



Much more than an eyepiece HYPERION® 68°

How to use the modular eyepiece system – illustrated instructions for the whole range of Hyperion® accessories

Case included with purchase of a Hyperion® eyepiece-set

Full Set: 7 eyepieces, 5-24mm
Beginner Set: 4 eyepieces, 5/10/17/24mm



HYPHERION MODULAR EYEPIECES
Barrels for both 1 1/4" and 2" built in 68° Wideangle and long eye relief, perfectly matched to the human eye. Phantom Group® Multicoatings, for maximum contrast and total freedom from reflections. Modular design allows adjustment of eyepiece focal length with optional finetuning rings.
Adapter threads for alical and projection photography built in. Optional elevated adapters permit attachment to practical camera, camera bag and 3 dustcaps.



Scope of supply for each Hyperion® 68° eyepiece:

- 1 68° Hyperion® eyepiece with Phantom-Group® Coating and two Photo-threads M43 and SP54
- 2 dual 2" and 1 1/4" nosepiece
- 3 Soft-leather bag: provides perfect protection – takes very little space



End dust caps
All Hyperion® eyepieces are equipped with two dust caps which protect the eye lens side. This leaves you the choice of storing the eyepiece protected from dust with rubber eye cap folded down (especially for persons who wear glasses) or folded up.

System-threads M 43 and SP 54
The Hyperion® threads are located beneath the rubber eye cap, or rather beneath the thread-protecting ring (made of high-quality, non-aging silicone rubber). The large number of Baader adapter rings allows use of the Hyperion® eyepiece for (almost) every task in astronomical – and nature – photography as a high-quality projection optic or as a tele-extender.

The following pages describe in detail many of the adaptations and variations that are possible with the Hyperion® system.



1 System thread M43
2 System thread SP54

Variable focal lengths with Hyperion® 2" finetuning rings (FTR) 14 and 28 mm

also with 2" Baader eyepiece filters



Hyperion® eyepiece w. FTR 14 and 28 mm

Hyperion® eyepiece with FTR 14mm (this combination is also portrayed in the picture below which features the 2" mirror star diagonal)

Available combinations of Hyperion® eyepieces with Finetuning rings or 2" Baader Filter to modify the focal length and the field of view.

	Effective focal length in mm	Ø Field-stop in mm	with 14 mm FTR	with 28 mm FTR	with 14 + 28 mm FTR	with 2" Baader Filter*	without first group of lenses				
Hyperion® 24.0	28.0	--	--	--	--	--	--				
Hyperion® 21.0	22.5	17.6	19.9	15.5	17.5	14.0	15.8	18.5	20.6	32.2	35.0
Hyperion® 17.0	20.9	13.1	17.1	10.8	14.1	9.2	12.1	14.6	18.7	21.8	30.0
Hyperion® 13.0	17.7	10.8	14.6	9.2	12.5	8.1	11.0	11.7	14.2	22.9	30.0
Hyperion® 10.0	15.0	8.4	11.6	7.1	9.8	6.1	8.7	9.1	12.0	22.4	30.0
Hyperion® 8.0	10.7	6.0	8.6	5.0	7.1	4.3	6.1	6.9	9.3	21.8	30.0
Hyperion® 5.0	6.5	4.0	5.4	3.2	4.5	2.6	3.9	4.3	5.8	22.5	30.0



Hyperion® eyepiece with built-in 2" eyepiece filter (e.g. Infrared-blocking-filter #2459210A)

A variety of additional Hyperion® focal lengths can be obtained at very moderate prices by using our 2" finetuning extension rings 14mm and 28mm, or even our 2" eyepiece filters. Thus an eyepiece of 5 mm focal length can be converted into one of 2.6 mm focal length – without loss of sharpness – above all, because no additional lenses are introduced into the beam, which is unavoidable when using a Barlow lens.

For marginal cost such experimentation is possible. You will discover how much your telescope can achieve, exceeding the recommended range of magnification without an additional Barlow lens. You will experience surprising results especially with refractors. With real apochromats the usable exit pupil may be considerably smaller than the literature recommends!

