

# SONY 16-35 mm F/4 lens

by Phil Rudin

Sony's new ultra wide-angle full frame Vario-Tessar T\* FE 16 mm to 35 mm F/4 ZA OSS lens is a rectilinear lens designed for the Sony alpha A7 series cameras and E-mount APS-C sensor Sony cameras as well.

The lens has Optical SteadyShot image stabilization which reduces camera shake realistically up to 2 or 3 shutter speed settings. The lens can be used with sensor stabilized or non-stabilized sensor E-mount cameras. The F/4 aperture remains consistent across the entire range and the zoom ring is well dampened giving a buttery smooth zoom.

The 107 to 63 degree zoom range on the full frame Alpha series sensor is an excellent range for underwater wide angle. While the APS-C sensor range of 83 to 44 degrees is a more moderate zoom range for U/W use. While this lens will work on APS-C other choices like the Sony E series 10 to 18 mm zoom makes more sense.

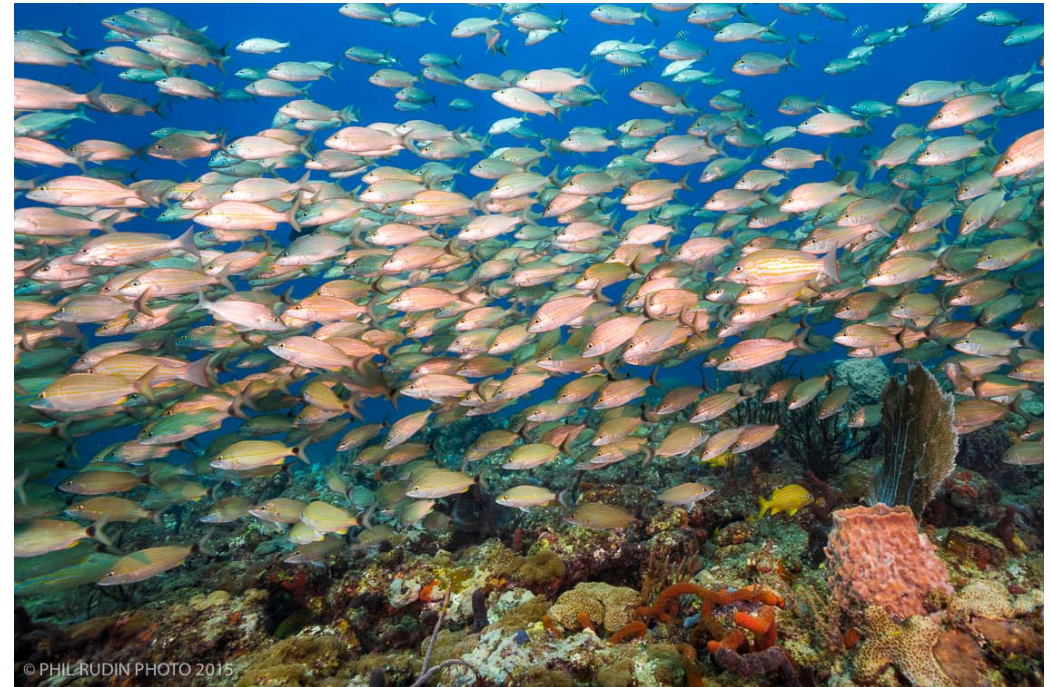
With a minimum focus distance of .28m (11 inches) the lens will focus just off the Nauticam 180mm port glass. This Zeiss branded lens has five aspherical elements, including one AA and three ED elements for reduced chromatic aberration and the

Carl Zeiss T\* antireflective coating to enhance color, clarity and contrast by reducing lens flare and ghosting.

The lens has internal focusing which means only the inside elements move during focusing with no movement of the lens. The lens extends when zooming with the wide angle 16 mm end being at the fully extended end of the zoom range. This is common with the new wide angle digital lens designs and is the opposite of many legacy lenses which were at the widest AOV before being zoomed.

