x Quick Release fitting HF kit G1/4"
- 1x Alphacool Core 100 Aurora Reservoir
- 1x Alphacool VPP Apex pump
- 1x aRGB Controller Aurora Eiscontrol
- 2x Digital RGB LED Y-splitter 3-fach cable
- 1x PWM to 3x PWM connector cable
- 1x ATX 24-pin jumper plug
- 1x NexXxoS ST30 Full Copper 420mm Radiator V.2
- 3x Rise Aurora 140 mm Fan (140x140x25mm)
- 1x Liquid Clear 1000ml
- 1x AlphaTube HF 13/10mm (3/8 "ID) - 3m
- 1x Hose cutter
- 1x Filling bottle

Technical data CPU cooler

Dimensions (L x W x H)	75,8 x 75,8 x 33mm
Material cooler	nickel-plated copper
Material housing	nylon, acrylic
Threads	2 x G1/4“
Illumination	3-Pin 5V, 15 digital aRGB LEDs
Max working temperature	60°C
Pressure tested	0,8 Bar

Technical data reservoir

Dimensions (L x W x H)	131 x 76,5 x 76,5mm
Capacity	200 ml
Material Pump top & cover	acetal
Material tube	acrylic
Threads	3x G1/4“ IT
Illumination	3-Pin 5V, 12 digital aRGB LEDs
Max working temperature	60°C
Pressure tested	0,8 Bar

Technical data pump

Dimensions (L x W x H)	65 x 65 x 41mm
Material	synthetic material, aluminium, ceramics
Threads	4-Pin PWM | SATA
Rotational speed	2500 - 4500 RPM
Operating voltage	8-13V DC / 14W IP32
Starting voltage	12V DC
Maximum pumping head	4,25m
Maximum flow rate	340L/h
Max working temperature	60°C
Pressure tested	0,8 Bar

Technical data radiator

Dimensions (L x W x H)	455,5 x 144 x 30mm (+/- 3%)
Material cooling fins, pre-chambers & channels	copper
Material threads	brass
Material outer housing	stainless steel
Threads	4x G1/4" IN/OUT & 1x Fill-/Drainport G1/4"
Possible fan size	140mm
Possible fan assembly	3x one-sided / 6x both-sided
Fin density	15
Max working temperature	60°C
Pressure tested	0,8 Bar

Technical data fan

Dimensions (L x W x H)	140 x 140 x 25mm
Speed	0 - 2000 RPM (+/- 10%)
Threads	4-Pin PWM
Voltage	12V DC
Current consumption	6,6 Watt (max)
Static pressure	2,20 mm/H2O
Max. air flow	154,1 m^3/h
Noise	max. 38,4 dB(A)
Speedometer signal	yes
Auto-Restart	yes
Illumination	3-Pin 5V, 24 digital aRGB LEDs, 3.5W

Technical data tube

Dimensions (outer/inner)	13/10mm
Material	PVC
Length	3m
Color	clear

We assume no responsibility for any typing errors. Alphacool International GmbH, Marienberger Strasse 1, 38122 Braunschweig Tel: (+49)0531 288 7400 Supportmail: info@alphacool.com

Technical data 13/10mm G1/4" fittings

Material	brass
Threads	1x G1/4" OT | 1x tube connection 13/10mm
Color	black

Technical data quick release coupling

Dimensions (L x D)	60,3 x 26,1mm
Material	synthetic material
Threads	2x G1/4“ IT
Color	black

Technical data coolant

Ingredients	osmose water(93,8%), glysofor L (4,2%), RHOBA KLA (2%)
Boiling point	105°C
Freezing point	-10°C
Packaging unit	1L bottle
Color	clear (not UV-active)

Technical thermal grease

Viscosity (mPa. s)	3.000.000
Specific Gravity (g/cm³)	2,7
Thermal Conductivity (w/m-K)	16
Temperature Stability (Degree Celcius)	-50 ~ 200
Color	gray

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Manuals	11988_Alphacool_Core_Storm_420mm_ST30_water_cooling_Set_Manual(1).pdf 11988_Alphacool_Core_Storm_420mm_ST30_water_cooling_Set_Manual(2).pdf
Safety data sheets	11988_Alphacool_Core_Storm_420mm_ST30_water_cooling_Set_SDS(1).pdf 11988_Alphacool_Core_Storm_420mm_ST30_water_cooling_Set_SDS(2).pdf
Product pictures	11988_Alphacool_Core_Storm_420mm_ST30_water_cooling_Set_pics.zip
EU-DoC / CE / RoHS	Alphacool_EuDoc_CE_RoHS_11988.pdf

