

**Do you own a digital SLR from Canon and want it to be ready for astrophotography? Then we have the perfect solution for you!**

**BRANDNEW:** Baader Astro-Conversion-Filter (Baader-ACF) for EOS 300D / 350D-20D / 5D DSLR-Cameras - turns a usual Canon EOS DSLR into a full-fledged astro-camera - almost without losing the white balance!

Here you find a short statement on the new Canon 400D.

The new Baader-DSLR-ACF-Filter replaces the IR-Cut- and Antialiasing-Filter e.g. in the Canon EOS cameras 300D, 350D, 20- and 5D. If you want to replace it (or want us to do it for you), you change your H-alpha-blind Canon camera into a full-fledged CCD-astrocamera - for an unbeatable price! No other astrocamera for less than 1000,- Euro has a similar resolution or chip size.



**DOWNLOAD** We have a .pdf-file for you with the most important information about the new ACF filters.

By replacing the original filter with the Baader-ACF, the H-Alpha-sensitivity becomes greatly enhanced - without losing the white balance for daylight-photography, as it would be the case if you'd use a filter without such a complex blocking of IR-radiation.

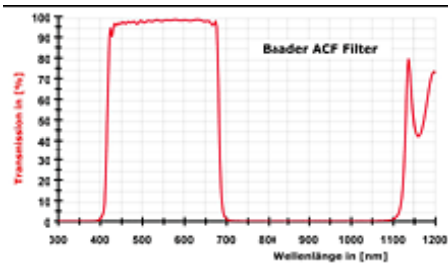
When photographing the celestial objects, you don't have to worry about the moiré-effects that every CCD- or CMOS-chip with a Bayer filter shows, when there are fine, sharp-edged structures in the image.

Because of this you don't need the integrated antialiasing-filter which is cemented into every DSLR-camera (with the exception of those using a Foveon-Chip) to suppress the moiré-pattern (compare the four-layered construction of the original filter with the anti-moiré-plate between several glass plates).

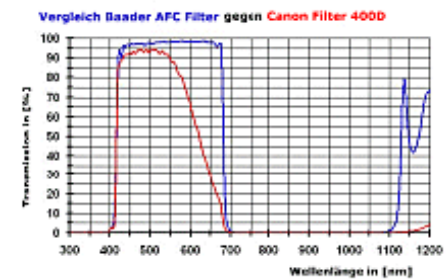


By installing the new, optimized Baader ACF-Filter you do not only enhance the H-Alpha-sensitivity, but also resolution (sharpness!) notably, amongst others because the (by the manufacturer intended) softening effect of the anti-aliasing-plate is lost. There are also no cemented surfaces in the ACF-filter, so that there is no light-scattering. The Baader ACF-filter also cuts IR- and UV-light much "sharper". This leads to an enhanced light efficiency in the transmitted part of the spectrum which enhances the sensitivity of the camera for up to one

aperture stop. The transmission curve is identical with that of our UV/IR cut filter.



< left: The transmission curve of the new BAADER AFC filter. All three plots link to a more detailed high-res version.



<< outer left: The plot shows the transmission curves of our "regular" UV/IR-cut filter and that of the new BAADER Astro Conversion filter in comparison. We have also marked the H-alpha-line.

< left: The plot compares the Baader ACF filter with the original Canon EOS

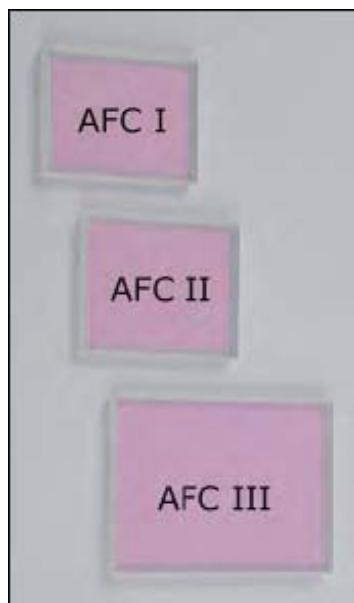
400D filter (see also here).

HIER BILDER SCHÄFER:

The both pictures at the right demonstrate the possibilities of e.g. a Canon 350 with a Baader ACF filter. At the left is the raw image, at the right the processed image. Click on the thumbnails to see a bigger version.

