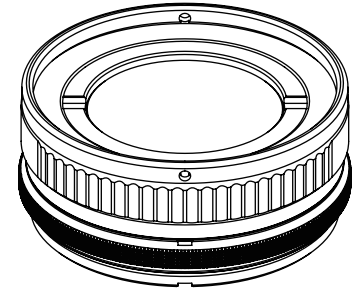


Underwater Achromatic Close-up Lens

Lens Construction	3 elements; 3 groups
Compatible Camera (Up to)	Sensor Size: 18mm X 13.5mm
Diopter (Underwater Focal length)	+18 (55.2mm)
Focusing Range	30mm - 53mm
Max. Magnification	3x
Glass / Coating	Optical Glass / Multi-Layer BBAR Coating
Lens Barrel	Aluminum with Type II Anodizing
Mounting	M67 X P0.75
Dimension	Ø 72 X 32mm
Weight	300g(Air) 125g(Underwater)
Depth Rate	60m (197ft)



- ◆ WEEFINE WFL13 is a premium underwater close-up lens. It comes with a +18 diopter (Air and Underwater) in optical power and allow the close-up shooting in a very short object distance (30mm – 53mm).
- ◆ WFL13 is designed by 3 high quality optical glasses with an achromatic doublet. This achromatic combination helps to reduce the axle chromatic aberration.
- ◆ All glass lenses have been coated with Broadband Anti-Reflection (BBAR) Coating. Each lens surface is guaranteed to provide less than 0.5% reflectivity over the visible spectrum (420nm – 680nm).
- ◆ All lens edges and spacer of WFL13 had been treated by matte finish. To avoid internal reflection and ghost image.
- ◆ The M67 X P0.75 thread mount allows the lens mounting directly on the camera waterproof housing with the same female thread mount. User can also attach the lens with suitable step-up or step-down ring.
- ◆ It is recommended to use natural light, external strobe or video light with the WFL13. The camera built-in flash may be blocked by the lens and causes partial underexposed image.

Install the WFL13 as following steps:

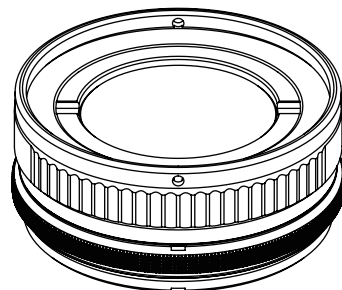
1. *Align the lens with the 67mm lens ring on the waterproof housing.*
2. *Turn the lens in clockwise direction until you feel it is tightened on the housing.*

- ◆ When using an external strobe, avoid the flash beam pointing directly to the lens. It helps to prevent the unwanted ghost image.
- ◆ Do not impact the lens with large shock and vibrations or try to disassemble it, these will lead to damage or even flood the lens.
- ◆ Do not place the lens inside an extreme environment for example inside a high temperature car compartment, boiling water or under direct sunlight. It may damage the sealing parts and eventually flooding.
- ◆ Do not clean the lens with organic solvent or other chemicals. It may damage and degrade the coating on the lens.
- ◆ Never look at the sun through the lens.
- ◆ Attach the lens with appropriate force, improper installation may damage the thread on both the lens and the waterproof housing. To prevent corrosion, it is recommended to apply small amount silicone grease on the thread area.
- ◆ Be careful while attaching the lens to the housing. Dust, dirt or any other particles caught inside the lens may lead to its damage.

NOTES:

- ◆ WFL13 is an underwater close-up lens for high power macro shooting. To get the maximum magnification, it is recommended to set the camera lens to the telephoto end or choose a long focal length camera lens.
- ◆ Vignetting would occur at wide end setting. Use the zoom function on the camera and zoom in until the dark corner disappear.
- ◆ The thread mount on the lens is possible to remove and would not cause any damage to the lens. But only replace the thread mount when the thread is worn or bruised.

镜头构造	3片; 3组
放大倍率	3X
相机兼容 (最高)	感应器尺寸 : 18mm X 13.5mm
屈光度(水下有效焦距)	+18 (55.2mm)
有效对焦距离	30mm - 53mm
玻璃镜片 / 涂层	光学玻璃 / 多层BBAR涂层
镜筒	二级阳极氧化铝合金
固定方式	M67 X P0.75
尺寸	Ø 72 X 32mm
重量	300g(陆地) 125g(水下)
防水深度	60m (197英尺)



- ◆ WEEFINE WFL13是一款水下外接近拍镜头；设计屈亮度(空气和水中)达到+18，能够在极短距(30mm-53mm)进行拍摄。
- ◆ 消色散镜片组合保证了轴上色散在最低水平。
- ◆ 镜头内所有玻璃镜片表面均镀上宽带增透膜(BBAR Coating)，保证每一个镜片的表面在可见光谱(420nm-680nm)范围内的反射少于0.5%。
- ◆ 所有镜片边缘及内部零件均做了消光处理，以防止内反射给鬼影现象。
- ◆ 镜头结构有一个M67 X P0.75的螺纹公接头，用家能直接把镜头连接到带有 M67 X P0.75 母接头的防水壳上；用家还可以选择配合转接环使用。
- ◆ 使用WFL13镜头时，建议使用自然光、外置闪光灯或外置摄录灯；使用相机自带闪光灯，有可能因为镜头遮挡的原因，导致拍摄时出现部份画面曝光不足。

WFL13镜头的安装次序：

- 1.镜头先对准防水壳上67mm镜头圈
- 2.以须时针的方向转动镜头，直致感受到镜头已牢固地锁紧在防水壳的镜头圈上。

- ◆ 当使用外置闪光灯时，避免以灯光直接照射镜头，以防止炫光引起的鬼影现象。
- ◆ 不要激烈碰撞、震动或尝试拆开镜头；这些行为有机会做成损坏，最终导致镜头入水。
- ◆ 不要把镜头存放于极端环境下，例如：高温的车箱内、沸腾的水中和直接阳光下长时间照射；这可能加速防水结构的老化，最终引起镜头进水。
- ◆ 不要使用有机溶剂或其他化学溶液清洁镜头；这些溶液有机会损坏聚碳酸酯半球罩或使镜片镀膜脱落。
- ◆ 不要通过镜头正视太阳。
- ◆ 安装镜头到防水壳时不要过渡用力，不正确的安装会导致镜头及防水壳上的螺纹做成损毁；为防止侵蚀，建议在螺纹涂上少量硅脂。
- ◆ 安装镜头时请注意洁净；灰尘、脏物和杂物，有机会在安装时做成不必要的损坏。

注意事项:

- ◆ WFL13是一个水下高倍率近拍镜头；为了获取高倍率，建议使用者把相机镜头设定到远焦端或使用长焦距镜头。
- ◆ 相机在广角设定时会出现渐晕的现象，这时请使用相机的变焦功能，往远焦端变焦直到画面看不见黑角。
- ◆ 镜头上的螺纹接头能够进行拆卸而不会破坏镜头本身；但只有在有需要时(螺纹损坏)才进行替换。