INON Optics Supports SONY DSC-RX0/MPK-HSR1

INON INC. is pleased to announce official release of two attachment lenses on [February 3rd, 2018].

- [UWL-100 28M55] Wide Conversion Lens (*2)(*3)(*4)
 - --Release date: February 3rd, 2018
- --JAN code: 456212143 867 5
- 「UCL-G165 M55」 Underwater Wide Close-up Lens (*5)(*6)
 - --Release date: February 3rd, 2018
 - --JAN code: 456212143 775 3



「UWL-100 28M55」



「UCL-G165 M55」



From left: Without lens, with 「UWL-100 28M55」, with 「UCL-G165 M55」



- (*1) Contact Sony Marketing Inc. for detail of camera/underwater housing. INON Inc. confirms product compatibility based on a camera available in Japan.
- (*2) Vignetting is observed on land but underwater will <u>not</u> have vignetting.
- (*3) The Dome Lens Unit II for UWL-100 is <u>NOT</u> compatible due to vignetting.
- (*4) This lens is the M55 screw mount version of current <code>\GammaUWL-100 28AD\]</code> instead of original bayonet mount. Please contact your local dealer if you wish to replace original bayonet mount of the <code>\GammaUWL-100 28AD\]</code> with this M55 screw mount.
- (*5) Designed for underwater use only. Vignetting is observed on land but underwater will <u>not</u> have vignetting.
- (*6) This lens is the M55 screw mount version of current <code>[UCL-G165 SD]</code> instead of original bayonet mount. Please contact your local dealer if you wish to replace original bayonet mount of the <code>[UCL-G165 SD]</code> with this M55 screw mount.

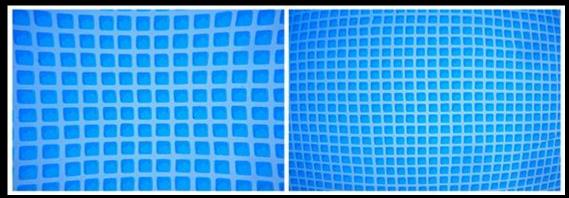
<u> 「UWL-100 28M55」 Wide Conversion Lens Product Features</u> ■

• Attached Directly on the Genuine Underwater Housing MPK-HSR1

• The lens mount is same M55 screw mount as filter screw of the MPK-HSR1 enabling you to attach the lens directly on the housing without any adapter.

Compact yet Wide 100 degree Coverage

• The compact lens body matches with compact MPK-HSR1 without burden to provide handy wide imaging. The lens increases coverage dramatically to maximum 100 degree coverage underwater.



Left : Without attachment lens

Right: With the [UWL-100 28M55] Wide Conversion Lens

ODramatically Shorten Minimum Focusing Distance

Minimum focusing distance of the DSC-RX0 on land is $\lceil 50 \text{cm}/1.6 \text{ft} \rfloor$ which will be extended at x1.3 underwater due to reflection ratio underwater. By attaching this lens, minimum focusing distance underwater will be shorten to $\lceil 118 \text{mm}/4.6 \text{in} \rfloor$ (*7) to enable you to take a Close Focus Wide Angle (CFWA) image.

Optional \[\text{Lens Hood II for UWL-100 28AD} \] is usable to block unnecessary light coming from outside of lens coverage to suppress flare/ghost.



■ 「UCL-G165 M55」 Underwater Wide Close-up Lens Product Features

• Attached Directly on the Genuine Underwater Housing MPK-HSR1

As same as the wide lens, the lens mount is same M55 screw mount as filter screw of the MPK-HSR1 enabling you to attach the lens directly on the housing without any adapter.

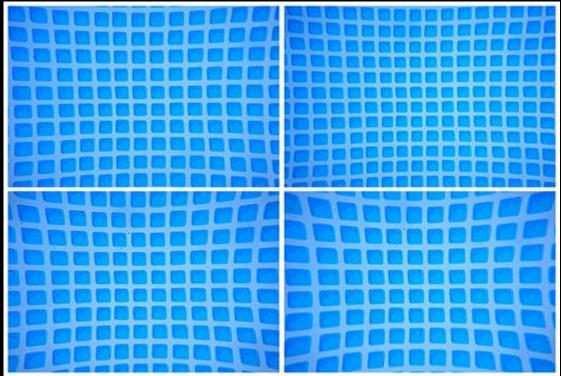
• Wide Close-up Lens with Deep Depth of Field

The optics design widens the coverage slightly to have benefit of deep depth of field making minimum focusing distance underwater [96mm/3.8inch] (*7) enabling to shoot a subject at closer distance.

• Why UCL-G165 M55?

The DSC-RX0 carries wide 24mm fix lens (*8) and its superior optical characteristic to have less aberrations creates pincushion aberration (concave center part) underwater. This aberration gets more significant with standard close-up lens and powerful lens has more degradation on image corners. The UCL-G165 M55 is so-called wide close-up lens, so the lens can suppresses the aberration and enables more close-up image comparing standard close-up lens. Comparison images as below.

*All images are taken from same distance to compare distortion (pincushion aberration).



Upper left Minimum focusing distance underwater is approx. 65cm/2.1ft.

Upper right : With \(\text{UCL-G165 M55} \) Minimum focusing distance underwater is approx. 96mm/3.8in. Lower left : With \[UCL-330 \] via step-up ring. Minimum focusing distance underwater is approx.

202mm/8.0in.