### The data of the image:

Genesis Apo 100/f5. Because of the light pollution also a Baader UHC-S-Filter was used. 800 ASA, exposure time 600 Sec. No dark frame was taken! © J. Schaefer



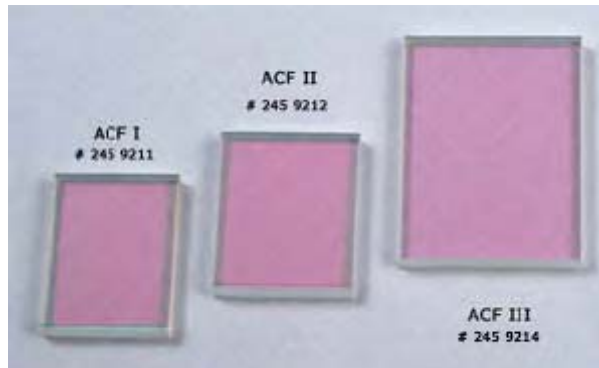
The ACF I filter fits into the 300 D Camera; for the 350 D, 10 D and the 30 D the ACF II filter is suitable, although the original filter is a little bit larger. Because of this it is a bit more complicated to install the filter - if necessary, the small free space has to be filled with silicone or something similar. This doesn't affect the functioning, as we have found out when altering several 20D cameras, because the area, which the sensor really uses, is not larger than that of the 350D.

Currently we only produce ACF-filters for Canon-cameras. If you need a larger number of filters for other manufacturers, please send us an e-mail.

The ACF-filters I-III are 2.7 mm thick, which corresponds to that of the original filters. This is done to keep the effect on the focus as small as possible. For other Large- or 1,3x-format-cameras probably only our ACF-II-filter with a thickness of 2.7 mm is suited,

because the ACF I and II are too small. Of course you can also cut a fitting piece out of our new 2" UV/IR-filter (Order Nr.245 9210). This 2"-filter is 2 mm thick, which fits better with large format cameras and Nikon (!) DSLRs. We do not cut this filter for you, because there aren't many amateurs who have need for this conversion. Our new DSLR Astro Conversion Filter strictly block the the deep red and blue parts of the spectrum. This improves the white balance of the camera, although the H-Alpha-transmission is much higher. The improved UV-/IR-block also reduces the halos that appear around bright stars, if you use a regular camera lens or a cheap refractor telescope for astrophotography.

Our filter is made to optimize your camera for taking astronomical images - without any compromises. Most important for this are a maximum of H-Alpha-transmission, a maximum of quantum efficiency, maximal resolution and stellar disks which are as small as possible. It doesn't matter which side of the filter you use as front side, there is no preferred mounting direction. You can find a detailed instruction for the ESO 300D with many pictures in *Sterne und Weltraum*, 09/2005, pages 66.



DSLR Astro Conversion Filter for Canon  
Order Nr. price  
EOS 300D 245 9211 EUR 75,-  
EOS 350D/20D 245 9212 EUR 85,-  
EOS 5D 245 9214 EUR 95,-

DSLR Baader Conversion Filter for Canon  
Order Nr. Price  
EOS 400D 245 9213 EUR 65,-



### **A short statement on the new Canon 400D**

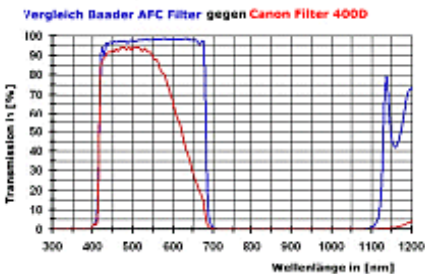
By popular request we have constructed a filter for the 400D - especially because it allows to keep the integrated cleaning system working. With our new BCF-filter only the front filter has to be replaced, the complete setup with the piezo for shaking the dust off remains untouched.

Unfortunately, the 400D BCF-Filter makes high demands on coating and thickness of the filter.

Because of this, the filter is polished at a very high precision. Its thickness is identic with that of the original one up to 1/100th of a millimeter. Be careful: The filter is very thin and damageable - only a few hundreths of a millimeter more than 0.5 millimeter. Of course the replacement filter for the 400D offers the same advantages as with the other cameras:

- dramatically improved H-Alpha-sensitivity
- much better sharpness by omitting the anti-aliasing filter layer,
- which is definitely not necessary for astrophotography

- higher sensitivity by improved transmission over the whole spectrum, as well in width as in amplitude
- reduced noise because of shortened exposure time, S/N-ratio
- remains the same
- decreased color aberration when using regular lenses because of sharper blocking of UV and IR.



The plot compares the Baader AFC filter with the original Canon EOS 400D filter



**New: Conversion service for CANON DSLR-cameras 300D/350D/10D/20D/5D at Baader Planetarium - we install the ACF-astro-filter in your DSLR-EOS-Camera!**



**DOWNLOAD New:** pdf-file with remarks on the conversion of a Canon DSLR Camera with our BAADER ACF filters into a real Astro DSLR.

