



Instruction Manual for the Rotary Wiper

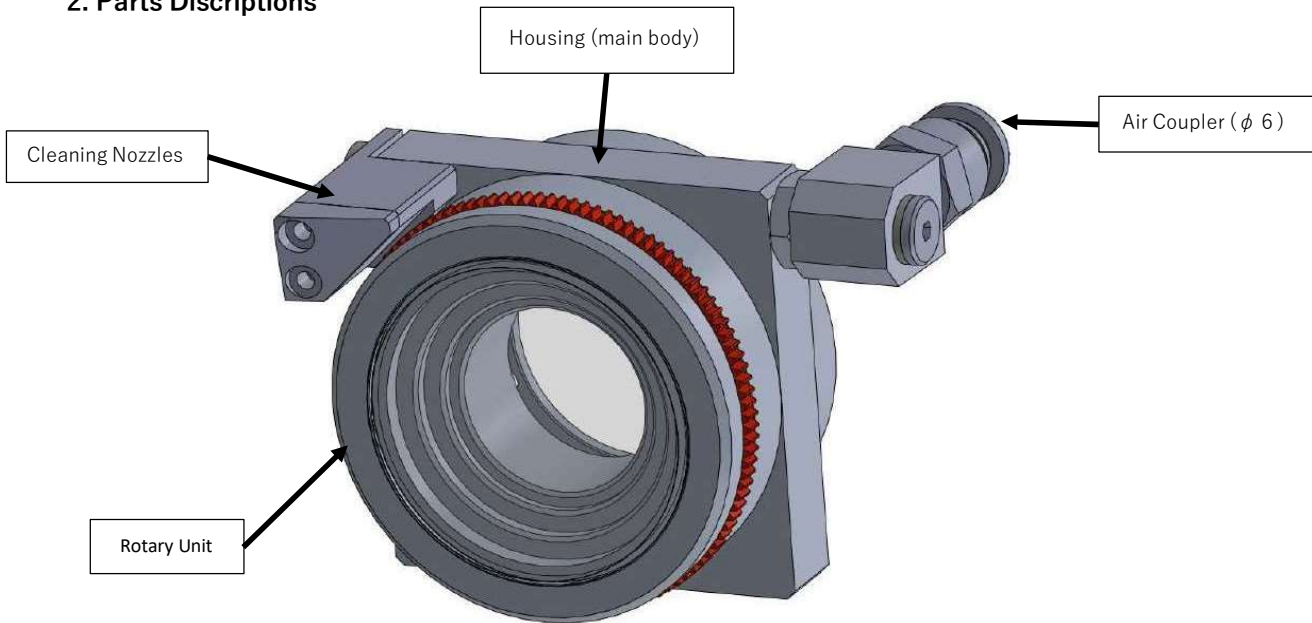
~Ver. 1.00~

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1.00			2024.11.04

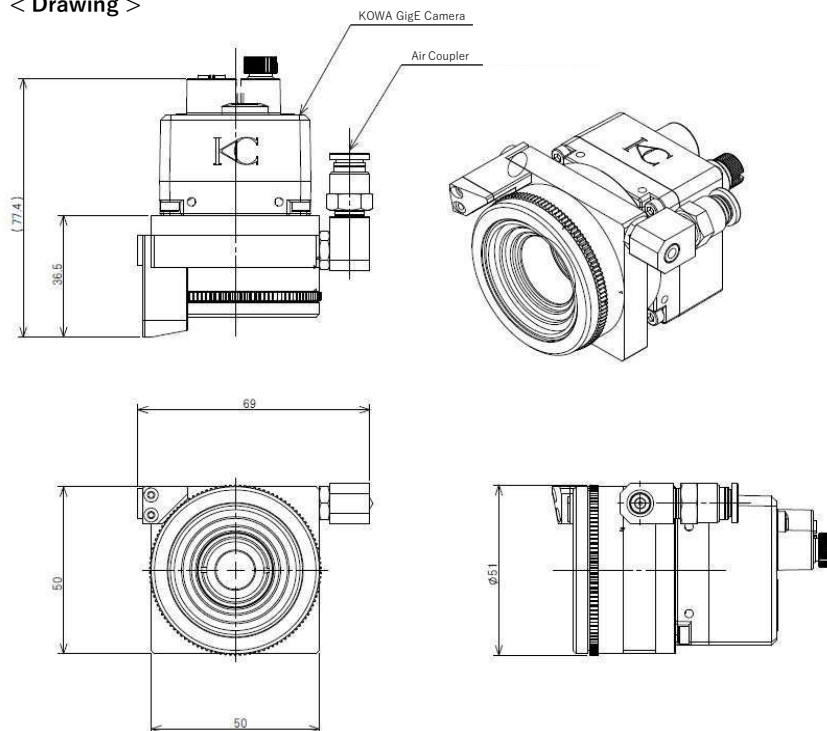
1. Package Configuration

- Rotary Wiper (Hosing)
- O-ring for sealing with camera installing surface
- Screws for installing the camera (4 pcs, M2.5 x 6L, hexagon socket head cap)
- Mount Adapters (type S to C, NF to C, and NF to CS)
- Protection Cap for the Front Glass

2. Parts Discriptions



< Drawing >



3. Specification

Product Code	KC-RW-1S
Dimensions	50mm × 50mm × 31mm (Excluding projections)
Power Supply	-
Source of Power	Compressed Air (from Air Coupler ϕ 6)
