



EDG FIELDSCOPE

EDG

THE CUTTING EDGE IN SPORT OPTICS

A More Brilliant, Vibrant World

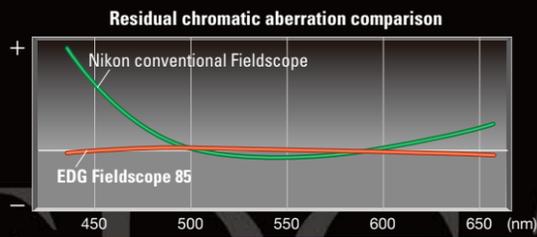
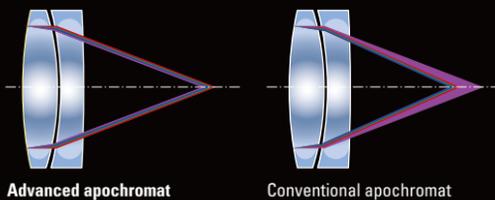
Nature. Raw, untamed, in all its glory.
 It's a vision you can see... a vision you can feel.
 A vision that brings all of your senses to life.
 The time you spend cherishing the wonders of our planet, and beyond, is truly precious, time you can't afford to waste. So naturally, in your quest for perfection, you seek the very best.
 And in the vast world of extraordinary Nikon sport optics, nothing reveals that more clearly than Nikon EDG.



Nikon's superior condensed optical technologies deliver crystal-clear viewing

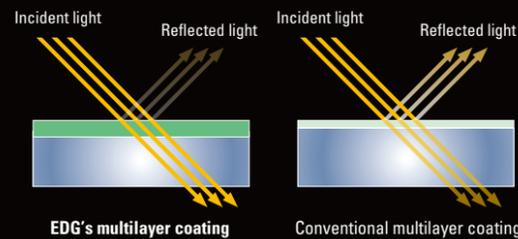
2 Nikon's superior chromatic-aberration compensation system: "Advanced apochromat" with ED glass elements

EDG Fieldscopes bring together Nikon's most sophisticated lens technologies with a precision optical design that gives you a sharper, more brilliant field of view. Our apochromat optical system, which uses ED (Extra-low Dispersion) glass, corrects violet chromatic aberration in addition to the conventional chromatic aberrations of red, blue and green. Because chromatic aberrations are corrected to the furthest limits of the visible light range, and colour fringing is effectively compensated, whites are clearer and sharper.



Advanced multilayer coating delivers clearer views

The sophisticated coating Nikon applies to EDG Fieldscopes goes far beyond conventional methods. Multilayer coatings, which provide an even, high light transmittance across the entire visible light spectrum, are applied to all of the lens and prism surfaces that transmit light. This minimises the loss of light due to reflection, thereby ensuring a more natural, clearer view.

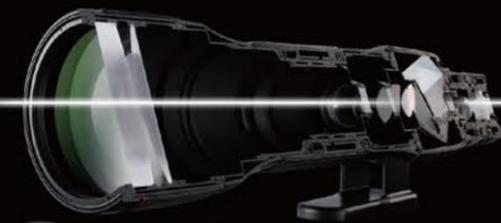


Sophisticated roof (Dach) prism technology combines outstanding optical performance with an unparalleled slim design

EDG Fieldscopes use a roof (Dach) prism, enabling an exterior design of unparalleled beauty. Angled models achieve clearer images thanks to an optical system that employs a prism featuring total reflection on the internal surfaces. In the straight models, a dielectric high-reflective multilayer prism coating is applied to a surface that does not offer total reflection in order to realise a brighter viewfield. Both straight and angled models boast an advanced level of exterior design and internal optical performance.