Packaging dimensions per unit

L x W x H	620 x 145 x 320 mm
Weight	6180 g

Other data

Certificates	CE, FC, RoHS
EAN	4250197119887
Customs code	84195080900

Article text

With the Core Storm water cooling kit, Alphacool provides all the components needed to get started in the world of water cooling. The set is aimed not only at beginners, but also at enthusiasts. The selected components are optimally matched and come from Alphacool's DIY program. The choice of materials is still uncompromisingly based on copper or brass for all metals in order to guarantee performance-oriented CPU cooling. Due to the included quick-release fastener, additional components like radiators or GPU coolers can be integrated afterwards without having to drain or rebuild the water loop.

Eisblock XPX Aurora CPU Cooler

Alphacool's Eisblock XPX Aurora CPU water cooler offers the highest performance and impresses with its outstanding quality. The patented ramp system ensures optimal water flow within the cooler as water is forced evenly through the jet plate. 81 cooling fins are distributed on the CPU cooler base, occupying an area of 34 x 32mm and thus accommodating the ever-growing CPU DIEs. The Aurora design in combination with the 15 addressable digital aRGB LEDs provides many options for outstanding CPU water cooler illumination. The included mounting hardware makes the CPU cooler compatible with popular mainstream sockets from AMD and Intel.

Core 100 Aurora Reservoir & VPP Apex Pump

The Core reservoir combines performance with design. The reservoir tube is made of acrylic, while the D5/VPP pump top and lid are made of acetal. The combination of these two materials gives the expansion tank a subtle appearance. The wow effect is provided by 12 digitally addressable RGB LEDs in the pump top and the Lighttower water effect inside the acrylic tube. The Apex VPP is a powerful pump that is compatible with the most popular D5/VPP tops and reservoirs. The pump's speed can be read out via the 4-pin fan connector and controlled via PWM signal. The Apex VPP is supplied with power via a SATA connector.

NexXxoS ST30 Full Copper 420mm Radiator V.2

All water-bearing parts and the cooling fins are made of pure copper. Thus, the NexXxoS ST30 achieves the highest thermal conductivity value of all radiators on the market and can easily dissipate extremely high waste heat. The radiator has two IN or OUT connections with G1/4" threads in the pre-chamber area. On the opposite side is a fill or vent port, which can be used to fill and drain the water loop.

Rise Aurora 140mm fans

The fans can be controlled from 0 to 2000 rpm via the 4-pin PWM connector. At 800 rpm, the fan is nearly silent, but still offers good airflow (154.1 m3/h) coupled with high static pressure (2.20 mm/H2O). In addition to a wide control range, the Rise fan also offers superior digital aRGB lighting. The frame and hub feature 24 digitally addressable 5V RGB LEDs that illuminate the entire fan.

AlphaTube HF 13/10mm tubing & HF G1/4" quick connect coupling

The clear 13/10mm hose made of PVC offers comfortable handling when routing and connecting water cooling components. It has good routing and kinking characteristics and allows uncomplicated bridging of tight bend radii. The HF quick-connect coupling included in the scope of delivery allows easy integration of further components at a later date without having to drain or rebuild the water loop.

Eiszapfen 13/10mm G1/4" Connections

All the requirements for a connection are met here: Highflow, shape, machining and coloring. Special manufacturing processes firmly bond the coating to the substrate. This increases the longevity of the color and prevents the coating from flaking off.