Pressure Setting	0.05~0.1MPa
Air Consumption	15~20 ℓ / min
Cleanliness Grade of Air	ISO8573-1 : 2010 [2 : 3 : 2]
Dustproof & Waterproof	IPX7 (when rotating the wiper by air supply)
Storage Temperature	-20 ~ 60 °C
Operating Temperature	10 ~ 45 °C
Compatible Cameras	Harsh Environment Resistant GigE Vision Camera Series ※1
Compatible Lenses	S-Mount or NF-mount lens ※1

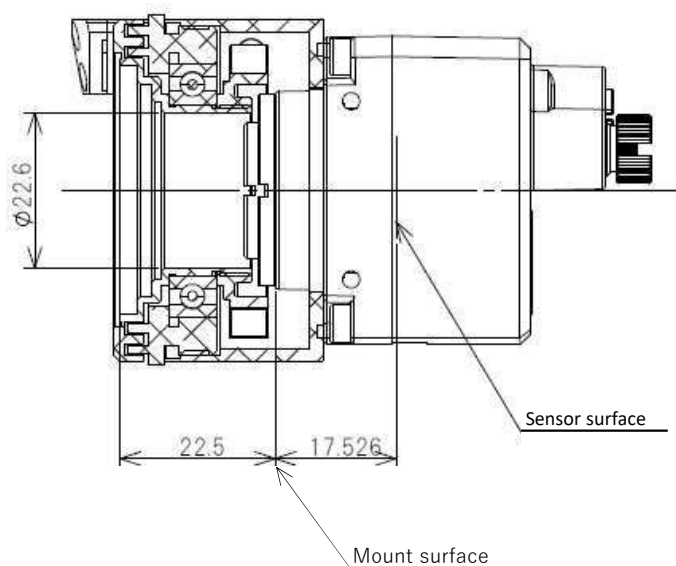
※1 Please refer to our optical product catalog or ask the salesperson.

※Dimensional limitations of the compatible lenses

Diameter → Up to ϕ 22

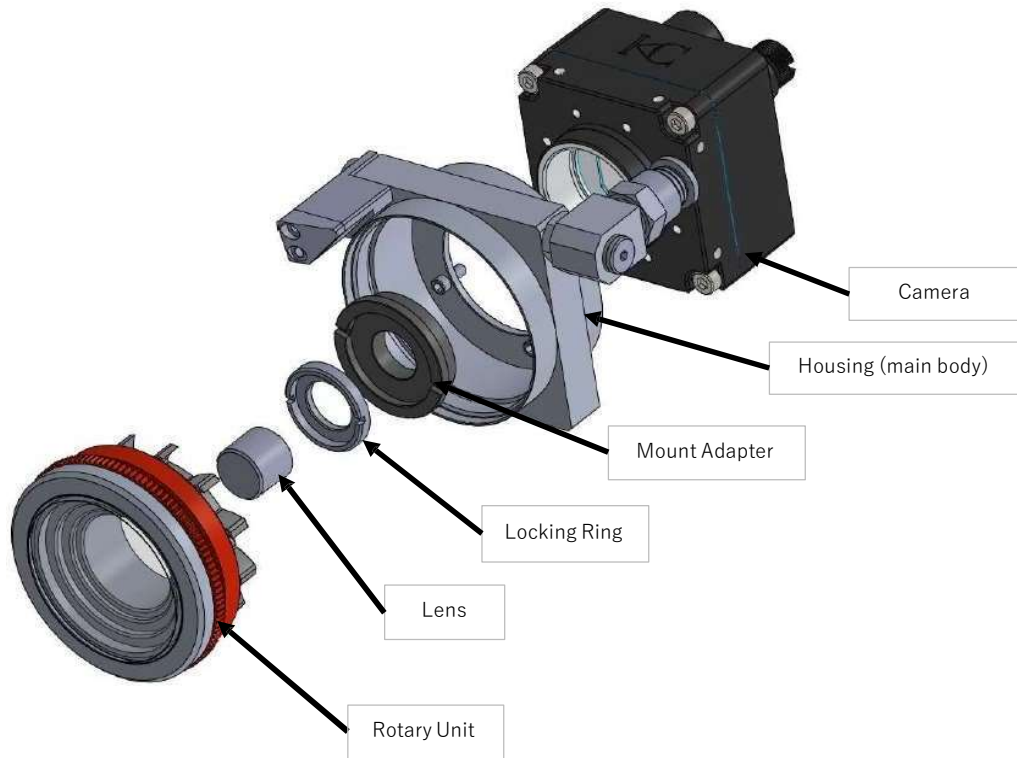
Length → Distance from lens tip to sensor surface (image position): 38 mm or less

