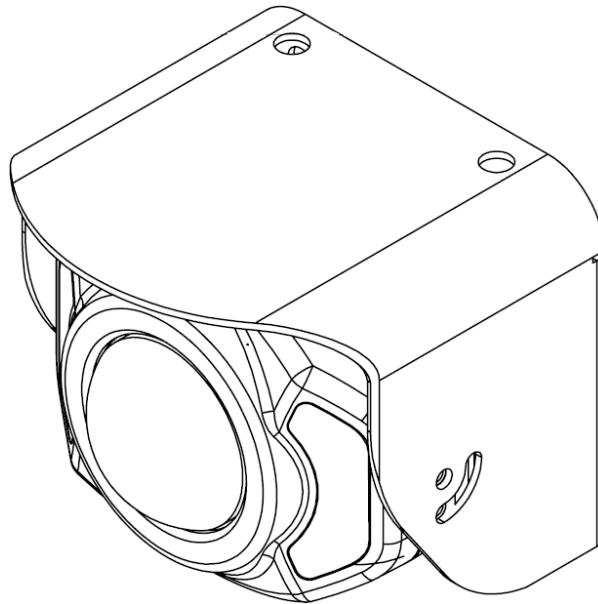


# EMF917F

## 2MP, 180°, IP68 AHD Mobile IR Fisheye Camera

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*User's Manual*



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Release Date: Feb, 2019

All the images including product pictures or screen shots in this document are for example only. The images may vary depending on the product and software version. Information contained in this document is subject to change without notice.

## Precautions

1. **Do not install the camera near electric or magnetic fields.** Install the camera away from TV/radio transmitters, magnets, electric motors, transformers and audio speakers since the electromagnetic fields generated from these devices may distort the video image or otherwise interfere with camera operation.
2. **Never disassemble the camera beyond the recommendations in this manual nor introduce materials other than those recommended herein.** Improper disassembly or introduction of corrosive materials may result in equipment failure or other damage.
3. **Try to avoid facing the camera toward the sun.** In some circumstances, direct sunlight may cause permanent damage to the sensor and/or internal circuits, as well as creating unbalanced illumination beyond the capability of the camera to compensate.
4. **Keep the power cable away from water and other liquids and never touch the power cord with wet hands.** Touching a wet power cord with your hands or touching the power cord with wet hands may result in electric shock.
5. **Never install the camera in areas exposed to oil, gas or solvents.** Oil, gas or solvents may result in equipment failure, electric shock or, in extreme cases, fire.
6. **Cleaning.** For cameras with interchangeable lenses, do not touch the surface of the sensor directly with the hands. Use lens tissue or a cotton tipped applicator and ethanol to clean the sensor and the camera lens. Use a damp soft cloth to remove any dirt from the camera body. Please do not use complex solvents, corrosive or abrasive agents for cleaning of any part of the camera.
7. **Do not operate the camera beyond the specified temperature, humidity or power source ratings.** This camera is suitable for indoor operation only. Use the camera at temperatures within  $-30^{\circ}\text{C}\sim 50^{\circ}\text{C}$  ( $-22^{\circ}\text{F}\sim 131^{\circ}\text{F}$ ) and humidity less than 80%; this device is not rated as submersible. The input power source is 12VDC. Be sure to connect the proper + / - polarity and voltage, as incorrect polarity or too high a voltage will likely cause the camera to fail, and such damage is not covered by the warranty.
8. **Mounting.** Use care in selecting a solid mounting surface which will support the weight of the camera plus any wind, snow, ice or other loading, and securely attach the camera to the mounting surface using screws and anchors which will properly support the camera. If necessary (e.g. when mounting to drop ceilings) use a safety wire to provide additional support for the camera.

# Safety Notice

## Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**FCC Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



**ATTENTION!** This is a class A product which may cause radio interference in a domestic environment; in this case, the user may be urged to take adequate measures.



This Product is RoHS compliant.



WEEE

Your EverFocus product is designed and manufactured with high quality materials and components which can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste. Please, dispose of this equipment at your local community waste collection/recycling centre. In the European Union there are separate collection systems for used electrical and electronic product.

