

# MVL-AF2045M-M42

## APS-C 20 mm Focal Length FA Lens

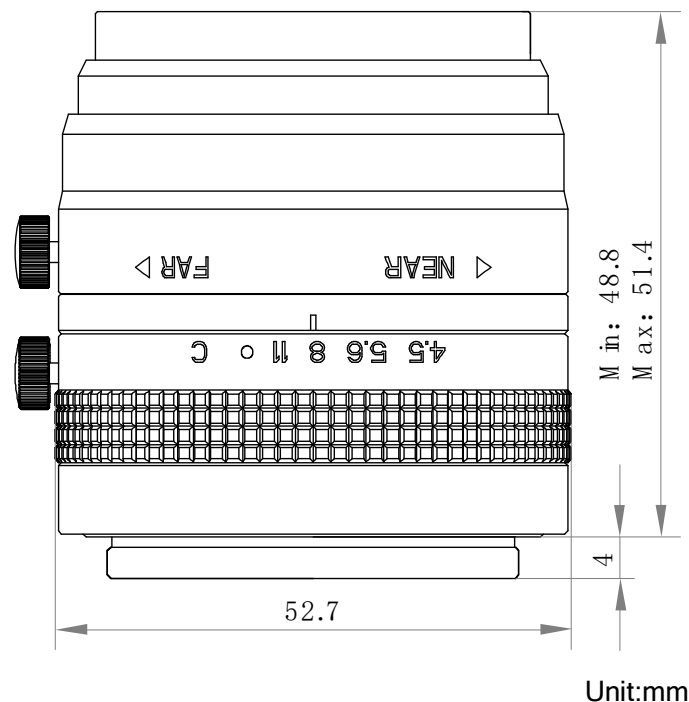
The APS-C fixed-focus lens are optimized for the application of large pixel line scan cameras in the machine vision industry, with excellent imaging quality, high image uniformity and low distortion design, magnification range from 0.02 x to 0.1 x. It is suitable for defect detection applications in PCB, packaging and printing industry.



### Key Features

- Provides excellent consistency of image clarity.
- Provides low distortion.
- Provides max. image size  $\Phi 30$  mm for APS-C area scan and 4k  $7 \mu\text{m}$  line scan cameras.

### Dimension



## Specification

<b>Model</b>	<b>MVL-AF2045M-M42</b>
<b>Parameter</b>	<b>Fixed focal length, Manual iris, APS-C lens</b>
<b>Performance</b>	
<b>Focal length</b>	20 mm
<b>F-number</b>	F4.5 to C
<b>Image size</b>	Φ30 mm
<b>Optical distortion</b>	0.20%
<b>Magnification range</b>	0.02 x to 0.134 x
<b>Working distance range</b>	150 mm to 999 mm
<b>Mechanical</b>	
<b>Iris control</b>	Manual
<b>Focus control</b>	Manual
<b>Filter thread</b>	M43 × 0.75
<b>Mount</b>	M42 × P1
<b>Flange back length</b>	12 mm
<b>Dimension</b>	Φ52.7 mm × 51.4 mm (Φ2.1" × 2.0")
<b>Weight</b>	243 g (0.5 lb.)
<b>Temperature</b>	-10 °C to 50 °C (14 °F to 122 °F)
<b>General</b>	
<b>Certification</b>	RoHS 2.0

## Field of View

Working Distance (mm)	Magnification	Object Image Distance (mm)	Field of View H (4k 7 μm)
150	-0.134	212	216.1
200	-0.100	261	288.5
250	-0.080	311	360.8
300	-0.067	360	433.2
350	-0.057	410	505.6
400	-0.050	460	577.9
450	-0.045	510	650.3
500	-0.040	560	722.7
550	-0.036	610	795.1
600	-0.033	660	867.4
650	-0.031	710	939.8
700	-0.029	760	1012.2
750	-0.027	810	1084.5
800	-0.025	860	1156.9
850	-0.024	910	1229.3
900	-0.022	960	1301.6
950	-0.021	1010	1374.0
999	-0.020	1060	1446.4

**HIKROBOT**

Hangzhou Hikrobot Co. Ltd.  
en.hikrobotics.com

© Hangzhou Hikrobot Co., Ltd. All Rights Reserved.

Hangzhou Hikrobot does not tolerate any infringement. Any organization or individual may not imitate or reproduce in whole or in part of the content. The data herein is based on Hikrobot's internal evaluation. Actual data may vary depending on specific configuration and operating condition. The information herein is subject to change without notice. All the content has been checked conscientiously. Nevertheless, Hikrobot shall not be liable to damages resulting from errors, inconsistencies or omissions.