di-soric Machine Vision Lenses

O-S1-S-080-40

di-soric's range of S-mount lenses provides options when setting up your camera, allowing you to customize the system for your specific application. Use a short focal length lens to inspect a smaller portion of your workpiece up-close under high resolution. Use a longer focal length lens to view a wider field.

Use the table below to get an idea of which lens is right for your application

A Note on Aperture:

A smaller f-stop number indicates a larger aperture opening, letting in more light but creating a shallower depth-of-field. A larger f-stop number indicates a smaller aperture opening, letting in less light but yielding a deeper depth-of-field.

Depth-of-field refers to the distance range over which the portion of the object being viewed is still in focus.

di-soric S-Mount Lens Selection Guide

Part Number	Price	Focal Length	Aperture	Lens Type	Lens Mount	Maximum Sensor Size	Drawing
O-S1-S-036-40	$42.50	3.6 mm	Fixed f/4.0	Wide angle	S-mount	1/2.5 in	PDF
O-S1-S-036-80	$42.50	3.6 mm	Fixed f/8.0	Wide angle	S-mount	1/2.5 in	PDF
O-S1-S-080-40 *	$28.00	8mm	Fixed f/4.0	Standard	S-mount	1/3 in	PDF
O-S1-S-080-80	$28.00	8mm	Fixed f/8.0	Standard	S-mount	1/3 in	PDF
O-S1-S-160-40	$28.00	16mm	Fixed f/4.0	Standard	S-mount	1/3 in	PDF
O-S1-S-160-80	$28.00	16mm	Fixed f/8.0	Standard	S-mount	1/3 in	PDF
O-S1-S-250-40	$33.00	25mm	Fixed f/4.0	Standard	S-mount	1/2 in	PDF
O-S1-S-250-80	$33.00	25mm	Fixed f/8.0	Standard	S-mount	1/2 in	PDF

** Included with camera and also available separately*

di-soric S-Mount Lens Monitoring Range (Field of View)

With O-S1-S-036-XX Lens		
	CS60-BM28 models	CS60-BM38 models
Operating Distance (mm [in])	Field of View (mm [in])	
70 [2.8]	35x22 [1.4x0.9]	92x69 [3.6x2.7]
140 [5.5]	110x67 [4.3x2.6]	202x152 [8.0x6.0]
200 [7.9]	165x102 [6.5x4.0]	271x203 [10.7x8.0]
300 [11.8]	262x165 [10.3x6.5]	410x307 [16.1x12.1]

With O-S1-S-080-XX Lens		
	CS60-BM28 models	CS60-BM38 models
Operating Distance (mm [in])	Field of View (mm [in])	
100 [3.9]	30x19 [1.2x0.8]	57x43 [2.2x1.7]
200 [7.9]	71x46 [2.8x1.8]	120x89 [4.7x3.5]
400 [15.7]	155x100 [6.1x3.9]	243x183 [9.6x7.2]
515 [20.3]	200x130 [7.9x5.1]	306x229 [12.0x9.0]

With O-S1-S-160-XX Lens		
	CS60-BM28 models	CS60-BM38 models
Operating Distance (mm [in])	Field of View (mm [in])	
100 [3.9]	17x11 [0.7x0.4]	26x20 [1.0x0.8]
200 [7.9]	38x25 [1.5x1.0]	43x27 [1.7x1.1]
400 [15.7]	79x52 [3.1x2.0]	119x89 [4.7x3.5]
515 [20.3]	103x67 [4.1x2.6]	150x113 [5.9x4.4]

With O-S1-S-250-XX Lens		
	CS60-BM28 models	CS60-BM38 models
Operating Distance (mm [in])	Field of View (mm [in])	
150 [5.9]	12x8 [0.5x0.3]	25x19 [1.0x0.3]
300 [11.8]	28x21 [1.1x0.8]	55x41 [2.2x1.6]
400 [15.7]	39x26 [1.5x1.0]	74x55 [2.9x2.2]
500 [19.7]	52x38 [2.0x1.5]	94x71 [3.7x2.8]

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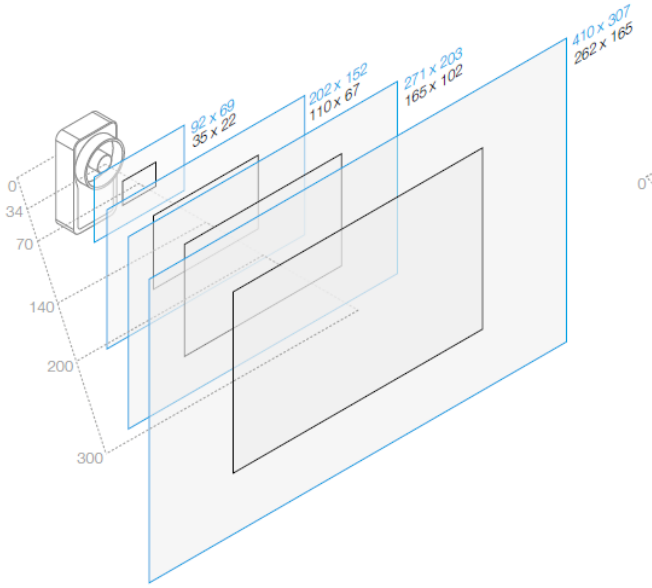
The following illustration shows the representation of fields of view with the available lenses at various working distances for the CS-60 with 736x480 pixels (0.3 MP) and 1440x1080 pixels (1.6 MP).