### Remarks on the installation of our ACF-filter in a Canon DSLR

**DOWNLOAD** here we have the following text for you also as downloadable .pdf. Here are some sample images to show you, why we have written down the information about the camera conversion in such a detailed way and why we have to do an inspection of the camera upon receipt.

#### 1. Prices

The prices mentioned on our website for the Astro-Conversion-Filters (ACF) are purchasing prices for the Filters only, without installation costs. For example: The purchasing prices for following ACF-filter No.2459212 (EOS 350D/20D/10D) without installation cost is EUR 85,- and for BCF-filter No.2459213 (EOS 400D) EUR 65,-. On the condition that the filter holder of the camera is not bent, broken or otherwise damaged (e.g. by previous attempts to install a filter) and the installation is not hindered by any difficulties other than the usual ones, a modification may be effected. In this case, additionally to the purchasing price of the filter, the following modification costs will arise:

Order Nr. 9002120: Models EOS 300 D und 350 D / price for standard replacement of the filter:  
215.-  
EUR

Order Nr. 9002121: Model EOS 20 D / price for standard replacement of the filter:  
225.-

EUR

Order Nr. 9002123: Model EOS 10 D / price for standard replacement of the filter:  
245.-

EUR

Order Nr. 9002122: Models EOS 5 D and **NEW**: 30 D / price for standard  
replacement of the  
filter:

255.-

EUR

Order Nr. 9002125: Model EOS 400 D / price for standard replacement of the filter:  
235.-

EUR

Unfortunately, sometimes there are unexpected difficulties that cause additional work and expense. We often receive used cameras which don't work properly any more because of previous attempts to install a filter. These problems can't always be found during the inspection upon receipt but no only, when the camera has already been opened which is connected with some amount of work. Shipment cost within Germany is EUR 15,-. Within the EU we have to charge EUR 35,-- shipment costs and full value insurance against damage loss & theft.

## **2. Procedure:**

- Please send us your order via mail and do not forget to give us your total address and the camera type.
- Immediately afterwards, you will receive an order confirmation, which also informs you about the delivery situation. Your order will be added to our waiting list which is processed in sequence of incoming orders. Because of the high number of requests we will not be able to process your order immediately, it may take up to six weeks. We will waitlist your order and process it as soon as possible.
- As soon as it is "your turn", you will receive a prepayment invoice, including the request to send your camera to us free of charge. Do not send your camera before you receive our prepayment invoice! We ask for your understanding that even customers known to us for many years will be requested to pay in advance for the modification, in order to keep the procedure uniform to enable processing of orders in sequence. As soon as we have received your payment and camera, the replacement will be effected. This will take approximately another 2-3 weeks.
- After the replacement, your camera will be returned to you via insured transport by UPS.
-

### 3. Inspection upon receipt:

We reserve the right to reject a modification order, if we find out during the receiving inspection that the camera has been opened before and/or that it has been treated inappropriately or that the camera is damaged on the outside or inside (for example if the holder of the filter is bent) or if there are malfunctions relating to hardware or software damages. Unfortunately, this has happened several times and has influence on the prices for conversion - work had to be done, although no conversion was possible.

If you want to send us an older camera that has already been opened by other service providers, we recommend you to inform us IN ADVANCE, to be able to discuss possible additional costs which may derive from an increased amount of work. We do not repair defective cameras or change their software.

The costs for the inspection upon receipt amount to EUR 25.-. If the modification can be effected, this amount is included in the standard replacement cost as mentioned above. If the replacement cannot be effected due to one of the above reasons, we will return the camera in the very same condition as we received it. In this case the shipment will be effected against prepayment invoice for the initial inspection, for return shipping costs and transport insurance, amounting to EUR 45,- for all countries within the EU.

We are explicitly not liable for defects or malfunctions identified at a returned camera which we did not accept for modification. For such reasons (noted by us in the inspection upon receipt), the camera was rejected to be modified. Please save both yourself and us the trouble and correspondence associated with sending us a camera for modification, if you already know about any problems concerning hardware or software of this specific camera body.

Of course you always may purchase the filter alone, to have the modification done by another service provider.

Please note that the very low price for the filter exchange can only be offered if the filter is bought at our company together and at the same time as the astro-conversion work. If the filter is not being purchased from us directly together with the astro-conversion, please add EUR 30.- onto the price of the conversion work itself.

### 4. Shipment of the camera

**For the camera-models 10D and 5D (i.e. models without the EFS-Bayonet) please include the front-lens in your shipment, in order to enable proper white-balance before returning it.** For EFS-models 300D / 350D / 20D, etc. please only send the camera body without front lens. The batteries need to be included for every camera type, they need to be packed separately (but in the same box) rather than being mounted inside the camera. Please make sure, that the shipment is prepaid door-to-door.



