

FE185C086HA-1

Technical Datasheet

1"

FUJINON
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Fujinon FE185 Series

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Fujifilm's Fujinon Super Wide Angle FE185 series lenses offer a 5 Megapixel Resolution and are suitable for 2/3" (FE185C057HA-1) and 1" (FE185C086HA-1) format sensors. These ultra-wide angle lenses offer a low cost solution for capturing an ultra wide field of view

Specification Highlights

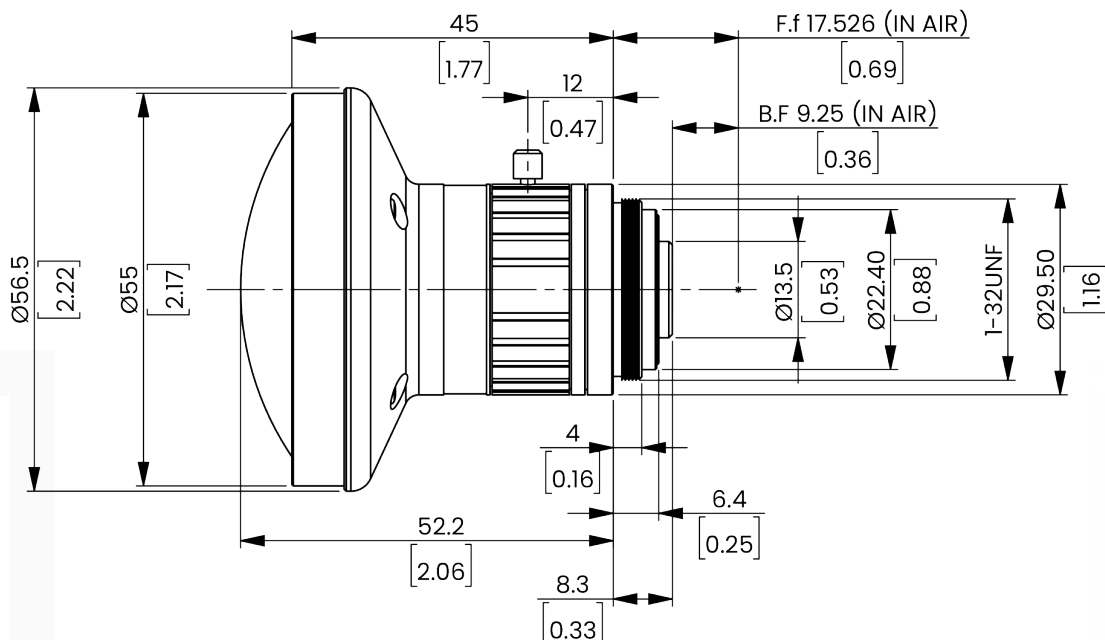
FOCAL LENGTH: 2.7 mm
FORMAT: 1"
PIXEL SIZE: 5 μ m
LENS MOUNT: C-Mount
APERTURE: F1.8-F16

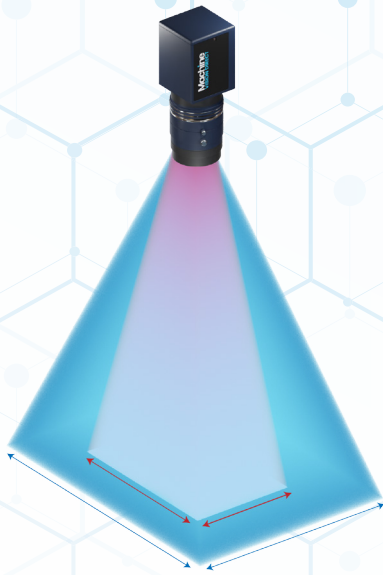
WORKING DISTANCE: 200 mm - Infinity
FILTER THREAD: N/A
WEIGHT: 160 grams
RESOLUTION MP: 5 MP
LENS CLASS: Fixed Focal Length

Full Specifications

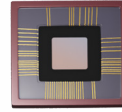
| | | | |
|--|--------------------|---|----------------|
| Focal Length | 2.7 mm | Flange Back | 17.526 mm |
| Focal Length Design Value | 2.68 mm | Entrance Pupil Position (From Mount) | Not Specified |
| Iris Range (f-number) | F1.8-F16 | Exit Pupil Position (From Image Plane) | -49 mm |
| Angle of View | 185° x 185° (2/3") | Front Principal Point (From Mount) | -35.00 mm |
| Working Distance (From Front of Lens Barrel) | 200 mm - Infinity | Rear Principal Point (From Mount) | 14.85 mm |
| Operation of Focus | Fixed | Distance Between Principal Points | 49.85 mm |
| Operation of Iris | Manual | TV Distortion | -0.53% (y=f*θ) |
| Filter Thread | N/A | Dimensions | φ56.5 × 60.5 |
| Mount | C-Mount | Chief Ray Angle | Not Specified |
| Weight | 160 Grams | Relative Illumination (Aperture F4.0; Image Height at Diagonal) | Not Listed |
| Sensor Size (Standard) | 1" (5 μm) | Relative Illumination (Aperture at Full Open; Image Height at Diagonal) | 84% |
| Back Focal Length (In Air) | 9.75 mm | Operation Temperature | -10°C - +50°C |

