

for the ...IPQ1645 Series

cool.Jacket

Active housing cooling: High Definition meets High Temperatures

Datasheet.

Features.

Compatible with

ExCam IPQ1645, RoughCam IPQ1645

Concept

Intercoler-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):

⚠ II 2G Ex db IIC T3 Gb

Explosion protection (dust):

⚠ II 2D Ex tb IIIC T195°C Db

Mechanical Characteristics

Material:

Aluminium EN AW 6082
EN AW-AL Si1 Mg Mn

Weight (cool.Jacket):

1.9 kg

Range of Temperature

-10°C to +130°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:

$Q_{min} = 7 \text{ l/min}$



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:

Specific thermal conductivity:

$\lambda = 170\text{-}220 \text{ W/(m}\cdot\text{K)}$

Specific heat capacity:

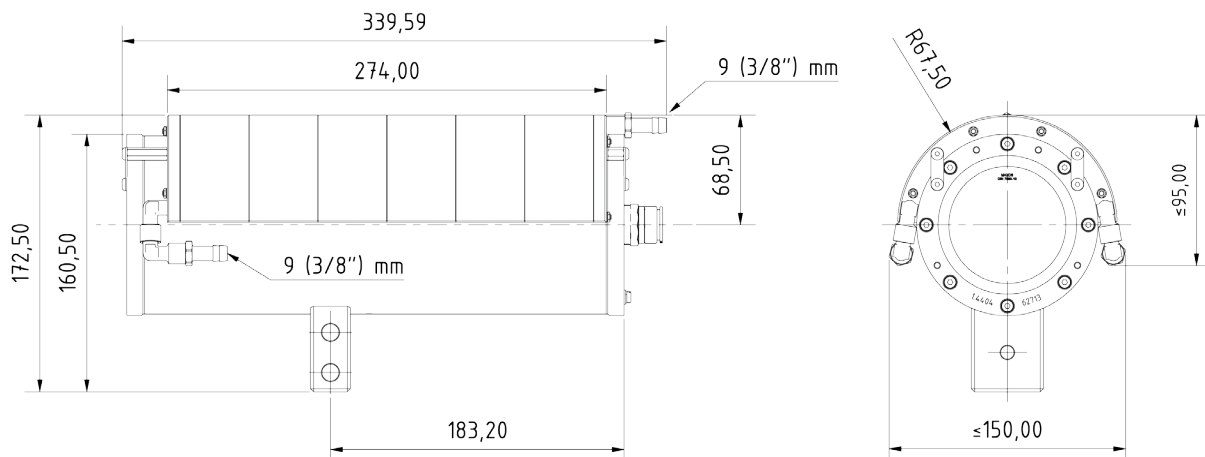
$c = 896 \text{ J/(m}\cdot\text{K)}$

Dimensions.

cool.Jacket-VA2.3

Side view right

Front view



Optional accessories:

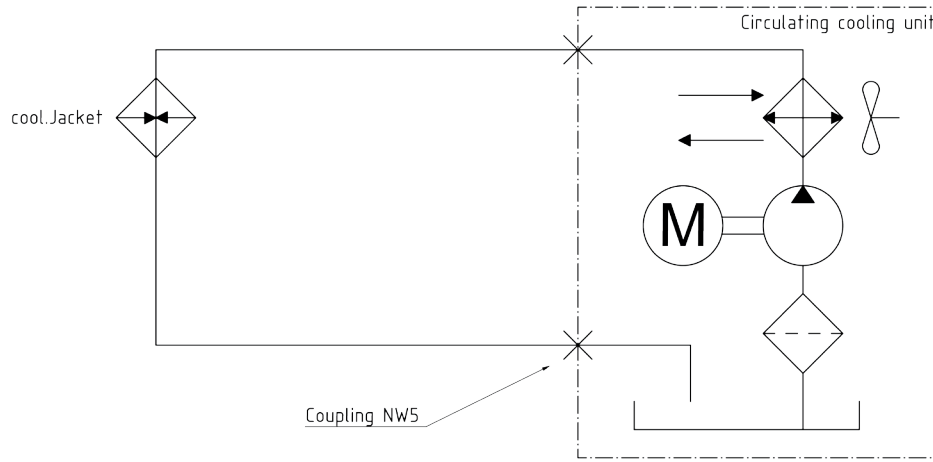
Tubes, Insulation (Armaflex), Water cooling unit

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

Concept.