Yellow column of the table: focal length, Light-Grey column: Ø field stop

* Baader 2" eyepiece filter with a height of 6 mm.

** non variable focal length

Hyperion® eyepiece with 1 1/4" barrel unscrewed

Finetuning 2" extension ring 28 mm #2958228

Finetuning 2" extension ring 14 mm #2958214

2" stop ring with captive brass locking ring and two locking screws #2958027



Front Hyperion® lens element, built into the 1 1/4" barrel.

The M48 filter thread is located here!
To remove the first group of lenses, all Hyperion® eyepieces must only be opened here (exception 24 mm).
Disassembling the eyepiece elsewhere will void the warranty!

Combination of the Hyperion® eyepiece and the 14 mm finetuning ring as well as the 2" stop ring
The stop ring prevents the eyepiece barrel from hitting the mirror star diagonal or prism.



Hyperion® eyepiece
2" stop ring #2958027
Finetuning ring 14 mm #2958214
1 1/4" Hyperion® barrel with built-in negative lens group
Baader ClickLock®, Astro-Physics Maxbright Star Diagonal

Adaptation of Hyperion® eyepieces onto Zeiss spotting scopes

Zeiss Diascope spotting scopes:
The Hyperion 21-/17-13-8 mm eyepieces may be adapted to the Zeiss Diascope spotting scopes with the aid of the Baader Diascope bayonet-adapter #2454500



Video-camera, e.g. Sony HDV

Hyperion® DT-ring SP 54 / M 37 #2958037

Hyperion® extension DT-ring 11 mm SP 54i / SP 54 a #2958090

Hyperion® eyepiece

Zeiss Astro Adapter for Conquest® Gavia Spotting Scopes (Zeiss-EAN: 4047006834501). Slipped over and fastened onto the 1 1/4" eyepiece barrel

Carl Zeiss Conquest® Gavia

Visual Observation:
All Hyperion®-eyepieces may be adapted to the Zeiss Conquest® Gavia spotting scope with the aid of the Zeiss Astro-Adapters (Zeiss-EAN: 4047006834501)

... you want it simpler?
Do you want to capture fast but still high-quality images directly from your smartphone and share them with friends?
Then the **NexYZ 3-Axis Smartphone Adapter** #825821 from Celestron is the solution.

- NexYZ fits onto any eyepiece up to Ø 60 mm (thus onto all Hyperion® eyepieces) and connects your smartphone to your telescope, spotting scope, binocular or microscope.
- Works with a wide range of mobile phones.
- Unlike other digiscoping-adapters, NexYZ features a rack-and-pinion-drive at all three directional knobs (X, Y, and Z axis)
- Perfectly aligns your phone's camera with the eyepiece in seconds so you are ready to snap the perfect image

The whole family of Hyperion® 68° eyepieces:

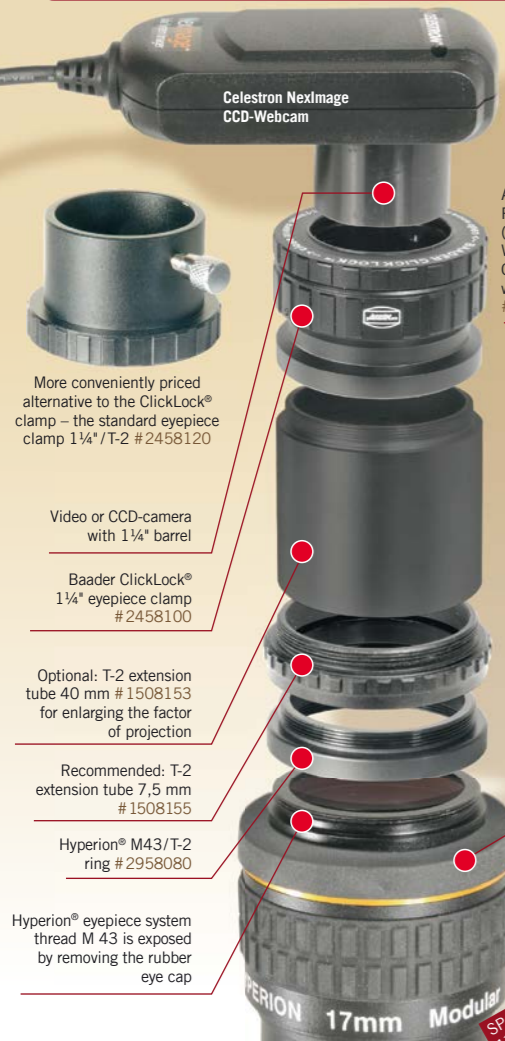


Authorized Hyperion® Dealer:

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Hyperion® eyepieces classical eyepiece projection

M43/T-2 adapter ring #2958080 fits the smaller M43 system thread of the Hyperion® eyepiece. Thus every Hyperion eyepiece can be used as a classical projection eyepiece. The whole range of adapter rings of our Baader Astro T-2 System® for moon- and planetary photography is available for this purpose. With eyepieces of 5mm and 8mm focal length, highest projection magnifications are easily attained.



More conveniently priced alternative to the ClickLock® clamp – the standard eyepiece clamp 1/4"/T-2 #2458120

Video or CCD-camera with 1/4" barrel

Baader ClickLock® 1/4" eyepiece clamp #2458100

Optional: T-2 extension tube 40 mm #1508153 for enlarging the factor of projection

Recommended: T-2 extension tube 7,5 mm #1508155

Hyperion® M43/T-2 ring #2958080

Hyperion® eyepiece system thread M 43 is exposed by removing the rubber eye cap

M43/T-2 Adapter #2958080

For adapting to the Astro T-2 System®

Adapter system SP 54 –for afocal Projection:

The Hyperion® DT-rings SP 54 are optimized to provide the shortest possible distance between the eye lens of the eyepiece and the digital camera lens. Only in this way a fully illuminated photographic field is possible without vignetting



One adjustment spacer ring made of hard plastic for the SP 54 thread is part of each Hyperion® DT-Ring free of charge. With these spacer rings (each ring has a thickness of only 1 mm), differences in mechanical heights may be adjusted, to be able to adapt the camera front lens as close as possible, without having to use the 11 mm extension ring #2958090. Caution when mounting the camera! Camera-front lenses may be too close to the first lens of the Hyperion®-eyepiece only by a tenth of a millimeter. When mounting the Hyperion®-eyepiece onto any camera-front-lens, always proceed with the greatest care, possibly using the additional spacer ring.



Alternative to the Protective T-Ring (on the right side): Wide-T-Ring Canon EOS with D52 #2408332

DSLR-camera e.g. Canon EOS (DSLR)

Protective Baader Canon EOS T-ring with built-in dust protection Infrared blocking filter #2958550L

Optional: T-2 extension tube 15 mm, increases the projection factor #1508154

Optional: T-2 extension tube 40 mm #1508153, increases the projection factor

Rubber protecting ring for the SP 54 system thread

Recommended: T-2 extension tube 7,5 mm #1508155

Hyperion® M43/T-2 ring #2958080

SP 54/M 54a Hyperion® 11 mm extension ring, with rubber thread-protecting-cover for the SP 54 outer thread #2958090

DT-ring SP 54/M 28 #2958028 requires #2958090

DT-ring SP 54/M 37 #2958037 requires #2958090

DT-ring SP 54/M 46 #2958046

DT-ring SP 54/M 49 #2958049

DT-ring SP 54/M 52 #2958052

DT-ring SP 54/M 55 #2958055

DT-ring SP 54/M 58 #2958058

DT-ring SP 54/M 62 #2958062



Digital DSLR-camera for example: Canon EOS DSLR

Attachment to the camera lens using the Hyperion® DT-ring SP 54/M 62 #2958062

1mm thick spacer ring – optional to prevent contact between the lenses of the eyepiece and the camera lens #2958001

Hyperion® eyepiece system thread SP 54 is exposed by removing the thread-protecting silicone-ring.

Using SP 54 connecting rings, the objective of the camera and the Hyperion® eyepiece may be connected with a minimum of separation distance.

All adaptation requires careful handling. Before connecting the eyepiece tightly to the camera, please make sure that the lens surface of the camera lens is not touched or scratched by any part of the eyepiece.