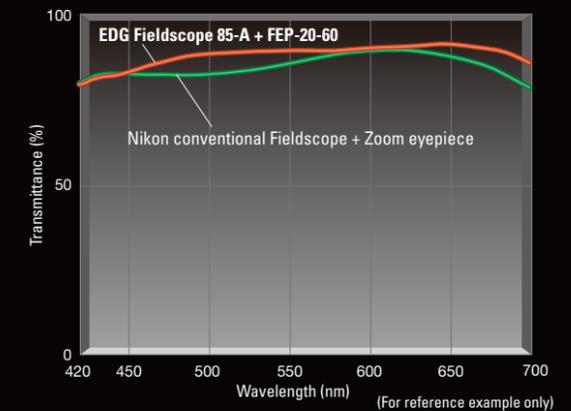


- Phase-correction coating applied to the roof surface of a roof (Dach) prism to deliver high-contrast images



3 A store of valuable cutting-edge optical technologies ensures a higher light transmission rate with exceptional characteristics

A wealth of advanced technologies are integrated into each and every optical part of an EDG Fieldscope. This cutting-edge technology results in a higher light transmission rate and flatter characteristics across the entire visible light range. This means you'll experience a crystal-clear field of view and more natural colour reproduction.



- Thanks to EDG Fieldscopes' high optical performance, they are also practical for recreational astronomical observations.

EDG Technology

EDG Technology



High-performance EDG eyepieces reveal a spectacular field of view

The seven new eyepieces demonstrate extraordinary EDG quality, too. Designed and developed with an advanced level of innovation, all feature a bayonet-with-lock design. Five are wide-angle models ranging from 20x to 75x*, one offers ultra-long eye relief, and the other is a 20-60x zoom*. To create these eyepieces, Nikon developed solutions for difficult optical design issues, merging a wide field of view with long eye relief. Also, a field flattener lens system has been adopted for these eyepieces to correct overall aberration and achieve a sharp image even to the edge of the field of view. The result is beautifully clear viewing.

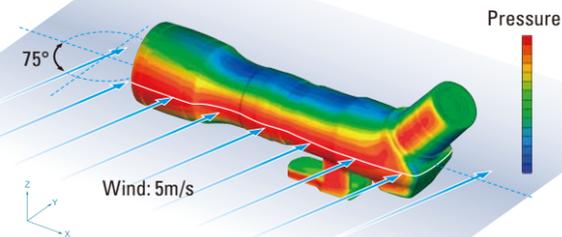
* When attached to EDG Fieldscope 85/85-A.

An exquisite body design, attained through a sophisticated simulation process

Tough, well-balanced structure, achieved through CAE design

Nikon employed CAE (Computer Aided Engineering) in pursuit of the ideal body construction. We maintained a strict continuity from design, through simulation, to problem solving and re-design, in order to achieve shock-resistance, the optimum weight and aerodynamic balance. To realise stability for both observation and digiscoping, the stiffness and integrity of the mount and tripod were analysed utilising the finite element method, and the equipment movements caused by regular operation and wind, as well as camera vibrations in digiscoping, were precisely simulated.

Wind vibration analytical simulation example



* Wind pressure distribution used for dynamic response analysis.

Three tripod mount screw holes provide flexible mounting for optimal balance in observation and digiscoping

Tripod mount screw holes A, B or C can be used depending on the application, such as observation or digiscoping.

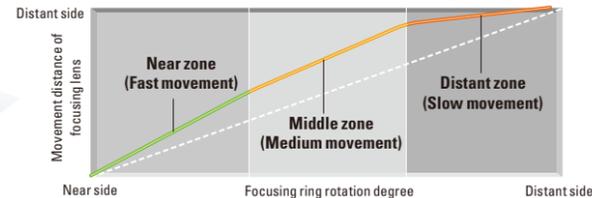


Smooth, comfortable focusing with "Optimised Focusing System"

Ergonomically designed, the large focusing ring fits comfortably in your hands and allows you to operate at optimised speeds — fine action for focusing on distant subjects, and coarser action for nearby subjects. This results in smoother focusing, allowing you to capture your targets faster, and with much less stress.