Hydraulic plan.

cool.Jacket-VA2.3

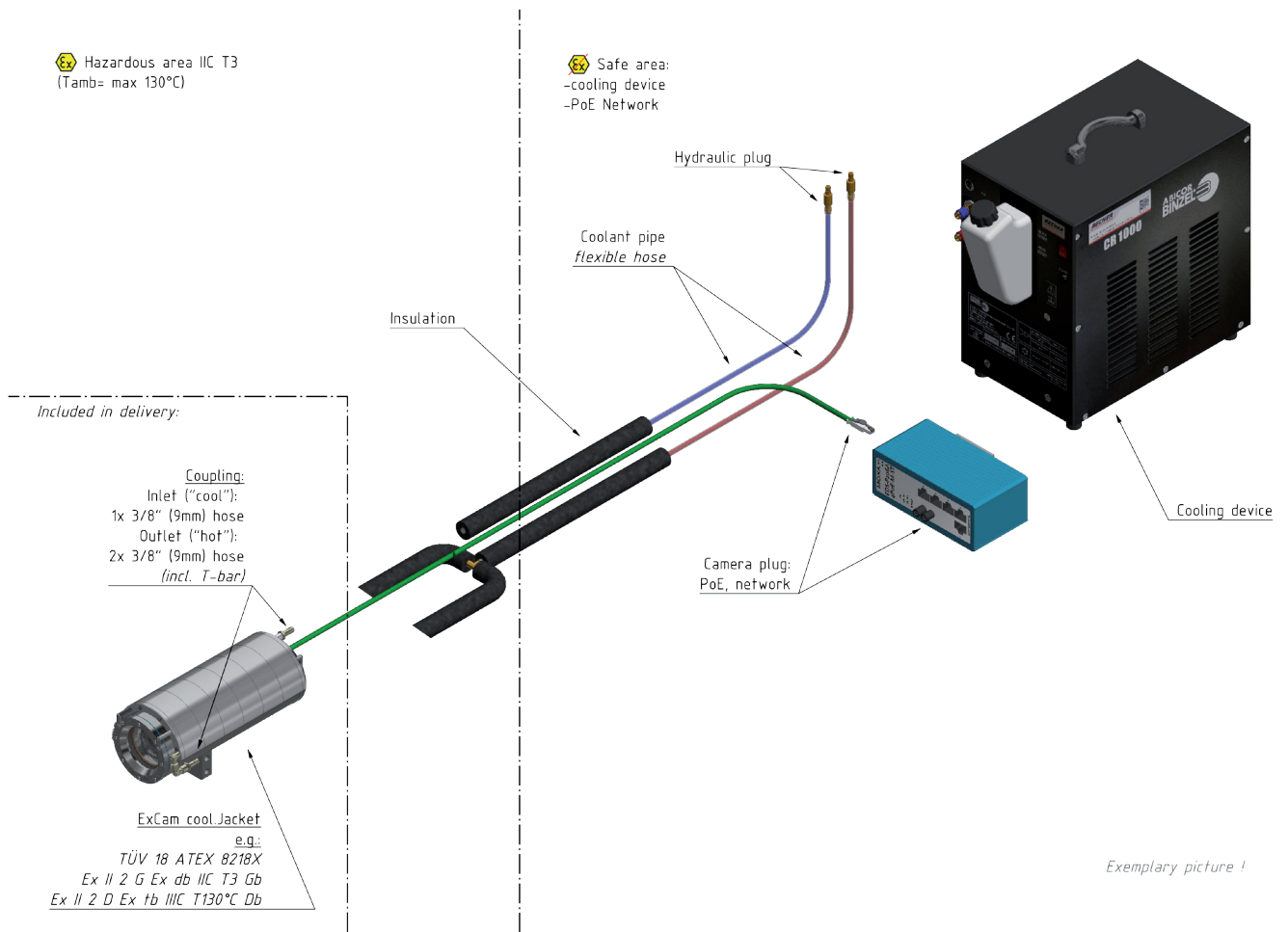


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Hazardous area IIC T3
(T_{amb} = max 130°C)

Safe area:
-cooling device
-PoE Network



Exemplary picture !