## **5. Manufacturer warranty:**

The warranty of the manufacturer (Canon) will expire if such a serious intervention in the camera is being undertaken. Modification-orders can only be accepted if this circumstance is known to both parties.

## **6. Daylight photography:**

Astrophotography has top priority in the design of our new ACF-filters, however we tried to take account of the needs of daylight photography wherever possible. The color reproduction (white balance) in daylight photography is adaptable to very high levels with a modified camera. However, not all theoretically existing colors can be reproduced. In everyday photography, the difference is not noticeable, only for very few motives color-shades may differ slightly. Color moiré structures are not totally suppressed, due to the softening AA-filter, being taken out. This is preferable for astro-photography since the AA-filter is responsible for a slight loss in sharpness. With the AA-filter being taken out, the absence of color moiré suppression may create slight traces of color-fringe in daylight photography, especially in linear structures like a chequered shirt. However this has no effect at all for astrophotography because there are no such straight, sharp structures to be found.

## **7. Duration of order processing:**

The duration of an individual modification depends upon the number of pending orders and currently is about two to six weeks. Orders are processed in chronological sequence of incoming orders. Please do not send us your Camera before you receive our prepayment invoice. We currently have so many conversion orders that we must ask you in every case to announce your order to us so that we can inform you as soon as you can send your camera to us.

## **8. Our guarantee:**

We guarantee a faultless, proper and professional modification of your camera into an ACF-camera B in case we receive a fully functional CANON EOS-camera without hidden software defects or inner mechanical damages. We cannot guarantee the total absence of dust inside of the camera or on the chip. Any camera is only free of dust right after initial purchase, when the camera has been assembled inside a cleanroom. During the modification chip and filter are being cleaned to the best ability of our optical workshop with ionized air to avoid static charge. Eventually remaining dust grains may be removed from the images, using the common flatfield-techniques. Our company has more than forty years of experience in the production of astronomical instruments. We ensure to be doing careful work to the best of our knowledge so that our customers will receive a flawless ACF-Astro-DSLR-camera, if the camera to be modified also was in flawless condition.

## **Legal notice:**

The brand names CANON and Canon-EOS are property of Canon Inc. This text and all verbalisations are our intellectual property and copyrighted material. All rights reserved. The reproduction and reuse of any of the above content and information is strictly prohibited. If necessary, we reserve to take legal measures.

**If you have any further question concerning our conversion service, please use our contact formular by clicking on the Baader-logo to the left.**

To show you how difficult it is to replace the filter and to help you - our customer - to understand why we have written down the information about the conversion so detailed, we want to show some images of Canon DSLR cameras which document some things we have found during the inspection. In these cases we were not able to replace the filter.

**Image 1** shows the place where we convert the DSLRs and some of the special tools, it also shows the view from the microscope onto the filter holder.

**Image 2** shows damageable ribbon cables and their contacts in the upper left part of the camera body. If you are not extremely careful when opening the locking mechanism, the result may easily look like image 3.

**Image 3** shows a broken part of the locking mechanism which can only be replaced by the manufacturer.

**Image 4** shows critical soldering points in the near of a ribbon cable. If you are working here without exact temperature control, you may melt the plastic isolation of the cable, which may lead to short circuits!

The next images show examples of camera conversions by other service providers. We received these cameras by customers in order to install a new ACF filter.

**Image A** shows the first impression of such a "professional conversion". Finger prints, dirt particles and a misplaced protection plate.

**Image B** shows a piece of tin on one of the protection plates. It's only a matter of time until it breaks loose and causes short circuits in the camera electronic.

**Image C** shows a heavily bent ribbon cable.

**Image D** (left) shows a filter "covered" in silicone. Instead of black silicone light grey one was used, which causes light scattering.

**These images shall demonstrate why we have to do an inspection on receipt and in some cases do not convert the camera.**

Misplaced protection plates increase the amount of work, because they have to be placed in the right way. Bent cables can't be replaced and may already be broken. If there are pieces of tin as in image B, there may already be others deep inside of the camera body. The filter in image D perhaps can't be dismantled without damaging the filter holder.

## **FURTHER DSLR-ACCESSORIES**

**Baader DSLR-T- Ring with 2" filterholder** (two models, for all digital SLRs by Canon and Nikon)

**We often receive e-mails with the following content:**

"We've got a problem with our DSLR: The chip always attracts dust and dirt from the inside of the telescope, so there are often black spots on our photos. Is it possible to put a protection glass or an IR-filter in front of the camera body?"

