

BEST UNDERWATER COMPACT CAMERAS FOR 2016



Compact cameras are the smallest, lightest, and least expensive category in underwater photography. But don't let their small size and price fool you. With accessory wide angle and macro lenses, top end compact camera systems can take most of the same shots you can get with higher end mirrorless or SLR cameras. This category has a large range of options and prices. See our top picks for the Compact category for 2016.



Check out our complete article with more details, including sample photos and videos from the reviewed cameras at:
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OLYMPUS

TG-4



THE OLYMPUS TG-4 is an update to the previous Olympus Tough series line flagship, the TG-3. The TG-4 is a splash-proof pocket camera, one that you can take snorkeling on its own, waterproof to 50 feet, or take it deeper while diving using the PT-056 Underwater Housing, making it waterproof to 150 feet. In addition, the TG-4 Tough lives up to its name, as it is shock-proof, crush-proof, freeze-proof and dust-proof. The only major difference with the TG-4 over the TG-3 is the addition of RAW shooting capability instead of JPEG. This is a major step forward in image quality with RAW being an uncompressed format compared to JPEG. It even fits in the same PT-056 Underwater Housing as the TG-3. The greatest feature of the TG-4 is its ability to capture macro and super macro images without adding an accessory lens. Microscope mode will allow you to get crazy close to those small subjects, filling the frame with tack sharp images. This camera will focus so close in microscope mode that if you have any lint or debris on the inside of the housing lens, it will focus on that instead of the subject, so make sure your lens port is clean!

In microscope mode, the TG-4 gets crazy close-up super macro. This blenny image was taken with NO additional macro accessory lens, and continuous light from a GoBe 700. ISO 200, f/4.9, 1/400



PROS

- Microscope mode has the largest reproduction ratio of ANY camera without a macro lens
- Super fast focus even in macro mode
- True “point and shoot” performance when lighting with a video light
- Now shoots RAW!

CONS

- No manual exposure mode
- Focuses so close that you need to make sure the inside of the housing is clean otherwise it will focus on lint on the port
- Default minimum shutter speed for flash is a slow 1/30 second

Read full review with photos and video at www.backscatter.com/compacts

All images on page shot with Olympus TG-4

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CANON G7 X



THE CANON G7 X is Canon's first 1 inch sensor compact camera. A larger 1 inch sensor allows for better low light performance and image quality over smaller sensors, but still small enough to fit in your pocket. It also keeps the housing size small so you can get a fully outfitted camera system into a carry on backpack. You now have the option to do TTL or manual strobe exposure in manual exposure mode. In addition, the manual exposure mode is now available in movie mode. If you have a serious interest in wide angle movies, the Canon G7 X is hands down the best way to go with its accurate white balance without a filter and 1 touch capability. This is a huge advantage for switching between still shots with strobes, videos with video lights, or ambient light movies on the same dive.



The Canon G7 X macro mode works pretty well by itself, but by adding on an accessory macro lens like the Nauticam CMC, the camera can easily get into the super macro range for extreme close up shots. The image on the left is the G7 X in macro mode, and the image on the right is in macro mode with the Nauticam Compact Macro Lens (CMC).

PROS

- Longer lens and macro mode allows for better macro shots
- Unbeatable underwater custom white balance.
- True 1 touch white balance
- Movie mode bit rate at 35 mbps is higher than Sony RX 100 Mark II at 28 mbps

CONS

- Most wide angle accessory lenses, especially those with over 100 degrees of coverage require a shorter front port to produce acceptable corner sharpness
- Movie mode bit rate at 35 mbps is lower than Sony RX100 MKIII at 50 mbps

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All images on page shot with Canon G7X

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SONY RX 100 III & IV



SONY'S RX100 III & IV are keeping all of the great features found in its predecessor, with notable improvements for underwater shooters, adding improved low light performance. Featuring a very large 1 inch sensor size, these cameras have the best of all worlds, with class leading performance and extremely high image quality. Thanks to that large sensor size, the RX100 III & IV sport a stunning resolution of 20 megapixels and still maintain great low-light performance. Movies on the RX100 Mk IV able to be shot in 4K and 1080p in the Sony XAVC movie format. Individual clips can be directly accessed unlike the dreaded AVCHD format of previous models.



Getting close with a wide angle lens is the best technique for getting shots with good contrast. Shot with the UWL-04 wide angle lens.



With only being able to take 2 shots of this turtle before it took off from the reef, TTL automatic flash from the Sony RX100 Mark III was the key to get appropriate foreground exposure with the limited time given.

