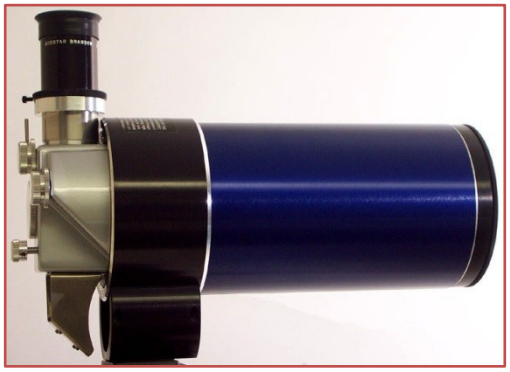
Questar Field Model Telescope

(10110) Specification Sheet

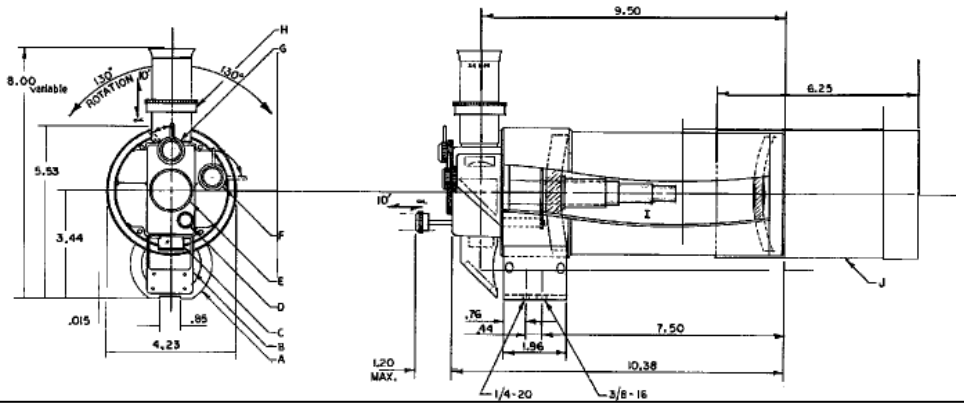


The Questar Field Model is the ultimate spotting scope. From 10 feet to Infinity, for situations requiring long focal lengths, no other scope matches the Field Model's resolution and image contrast. As a telephoto lens, the Field Model is comparable in size to a 250mm f/2.8 lens, and weighs less than 3 pounds. It has all the controls of the Standard 3.5, giving the observer 3 powers per eyepiece and giving the photographer a separate selectable port for the camera attachment. The Field Model is designed expressly for terrestrial observation and photography, yet when mounted on a pan head it can also be used successfully for sky observation. It has the same optic and built in functional control elements as the astronomical units with the exception of the astronomical mount and the moon and star chart barrel covers. The Field Model has the rapid focus option that was developed primarily for the convenience of photographers. It can also serve the wildlife observer by providing a 2.3 times faster acquisition of a target. This modification to the Field Model must be done at the factory.

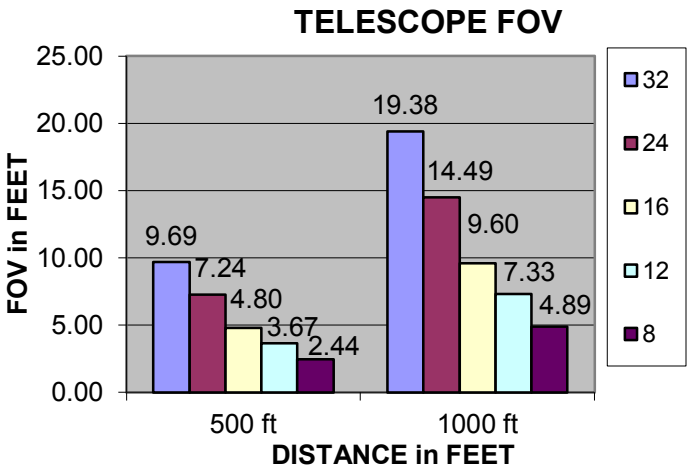
The Questar Field Model 3.5 includes the lens cap, 24mm eyepiece (53-80X), built in finder (4x), stardiagonal prism, Barlow lens for eyepiece port, blue anodized dewcap, basic camera coupling set, and waterproof carrying case. There is room in the case for camera and other small accessories.

