

Olympus 12-40 F2.8 Pro lens and Zen DP-170 dome

by Phil Rudin

The Olympus M.Zuiko Digital ED 12-40mm F/2.8 zoom lens is the first in a line of Olympus “PRO” lenses for Micro Four-Thirds and is designed to match the pro quality of the OM-D E-M1.

The lens has a 30 to 84 degree wide to portrait zoom range with a minimum focus distance of 20cm (7.87”) throughout the range. This lens features exceptional auto focus speed and the linear motor drive provides smooth and quiet focusing for movies and stills.

In addition the 12-40mm F/2.8 zoom also has excellent drip, dust and freeze proofing for harsh environments like open boats and sandy beaches. At a constant F/2.8 maximum aperture low light performance and shallow depth of field is well controlled throughout the range. The manual focus clutch is accessed by pulling the focusing ring towards the camera body uncovering the focus scale. This lens is optically and mechanically head and shoulders above the Olympus 12-50mm F/3.5-6.3 kit lens and optically ahead of the Panasonic 12-35mm F/2.8.

If you are using Panasonic M43 cameras you may want to consider the power OIS feature of the Panasonic 12-35mm F/2.8 since many of the Panasonic’s do not have IBIS sensor stabilization. Because of its bright F/2.8 aperture the Olympus 12-40mm has a bit of girth at 69.9mm v. the Olympus 12-50mm F/3.6-6.3 at 51.8mm. This added girth

required a redesign of the ZEN Underwater DP-170 dome port I reported on in UWPMAG issue #73.

Zen Underwater is the high quality optical glass dome port manufacturer Located in Ft. Lauderdale Florida USA. Zen has recently introduced the new DP-170 n85II 170mm optical glass port to its line for use with Nauticam Mini (mirrorless) housings. This new release follows the success of the highly regarded 230mm, 200mm, 170mm, 100mm and Olympus Pen line of optical glass ports for DSLR and Mirrorless housings.

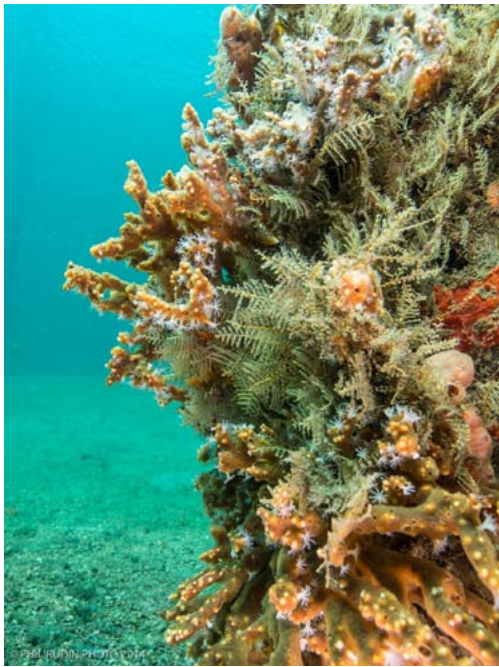
The Zen DP-170 n85 which remains in the dome line and the new Zen DP-170 n85II port are made from the highest optical quality glass which is coated on both sides to provide the greatest transmission of light and color through the glass.

The aluminum mount has a single O-ring and the same excellent port locking system used with all Nauticam ports and port extensions. Both DP-170 ports have a removable dome shade which is secured to the port by four allen screws at the top, bottom and sides. The top side of the dome shade is engraved with the unmistakable white Zen Underwater logo. A DP-170 neoprene port cover with the Zen logo is also available.

The difference between the Zen DP-170 n85 and the DP-170 n85II is an additional 30mm’s of port extension on the n85II to accommodate the bigger girth of wider aperture lenses like the Olympus 12-40mm F/2.8 zoom.



The older style n85 port can be used with the Nauticam 20mm and 30mm port extensions but the 12-40mm will not fit into those extensions when the Nauticam 01240-Z zoom gear is installed on the lens. The fit is so tight with the gear in place that the camera needs to be mounted into the housing before the lens and gear can be installed on the camera from the port opening in the front of the housing. Once this is done the n85II port can be



Nauticam NA-EM1 housing with ZEN DP 170 n85II dome port, Olympus 12-40mm F/2.8 at 12mm, ISO-200, F/7.1, 1/250th, two Inon Z-240 strobes.



Nauticam NA-EM1 housing with ZEN DP 170 n85II dome port, Olympus 12-40mm F/2.8 at 40mm, ISO-200, F/8, 1/125th, two Inon Z-240 strobes



Common Octopus, Nauticam NA-EM1 housing with ZEN DP 170 n85II dome port, Olympus 12-40mm F/2.8 at 12mm, ISO-100, F/7.1, 1/320th, two Inon Z-240 strobes.

mounted over the lens to complete the installation.

Nauticam's excellent vacuum check system ensures that the housing system is secured. When installing the port be sure not to bump the manual focusing ring or you may move the ring towards the camera disengaging the auto focus. This happened to a friend who tried everything to get the auto focus to work before sending me an E-mail for advice. The problem was easily corrected by removing the

port and moving the focus ring back to the AF setting.