**We've got the solution:**

A digital T-Ring with a holder inside of it for all Baader or SBIG 2" filter



without frame for Canon EOS or Nikon DSLR camera systems

On the telescope side there is an integrated T-2 thread or (optional) an adapter to the M68 (Zeiss) system - for a sturdy connection

To adapt it to the M68 System you also need the M68-T-Adapter (# 2458215) and the M68 conversion ring (# 2458195)!

Every 2"-filter in our catalogue - without a frame - can be installed. Don't hesitate to order it at the same time - e.g. the 2" UV/IR blocking filter (# 2459210).

The Baader DSLR-T-Ring with the installed 2"-filter can remain permanently on the camera and protect the inside of the camera body from dirt and dust, which otherwise would be visible on the images. It's not easy to remove it on the computer.

1.

It's easy to make Deep-Sky or OIII-images - all you have to do is change the filter holder.

2.

It's the cheap alternative solution if you want to convert your camera permanently into a pure camera for astrophotography.

3.

(pdf-file, ca. 120Kb) Baader DSLR-T- Ring for three application areas.

**Baader Nikon DSLR-T-ring T-2 / M68 86.- 245 8035**

**Baader Canon EOS DSLR-T-ring T-2 / M68 86.- 245 8036**

**Baader Nikon DSLR-T-ring T-2 / M68 inkl. UV/IR  
blocking filter  
150.- 245  
8035F**

**Baader Canon EOS DSLR-T-ring T-2 / M68 inkl.  
UV/IR blocking filter**

**150.- 245  
8036F**

### **Camera conversion for purely astronomical purposes**

If you want to use your camera *only* for astrophotography, you should remove the camera's NIR blocking filter.

Caution: This will result in a warranty loss!

If you do this, you must use the Baader DSLR-T-Ring with UV/IR-blocking filter permanently. The result is an astrocamera that is now very sensitive also in the region of H-Alpha.

We can't offer the filter in rectangular format to replace the original blocking filter, although we often receive requests for several formats. The original filters of many cameras begin blocking at 630nm, so that not all of the H-Alpha-light (656 nm) reaches the sensor. Unfortunately there are so many formats that we can't offer them for an interesting price.

Because of this, the Baader DSLR-T-ring is the cheapest way to turn your DSLR into an astrocamera. But don't forget that you can't use it any longer for daylight photography! Nevertheless, this astrocamera is much cheaper than for example a Starlight-camera with a similar-sized chip.

## **Baader DSLR Focussing system with T-2 Flip Mirror and integrated 2" IR-blocking filter**

Our DSLR-T-Rings can also be combined with the BAADER Flipmirror. This can be helpful if:

You have removed the H-Alpha blocking filter from your Canon- or Nikon DSLR and now can't use the focusing screen any more!

Or are you fed up with the suboptimal precision of the focusing screen, even if the focus distance is not altered? Using the zoom of the integrated display of your camera is no good alternative to looking through an eye-piece for focusing.

If you use computersoftware for focusing, one of the most important advantages of a DSLR is lost - that you don't need a laptop or pc.

We offer a modular, multi-functional and final solution for all your problems concerning focusing. It can be used with every DSLR or astro-CCD-camera and protects the chip from dust and dirt!

The system uses: Baader DSLR-T-Ring for Canon EOS (# 245 8036) or for Nikon (# 245 8035) with integrated filter holder for unframed Baader- or SBIG 2" filter; / H-alpha-capable 2" UV/IR-blocking filter (# 245 9210), already built into the DSLR-T-Ring; / Baader T-2 Flip-Mirror body (# 190 5144); / 2"/T-2 camera adapter (T-2 # 16); / 3,6 mm symmetrical 1¼"-eyepiece with thread for a 1¼" extension tube and a very comfortable viewing properties! / 1¼" extension tube DT-4 (T-2 # 5); / SBIG 1¼" Focusing ring collar FR-4 (T-2 # 30); / ClickLock eyepiece clamp with fine focus (#8); Purchased on their own, these parts would cost € 604,-, buying this package saves you € 106,50!

All further Information, part lists, images and prices are compiled in this .pdf. Here is drawing of the flip mirror unit as downloadable .pdf.

### **Baader Nikon DSLR-Focusing system**

delivery time at the moment: 8 Weeks!

**498.- 245 8058**

### **Baader Canon DSLR-Focusing system**

delivery time at the moment: 8 Weeks!

**498.- 245 8059**

## **Baader Micro Stage 6030**

description as pdf-file

detailed manual as pdf-file

**49.- 245 0333**

### **... if the worst comes to the worst ...**

e.g. if you want to use a small digicam without any threads near the lens for eyepiece projection, why not use our Baader Microstage 6030 – the solution for every adapting problem!