Nonlinear movements of focusing



New design concept to ensure superior operation

Operability in both observation and digiscoping was given the utmost consideration from the earliest stages of planning and development. Examples of this include a bayonet mount for easy and secure connection of EDG eyepieces or Digital SLR Camera Attachment FSA-L2, and smooth focusing operation with a focusing ring even when a digital SLR camera is mounted — factors which set the standard for a whole new generation of Fieldscopes.



- The body and EDG eyepieces have been fully waterproofed using O-ring seals and nitrogen gas, the body/eyepiece joint is water resistant
- Built-in sliding hood protects the objective lens

Outstanding wide field of view and brightness [Wide eyepiece (FEP-20W)]

When mounted on EDG Fieldscope 85/85-A, the real field of view is 3.3° and the exit pupil is 4.3 mm. This wide eyepiece that delivers bright and high-resolution images is effective for use in low-light conditions such as dusk and dawn.



Wide field of view, high-eyepoint, high-resolution even at the periphery [Wide eyepiece (FEP-30W)]

The FEP-30W features a long eye relief of 25.4 mm and a wide field of view. It gives you a high-resolution, uniformly bright image throughout the viewfield, with superior quality even at the periphery.

Ultra-long eye relief of 32.3 mm [Long eye relief (FEP-25LER)]

This eyepiece, with a long eye relief of over 30 mm, allows eyeglass wearers to use a Fieldscope without removing their glasses. Recommended for the judging of sports such as shooting or archery.

Employs high-refractive-index aspherical glass lens [Zoom eyepiece (FEP-20-60)]

Zoom-type eyepiece with magnification of 20x to 60x*. The optical system features a high-refractive-index aspherical glass lens. Corrects image distortions and provides a flat image even at the periphery at both low- and high-magnification settings.



High-refractive-index aspherical glass lens

* When attached to EDG Fieldscope 85/85-A.



Left magnification value: With EDG Fieldscope 85/85-A. Right magnification value: With EDG Fieldscope 65/65-A.

* Photos are simulated images when eyepieces are mounted on EDG Fieldscopes. Image size varies according to subject distance, and brightness varies depending on magnification.

Digiscoping System

A new realm of digiscoping beauty

Besides observation, EDG Fieldscopes are designed for digiscoping, allowing smooth connections to a digital camera for spectacular telephoto pictures. The advanced optical system, well-balanced body and smooth focusing — all these and more will let you capture beautiful moments of high precision and image quality. Uniquely Nikon, uniquely EDG.



Fieldscope Digital SLR Camera Attachment FSA-L2

World first 3.5x zoom*¹ for super telephoto shooting with a focal length of up to 1,750mm*²

Quickly and easily attaches directly to the F-mount of a Nikon digital SLR camera, for easy connection with your EDG Fieldscope. Multilayer coating is applied to all lens elements for brighter optics. The zoom function features an internal vari-magnification system, with magnification of 3.5x. When attached to EDG Fieldscope 85/85-A, the focal length ranges from 500mm to 1,750mm. As for the camera's exposure mode, in addition to Metered Manual, Aperture-Priority Auto Mode is available. Provides a natural synchronisation in exterior design when attached to a digital SLR camera and EDG Fieldscope.

*¹ Among Fieldscope digital SLR camera attachments. (as of July, 2009)

*² When attached to EDG Fieldscope 85/85-A.

At low magnification



At high magnification



FSA-L2 Specifications

Magnification	3.5x zoom	
Mount	Bayonet mount	
Exposure mode (camera setting)	A (Aperture-Priority Auto) / M (Metered Manual)	
Exposure metering (camera setting)	Centre-weighted metering	
Length x diameter	150mm x 62mm	
Weight	435g	
	With EDG Fieldscope 85/85-A	With EDG Fieldscope 65/65-A
Focal length	500 - 1,750mm (DX format: 750 - 2,625mm)	400 - 1,400mm (DX format: 600 - 2,100mm)
Aperture (focal length)	f/5.9 - 21 (500mm - 1,750mm)	f/6.2 - 22 (400mm - 1,400mm)

*Camera's autofocus mode cannot be used. Perform focusing using the EDG Fieldscope focusing ring.