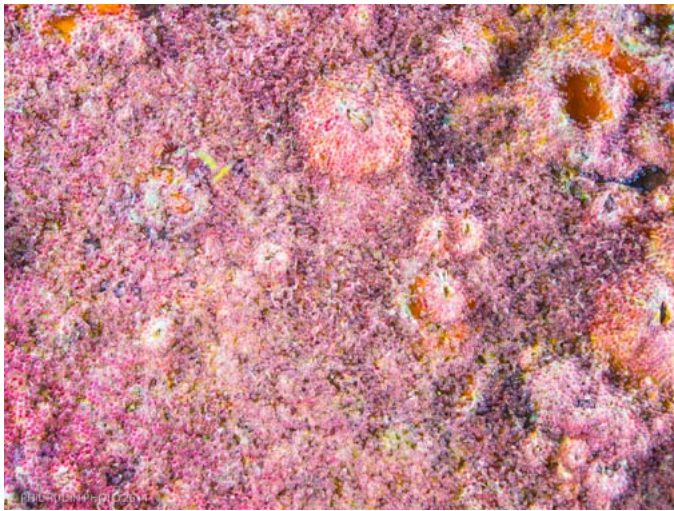
I have used 170mm glass ports for years with several DSLR systems and found the size to be excellent for most of my wide angle needs. I particularly like this port size for traveling with my ThinkTank Airport roll-on bag because I can put the port in a Rubbermaid square serving container, secure the top and stand the container on its side in my roll-on bag. This takes up far less of the

limited packing space compared to having to lay a 200mm to 230mm port flat in the same roll-on case without the protection of the container.

Zen Underwater has recommended several additional zoom lenses which will work well with this dome port in addition to the Olympus 12-40mm F/2.8. This dome port also supports Olympus 7-14mm F/4, 9-18mm F/4-5.6, Panasonic 12-35mm F/2.8 and Sony 10-18mm F/4 E-mount. Olympus also has a new

M43 Pro 7-14mm F/2.8 zoom coming in the first quarter of 2015 and the Olympus 12-50 F/3.5-6.3 also works in the dome without use of the 43mm macro engagement. This port does not support small primes like the Olympus 12 F/2 and 17mm F/1.8 and Panasonic 8mm fisheye or pancake type lenses which all sit too far back in the port and vignette.

I prefer two Inon Z-240 strobes with the Nauticam NA-EM1 housing when using the Zen DP-170 n85II



Sergeant Major fish eggs, Nauticam NA-EM1 housing with ZEN DP 170 n85II dome port, Olympus 12-40mm F/2.8 at 40mm, ISO-200, F/6.3, 1/200th, two Inon Z-240 strobes.



Same fish egg image 100% crop of lower left corner of frame.



Striated Frogfish, Nauticam NA-EM1 housing with ZEN DP 170 n85II dome port, Olympus 12-40mm F/2.8 at 35mm, ISO-200, F/7.1, 1/320th, two Inon Z-240 strobes.

dome port and my two primary lenses the Panasonic 7-14 F/4 and Olympus 12-40 F/2.8 zooms. This system configuration is well balanced and easy to control above water, while shooting split shots and below water. I use two Nauticam 250X60mm (10X2.4") float arms and two 200mm (8") Nauticam double ball arms with Stix foam blocks to balance my system with this port. The configuration works well and gives me the amount of negative buoyancy needed to allow me to put my housing on the bottom without it floating away in a current.

How much buoyancy you need is a highly personal preference so my example should act as a starting point for the system configuration you are using. The DP-170 ports allow you to get quite close to both larger and small subjects and all of the lenses I used during the review appeared to focus to or very near the port glass.

As with all rectilinear zoom lenses best corner results were obtained when shooting at F/stops of around F/5.6 and above. This also holds true when shooting with the equivalent Nauticam acrylic ports for the same zoom lenses. The larger DP-170 port allowed me to get better split (over/under) images compared with the four and six inch Nauticam acrylic ports.

The 12-40mm zoom has a very useful focal range for any number of subjects from large pelagic's to fish portraits and subjects as small as 1:1.5 in 35mm terms. At the 50mm end the Olympus 12-50mm zoom is about 1:2.5 in 35mm terms so a noticeable difference when used in a the dome port.

Image quality from F/2.8 on was excellent with diffraction starting to appear at around F/16. My most frequently used wide angle lens is the

Panasonic 7-14 F/4 zoom and the results with this port were impressive for such a wide lens at 114 degrees on the 7mm end. You may nitpick the issue of corner sharpness all you want with any wide lens but you will not find a rectilinear lens this wide or wider with better corners in a dome port this small.

For more information on the Zen Underwater DP-170 n85 & n85 II dome ports contact your authorized Zen Underwater dealer. Both DP-170 ports retails for \$999.00 US, £733.29 without VAT and include neoprene port cover and the removable dome shade. The Nauticam 01240Z gear for the Olympus 12-40 F/2.8 zoom retails for \$200.00 US.

The Olympus M. Zuiko ED 12-40mm F/2.8 PRO retails for \$999.00 US. Retail Pricing as of July 2014 from reefphoto.com and uwvisions.com.

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