There is a filter located 12mm from the mount surface to the sensor surface.

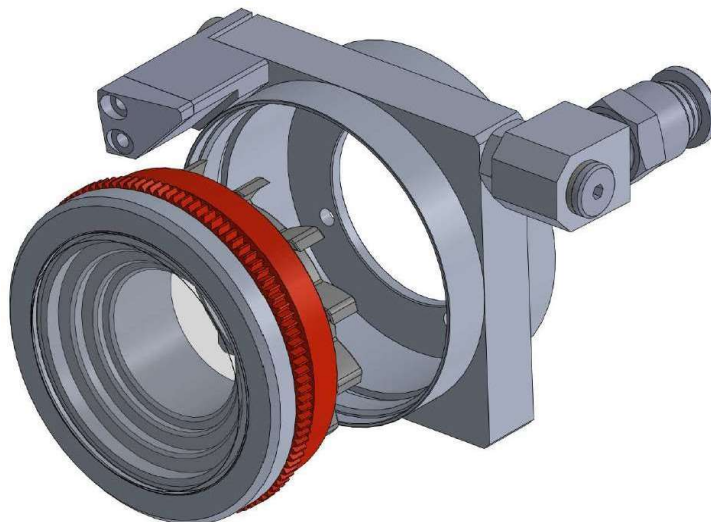


4. Assembly Procedure

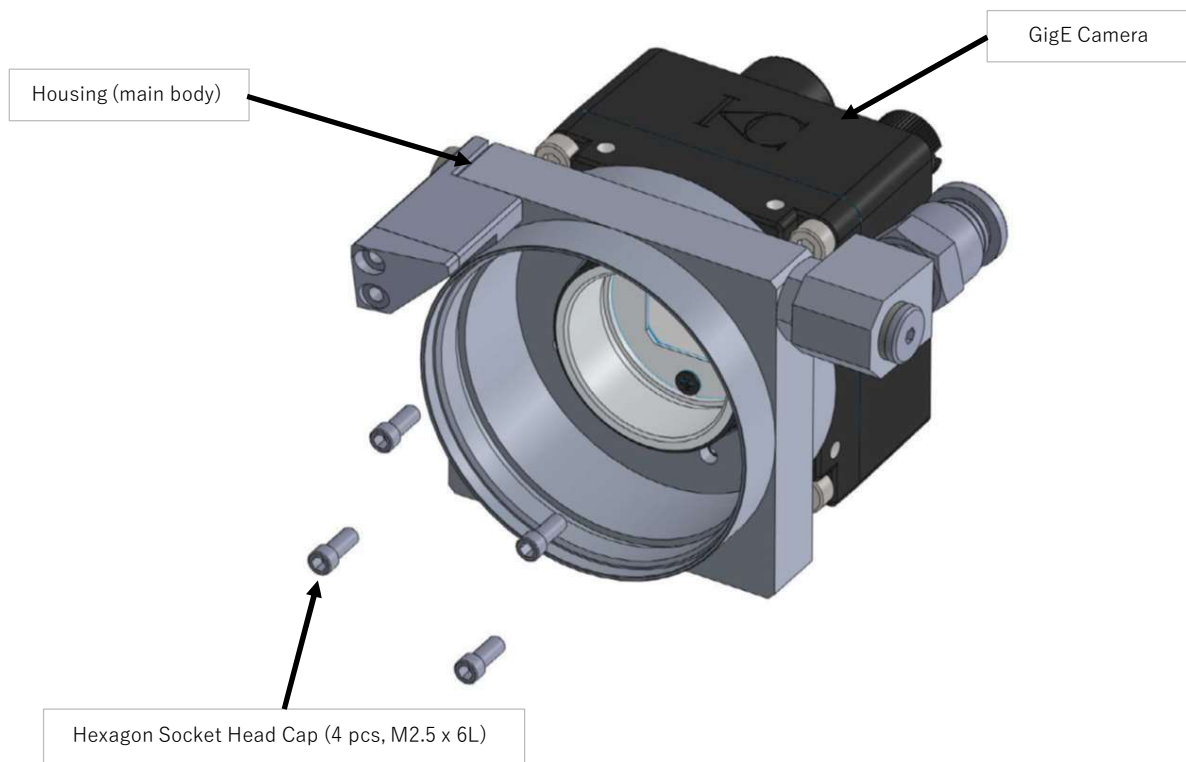
Configuration



