Compact cameras update

by Peter Rowlands

Trends in diving don't change very fast. Despite its obvious advantages, nitrox is still used by the minority, even BC's took a long time to catch on and rebreathers will only ever appeal to the specialists. Underwater photography, however, the long time preoccupation of nerdy eccentrics, has seen something of a second coming with the advent of the compact digital camera. Small and lightweight, even when they are in their housing, these cameras truly appeal to the mass diving market and combined with their excellent value for money they have become the 'must have' accessory for many divers.

The sheer number of cameras and housings available today makes a daunting task for the decision maker so we contacted Cameras Underwater who kindly supplied some of their best sellers for us to evaluate and produce an update on what is still a developing market with new cameras and housings appearing almost every month.

Despite this seemingly fast moving technology it is fair to say that many of the performance features and specifications have levelled out making it comparatively easy to make a decision without the fear that there is something far better and cheaper around the corner. True, there will always be a replacement model on the way but the big advances such as megapixels and LCD screen size have all taken place. All of the cameras reviewed here will provide everything you would normally require in terms of ease of use and quality of output. The decision is more in the fine print and that is what we will be looking at in this update.

The sheer number of cameras and housings available today makes a daunting task for the decision maker

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www.divemagazine.co.uk

I am grateful to Cameras Underwater for supplying the camera and housings

www.camerasunderwater.co.uk

What to look for:

Megapixels

The amount of megapixels (mp) the camera's chip has is an indication of the image quality you can expect to get. The more the megapixels the merrier.

In the early days of digital compact cameras when a 3mp camera replaced a 2mp one that was a 50% increase in resolution which was very significant. Nowadays, when a 7mp camera replaces a 6mp the increase in quality is much smaller at around 16%.

All of the cameras featured here will produce excellent A4 prints and larger or images that can be projected onto large screens for audience viewing so you can rest assured that, unless you have big ideas, any of these cameras will be good. However the old addage of buying the most megapixels you can afford is still sensible. It is better to have too much image quality than too little!

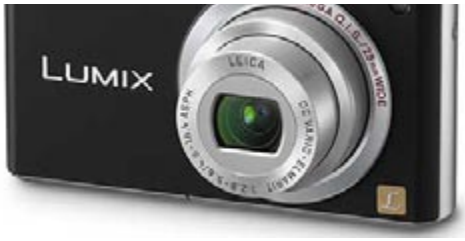
LCD screen

This is the large viewing device on the back of the camera which shows you what you are about to take

and then displays the finished result when you have.

Here size really does matter but only up to a certain point. Most cameras nowadays have 2.5" screens which provide a nice large image to view. I think that this is the size where it will 'max out' as larger screens would mean a larger camera and there must come a point when size increase becomes unattractive. Mind you, the 3" screen on the Canon IXUS 75 looks very tempting!

Zoom



Underwater this is not really a feature that should be overly important and is certainly not one I would recommend using at the extreme telephoto end. However because you will no doubt use your camera on land it is a factor to take into consideration.

Most, if not all, cameras boast an 'optical' zoom. This is achieved conventionally by the lens elements. The higher the number factor of the zoom, the more telephoto effect you will achieve.

In addition to this, some cameras boast a 'digital' zoom which, as the name suggests, is achieved electronically and my advice would be to steer well clear as the image quality is significantly reduces to the point of being unusable.

Lens angle

This is a perfect example of the specifications jungle. Not all chip sizes are the same so the easiest factor to look for is a reference to lens angle/focal length on conventional 35mm film (remember that?). Most provide an angle of coverage of around 65° corner to corner which is the equivalent of a 35mm lens on 35mm film. Some provide around 75° (28mm on 35mm) and I would argue that, underwater, the wider angle of coverage would be useful but there are fewer cameras which offer this.

Shutter delay

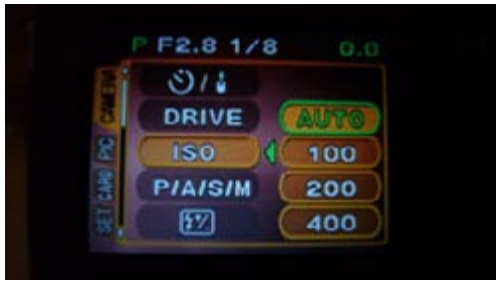
This refers to the time lag in between you pressing the shutter and the actual picture being recorded. The time is needed for the camera to autofocus and calculate the exposure settings.

