

WFL09S USER MANUAL

Underwater Ultra-Wide Angle Conversation Lens

	•		
Lens Construction	7 elements; 6 groups (6G1P)		
Magnification	0.32X		
Compatible Camera (Up to)	Sensor Size: 36mm X 24mm (Full Frame)		
	Camera Lens: 60mm(35mm Equivalent) - F/2.8		
Field of View Conversation	60mm(39.7°) → 4.9mm(154.8°)		
Dome Lens	Optical Grade Polycarbonate Resin		
Glass / Coating	Optical Glass / Multi-Layer BBAR Coating		
Lens Barrel	Aluminum with Type II Anodizing		
Mounting	M67 X P0.75		
Dimension	Ø125 X 135mm		
Weight	1145g(Air) 220g(Underwater)		
Depth Rate	60m (197ft)		



- WEEFINE WFL09S is an underwater ultra-wide conversion lens. It converts a standard 60mm (35mm Equivalent) camera to a maximum 154.8o field of view ultrawide angle camera system.
- WFL09S can work with the DSLR housing and the compact camera housing with a long lens port. It gives a better flexibility on choosing the camera and the camera housing without compromising the fisheye field of view underwater.
- The lens is designed by 6 high quality optical glasses and one hard coated polycarbonate dome. The high refractive index lenses and low dispersion lenses had been used to correct unwanted 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).
- Besides the ultra-wide angle shot, the WFL09S will extend the hyper-focal distance. User can capture a very close distance object with a wide view background.
- WFL09S was built with a custom design Lens Hood. It minimizes the flare and give the best protection to the lens.
- The M67 X P0.75 thread mount allows the lens mounting directly on the camera waterproof housing with the M67 X P0.75 female thread mount.
- It is recommended to use natural light, external strobe or video light with the WFL09S. The camera built-in flash may be blocked by the lens and causes partial underexposed image.
- Install the WFL09S 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 the lens is locked secure on the lens ring.
- 3. Rotate the lens hood to the correct orientation.
- 4. Tighten the set screws on the Lens Hood
- 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. During transportation, put on the rubber rear lens caps and put it in the carry pouch to have a better protection.
- 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 the plastic dome and degrade the coating on the lens.
- Never look at the sun though 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.
- Water is considered as an optical component in the design. To optimize the performance, water is needed to fill up the space between the rear lens of WFL09S and the housing port lens (without trapping air bubble).
- 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:

- This conversation lens is designed to use with a 60mm (35mm equivalent) camera lens. To maximize the field of view of the lens, it is recommended to pre-set the camera lens to 60mm equivalent focal length.
- 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.



WFL09S 使用说明

水下超广角转换镜

		1 ~	713 1 (3)(80
镜头构造	7片 6组 (6G1P)		
放大倍率	0.32X		
相机兼容(最高)	感应器尺寸:36mm X 24mm(全画幅) 相机镜头:60mm(相当于35mm)-F/	2.8	
视场转换	60mm(39.7°) → 4.9mm(154.8°)		
半球罩镜片	光学级聚碳酸酯树脂		
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	Ø125 X 135mm		
重量	1145g(陆地) 220g(水下)		
防水深度	60m (197英尺)		



- ◆ WEEFINE WFL09S是一款水下外接超广角镜头。配合60mm镜头(35mm等效焦距)的相机使用,便能获得最大154.8o视场角的拍摄效果。
- ◆ WFL09S特別適合用於單反及帶长鏡筒的防水殼;用家能拍攝水下魚眼效果的同時,也能更具彈性選擇不同類型的相機及防水殼。
- ◆ 镜头的设计由6枚高品质光学玻璃及1个强化聚碳酸酯半球罩所组成。设计使用上高折射率及低色散的光学材料,修正了影响成像的光学像差。
- ◆ 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 於0.5%。
- ◆除了超广角的拍摄效果,WFL09S同时延长了光学系统的超焦距;使用者能拍摄距离镜头相当近的物件,同时获得广阔的背景。
- ◆ WFL09S镜头带有订制的遮光罩。遮光罩不但能有效遮挡杂散光进入镜头,同时为镜头提供最佳的保护。
- ◆ 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。
- ◆使用WFL09S镜头时,建议使用自然光、外置闪灯或外置摄录灯。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。
- ◆ WFL09S镜头的安装次序:
- 1.镜头先对准防水壳上67mm镜头圈;
- 2.以顺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;
- 3.把镜头上的遮光罩转动到正确的位置;
- 4.锁紧遮光罩上固定螺丝。
- ◆ 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;运送过程中,建议盖上镜头後盖并放进专用保护袋。
- ◆ 不要把镜头存放於极端环境下,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。
- ◆ 不要使用有机溶济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度用力,不正确的安装会导致镜头及防水壳上的螺纹造成损毁。为防止侵蚀,建议在螺纹涂上少量硅脂。
- ◆ 镜头设计把"水"考虑为其中一个重要的光学部份。拍摄时要获得最佳表现,保证水能填充镜头和防水壳窗口之间的位置(不要出现 困气的现象)。
- ◆ 安装镜头时请注意洁净;灰尘、脏物和杂物,有机会在安装时造成不必要的损坏。

- ◆ 这个转接镜头是针对60mm(35mm等效焦距)镜头而设计,为了获得设计最大视场角的效果,建议使用时把相机镜头预计在60mm等效焦距。
- ◆ 镜头上的螺纹接头能够进行拆卸而不会破坏镜头本身。但只在有需要时(螺纹损坏)才进行替换。