Dimensions

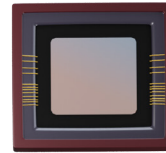




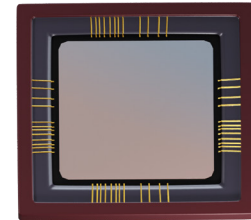
1/6"



1/3"



2/3"



1"

Sensor Formats

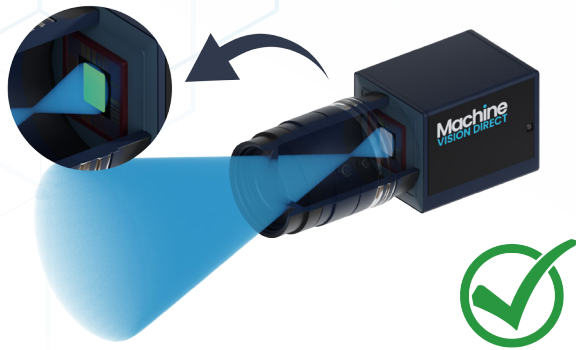
It is important to make sure you size your lens to the correct sensor size (format). The image you get from a 2/3" format lens will provide a smaller field of view when used with a 1/3" format sensor than it will provide when used with a 2/3" format sensor, even with the same working distance

Sensor Size Compatibility Chart

| Model | Compatible format sizes | | | | | | | | Focal length (mm) |
|---------------|-------------------------|-----|---|-------|-----|-------|-----|-----|-------------------|
| | 4/3 | 1.1 | 1 | 1/1.2 | 2/3 | 1/1.8 | 1/2 | 1/3 | |
| FE185C057HA-1 | - | - | - | - | • | • | • | • | 1.8 |
| FE185C086HA-1 | - | - | • | • | • | • | • | • | 2.7 |

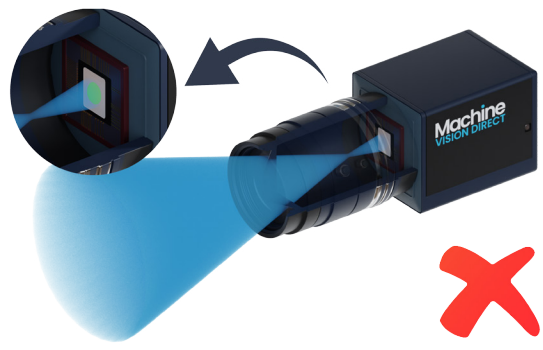
- Compatible sensor size (std.): Ideal size to maximize the target resolution.

Please note that not all sizes of sensors are listed on this chart. It is generally okay to use larger format lenses with smaller format sensors, but not the other way around



Properly Sized Lens Format

A camera with a properly sized lens will project an image that will cover the whole sensor



Undersized Lens Format

A camera with an undersized lens format will project an image that will not cover the whole sensor. This will cause vignetting of the image

CF-HA SERIES LENSES



FE185C057HA-1

FOCAL LENGTH: 1.8 mm
APERTURE: F1.4-F16
WORKING DISTANCE: 100 mm - Infinity
FORMAT: 2/3"
FILTER THREAD: N/A

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FE185C086HA-1

FOCAL LENGTH: 2.7 mm
APERTURE: F1.8-F16
WORKING DISTANCE: 200 mm - Infinity
FORMAT: 1"
FILTER THREAD: N/A

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FUJINON LENS SERIES



HF-HA-1S

FOCAL LENGTH: 6 mm, 9 mm, 12.5 mm
 16 mm, 25 mm, 35 mm
 50 mm, 75 mm
PIXEL SIZE: 6.2 μm
FORMAT: 2/3"
RESOLUTION: 1.5 MP

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HF-SA

FOCAL LENGTH: 12.5 mm, 16 mm, 25 mm
 35 mm, 50 mm, 75 mm
PIXEL SIZE: 3.45 μm
FORMAT: 2/3"
RESOLUTION: 5 MP

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HF-XA-5M

FOCAL LENGTH: 6 mm, 8 mm, 12 mm
 16 mm, 25 mm
 35 mm, 50 mm
PIXEL SIZE: 3.45 μm
FORMAT: 2/3"
RESOLUTION: 5 MP

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HF-XA-1F

FOCAL LENGTH: 8 mm, 12 mm, 16 mm
 25 mm, 35 mm
PIXEL SIZE: 3.45 μm
FORMAT: 2/3"
RESOLUTION: 5 MP

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HF-12M

FOCAL LENGTH: 8 mm, 12 mm, 16 mm
 25 mm, 35 mm
PIXEL SIZE: 2.1 μm
FORMAT: 2/3"
RESOLUTION: 12 MP

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CF-ZA-1S

FOCAL LENGTH: 8 mm, 12 mm, 16 mm
 25 mm, 35 mm, 50 mm
PIXEL SIZE: 2.74 μm
FORMAT: 1.1"
RESOLUTION: 23 MP

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CF-HA

FOCAL LENGTH: 12.5 mm, 16 mm, 25 mm
 35 mm, 50 mm, 75 mm
PIXEL SIZE: 7.4 μm
FORMAT: 1"
RESOLUTION: 1.5 MP

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FE185

FOCAL LENGTH: 6 mm, 9 mm, 12.5 mm
 16 mm, 25 mm, 35 mm
 50 mm, 75 mm
PIXEL SIZE: 6.2 μm
FORMAT: 2/3"
RESOLUTION: 1.5 MP

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