

Specifications

Model Name	MONARCH X 8.5x45 DCF	MONARCH X 10.5x45 DCF
Magnification (x)	8.5	10.5
Objective diameter (mm)	45	45
Angular field of view (real) (°)	6.3	6.3
Angular field of view (apparent)* (°)	50.1	60.0
Field of view at 1,000 m (m)	110	110
Exit pupil (mm)	5.3	4.3
Relative brightness	28.1	18.5
Eye relief (mm)	20.6	16.0
Close focusing distance (m)	3.0	3.0
Inter-pupillary distance adjustment (mm)	56-72	56-72
Length (mm)	156	156
Width (mm)	139	139
Weight (g)	720	730

* With the conventional method used previously, the apparent field of view was calculated by multiplying the real field of view by the binocular magnification. After revision, Nikon's figures are now based on the ISO 14132-1:2002 standard, and obtained by the following formula:

$\tan \omega' = \tau \times \tan \omega$
 Apparent field of view: $2\omega'$
 Real field of view: 2ω
 Magnification: τ

MONARCH 

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer.
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MONARCH 
 8.5x45 DCF/10.5x45 DCF

Nikon Sport Optics

At the heart of the moment...

... you feel the excitement. This is the time you've been waiting for. Confidently, boldly. Because you have in your hands the Monarch X. The ultimate hunting binoculars.

Features

- Dielectric high-reflective multilayer prism coating assures uniform and high transmittance in full visible range for bright and natural color images
- All lenses and prisms are multilayer-coated for the brightest images
- Phase-correction-coated roof prisms for high resolution
- High-eyepoint design for clear field of view, even for eyeglass wearers
- Waterproof (up to 1 m/3.3 ft. for 10 minutes) and fog-free with O-ring seals and nitrogen gas
- Turn-and-slide rubber eyecups with multi-click facilitate easy positioning of eyes at the correct eyepoint
- Flip-down objective lens cap
- Lightweight, durable body uses polycarbonate resin reinforced with fiberglass and carbon fiber
- Can be fixed to a tripod using an optional tripod adaptor



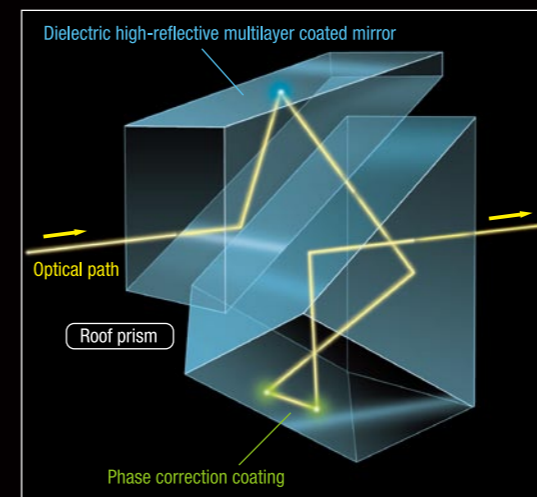
MONARCH X 8.5x45 DCF



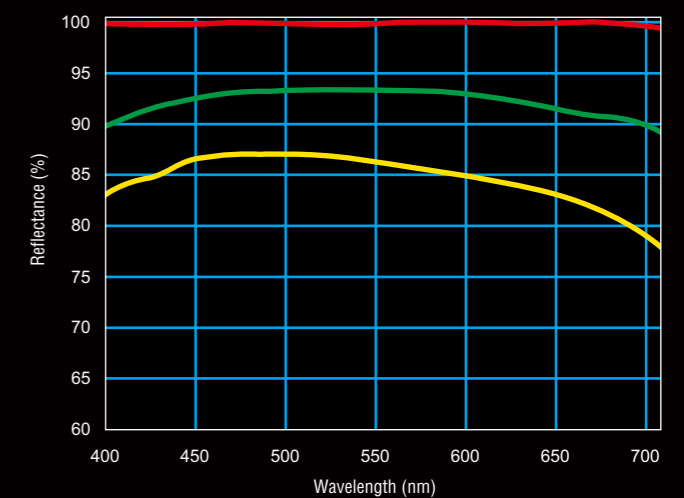
MONARCH X 10.5x45 DCF

MONARCH

8.5x45 DCF/10.5x45 DCF



Reflectance characteristics of prism coatings on mirror surface



(For reference example only)

A roof prism features one surface that does not have total internal reflection. It is very important for binoculars' optical performance to raise the reflectivity of this surface.

Dielectric high-reflective multilayer prism coating, which is composed of multiple thin layers of transparent dielectric material instead of aluminum, or other metallic layers, assures uniform and ultra-high reflectivity in full visible range.

As a result, this technique provides almost the same brightness as that perceived by the naked eye, and clear, high-contrast images that display accurate color reproduction.

- Dielectric High-reflective Multilayer Prism Coating
- Enhanced Aluminum Prism Coating
- Aluminum Prism Coating