Baader Microstage 6030 is an inexpensive system with a clamp that fits onto eyepieces with diameters between 30 and 62mm. It also consists of a platform that can be moved into every direction similar to the platforms used with microscopes. With it you can center the lens of every small digital camera perfectly behind the eyepiece.

The problem of vignetting when using fixed-lens digital cameras for eyepiece

projection can be solved if you use the Baader Micro Stage: Now you can use eyepieces with a large exit pupil. This enables you to take full-format pictures of the moon's surface - without dark edges.

"Micro Stage" is the perfect entry into the world of digital astrophotography. If you want to do more serious work, you should use instead a more sturdy adaption, which is possible with our ADPS- and Digital T-System. There are 16 different threaded adapters available.

**Please note:**

To make sure that you don't receive a filter adapter or an adapter ring for afocal projection, please do not "*e s t i m a t e*" the thread, but make sure that you "*k n o w*" the specifications!

If you are not sure, please consult your local dealer or the manufacturer to find out, which kind of thread your camera has for attaching a filter. We can't do an online research for every camera. The models change so fast that we had to hire a co-worker just for being up-to-date. So please do not (only) tell us your camera model, but always the correct thread you need.

Especially small cameras sometimes don't have a standard filter thread. Instead there is a special thread by the manufacturer which fits to no common filter or adapter. In this case you have to buy an adapter from your local camera dealer. We can definitely help you if you have a standard thread between M24 and M82.

Please understand that you have to pay the shipping costs if we have to send you another adapter, if it is not our fault that the first one didn't fit

**Hyperion 2"(M48) /SP54 (D)SLR (front-) filter holder**

2" filter holder M48/M54SP for (D)SLR-lenses

**15.- 240 8166**

In combination with the Hyperion DT-rings and stepper rings, the 2" filter holder fits (almost) onto every frontlens thread from 28mm to 82mm diameter. So you can use for example our UV/IR blocking filter or an IR-passfilter, all of our nebula filters (e.g. UHC-S, O III and H-Beta), but also the new 2" colour filters in front of your camera lens, if there is a filter ring from M28 to M82.

**THE DIGITAL T-2 SYSTEM**

Our digital system introduces the Digital T-Adapter (DT-Adapter) into the field of amateur astronomy.

The basis for the DT-adapters is the Astro T-2 System® with an infinite number of combinations.

Almost every digital camera with a lens frontfilter thread can be adapted with our three DT-adapters at

(almost) every telescope, because every telescope manufacturer all over the world uses (inevitably)

exactly this "T-2"-thread to attach a miniature camera at the telescope.

**NOTE:** Most digital cameras don't have a removable lens, so you can use them only for eyepiece

projection. To do this, you also need a projection system you can use with your telescope (take a look

at our ADPS-system). We have created a system of T-rings, adapters and other accessories for the photography with digital cameras. We want to present you the following products (our digital T-Rings are available for almost all popular cameras - nevertheless, some cameras may need a filter adapter from the manufacturer, so that you can use a filter thread!)

**Please note:**

To make sure that you don't receive a filter adapter or an adapter ring for afocal projection, please do not "e s t i m a t e" the thread, but make sure that you "k n o w" the specifications!

If you are not sure, please consult your local dealer or the manufacturer to find out, which kind of thread your camera has for attaching a filter. We can't do an online research for every camera. The models change so fast that we had to hire a co-worker just for being up-to-date. So please do not (only) tell us your camera modell, but always the correct thread you need.

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Please understand that you have to pay the shipping costs if we have to send you another adapter, if it is not our fault that the first one didn't fit.

**Digital System I / M 37**

(we've only listed a selection of the most popular models - when in doubt, please consult your camera's manual or ask your dealer. There are currently more than 1000 cameras at the market - we can't list all of them)

a = external thread / i = internal thread

**Digital T-Adapter I (T-2i / M 37a)**

For many Sony-Video-cams, e.g.: Sony DSC S-30 / S-50 S-70 / P-30 / P-50 / MVC-FD-87 / CD-200 / 250

**20.- 240 8165**

The Digital T-Adapter I is absolutely necessary to adapt the following T-Rings M37 to the ADPS-system!

