

QHYOAG User Guide

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Introduction

QHYOAG has three models. The major difference is its different diameter. The three model are QHYOAG-S, QHYOAG-M, QHYOAG-L. While their thickness are all 10mm.

There are six 3mm through hole. It can be used to connect some adapters or QHYCFW2 filterwheel or QHY"A" series cameras. Normally speaking QHYOAG can not be used alone. It must be used with some adapters.

In one side of QHYOAG there is a thumb which is for prism location adjustment. Please adjust the location of the prism carefully and let it not block the light patch to the CCD sensor. If you found there is dark shadow in the image you can adjust the prism a little faraway from the CCD sensor.

There is a focuser in the QHYOAG. It is for the focus adjustment of the guider. There is a thumb to lock the position. When focusing please loose this thumb. After focusing get well, lock it. Please do not move the focus ring when in lock status to avoid the damage. When it is locked, you will still find the focus ring can be rotate a little. This is normal and the focus is not changing.

The light patch hole of the QHYOAG is 7mm for the guider camera.

Please remove the protection film of the prism before using it.

QHYOAG can be used with QHY5-II series guider. Please note the distance from prism surface to the guider camera sensor should be the same with the distance to the main CCD sensor. If the distance is too short and even the guider is in shortest position, guider can still not get focusing. You can remove the QHY5-II's front part to reduce the distance a little. If the distance is too long, you can plug the guider a little out of the focuser or you can use the 1.25inch extender that coming with the QHY5-II series camera.

The connection method of QHYOAG-S

When using the OAG but not with the QHYCFW2 or QHY"A" seires camera. You need use the pair of the thread adapter to connect in order to bring the M42/0.75 or M54/0.75 thread for the OAG. These thread is all female thread. Please pay attention that each piece of the thread adapter will bring 3mm to the OAG. So if you using a pair of the thread adapter, the total length of the OAG should be $10+3+3=16\text{mm}$. If you only install one piece of the adapter. (eg, when connecting with QHYCFW2, QHY"A" series camera), the total length of the OAG is $10+3\text{mm}=13\text{mm}$.

QHYOAG-S: Only support M42/0.75 thread adapter.

QHYOAG-M: Support both M42/0.75 thread adapter and M54/0.75 thread adapter.

The setup step:



You will find a pair of M42/0.75 thread adapter and some screws in a plastic bag.

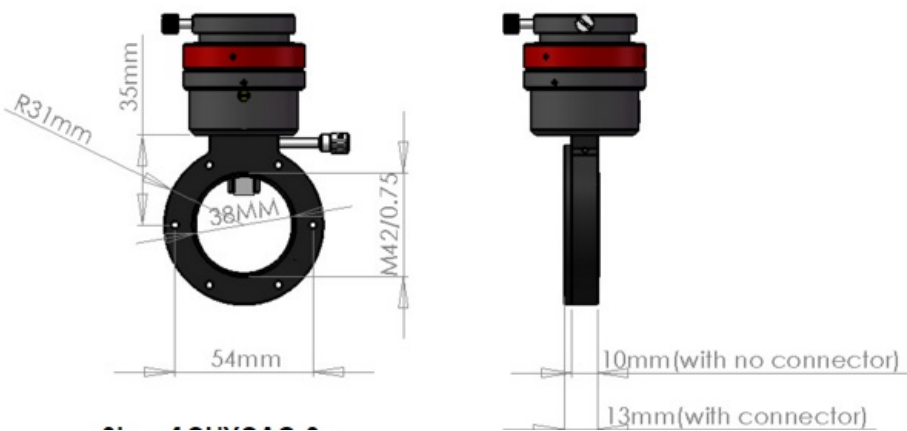


Put one piece on front of the OAG, one on back side of the OAG. Use six M3 screw to connect them. Normally speaking the one with M3 thread should be put in back side of the OAG. Now with the two piece thread adapter the total length is 16mm.



After connected.

If you have some specially need, You can ask some factory to customize your adapter. The dimension can be find here. The six hole is on a D=54mm circle.