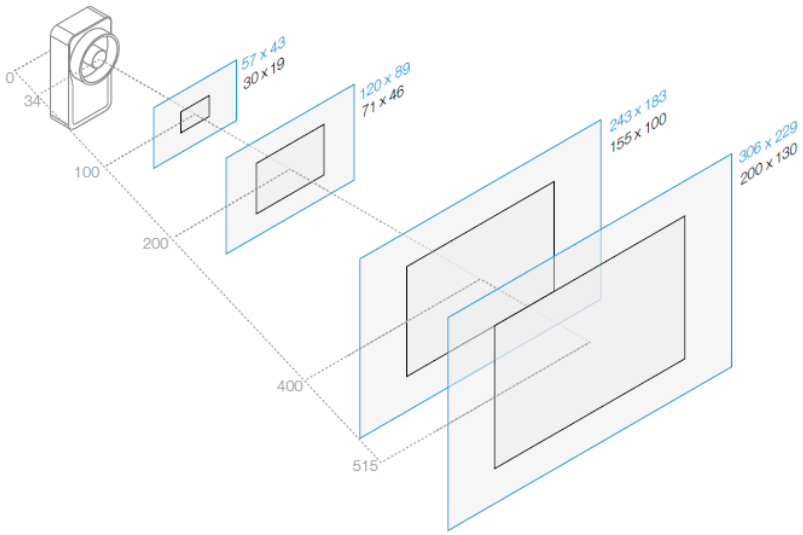
Operating distance: Back of camera body to work piece.

Field of view, 3.6mm lens[1]



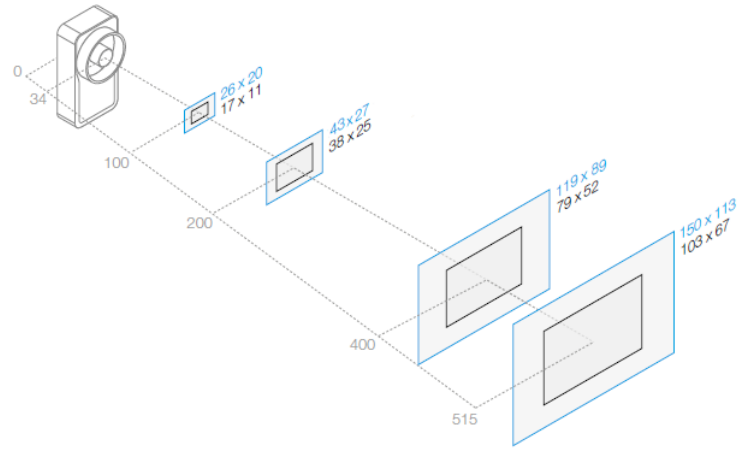
1.58 MP, 1440 x 1080 pixels
0.3 MP, 736 x 480 pixels
Operating distance
All specifications in mm

Field of view, 8mm lens



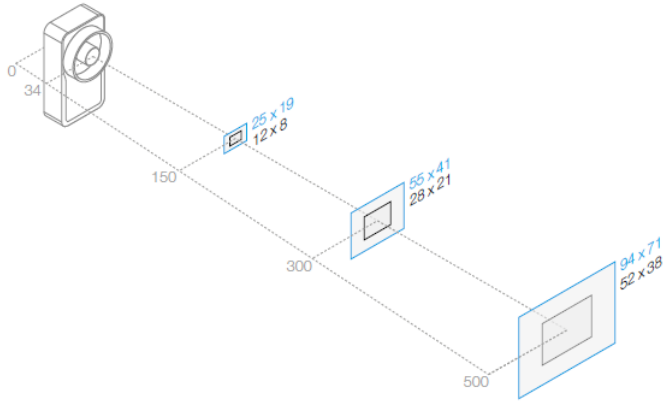
[1] At 3.6 mm, FOV limited at 1.58 MP if lens cover is used. No IP67 protection with complete FOV.

Field of view, 16mm lens



1.58 MP, 1440 x 1080 pixels
0.3 MP, 736 x 480 pixels
Operating distance
All specifications in mm

Field of view, 25mm lens



[2] Below 250 mm, the lens cover can no longer be used and thus no longer ensures IP67 protection.