Please, help us to conserve the environment we live in!

## 1. Introduction

EverFocus' EMF917F is a fisheye camera, supporting 2MP full HD image quality. The camera comes with a 1.72mm fisheye lens, providing 180° viewing angle. EMF917F features 4 LEDs, which enable night vision up to 10m (~33ft.). The camera is IP68-certified and supports both NTSC and PAL scanning systems. The camera provides 3 types of cable, please select either one best suit your system before shipping.

EMF917F Product Selection:

Viewing Angle	Scanning System	Cable Type	PN
180°	NTSC	BNC + 12VDC Power	2W09170FNB0001R
		M12	2W09170FNB0005R
		Mini DIN	2W09170FNB0002R
	PAL	BNC + 12VDC Power	2W09170FPB0001R
		M12	2W09170FPB0005R
		Mini DIN	2W09170FPB0002R

### 1.1 Packing List

- Camera x 1
- Torx Wrench x 1
- Installation Sticker x 1
- Screw x 4
- Anchor x 4
- User Manual x 1

### 1.2 Features

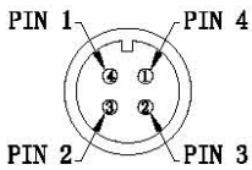
- 1080p full HD with high flexibility and performance for astounding image
- 1080p CMOS sensor, delivering amazing high sensitivity
- 180° horizontal wide angle
- Astounding image quality from the fisheye lens
- Extended IR range up to 10m / 33ft. with 4 LEDs (depends on scene IR reflectivity)
- Supports HW De-warp
- True Day/Night with ICR
- IP68 weather resistant

### 1.3 Cable Description

The EMF917F provides 3 types of cable, please select either one before shipping.

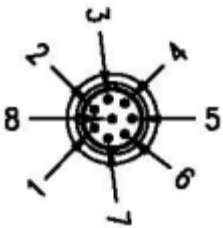
- **BNC (1Vp-p, 75Ω) + 12VDC Power**
- **M12 (transmit both video signal and power)**
- **Mini DIN (transmit both video signal and power)**

#### M12 PIN Define



1	2	3	4
DC+	DC-	NC	TV Out

#### Mini DIN PIN Define

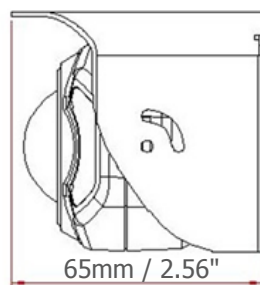
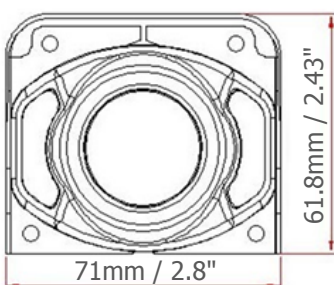


1	2	3	4	5	6	7	8
DC+	DC-	Video Out	NC	NC	GND	NC	NC

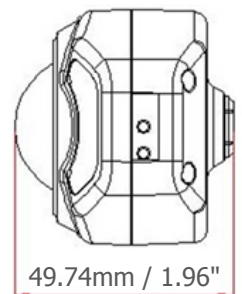
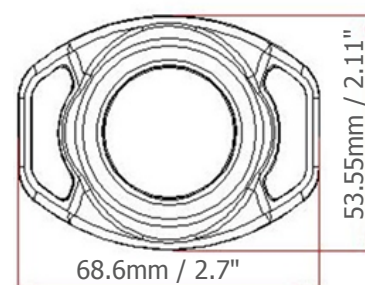
## 3. Installation

