Application Note: HS-S0-12K40

High Temperature Warning and Camera Handling

Warning! Depending on the mounting design and the operating conditions the camera body could become hot. You must take precautions to ensure your safety and avoid touching the camera directly during operation.
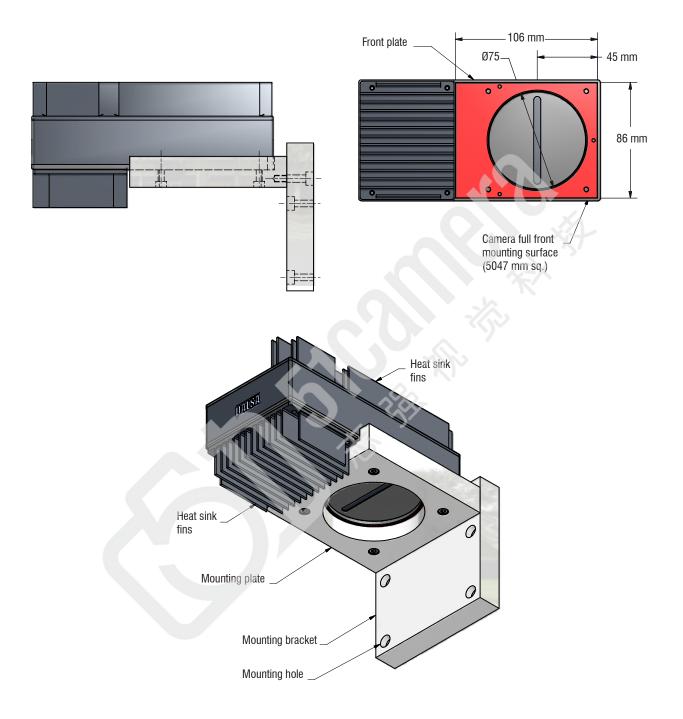
Mounting Instructions and Recommendations

Proper camera mounting ensures that the heat generated by the camera dissipates properly and that the camera maintains a safe temperature.

1. The camera should be bolted tightly to a mounting plate made of thermally conductive material (e.g. Aluminum).

2. Keep contact area between the camera's front surface and the mounting plate surface as large as possible. Do not use "stand-off" style mounting.

3. Design the camera mounting plate so that there is enough surface area to dissipate heat. An example of a properly mounted camera is illustrated on page 2.

4. Forced air flow to the fins is the most effective way to cool the camera. If forced air flow is not available, then leave enough space around the fins so that heat can easily dissipate into the air by natural convection.

5. The mount setup plus the airflow must dissipate 40 Watts or more of heat.

6. Proper thermal mounting of the camera should result in an internal camera temperature < 65 ℃ (verify using command vt) and a front plate temperature < 50 ℃.

Note: To avoid internal damage the camera automatically shuts down when the internal temperature reaches 75 ℃.

The recommendations assume the following conditions:

*   The camera mounting plate has at least 5,047 mm sq. contact surface (equal to the full camera mounting surface, as shown) and approximately 3,000 mm sq. of natural convection surface.

*   No impediments to the natural convection space around the surface of the mounting plate and the surface of the camera.

*   An environment temperature of approximately 25 ℃.

*   Good contact between the mounting plate and the camera surface.

HS-12K Camera Mounting Recommendation

Front plate

106 mm

Ø75

45 mm

86 mm

Camera full front
mounting surface
(5047 mm sq.)

Heat sink
fins

Heat sink
fins

Mounting plate

Mounting bracket

Mounting hole