cool.Jacket

Active housing cooling: High Definition meets High Temperatures

Datasheet.

Features.

Compatible with
ExCam IPM2036, RoughCam IPM2036

Conzept
Intercooler-System for process water: The cooling element is flooded with cooling water. So the inside temperature is kept below the maximum permitted value of the camera module by the principle of heat exchange. So the functional ambient temperature range could be extended. The water flow could be controlled automatically or, if needed, manually.

Data.

Ex-Marking of the Camera

Explosion protection (gas):	(Ex) II 2G Ex db IIC T3 Gb
Explosion protection (dust):	(Ex) II 2D Ex tb IIIC T195°C Db

Mechanical Characteristics

Material:	Aluminum	EN AW 6061
		EN AW-AL Mg1 Si Cu
Weight (cool.Jacket):	1.2 kg	

Range of Temperature

ExCam IPM2036 ...-LL.HH-...:	-50°C bis +120°C

☀ **+120°C**

❄ **-50°C**

Water Supply

Type of regulation:	Unregulated (constant waterflow), regulated, controlled
Optional:	Cooling appliance (not in the scope of delivery)
1 x cold water circuit	3/8" for 9 mm tube
1 x warm water return:	3/8" for 9 mm tube
Medium:	water @ 20°C < 1bar
Volumetric flow rate:	Q_{min} = 7 l/min

The customer has to ensure solid water supply and temperatures below 20°C at the inlet to the cool.Jacket. The unregulated variant is permanently flown through the supplying water. The water supply has to be manually turned off/on depending on hot and cold periods. Furthermore it has to be guaranteed that the ex-relevant ambient temperature is not exceeded.

Physical Characteristics:

Specifi thermal conductivity:	I= 170-220 W/(m*K)
Specific heat capacity:	c = 896 J/(m*K)

Dimensions.

cool.Jacket-VA2.0   Side view right   Front view

187,10

138,00

143,50

R72,50

1.4404   62713

144,91

*
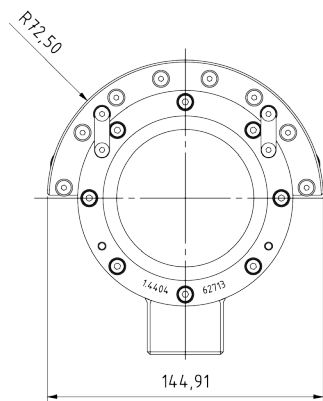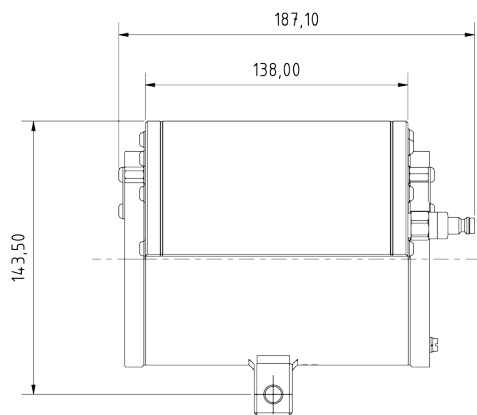
Optional accessories:
Tubes, Insulation (Armaflex), Water cooling unit

* = illustration shows model with accessories that are subjected to an extra charge
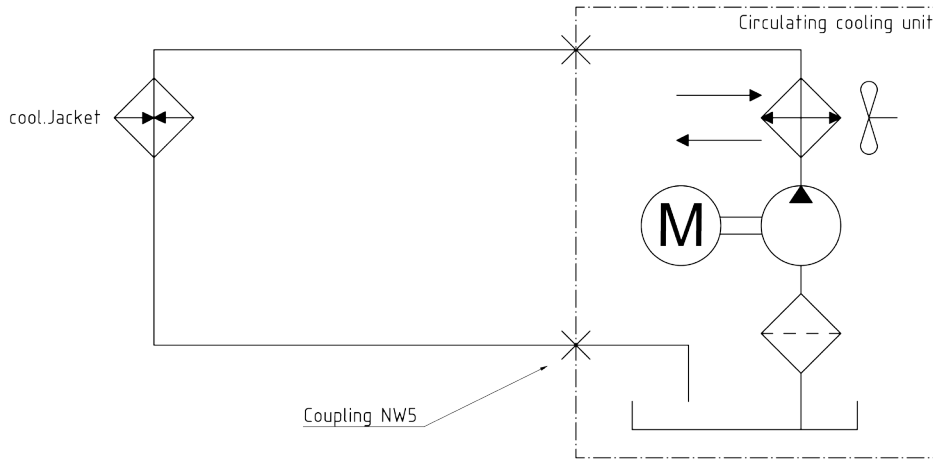
Concept.

Hydraulic plan.

cool.Jacket-VA2.X

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Circulating cooling unit

cool.Jacket

M

Coupling NW5

(Ex) Hazardous area IIC T3
Tamb = max. 120°C

(Ex) Safe area:
–cooling device
–PoE Network

Hydraulic plug

Coolant pipe
flexible hose

Insulation

Included in delivery:

Coupling:
Inlet ("cool"):
1x 3/8" (9mm) hose
Outlet ("hot"):
2x 3/8" (9mm) hose
(incl. T-bar)

Cooling device

Camera plug:
PoE, network

ExCam IPM2036 with cool.Jacket
e.g.:
TÜV 18 ATEX 8218X
Ex II 2 G Ex db IIC T3 Gb
Ex II 2 D Ex tb IIIC T195°C Db

Exemplary picture !