The seven rounded diaphragm blades offer decent bokeh wide open. Corner sharpness is diminished somewhat at the 35 mm end of the lens in the F/4 to F/5.6 range and vignetting occurs at the 16mm end at F/4. This lens features focus by wire which is quite accurate in auto focus and when manually focusing. The lens accepts 72mm filters and ships with front and rear caps, a snap on lens hood and a quality padded lens bag for storage and transport. Sony's US retail price is around \$1350.00 and the lens is available at your local authorized Sony dealer.

I have had a chance to shoot with the 16-35 zoom using both the



***Schooling Yellowtails, Sony A7R II, Sony FE 16-35mm F/4 at 16 mm, Nauticam NA-A7II housing, with Nauticam 180 mm dome port, two Inon Z-240 strobes, ISO-250, F/8, 1/200 sec***

Sony A7 II and A7R II cameras in the Nauticam NA-A7II Housing. I used the lens in auto focus mode with the Nauticam SE1635-Z gear to zoom the

lens.

Nauticam's recommended port configuration is the N100 to N120 35.5 mm port adapter with zoom/

focus knob which allows manual focusing with Nauticam focus gear (SE1635-F). This port adapter allows the housing wheel to zoom the lens while the port adapter wheel handles manual focusing. With this port configuration the two zooming wheels sit quite close together and required me to zoom the lens with my left thumb from behind the zoom wheel. Since this was the most comfortable zooming position I did not find this to be an issue and it also allowed me to reach the focus wheel with my left forefinger while using my thumb to zoom at the same time, quite ideal even with gloves.

Auto focusing worked quite well for me so I did not opt for the focus gear. The recommended port extension is Nauticam extension ring 50 which has an outside locking device and installs between the 100 to 120 port adapter and Nauticam 180 mm optical glass wide angle port. Nauticam now has a second port configuration using a 30+50 extensions that does not have the manual focus wheel.

The 180mm port has a builtin shade which helps prevent lens flare and protects the port glass. This is an excellent glass port with a quality optical coating to prevent ghosting and lens flare. The port has the 120 mm port mount and 110mm of curvature so it will work



*Sony A7 II, Sony FE 16-35mm F/4 at 16 mm, Nauticam NA-A7II housing, with Nauticam 180 mm dome port, two Inon Z-240 strobes, ISO-400, F/6.3, 1/160 sec*

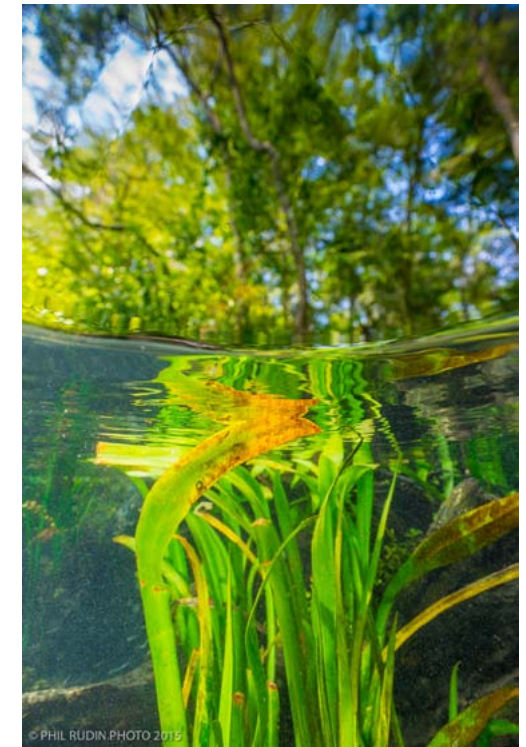
with large diameter lenses. The port configuration will also work with the Sony FE 24-70mm F/4 and Sony 28mm F/2 with FE ultra-wide adapter (21mm) by replacing Extension ring 50 with an extension ring 30. It will also house a verity of other non Sony lenses and fits several other Nauticam housings.

The Nauticam 180 mm optical glass port ships with a neoprene port cover and rear storage cap and retails for \$1050.00 US, SE1635-Z zoom gear \$175.00, SE1635-F focus gear \$175.00, N100 to N120 35.5

port adapter with zoom/focus knob \$280.00, extension ring 50 with lock \$310.00. Please remember that these parts are for Alpha 7 series II housings and may not work with the older Alpha 7 series housings.