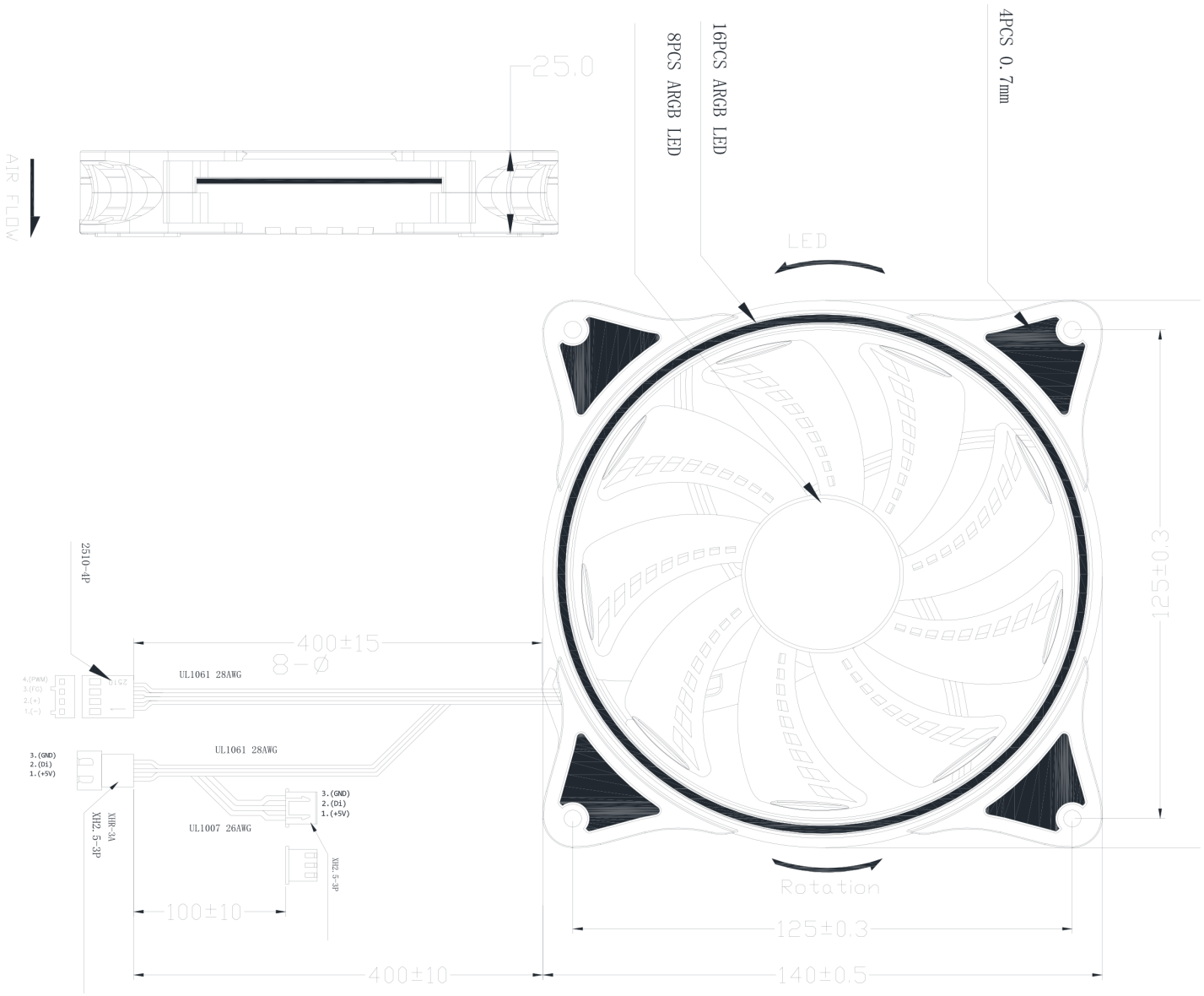
Thermal Paste & Coolant

The included thermal paste is Alphacool's Subzero with a thermal conductivity of 16 W/mk. The electrically non-conductive Thermal Grease is particularly well suited for high contact pressures, but can still be processed perfectly due to its viscosity of 850,000 TF. Tec Protect 2 Clear in the 1 liter bottle is used as the coolant. Tec Protect 2 Clear is a ready-to-use mixture that already contains all the necessary additives and can be used straight from the bottle.

aRGB Controller, Cables, Tools & Accessories

All cables (aRGB, PWM) and controllers needed to use & control the pump, fan and aRGB lighting are included. The accessory package also includes important tools like hose cutter, filling bottle and an ATX 24-pin jumper. Thus, the construction of the custom loop can be started "out-of-the-box" immediately.

