



MW05023 | DATASHEET

Medium wave lens, 50 mm, F2.3



KEY ADVANTAGES

High resolution

Designed for high resolution detectors up to 15 μm pixel pitch and 21 mm diameter.

Custom mount interface

Can be provided upon request.

Large field of view and low distortion

Superior optical performances.

HCAR coating

For applications exposing optical elements to harsh environments.

MWIR series is a range of medium-wave infrared lenses specifically designed to operate in the 3-5 μm wavelength region with InSb Focal Plane Arrays (FPA). These lenses can be equipped with a standard Bayonet mount or an optional custom mount interface.

SPECIFICATIONS

Optical specifications

Focal length	(mm)	50
Image circle	(mm)	21.0
Viewing Angle	(°)	23.7
WD range ¹	(mm)	500 - inf
f/N		2.3
Wavelength range	(nm)	3000 - 5000
Distortion ²	(%)	0.20
Back focal length	(mm)	35.1

Mechanical specifications

Focusing		Manual
Mount		Bayonet
Length ³	(mm)	50.2
Outer Diameter	(mm)	71.0
Mass ⁴	(g)	245

¹ Working distance: distance between the front end of the mechanics and the object

² Percent deviation of the real image compared to an ideal, undistorted image

³ Measured from the front end of the mechanics to the camera flange at infinite focusing

⁴ Given with no mount attached. See layout drawings

COMPATIBLE PRODUCTS

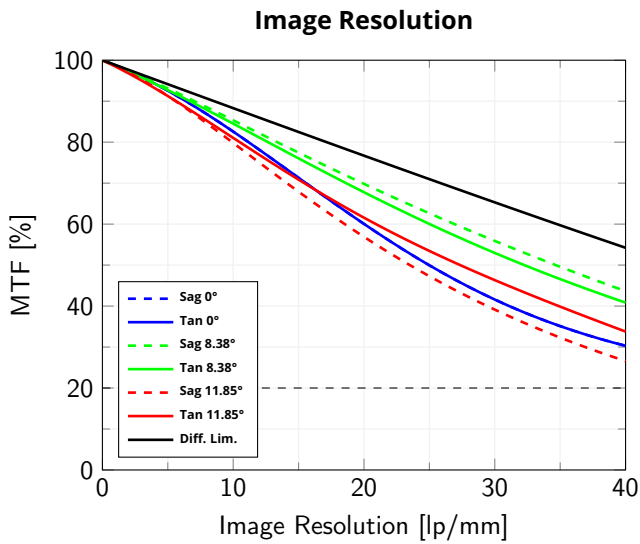
Full list of compatible products available [here](#).



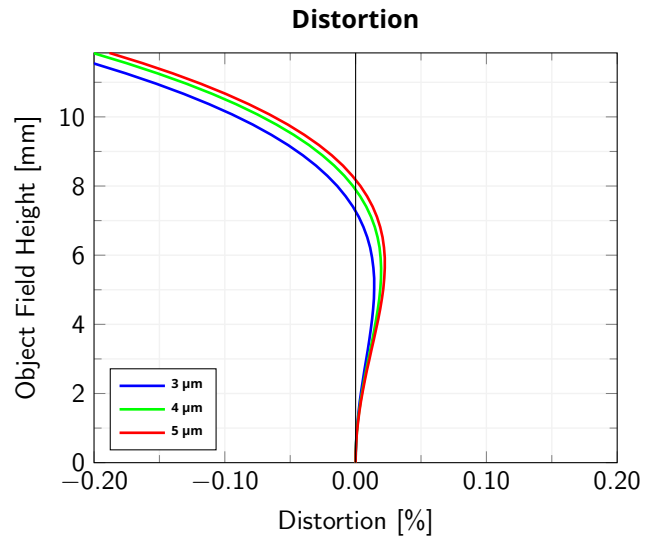
A wide selection of innovative machine vision components.

All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only. Data are reported by design, actual lens performance may vary due to manufacturing tolerances.

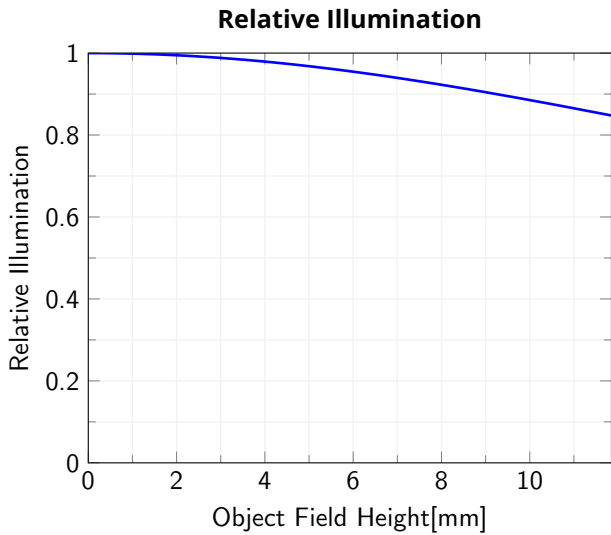
DATA AT INFINITY



Modulation Transfer Function (MTF) vs. Image Resolution, wavelength range 3 μm - 5 μm, at infinity working distance and maximum aperture



Viewing angle vs. Distortion, from the optical axis to the maximum angle of view



Relative illumination vs. Image Field Height, from the optical axis to the maximum image height at maximum aperture

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