

The **Field Ranger 7** is based on the acclaimed Questar 7-inch design. The combination of unsurpassed optics with a simple and rugged design contributes to making it the ideal high magnification field surveillance lens. The **Field Ranger 7** is light, compact and well balanced. The EFL and aperture give it 2 times more power and 4 times more light grasp than its smaller brother the Field Ranger 3.5. Its configuration makes it perfect for use with eyepieces, video, and night vision equipment.



Performance:

Working Range	16M (50 feet) to infinity
Optical Resolution	.5 arc seconds
Clear Aperture	178 mm (7 inches)
Effective Focal Length	2100 mm video/2400 mm with erector
F-Number	f/12 @ 2100 mm EFL
Spectral Response	0.35 - 1.5 micron (other on request)

Optical:

Design Type	Maksutov Cassegrain Catadioptric
Corrector	BK7/MgF2 178 mm CA (7 inches) diameter
Primary Mirror	Pyrex substrate, aluminum coated SiO overcoat, 193 mm (7.6 inches) diameter
Secondary Mirror	Aluminum coating on corrector, SiO overcoat, 47 mm (1.85 inches) diameter
Baffling	Wire helix in central tube, precision threaded

Mechanical:

Barrel	Aluminum heat-treated tube and precision machined and matching lens cell	
Rear Closure Plate	Aluminum; machined and matched to barrel	
Central Tube	Centerless ground stainless steel and 6" Ø mount plate	
Mirror Mount/ Focusing Tube	Precision linear roller bearing matched to central tube, integrated with mirror mounting thimble	
Focus Mechanism	32 pitch ground stainless steel focus rod; Direct acting on mirror thimble, spring loaded	
Focus Control	25 mm (1 inch) diameter straight knurled aluminum knob	
Finish	Aluminum parts anodized Exterior surfaces Polane T polyurethane, putty color Hardware and fasteners stainless steel	
Mounting	Tripod mount with 1/4" - 20 & 3/8" - 16 female threads	
Dimensions:	Length with C Mount	46.7 cm (18.4 inches)
	Length with Image Erector & 16 mm Eyepiece	53.0 cm (20.9 inches)
	Maximum Height	23.4 cm (9.20 inches)
	Maximum Diameter	20.4 cm (8.03 inches)

Mechanical (cont'd):

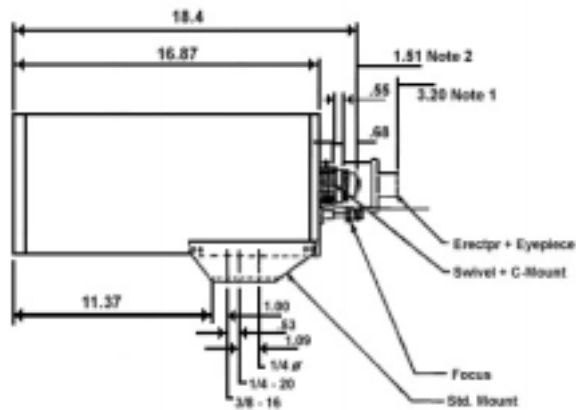
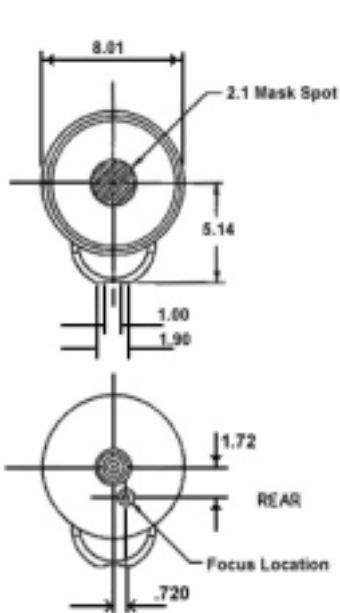
Case (outside) ABS type	Length	71 cm (28 inches)
	Depth	45 cm (18 inches)
	Height	30 cm (12 inches)

Weight	Bare lens with C Mount	7.7 kg (17 lbs.)
	Lens with image erector and eyepiece	8 kg (17.6 lbs.)
	Standard package complete in case	22 kg (48 lbs.)

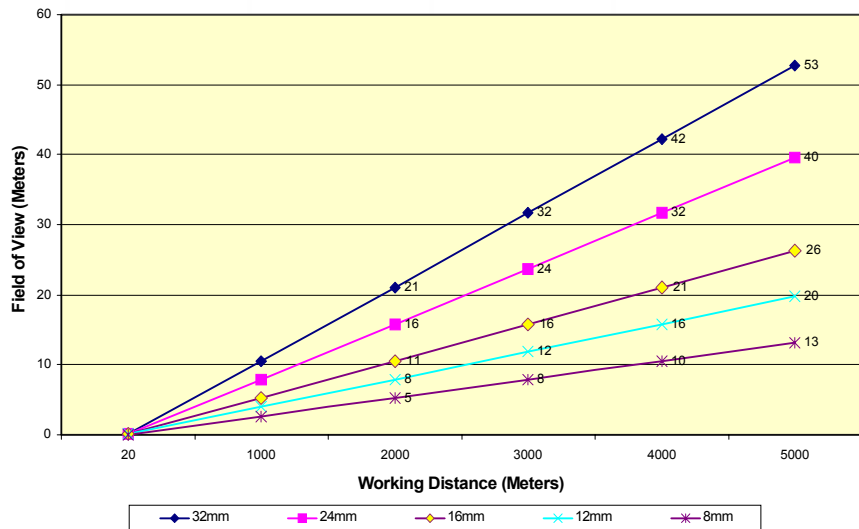
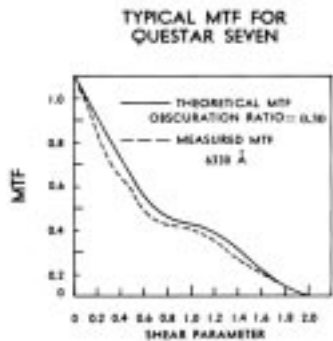
Eyepiece Magnifications: (1 1/4 type or Threaded)

9 mm	266X	18 mm	133X
12 mm Brandon	200X	24 mm	100X
16 mm	150X	32 mm	75X

All magnifications calculated with image erector in place. Refer to Questar price lists for individual components or option packages to complement use, 2" Type can be used but will not adapt to image erector.



Ranger 7 Eyepiece Field Size Chart



Questar Corporation
6204 Ingham Road
New Hope, PA 18938
USA

Telephone 215-862-5277 or 800-247-9607
Fax 215-862-0512
Email Questar@QuestarCorporation.com
Web www.QuestarCorporation.com