The samples that connect with all kinds of front part.
 Connect with M42/0.75 to 2inch adapter (made by QHYCCD)



Connect with M42/0.75 to 1.25inch adapter (made by QHYCCD)



Connect to a NIKON lens adapter. After connected, the total length of OAG+nikon adapter is 25mm.



The way to connect some QHYCCD cameras.

Since the diameter of the QHYOAG-S is small, it only support the sensor size <= APS-C format. Includes:

QHY21/22/23, QHY9, QHY8/10/12 and other model equ or less than APS-C size

Because the back side is M42 female thread, It can not be connect direction the the male thread. Otherwise after rotation to the end the position of the OAG is not in a certain position. Yo can use the center/tile adjust ring and allow the camera connect to OAG

Connect with QHY8L/10/12

Camera body-Center/tile adjust ring-M42 male thread to M42 male thread adapter-OAG-2inch telescope adapter

Connect with QHY9: We recommend you using the QHYCFW2-S.OAG can installed on CFW2 directly.

Connect with QHY21/22/23: We recommend you using the QHYCFW2-S.OAG can installed on CFW2 directly.

Connect with QHYCFW2S: Directly

Connect with QHY90A and QHY695A: directly.

The connection method of QHYOAG-M

It is very similar for QHYOAG-M. You can take the step above. The only difference is QHYOAG-M support both M42/0.75 and M54/0.75 thread adapter. So there is totally four possible setup: Both side is M42/0.75, both side is M54/0.75, front is M42 and back side is M54. front side M54 and back side M42.



Both side is M54/0.75



Front is M42/0.75 and back side is M54/0.75

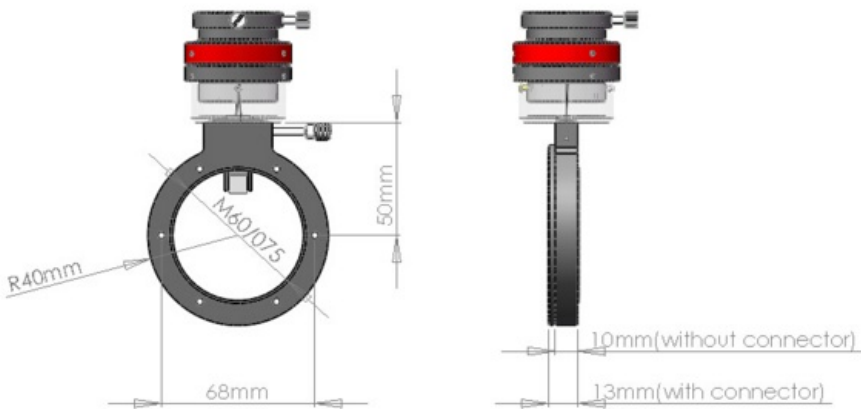


Front size is M54/0.75 and back side is M42/0.75



if you have some specially need you can design you own adapter and ask some factory to do it. The following is the dimation of it.

Size of QHYOAG-M



Front connection samples

- Connect with M54/0.75 to 2inch adapter
- Connect with M42/0.75 to 2inch adapter
- Connect with M42/0.75 to 1.25inch adapter
- Connect directly with some telescopes which have the M54/0.75 male thread

Back Size connection samples

- Connect with QHY11 : We recommend with QHYCFW2-M
- Connect with QHY16200A
- Connect with QHYCFW2-M

Connect with QHYCFW2

In QHYCFW2 there is the M3 thread hole on it. So it can be conneted with OAG directly

QHYCFW2-S only supports QHYOAG-S

QHYCFW2-M only supports QHYOAG-M

QHYCFW2-L only supports QHYOAG-L

When connect with QHYCFW2 and with one piece thread adapter, the path length is 13mm for the OAG

Connect with QHY "A" series camera

QHY16200A only supports QHYOAG-M

QHY90A/695A only supports QHYOAG-S

QHY16803A only support QHYOAG-L