



Widefield Imaging (Camera Lenses and CCD Cameras)

CAA
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by
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Camera Lens Adaptors

Geoptik CCD to Lens Adaptor – Nikon or Canon (£79)



Camera Lens Adaptors

Gerd Neumann Filter Drawer Adaptor (£various)



Camera Lens Adaptors

ZWO Optical - ASI T2 to Canon EOS Adaptor

For ASI cooled cameras \$38

All ASI cameras \$48

2" Filters only



Camera Lens Adaptors

Teleskop Service Germany (63 Euros + P&P)

Only good for colour CCD cameras, as it has no filter mounting.



Backfocus

Important to set backfocus correctly in order to achieve focus

- The Canon DSLR back focus measurement is 44/45mm
- My Atik 460 backfocus is 13mm (ASI120 is 12.5mm)
- Geoptik depth is 19mm

So the calculation to work out what mm spacing I would need to get the lens to focus is:

Canon 45mm – Atik 13mm – Geoptik 19mm = 13mm

It's important to get an extension ring that is slightly shorter than the required 13mm in this example. So in my case I use a 10mm T thread spacer ring to achieve focus.

Filters



The Geoptik adaptor will take a single 1.25" and 2" filter

If you use a mono CCD camera you will need to manually change the Red, Green and Blue filters to get a colour image (not enough backfocus for a filter wheel).

The Geoptik adaptor is better suited to a colour CCD camera or webcam.

But with a mono CCD camera you can use narrowband filters like a Ha filter to create mono images or just an UV/IR or Luminance filter.

Focusing

No auto focus - so manually focusing can be hard work

You could focus in the daytime on DSLR and then remove lens

Set lens f/ number on camera then remove it

TeleFokus from Teleskop Service Germany (70 Euros + P&P)



They come in three sizes 75, 105 and 135mm diameters

Focusing



TeleFokus consists of two rings joined together.

One ring is tightly connected to a non moving part of the lens, whilst the other is fixed to the moving part of the lens (focus ring).

You then use the larger focus knobs to finely focus the lens.

IC1805 - Heart and Soul Nebula



Canon 70-300mm
Lens

Set to 100mm @ f/6

10 x 600 secs

Ha Filter

Unbinned

IC1805 - Heart and Soul Nebula



80mm Refractor

Using 0.8x reducer

Ha Filter

IC1805 - Heart and Soul Nebula



80mm Refractor

Using 0.67x reducer

Ha Filter

IC405 - Flaming Star Nebula



Canon 70-300mm
Lens

Set to 200mm @
f/7.1

20 x 300 secs

Binned 2x2

Ha Filter

Orion Nebula and Horsehead Nebula



Canon 70-300mm
Lens

Set to 100mm @ f/6

15 x 300 secs

Unbinned

Ha Filter



The End

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