In the early days this was measured in seconds so no good for fast moving fish! Fortunately the time of this delay has reduced considerably but not disappeared altogether.

ISO rating

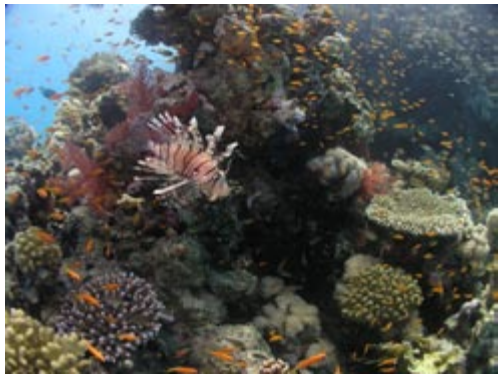
This is a term used to describe the sensitivity of the camera chip and this is an area of specification, rather like digital zoom, where camera manufacturers can exaggerate.

The higher the ISO rating, the lower the light levels you will be able to shoot in but the poorer the image



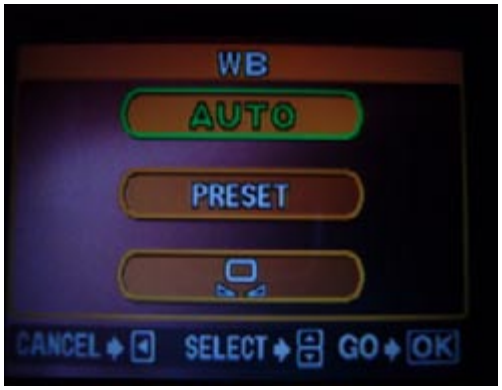
quality is likely to be. Having said that higher ISO performance is something manufacturers are constantly developing which is good news for us underwater photographers.

Manual white balance



This, more than any other feature, is what seperates digital cameras from film.

In the (good?) old days most film was designed to reproduce the correct colour under daylight conditions. If the colour temperature of that light varied a colour cast would result and the only way to counteract that was with a colour correcting filter.



A lot of modern digital compact cameras have several settings to correct various lighting conditions i.e. daylight, tungsten and flourescent. In addition some have the ability to 'manually white balance' which is a very useful feature underwater where the colour cast produced by even the clearest of tropical water is quite strong and gets much stronger with depth.

Manually white balancing entails taking a dummy exposure with the lens pointing at, ideally, a white card (though in practice this is not absolutely essential). The camera then looks at the colour cast and adjusts its processing software to reproduce white as white. Underwater this is extremely useful and well worth the extra effort before taking a shot.

In addition, some cameras have 'underwater' settings, the performance of which varies from manufacturer to manufacturer but they are easy to use and, effectively, add some colour back into the picture which is no bad thing. These settings are nearly always designed for clear, blue water where the majority of users will no doubt be operating.

Movie mode

Finally don't forget this feature because it is a real plus. All of the cameras here can shoot movies! True, the image size and quality is small but the results are surprisingly watchable (much bigger and better than U Tube) and with sound thrown in you have a powerful recording medium.

Finally in terms of scoring the cameras and housings, you will note that they all get fairly high marks. This is because, in my opinion, this generation of compact digital cameras provide pretty much everything you need in terms of value and performance quality.

Underwater photography has been revolutionised by the advent of these small miracles. Their price and ease of use will appeal to almost any diver and, for once, underwater photography is starting to look attractive.