: With [UCL-165 M67] via step-up ring. Minimum focusing distance underwater is approx. Lower right

135mm/5.3in.

(*7) Measured distance between a subject and lens edge when autofocus works underwater (in a tank).

(*8) Focal length based on 35mm film equivalent.



Feature |

[UWL-100 28M55] Wide Conversion Lens (*2) (*3) (*4)

 ϕ 87.4mm(3.4in)/43.4mm(1.7in) Outer diameter/length:

[Air] 386g(13.6oz)/[Underwater] 222g(7.8oz) Weight:

Mount system: INON M55 Mount

60m (197ft) Depth rating:

Material/surface finishing: Corrosion-resistant aluminum alloy/rigid black alumite

Lens material/coating: Optical glass/anti-reflection coating

4 groups 4 elements Construction:

100.0 degree (underwater) Maximum incident angle(*9):

[UCL-G165 M55] Underwater Wide Close-up Lens (*5)(*6) ϕ 77mm(3.0in)/25.5mm(1.0in) Outer diameter/length:

Weight: [Air]217g(7.7oz) / [Underwater]135g(4.8oz)

Mount system: INON M55 Mount

Depth rating: 60 m (197 ft)

Material/surface finishing: Corrosion-resistant aluminum alloy/rigid black alumite

Lens material/coating: Optical glass/anti-reflection coating

2 groups 2 elements Construction:

Focal length(*10): 165mm(3.5in) *Underwater use only.

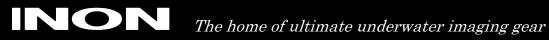
(*9) Actual lens coverage varies depending on camera's shooting mode.

(*10) Focal length of the lens itself. Not combined focal length with camera's master lens.

Set-up example



- · Sony 「DSC-RX0」/genuine underwater housing 「MPK-HSR1」
- [UWL-100 28M55] + [Lens Hood II for UWL-100 28AD]
- 「LF3100-EW」
- · [Single Light Holder LF]
- · Shoe Base





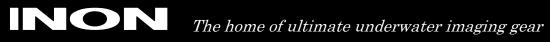
- · Sony 「DSC-RX0」/genuine underwater housing 「MPK-HSR1」
- 「UCL-G165 M55」
- [LF3100-EW]
- 「Grip Base M1」
- · 「Single Light Holder LF」
- Direct Arm YS-MV Set

*The 「Grip Base D4」 is *NOT* compatible due to housing depth.



- · Sony 「DSC-RX0」/genuine underwater housing 「MPK-HSR1」
- \cdot \[\text{UWL-100 28M55} \] + \[\text{Lens Hood II for UWL-100 28AD} \]
- $\lceil LF3100\text{-}EW \rfloor x2$
- Grip Base M1 + D Holder
- Single Light Holder LF x2
- 「Direct Arm YS-MV Set」 x2
- 「Z Adapter MV 1/4-20UNC」
- · 「Clamp III」
- 「M67 Lens Arm」
- 「UCL-165M67」 *Use as an LCD magnifier

*Above set-up needs to remove pre-installed 「Shoe Adapter」 by an Allen key (supplied with the housing) to replace with \[\text{Z Adapter MV 1/4-20UNC} \] .



■ Comparison images among different lenses at minimum focusing distance ■

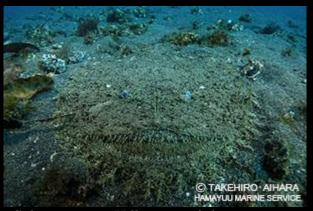


Left: Without lens. Shot at camera's minimum focusing distance (approx. 65cm/2.1ft).

Center: With 「UWL-100 28M55」. Shot at minimum focusing distance of the lens (approx. 12cm/4.7in).

Right: With 「UCL-G165 M55」. Shot at minimum focusing distance of the lens (approx. 10cm/3.9in).

Sample images



--Subject : Yellow goosefish

--Equipment : Sony DSC-RX0/MPK-HSR1, UWL-100 28M55, LF3100-EW x 2

--Photo data : Manual exposure mode (F4, 1/40, ISO100), photo taken at minimum focusing distance

(approx. 12cm/4.7in)

--Photo by : T. Aihara (HAMAYUU Marine Service) at "Wannai", Osezaki, Shizuoka, Japan



--Subject : Yellow goosefish

-- Equipment : Sony DSC-RX0/MPK-HSR1, UCL-G165 M55, LF3100-EW x 2

-Photo data : Manual exposure mode (F4, 1/50, ISO100), photo taken at minimum focusing distance

(approx. 10cm/3.9in)

--Photo by : T. Aihara (HAMAYUU Marine Service) at "Wannai", Osezaki, Shizuoka, Japan





--Subject : Longnose hawkfish

--Equipment : Sony DSC-RX0/MPK-HSR1, UCL-G165 M55, LF3100-EW x 2

--Photo data : Manual exposure mode (F4, 1/100, ISO400), photo taken at minimum focusing distance

(approx. 10cm/3.9in.)

--Photo by : T. Aihara (HAMAYUU Marine Service) at "Wannai", Osezaki, Shizuoka, Japan

Relative Information

- LED flashlight <u>http://www.inon.jp/products/le_light/lineup.html</u>
- Arm system http://www.inon.jp/products/armsystem/lineup.html

January 30th, 2018 INON INC.

^{*}Press release information is as of January 30th, 2018 and subject to change without prior notice.



^{*}Sample images courtesy of HAMAYUU Marine Service http://hamayuu.net/