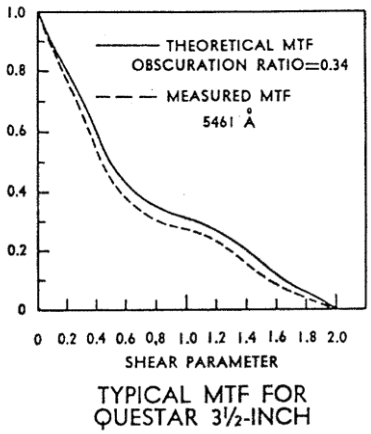
TYPE:	Maksutov Cassegrain Catadioptric. No coma, astigmatism or spherical aberrations.
CLEAR APERTURE:	3.5 inches, 89mm (Center Obscuration, 27.9mm)
FOCAL LENGTH:	Basic Visual 50.5 inches, f/14.4, 1300mm
FOCAL LENGTH:	Camera close, 56 inches, f/16, 1400 mm
FOCAL LENGTH:	Camera with Ext. Tubes, 64 inches, f/18, 1600mm
FINDER LENS:	4" Fl., 4x, Field 12° with 24mm E/P
POWERS:	Powers are eyepiece dependent and can range from 40x to 270x with Questar Brandon eyepieces
POWERS LIMIT:	Resolves 1 sec. Arc at 50” (1300mm) EFL
FIELD OF VIEW:	Photographic model, 1°30min, visual field of view 1.1° to .16°
LENS:	BK7, $MgFl_2$ coated, passes UV to 3300 A, IR to 1 micron, parfocal
MIRROR:	F2, Pyrex®, Zerodur® or Quartz. AlSiO coated 3.800" dia. (All Questars for UV or IR on special order)
SPECIAL COATINGS:	On special order, broad-band dielectric coating applied to the mirror, which increases its reflectivity. To both sides of front lens, a very low reflection coating is then applied which reduces the light loss at each surface to less than 1/10 of 1%. It transmits all frequencies of the visible spectrum and improves total light grasp by approximately 22%.
EYEPIECES:	24 mm Brandon, 45° ap. Field; optional eyepieces of 6mm, 8mm, 12mm, 16mm, 32mm.
AMPLIFYING/BARLOW LENS:	Minus 43.9 mm FL. Approx 1.7X.

ERECTING SYSTEM:	Star Diagonal type, 90° BK7, $MgFL_2$ coated.
BARREL ASSEMBLY:	Barrel: forged aluminum, machined full length.
LENS CELL:	Aluminum 24S-T4, black anodized.
REAR CLOSURE PLATE:	Stainless steel CENTRAL TUBE - precision machining and alignment after assembly.
DEWCAP:	Internally black-flocked Synthane seamless tube 1/32" thick, to which is bonded a pre-rolled aluminum sheet.
FOCUSING MECHANISM:	Mirror thimble, stainless steel sliding tube. Slides on stainless, fixed, light-baffle tube, with front-end insert tube of .010" wall thickness. Conical SS spring-loaded. Focus rod SS 303, ground shaft, 10-56 T.P.I. precision ground threads. Optional Rapid focus rod for faster focus, 10-24. 2.3x faster.
KNOBS:	Aluminum 24S-T4, corrosion-resistant, hand-turned on turret lathe, stainless steel shafts and levers.



A – Tripod Mount
B – Finder Cage & Mirror Assembly
C – Finder Lens
D – Main System Focus
E – Axial Photographic Port
F – Main System Prism Actuation Knob
G – Internal Barlow Actuation Knob
H – Diopter Adapter Finder Focus, Top Port
I – Internal Lens & Baffle System
J - Sliding Dew Cap/Sun Shield





TYPICAL MTF FOR QUESTAR 3½-INCH

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