



# CA-LMHR08

## Ultra high resolution Telecentric Macro Lens Straight 0.8x

\*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

## Specifications

Model		CA-LMHR08*1
Optical magnification		x0.69 to x0.88
Max. compatible image sensor size		2/3"
Field of view		2/3": Low magnification 12.2 x 10.3 mm 0.48" x 0.41", High magnification 9.5 x 8.0 mm 0.37" x 0.31" 1/1.8": Low magnification 10.2 x 7.7 mm 0.40" x 0.3", High magnification 8.0 x 6.0 mm 0.31" x 0.24"
F-stop range (aperture)		Low magnification: 5.6 to 23, High magnification: 7.1 to 29
Resolving power		Center/periphery: 120 cycles/mm
WD		Low magnification: 111.0 mm 4.37", High magnification: 111.0 mm 4.37"*2
TV distortion		Low magnification: 0.005 %, High magnification: -0.001 %
Depth-of-field		Low magnification: 2.689 mm0.11", High magnification: 1.653 mm0.07"*3
Mount		C-mount
Pixel resolution (US 3.5 µm 0.14 Mil: low magnification to US 4.4 µm 0.17 Mil: high magnification)		5 µm 0.20 Mil/pixel*4
Resolution		5.4 µm 0.21 Mil*5
Environmental resistance	Ambient temperature	0 to +50 °C 32 to 122 °F
	Relative humidity	80% RH or less (No condensation)
Weight		Approx. 285 g

\*1 The above values were calculated according to optical design values. Actual values for individual lenses will differ according to precision of assembly.

\*2 WD indicates the distance from the tip of the lens to the workpiece. Changing the magnification changes this distance.

\*3 The depth-of-field is a theoretical value calculated with an F-stop of 16 and a circle of least confusion of 40 µm 1.57 Mil. This varies depending on the F-stop.

\*4 The pixel resolution is the field of view per pixel. This varies depending on the camera used.

US = Unit cell size (size of 1 pixel)

The CA-LMHR Series can also be used at pixel resolutions other than those listed here depending on the optical magnification.

\*5 The smallest resolvable feature able to be detected under 550 nm wavelength light.

## Dimensions

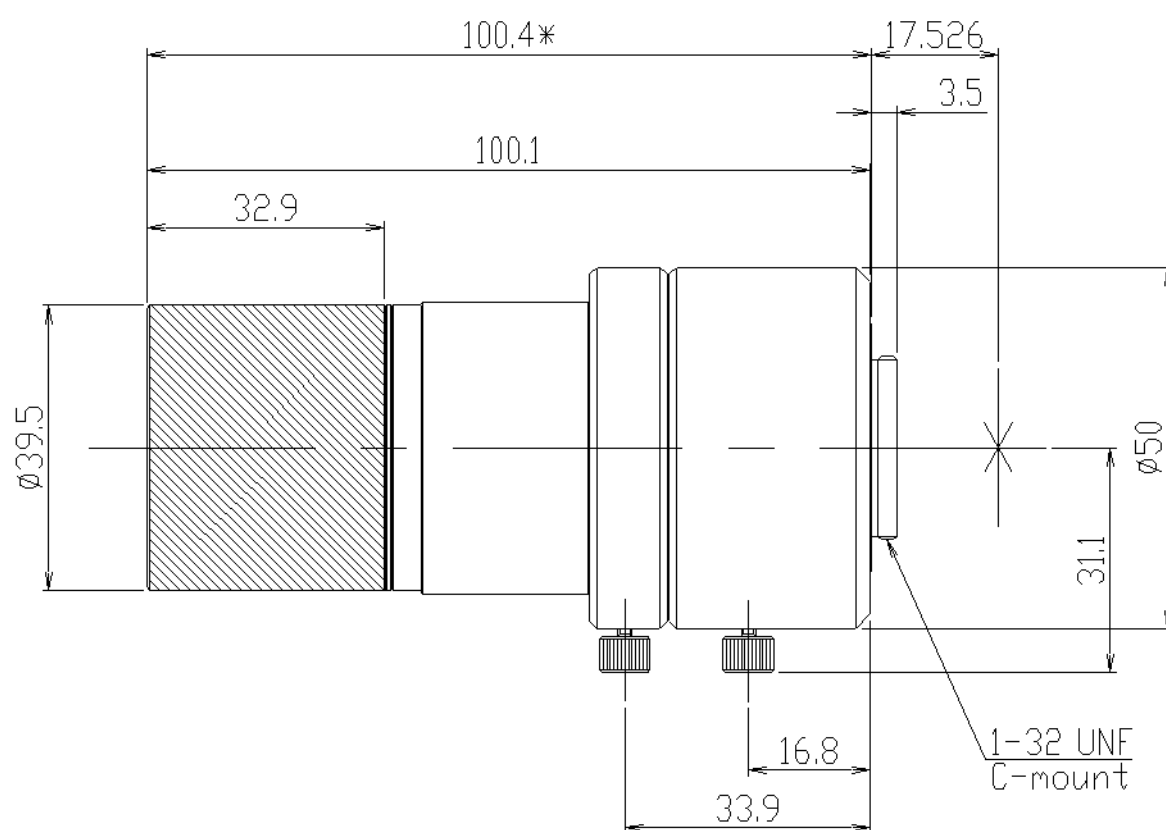
\* Download CAD file or product manual for larger image/text and more detail.

CA-LMHR08\_dimension\_01.gif

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Specified fixing locations on the device

Fix in place the hatched (filled in) locations in the front.



\* This varies depending on the focal magnification.

Extension amount: 0 to 21.2 mm (the extension amount is at its maximum value when the magnification is at its maximum value).