Figure (1)


25.0
AIR FLOW
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16PCS ARGB LED
4PCS 0.7mm
LED
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400±15
8-Ø
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4.(PWM)
3.(FG)
2.(+)
1.(-)
3.(GND)
2.(Di)
1.(+5V)
UL1061 28AWG
3.(GND)
2.(Di)
1.(+5V)
UL1007 26AWG
XHR-3A
XH2.5-3P
XH2.5-3P
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400±10
125±0.3
140±0.5
125±0.3
Rotation

Figure (2)

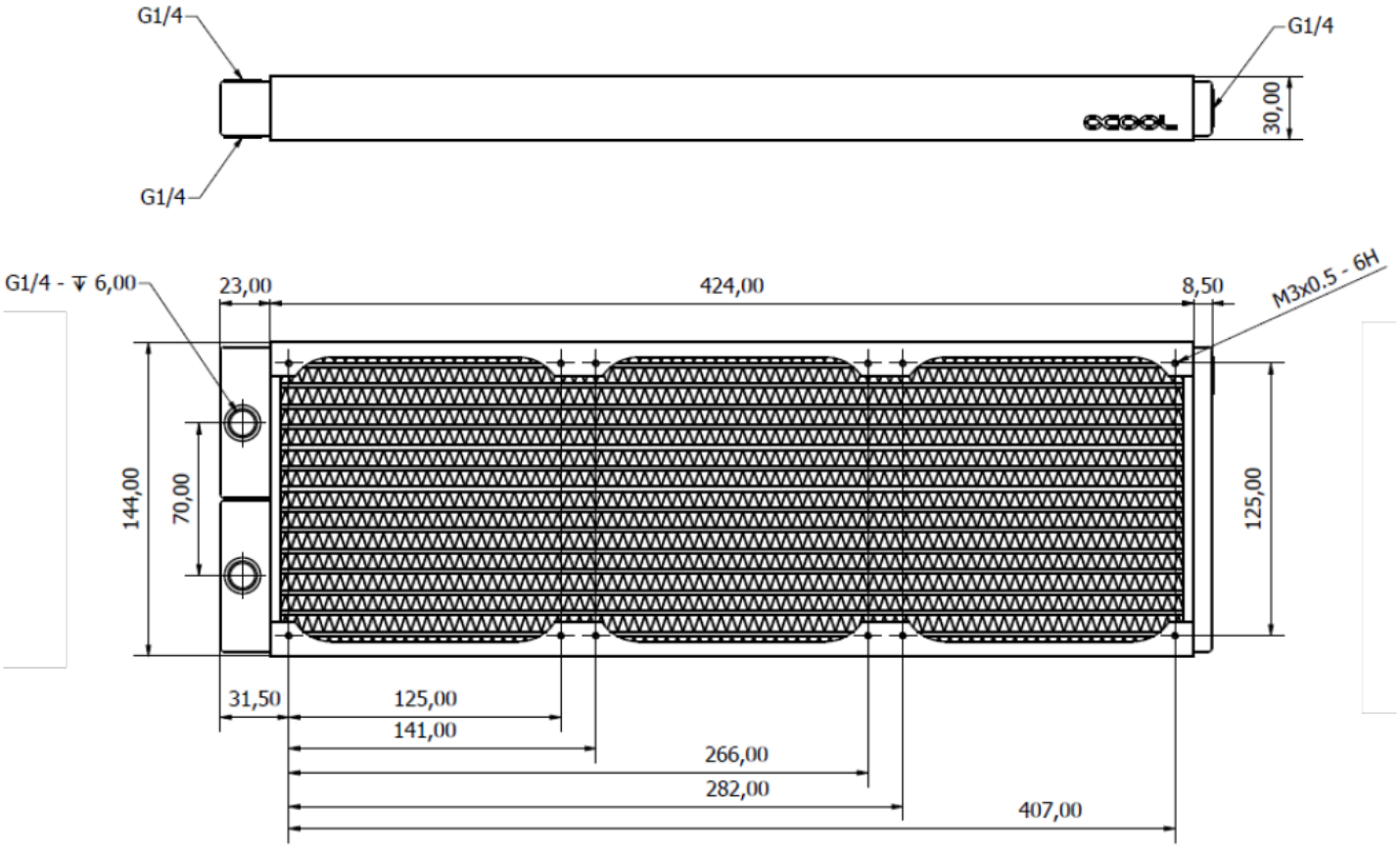
G1/4
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Figure (3)