In addition to the equipment listed above I used two Inon Z-240 strobes fired with the Nauticam manual flash trigger for Sony and fiber optic cables, two ten inch Nauticam float arms and two Nauticam eight inch ball arms.

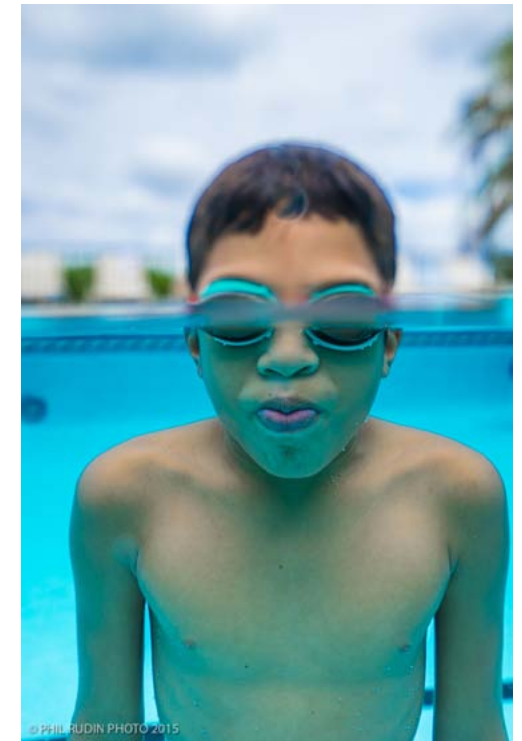
With this configuration the housing was balanced to my liking



*Aquatic Plants, Sony A7 II, Sony FE 16-35mm F/4 at 16 mm, Nauticam NA-A7II housing, with Nauticam 180 mm dome port, two Inon Z-240 strobes, ISO-400, F/6.3, 1/160 sec*

and I had no wrist fatigue even after several hours. The air pocket captured by this port configuration adds to the ease of use and while the dome had a tendency to float up a bit it was overcome with little difficulty.

The Sony lens worked very well behind the 180 mm port both below water and while shooting split images. I shoot split images at F/14 to F/22 for greater DOF using strobe lighting



on the underwater side in some cases. This lens is an excellent for wreck scenes, reef scene and model photography.

The lens will focus just off the port glass and will work well as a close focus wide angle lens for larger subjects while a fisheye with a smaller (100-140mm) dome port would be most ideal for smaller foreground subjects. As I stated above auto focus is fast and accurate and with the 180mm dome corner sharpness is quite excerptible at around F/8 and above.

While the Sony 16-35 lens is large compared to Sub-full frame

*(Left) Model Roman, Sony A7 II, Sony FE 16-35mm F/4 at 16 mm, Nauticam NA-A7II housing, with Nauticam 180 mm dome port, ISO-100, F/4, 1/800 SEC. This image was shot directly on the port glass and you can see the forced perspective distortion of the models head at 16 mm.*

*(Centre) Sony A7 II, Sony FE 16-35mm F/4 at 16 mm, Nauticam NA-A7II housing, with Nauticam 180 mm dome port, ISO-100, F/4, 1/1000 SEC. One foot from subject with little distortion at 16 mm.*

*(Right) Sony A7 II, Sony FE 16-35mm F/4 at 35 mm, Nauticam NA-A7II housing, with Nauticam 180 mm dome port, ISO-100, F/4, 1/1250 SEC. One foot from subject with little distortion but loss of focus at the top of the image because of the limited DOF at F/4 at 35 mm.*

mirrorless lenses it uses the same 180mm port as lenses like the Olympus 7 to 14 for M43 cameras. By comparison the Nauticam NA-A7II housing and 180mm port are a good bit smaller than full frame DSLR

housing and port configurations for the same zoom range DSLR lens.

Visit your authorized Sony and Nauticam dealers for further details.

**Phil Rudin**