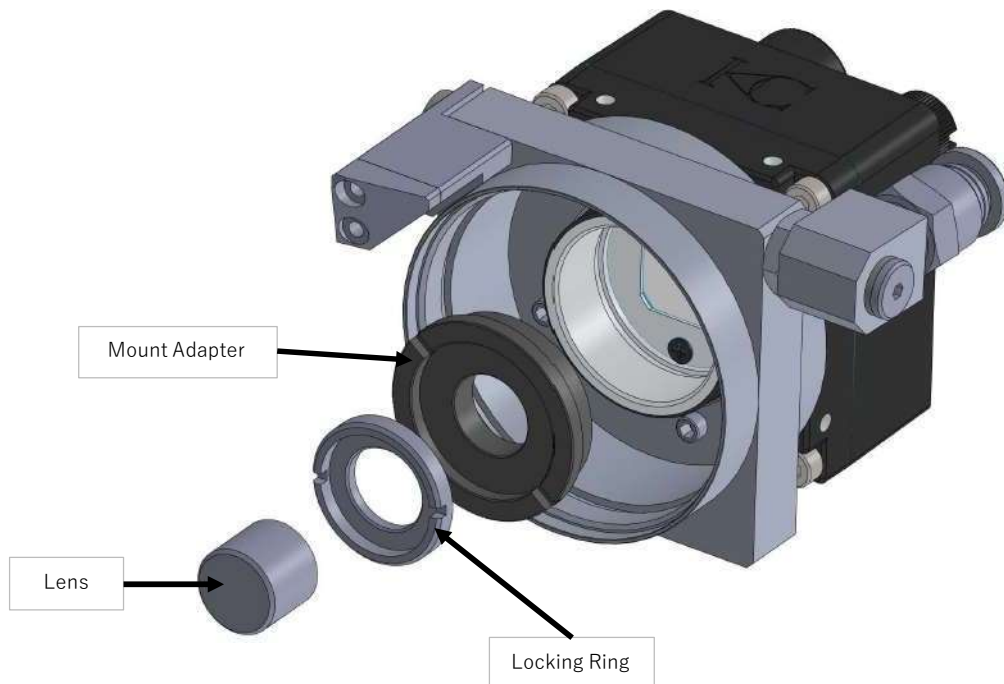
Step 1. Remove the Rotary Unit (※ Rotate the red ring counterclockwise)



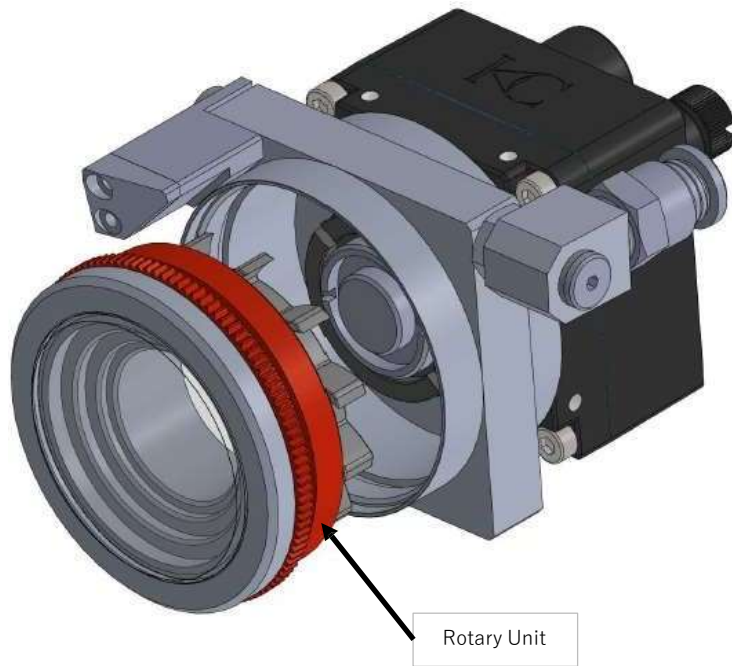
Step 2. Attach the Housing to the camera



