

## MWIR F/2.0 FIXED FOCUS OBJECTIVES

mid-wave infrared (Athermal)

### KEY FEATURES

F-number: F/2.0

Wavelength: 3-5  $\mu\text{m}$

Athermalized

Narrow to Wide Field-Of-View

Optimized for 1280x1024 - 12/15  $\mu\text{m}$

FPA Image Diagonal: 24.5 mm

Manual fine focus adjustment

Exterior AR Hard Coating (Optional)



**II-VI Optical Systems** (II-VI OS) offers a series of F/2.0 mid-wave infrared (MWIR) fixed focus radiometric objectives in the 3-5  $\mu\text{m}$  spectral region. These MWIR objectives are designed to provide diffraction limited performance with low distortion, low stray light and high MTF performance. A wide range of standard fields of view are provided for various applications.

**II-VI Optical Systems** also provides customized MWIR objectives engineered and built to customer requirements. Optional camera integrations are available upon request.



Lens pictured is the OWL-IR MWIR 100mm, F/2.0 fixed focus objective.

### OBJECTIVE SPECIFICATION

FOCAL LENGTH(S) AVAILABLE	25 MM	50 MM	75 MM	100 MM	150 MM
Wavelength	3-5 $\mu\text{m}$	3-5 $\mu\text{m}$	3-5 $\mu\text{m}$	3-5 $\mu\text{m}$	3-5 $\mu\text{m}$
F Number	2.0	2.0	2.0	2.0	2.0
Image Diagonal (Max.)	24.5 mm	24.5 mm	24.5 mm	24.5 mm	24.5 mm
Full Field-of-View (FFOV)*	52.4°	27.6°	18.6°	14.0°	9.4°
MTF @ 42 lp/mm (On-Axis, Nominal)	> 0.5	> 0.5	> 0.5	> 0.5	> 0.5
Focus Range	0.5 m to $\infty$	0.5 m to $\infty$	0.5 m to $\infty$	3 m to $\infty$	3 m to $\infty$
Dewar Window (Nominal)	1.0 mm Ge	1.0 mm Ge	1.0 mm Ge	1.0 mm Ge	1.0 mm Ge
Cold Stop Aperture	12.7 mm	12.7 mm	12.7 mm	12.7 mm	12.7 mm
Cold Stop to FPA	25.4 mm	25.4 mm	25.4 mm	25.4 mm	25.4 mm
Flange to FPA	39.4 mm	39.4 mm	39.4 mm	39.4 mm	39.4 mm
Athermal (Passive)	-40 to +60 °C	-40 to +60 °C	-40 to +60 °C	-40 to +60 °C	-40 to +60 °C
External Coating **	HDL/HCC	HDL/HCC	HDL/HCC	HDL/HCC	HDL/HCC
Transmission (Ave.)	>85%	>85%	>82%	82%	82%

\*\* HDC = High Durable Coating; HCC = Hard Carbon Coating ; Coatings shall meet the quality requirements of MIL-C-675, MIL-STD-810, MIL-M-13508, MIL-F-48616, and MIL-C-48497 where applicable.

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