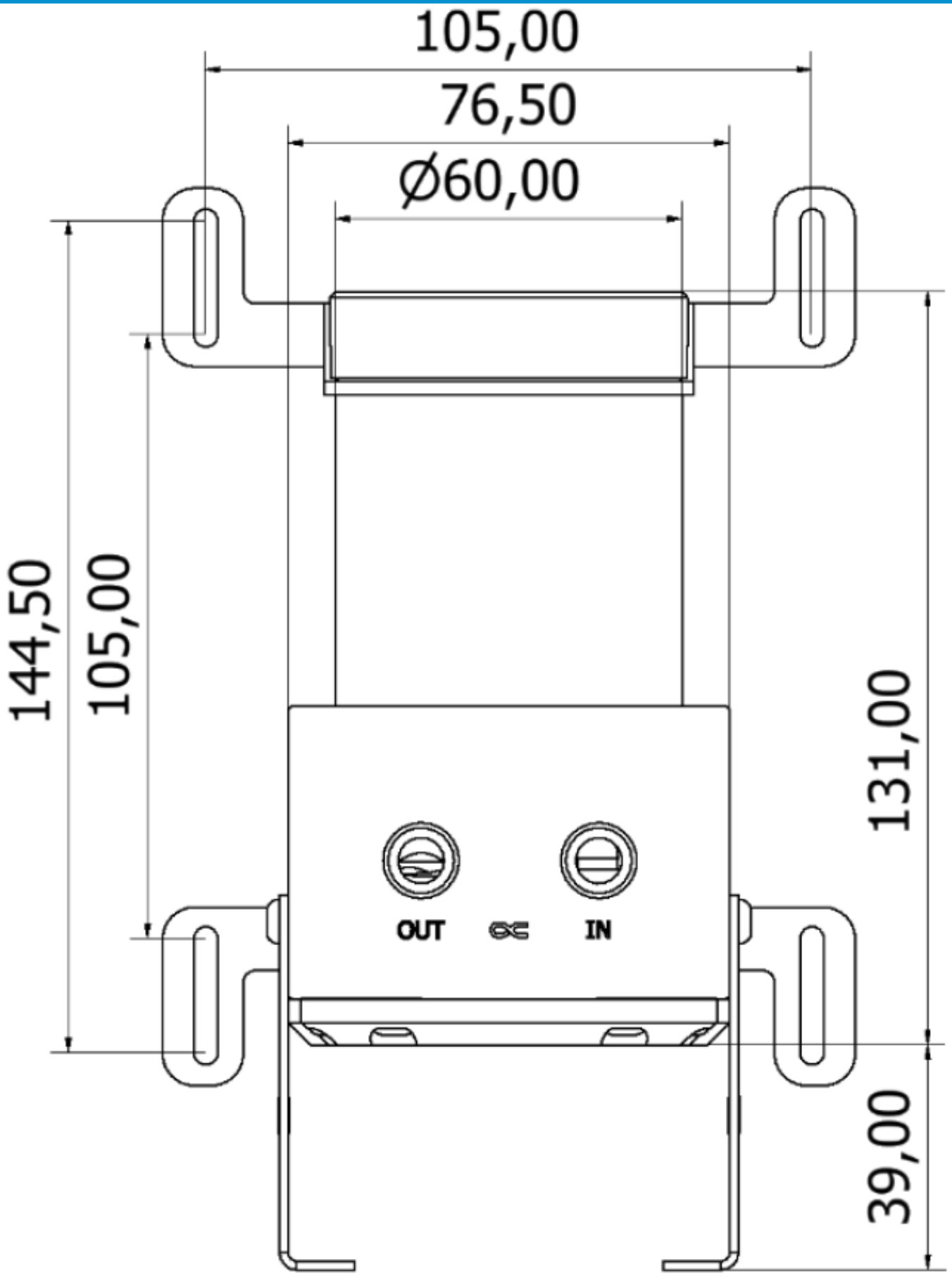
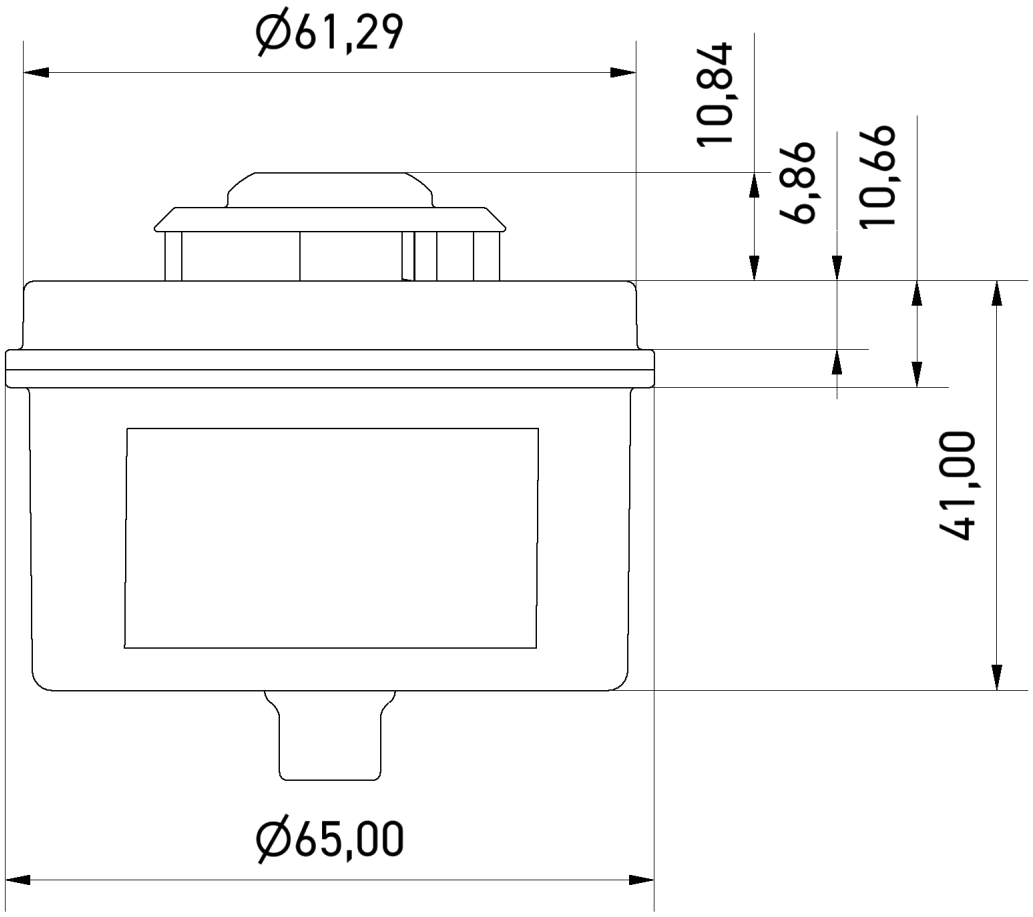