### 3.1 Dimensions

With Bracket



Without Bracket

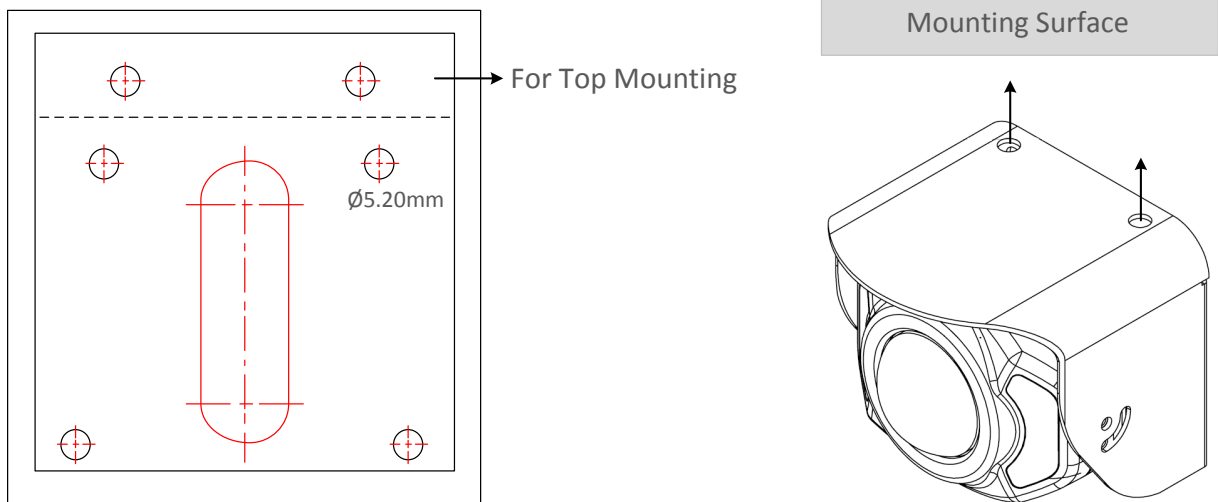


## 3.2 Mounting the Camera

There are 2 ways to mount the camera onto the surface: Top Mounting and Rear Mounting.

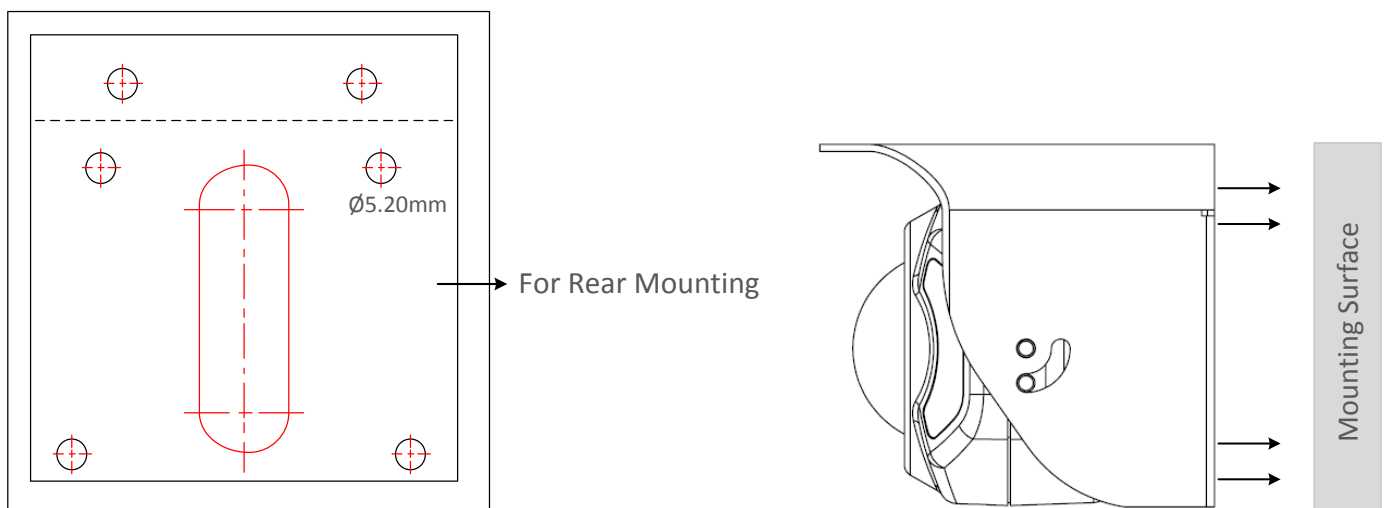
### Top Mounting:

Stick the **Installation Sticker** onto the surface and mark the two screw hole positions on the surface. Drill two screw holes on the surface and insert the supplied two **Anchors** to the holes. Remove the sunshield from the camera (refer to *3.4 Removing Sunshield*) and screw the sunshield to the surface using the supplied two **Screws**. Screw the camera back to the sunshield.