*When used with a Nikon DX-format digital SLR camera, the picture angle is equivalent to approx. 1.5x focal length of 35mm format.

*The actual f-number and the focal length vary depending on the actual zoom setting, while the camera display and image data show the constant f-number (13) and focal length (800mm).

*When used with a Nikon FX-format camera, vignetting occurs at focal lengths between 500mm and 750mm with EDG Fieldscope 85/85-A and between 400mm and 600mm with EDG Fieldscope 65/65-A.

*Because the optical system characteristics differ from those of ordinary interchangeable lenses, the exposure level may vary depending on the camera model; use exposure compensation if necessary. Exposure compensation may be required when zoom is set at a wider position.

Nikon Digiscoping System Chart for EDG Fieldscopes



* Digital Camera Bracket FSB series

The FSB series bracket is an adapter that allows you to connect a wide selection of Nikon COOLPIX series compact digital cameras to EDG Fieldscopes, enabling you to enjoy digiscoping.

• The above chart is as of August 2009, updated information will be available at: www.nikon.com/sportoptics/

EDG Fieldscope Main Body

Specifications



EDG Fieldscope 85



EDG Fieldscope 85-A



EDG Fieldscope 65



EDG Fieldscope 65-A

	EDG Fieldscope 85	EDG Fieldscope 85-A	EDG Fieldscope 65	EDG Fieldscope 65-A
Objective diameter (mm)	85	85	65	65
Close focusing distance (m)	5.0	5.0	3.3	3.3
Length (mm)*	379	398	313	332
Height x width (mm)*	127x102	131x102	120x88	131x88
Weight (g)*	2,030	2,030	1,560	1,620

* Body only

EDG Eyepiece

Specifications



FEP-20W



FEP-30W



FEP-38W



FEP-50W



FEP-75W



FEP-25 LER



FEP-20-60

	FEP-20W		FEP-30W		FEP-38W		FEP-50W		FEP-75W		FEP-25 LER		FEP-20-60	
EDG Fieldscope diameter	85	65	85	65	85	65	85	65	85	65	85	65	85	65
Magnification (x)	20	16	30	24	38	30	50	40	75	60	25	20	20-60	16-48
Real field of view (degree)	3.3	4.1	2.4	3.0	1.9	2.4	1.4	1.8	1.0	1.2	2.4	3.0	2.2-1.1	2.8-1.4
Apparent field of view (degree)* ¹	60		64.3		64.3		64.3		64.3		55.3		42-60	
Field of view at 1,000m (m)	58	72	42	52	33	42	24	31	17	21	42	52	38-19	49-24
Exit pupil (mm)	4.3	4.1	2.8	2.7	2.2		1.7	1.6	1.1		3.4	3.3	4.3-1.4	4.1-1.4
Relative brightness	18.5	16.8	7.8	7.3	4.8		2.9	2.6	1.2		11.6	10.9	18.5-2.0	16.8-2.0
Eye relief (mm)	20.1		25.4		17.9		17.8		17		32.3		18.4-16.5	
Length (mm)* ²	59		81* ³		74		71		71		77		99	
Outer diameter (mm)* ²	63		63		63		63		63		63		63	
Weight (g)* ²	240		390* ³		230		230		230		320		330	

*1) Calculated based on ISO 14132-1:2002 *2) Without caps *3) With detachable turn-and-slide eyecup

Optional accessories

Stay-on-cases*



SOC-8
(for EDG Fieldscope 85/85-A)



SOC-7
(for EDG Fieldscope 65/65-A)

FS Eyepiece Mount Adapter



EMA-1
Enables mounting of conventional screw-in type MC/DS eyepieces or FSA-L1 to EDG Fieldscope.

*Depending on your area, these accessories may be included or sold separately. Please contact your local dealer or Nikon office in your region for further information.

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer.

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