PROS

- Exmor® R 1.0 CMOS sensor provides twice the amount of low-light performance from its predecessor
- Built in Hotshoe for faster strobe firing and less camera battery drain
- Stunning 20 Megapixel Resolution
- Class-leading 1080/60p video with optical image stabilization

CONS

- In camera macro is limited; doesn't focus as close as other cameras in its class
- Large sensor leads to shallower and less forgiving depth of field
- No way to execute custom white balance in movie mode, must jump to photo modes

Read full review with photos and video at www.backscatter.com/compacts
All images on page shot with Sony RX100 III

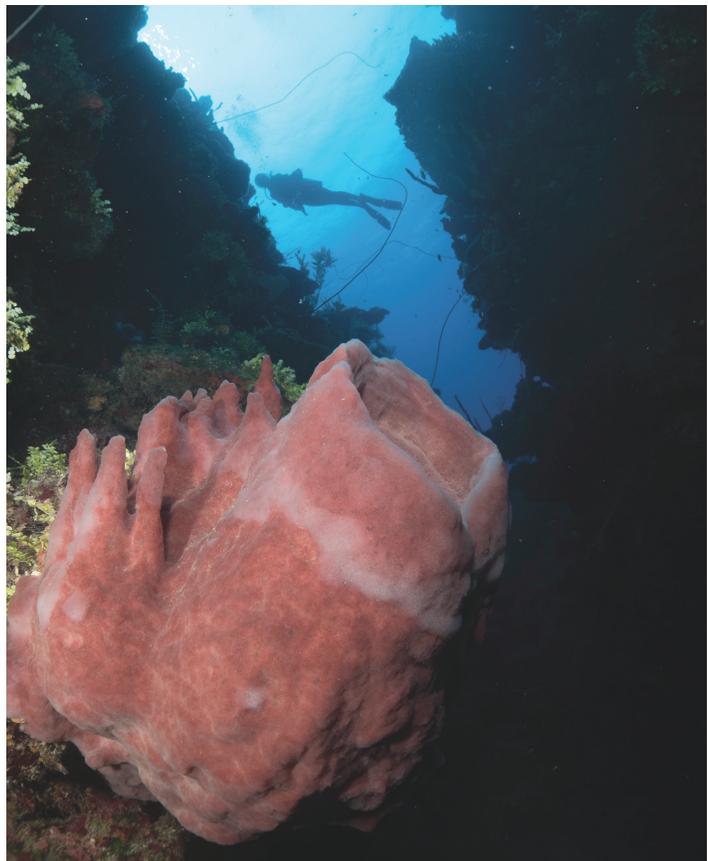
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PANASONIC LX100



THE PANASONIC LX100 represents a breakthrough in compact cameras with integrated lenses. It's the first camera in this category to shoot pro-level video at 4K at 100 mbps. It's no slouch on still photos, with super fast autofocus and a class leading 12 frames per second shooting in RAW. It is a bit large to fit in your pocket, but still easy to walk around town and isn't much larger than a Canon G16. Even though it is a compact camera, changeable ports will be needed for shooting wide angle as the zoom range prohibits using a wide lens with a standard port. Overall this camera could be one of the most capable and exciting in the compact camera category this year. Stay tuned to our website for a full review with images and video.

The LX100 does a great job with smooth gradients in blue backgrounds that go from very bright to dark.



PROS

- Compact camera that shoots pro level 4k video
- Excellent stills quality with large 4:3 size sensor
- Great low light performance

CONS

- Only 12MP resolution
- Largest size of the compact class
- Limited wide angle capabilities

Read full review with photos and video at www.backscatter.com/compacts

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UNDERWATER VIDEO & PHOTO

Point & Shoot Camera Vital Statistics

	Olympus TG-4	Canon G7 X	Sony RX100 IV	Panasonic LX100
Resolution	16.0 MP	20.1 MP	20.1 MP	12.8 MP
Image Size	3968 x 2976	5472 x 3080	5472 x 3080	4112 x 3088
Sensor Size	1/2.3" (6.17x4.55mm)	1" (13.2x8.8mm)	1" (13.2x8.8mm)	4/3" (17.3x13mm)
Lens (35mm equiv.)	25-100mm f/2.0-5.9	24-100mm f/1.8-2.8	24-70mm f/1.8-2.8	24-175mm f/1.7-2.8
ISO Range	100-6,400	125-12,800	80-25,600	100-25,600
Frame Rate (Still Burst)	5 fps	6.5 fps	16 fps	11 fps
Movie Resolution	1080p	1080p	4K	4K
Movie Frame Rate	30p	60p	120p	60p
LCD Size	3" 406K px	3" 1.04M px	3" 1.23M px	3" 921K px
RAW Format	YES	YES	YES	YES
Closest Macro Focus	0.39" / 1cm (telephoto)	2.0" / 5cm (wide)	2.0" / 5cm (wide)	1.8" / 4.5cm (wide)
Waterproof Camera Without Housing	YES	NO	NO	NO
Camera + Housing Starting Price	\$680	\$1,100	\$1,450	\$1,550

NOTES:

Check out our complete article with more details, including sample photos and videos from the reviewed cameras at:

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