**DT-Ring M 37i / M 28a 13,50.- 245 8021**

amongst others for Nikon Coolpix 885 / 950 / 955 / 990 / 995 / 4300 / 4500 (with filter adapter UR-E4 by Nikon), Nikon Coolpix 880 (with filter adapter UR-E2), and Nikon Coolpix 775 (with filter adapter UR-E3)

**DT-Ring M 37i / M 43a 13.- 245 8022**

amongst others for Olympus Camedia 2500 / 3040 / Olympus CI 5050 (in combination with CLA-1 adapter), Kodak DX 3900, Casio QV 2300 / 2800 / 2900 / QV-2900UX / 2800UX

**DT-Ring M 37i / M 24a 13.- 245 8023**

**DT-Ring M 37i / M 27a 13.- 245 8024**

**DT-Ring M 37i / M 30a 13.- 245 8025**

e.g. for Kodak video-camera DX 3600

**DT-Ring M 37i / M 30,5a 13.- 245 8026**

**DT-Ring M 37i / M 40,5a 13.- 245 8027**

e.g. for Olympus E2000 / 20 / 30

**DT-Ring M 37i / M 41a 29.- 245 8028**

amongst others for Olympus Camedia 4000 / 4040 / 4100 / 5050 / 3020 / 3030 / 3040 / 2002 Zoom, and Nikon Coolpix 880.

**Digitales Syst II / SP54**

Digital T-Rings Series SP 54 (Hyperion, M54), only in combination with our DT-adapter II, or directly

with our Hyperion-eyepieces suitable for the listed cameras (we've only listed a selection of the mostpopular models - when in doubt, please consult your camera's manual or ask your dealer. There are currently more than 1000 cameras at the market - we can't list all of them).

a = external thread / i = internal thread

**Digital T-Adapter II (T-2i / Sp54a) 25.- 245 8040**

The Digital T-Adapter II is absolutely necessary to adapt the following Hyperion T-Rings Sp54 to the ADPS-System

**1. Adapter-system SP 54 – for eyepiece projection**

Hyperion digital T-rings, designed for the shortest possible distance between eyepiece lens and camera lens.

**Hyperion Extension Ring SP 54i / SP 54a 10.- 295 8090**

necessary for the Hyperion T-Rings M 28 und M 37

**Hyperion DT-Ring SP 54i / M 28a**

(# 295 8090 also necessary)

**11.- 295 8028**

amongst others for Nikon Coolpix 885 / 950 / 955 / 990 / 995 / 4300 / 4500 (with filter holder UR-E4 by Nikon), Nikon Coolpix 880 (with filter holder UR-E2), and Nikon Coolpix 775 (with filter holder UR-E3)

**Hyperion DT-Ring SP 54i / M 37a**

(# 295 8090 also necessary)

**11.- 295 8037**

for many Sony-cameras

**Hyperion DT-Ring SP 54i / M 46a 11.- 295 8046**

there are many adapters available as photo accessories that are compatible with the M46 external thread.

**Hyperion DT-Ring SP 54i / M 49a 10,50.- 295 8049**

e.g. for Minolta Dimage 5 & 7 (7/7i/7Hi), Olympus CI 2100, Pentax EI-2000, and Nikon 5400 (with Nikon adapter UR-E9).

**Hyperion DT-Ring SP 54i / M 52a 10,50.- 295 8052**

e.g. for Sony MVC-CD200 / FD97 / Cyber-Shot DSV / F505V / Sony DXC-S75 and S-85 (together with ring VAD S70 by Sony), Sony 505, and Canon Powershot A40 / A70 (with Canon filter adapter LA-DC52C).

**Hyperion DT-Ring SP 54i / M 55a 10,50.- 295 8055**

e.g. for Fuji Finepix 4900 / 6900Z / S602Z / 605 / S-304 / Panasonic DMC FZ1.

**Hyperion DT-Ring SP 54i / M 58a 10,50.- 295 8058**

e.g. for Sony DSC-S75 / F 707 / F 717 / Canon Powershot 90IS / Powershot A60 (with filter adapter by Canon), Casio QV 3500, 5700 (with Casio Adapter LU-35A – for 47,5 mm to M58).

**Hyperion DT-Ring SP 54i / M 62a 12.- 295 8062**

e.g. for Olympus E-10, E-20.

**2. Adapter-system M 43 / T-2 – for classical eyepiece projection:**

**Hyperion T-adapter M43i/T-2a (M42x0,75) 12.- 295 8080**

for increased magnification you can use in addition our T-2 extension tubes (M 42 x 0.75, lengths 7,5 / 15 / 40 or 8-14 mm variable, # 295 8130), – also take a look at our T-2-system. You also need the T-ring for your SLR-camera!

**Alternativ – for connecting Webcams with 1/4"**

**adapter**

**18.- 245 8120**

simple eyepiece holder T-2 / 1 1/4" (with locking screw)

**Digital System III / SP54**

(DT-Rings see above)

a = external thread / i = internal thread

**Digital T-adapter III (M68a/Sp54a) 38.- 245 8060**

This adapter fits to our large M 68 (Zeiss) ring system used e.g. with the FFC (Fluorit-Barlowlens). You can use it for example to mount a DSLR - with the help of the digital T-rings - sturdy far behind the FFC.