Hyperion® eyepieces afocal projection with DSLR-cameras



Video camera with M 28 filter thread in front of the lens

Hyperion® DT-ring SP 54/M 28 #2958028

Hyperion® 11mm long extension ring #2958090 (required to adapt DT-rings SP 54/M 28 and M 37)

Hyperion® eyepiece

3" CCD Video-camera, e.g. Sony HDV

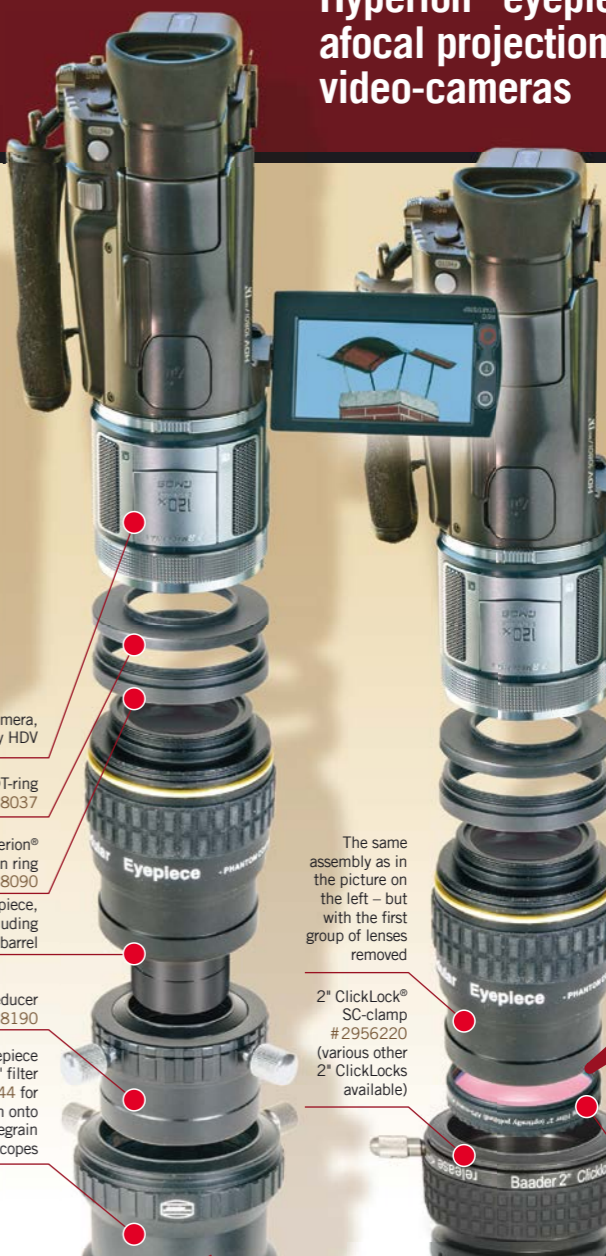
Hyperion® DT-ring SP 54/M 37 #2958037

Hyperion® DT-extension ring #2958090

Hyperion® eyepiece, complete, including 1/4" barrel

2" to 1 1/4" Reducer #2408190

2" deluxe nosepiece with integrated 2" filter holder #2958144 for adaptation onto Schmidt-Cassegrain telescopes



The same assembly as in the picture on the left – but with the first group of lenses removed

2" ClickLock® SC-clamp #2956220 (various other 2" ClickLocks available)

Baader 2" eyepiece filter (e.g. Infrared-blocking filter #2459210A)

Recommendation:

The eyepiece should only be used without the first group of lenses for the purpose of afocal eyepiece projection imaging. The cameras field of view will be increased without a noticeable loss of edge sharpness. In visual observation, however, a loss of edge sharpness will be experienced when using the eyepiece without the first group of lenses.

Caution when mounting the first group of lenses!

The eyepiece may only be opened here. This exposes an M 48 filter thread which is necessary for attaching a 2" eyepiece filter to protect the dust-sensitive inner Hyperion® lens surface (for example a 2" infrared-blocking-filter useful for photography)

Please consult our Astro-accessory pricelist to find further adapter rings, including the Astro T-2 System®.