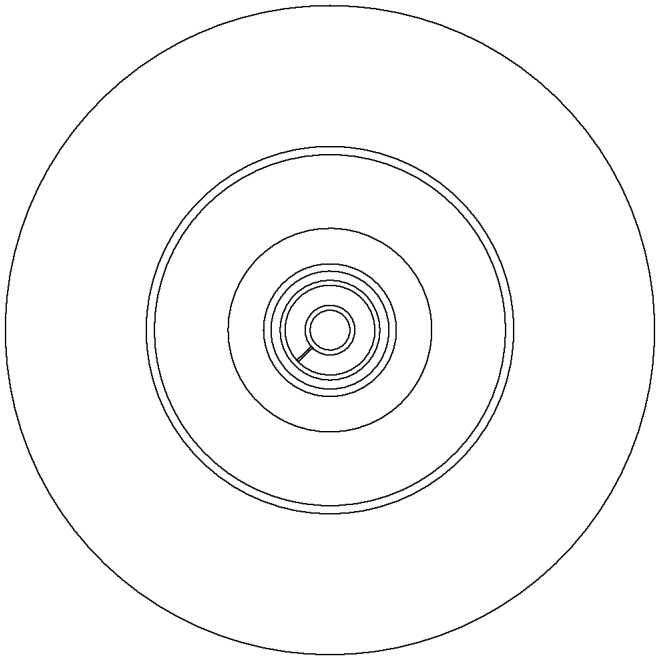
Figure (4)