Step 3. Attach the Mount Adapter and the Lens (※ Please adjust the focus position of the lens in this step)



Step 4. Attach the Rotary Unit



5. Air Supplying Equipment

The Rotary Wiper uses compressed air to rotate the front part (= rotary unit), keeping the front glass clean. There are various cases of compressed air, such as a compressor or factory air, but it must be cleaned of foreign matter and fine dust, and the air supplied to the housing must be free of moisture.

① Configuration



FR unit (= Air Filter with Regulator)

- Adjusts the compressed air pressure and removes moisture and foreign matter contained in the air.
- The size of foreign matter that the filter can remove is 3 to 5 μm .
- Periodic drain and internal cleaning are required.



Mist Filter

- Removes oil and fine foreign matter contained in compressed air.
- The size of foreign matter that the mist filter can remove is about 0.3 μm .
- Periodic filter replacement is required.



Clean Air Filter

(Filter filtration degree: 0.01 μm)

- Removes fine dust contained in compressed air.
- Periodic filter replacement is required.

Assemble in the order of the FR unit => Mist Filter => Clean Air Filter, and supply compressed air to the Rotary Wiper



② Pressure setting and flow rate

Please set the compressed air pressure setting for supply to the Rotary Wiper to 0.05 to 0.1 MPa and adjust the flow rate to 15 to 20 L/min. When adjusting the regulator, be sure to increase the air pressure gradually from a pressure of 0. Suddenly applying a high pressure may cause the bearing to exceed the allowable rotation speed, resulting in internal damage.

Note

1. Please use compressed air filtered by the aforementioned filter when supplying air to the Rotary Wiper. If oil, dust, or other contaminants are mixed in with the supplied air, they will adhere to the inside of the front glass and cause it to fog up, or the contaminated dust will get caught in the bearings and prevent them from rotating.
2. The filter may become clogged with foreign matter, resulting in a weak air supply. Please clean or replace the filter periodically.
3. The Rotary Wiper comes standard with a one-touch coupler for $\phi 6$. A $\phi 6$ urethane tube for air equipment can be simply inserted and locked, but a Teflon tube or rubber hose will not lock and may come loose. Please use the specified tube for the one-touch coupling.

6. Precautions

- The Rotary Wiper contains bearings. Please replace the rotary unit, including bearings, regularly in 6 months. (Note. The replacement frequency varies depending on the environment in which the unit is used.)
- The Rotary Unit of the Rotary Wiper rotates at high speed. Please do not touch it with bare hands unnecessarily.
- After adjusting the focus setting of the lens, please be sure to fix it with the lock ring or set screw. (We recommend using the screw locking glue or other to prevent loosening.)
- The front part of the Rotary Wiper is made of glass. If the glass is scratched by hitting or dropping an object during the installation or replacement, please do not use it as it is. The front part of the Rotary Wiper rotates at high speed, so the front glass may shatter.
- Please do not pour coolant or water on the Rotary Wiper when it is stopped (= air supply is stopped). Coolant or water may enter through the sealed part or cleaning nozzle.
- If the Rotary Wiper is stopped for a long period (about one week) and the front glass is fogged up, clean the glass surface using a parts cleaner. When restarting, the bearing may be damaged by water, etc. accumulated in the piping.
- If the $\phi 6$ urethane tubing is longer than 1.5 m, please remove the tubing from the one-touch coupler before starting up. After that, please check that air flows normally and that no foreign matter or moisture has accumulated before connecting the tube and starting.
- Moisture on the bearing may cause rust to form on the bearing. If abnormal noise or vibration becomes loud after starting, please do not use it as it is.