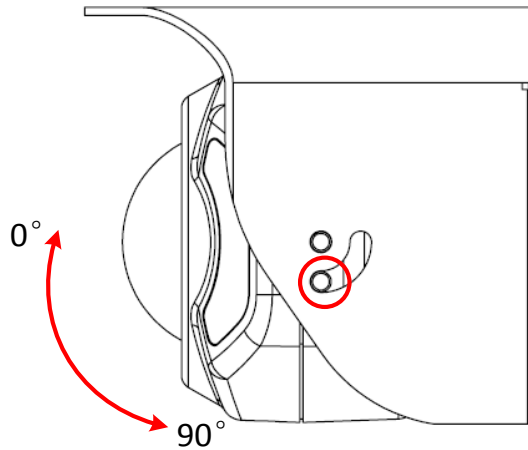
### Rear Mounting:

Stick the **Installation Sticker** onto the surface and mark the four screw hole positions on the surface. Drill four screw holes on the surface and insert the supplied four **Anchors** to the holes. Remove the sunshield from the camera (refer to *3.4 Removing Sunshield*) and screw the sunshield to the surface using the supplied four **Screws**. Screw the camera back to the sunshield.



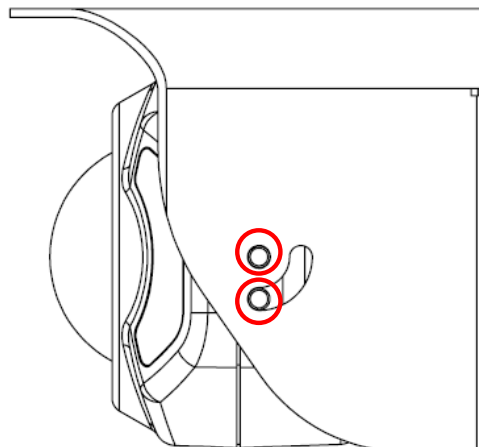
### 3.3 Adjusting Camera Angle

You can adjust camera tilting angle by 90°. To do this, loosen the lower screws on both side of the camera using the supplied **Torx Wrench** and then adjust the angle. Tighten the screw after adjusting angle.



### 3.4 Removing Sunshield

To remove the sunshield from the camera for installation, remove the four screws on both side of the camera using the supplied **Torx Wrench** and then remove the sunshield.



## 5. Specification

Model No.	EMF917F		
Pickup Device	1/2.8" Sony 2MP CMOS Sensor	Day / Night	Supported
Video Format	NTSC / PAL	De-warp	Supports HW de-warp (optional)
Effective Pixels	1920 (H) x 1080 (V)	Scanning System	Progressive Scan
Sensitivity	0 Lux with IR On	Power Source	12VDC
Unit Cell Size	2.9 $\mu\text{m}$ x 2.9 $\mu\text{m}$	Power Consumption	6W max.
Lens Type	1.72mm Fisheye Lens	Environmental	IP68 Weather Resistant
Lens F.O.V.	H:180°, F:2.0	Humidity	Less than 80%
Cable Types (Selectable)	BNC (1Vp-p, 75 $\Omega$ ) + Power M12 (video signal & power) Mini DIN (video signal & power)	Dimensions (H x W x D)	71 x 61.8 x 65mm / 2.8" x 2.43" x 2.56" (with Bracket)
IR LEDs	4 IR LEDs	Weight	226g / 0.5lb
IR Distance	Up to 10m / 33ft. (depends on scene IR reflectivity)	Operating Temperature	0°C ~ 55°C / 32°F ~ 131°F
Certificates	CE, FCC, E-Mark, EN50155, RoHS		

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