**Hyperion Zoom T-Ring SP54i/T-2a 12,50.- 295 8085**

The Hyperion Zoom T-Ring SP54i/T-2a is the only ring to directly connect the SP54 system thread of our Hyperion Zoom eyepiece with a T-2a (M42x0.75) external thread.

**Eyepiece projective (ADPS) I - VII for**

photography with digital cameras and/or camcorders **beginning at EURO 59,00**

You have to use eyepiece projection if you want to take a picture through a telescope using a camera with a not-removable lens. Our Eyepiece projectiv consits of the following parts of our T2-system:

Locking / Sliding T-2 Focuser (for 1.25" eyepieces / 10mm focus travel),

T2 internal thread on the telescope side (245 8010, #24)

T-2 Locking Ring (2mm optical length), for locking camera orientation, ...

# 35

2x T-2 / 15 mm Extension Tube (15mm optical length, ...# 25 A

T-2 / 7.5 mm Extension Tube (7.5mm optical length), ... # 25 C and

suitable telescope adapter - see list below

Eyepiece projection with digital cameras requires a much better finetuning of all distances than when doing "classical" eyepiece projection with cameras, where the camera lens can be removed.

That's the reason why our new ADPS projection system has several finetuning rings (and a T-2 locking ring), so that you can use all possible 1 1/4" eyepieces (max i 38 mm) and keep the lens of the eyepiece as close as possible to the first lens of the camera! This makes a sharp image without vignetting possible.

The T-2 locking ring enables you to rotate and lock the camera, so you can select the best field of view and the desired image orientation!



The ADPS (digital) projection system is very similar to the well-known OPFA-system for 35-mm-cameras - but here you can adjust the distance the camera lens with a precision of a tenth of a millimeter!

In combination with the two digital DT-adapters I (# 2408165) and II (# 2458040), and with 16 different digital T-rings you can adapt a multitude of digital cameras. You can use all eyepieces with a diameter up to 38 mm.

**Please note (!):** Most manufacturers of digital cameras with a fixed lens want to prevent the zoom lens from being damaged when moving. That's the reason why there is either no thread at all or an extremely unusual thread. Instead, you have to buy an additional adapter or filter holder by the manufacturer. This is very often some kind of tube, which covers the zoom-lens so that it can't touch any filter.

Please consult the manual of your camera and check, which kind of thread there is on the front side of your camera. This should be easy! If none of our 16 digital DT-rings listed below fits onto lens or body of your camera, then you have to buy the filter adapter / extension tube from your photo dealer. Then you can attach the camera either directly via a DT-adapter (e.g. SONY/M37 with DT-adapter I) or via one of our 16 DT-rings sturdy and with the option to rotate it.

## **Order**

**Nr**

**Description Price in**

**Euro**

245

8071

ADPS I - incl. 1¼" nose piece (#2458105) 69,--

245

8072

ADPS II - incl. 2" nose piece (#2408150) 75,--

245

8073

ADPS III - incl. 16mm supershort Celestron- /  
Meade-T-Adapter (#2408160)

78,--

245

8074

ADPS IV standard version, T-2 thread on both sides 59,--

245

8075

ADPS V - incl. Zeiss-M44 adapter (#1508005) 75,--

245

8076

ADPS VI - incl. Vixen adapter M43 (#1508037) 65,--

245

8077

ADPS VII - incl. Vixen- / Lichtenknecker-adapter M36,4  
(#1508039)

65,--

245

8012

ADPS projection eyepiece  $f=25\text{mm}$  lens diameter on the camera side 27mm (!) - regular price 75,- Euro

- **special price** only valid when you buy an ADPS I-VII

**60,--**

**Please note:**

To make sure that you don't receive a filter adapter or an adapter ring for afocal projection, please do not "*e s t i m a t e*" the thread, but make sure that you "*k n o w*" the specifications!

If you are not sure, please consult your local dealer or the manufacturer to find out, which kind of thread your camera has for attaching a filter. We can't do an online research for every camera. The models change so fast that we had to hire a co-worker just for being up-to-date. So please do not (only) tell us your camera modell, but always the correct thread you need.

Especially small cameras sometimes don't have a standard filter thread. Instead there is a special thread by the manufacturer which fits to no common filter or adapter. In this case you have to buy an adapter from your local camera dealer. We can definitely help you if you have a standard thread between M24 and M82.

Please understand that you have to pay the shipping costs if we have to send you another adapter, if it is not our fault that the first one didn't fit.

**Here is a description of eyepiece projection and many example images**  
**Here is a detailed description of the setup of the digital eyepiece projective and all available combinations**



comparison of the exit  
pupil  
Baader Eudiascope  
and  
ADPS  $f = 25\text{mm}$