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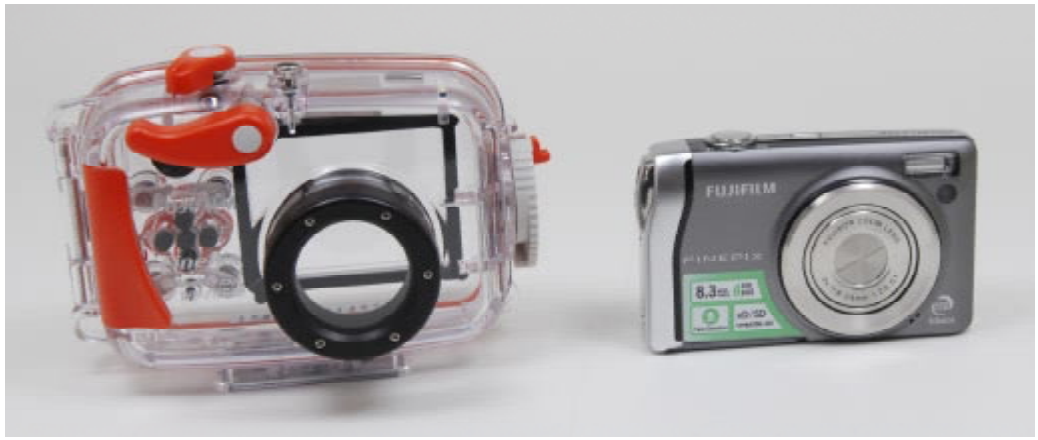
Fuji Finepix F40 and WP-FXF40 housing

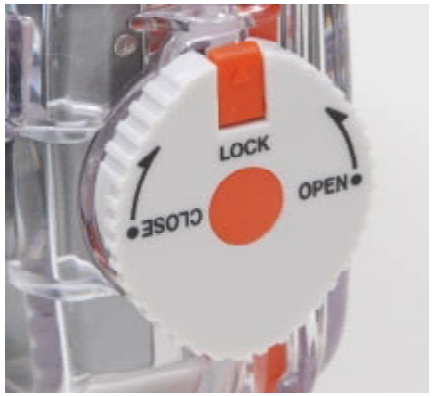


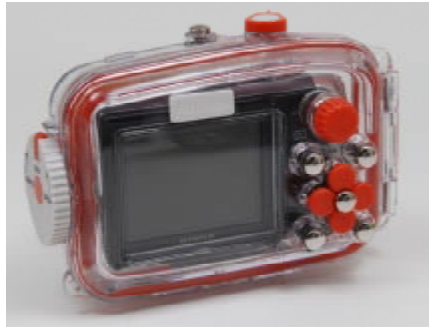
Fuji have been a leader in providing housings for their digital compacts and this combination, together with keen package prices, has made them very popular, and for good reason.

At 8 megapixels the F40 is at the top of the tree in terms of picture size and quality and the high ISO performance is impressive.

The principles of the housing design and construction have changed little because they got it right first time. Ergonomically everything is in the right place and the controls are smoothe and precise.

The only downside is the rear door locking control which has a manual locking mechanism rather than an auto one.



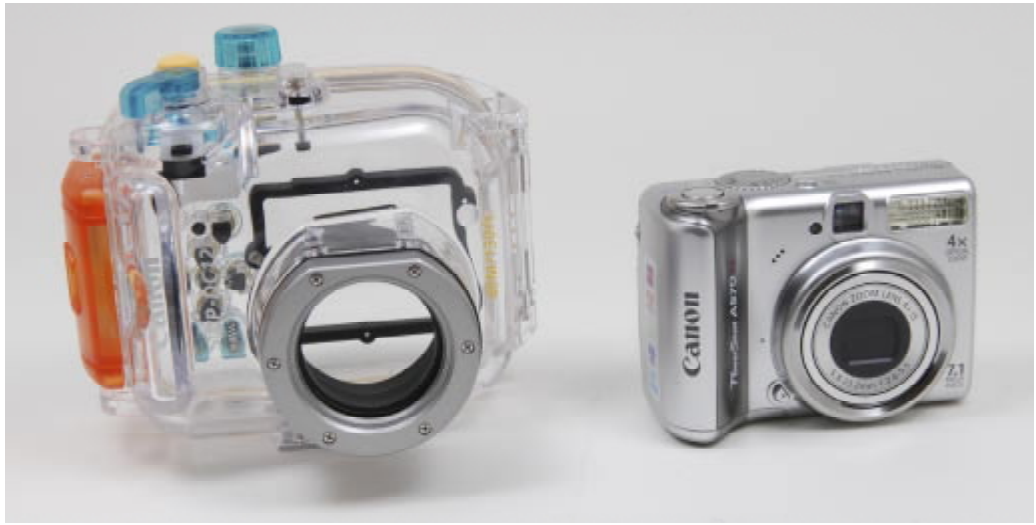


VERDICT

Good quality combination
Value 8/10
Performance 9/10

www.fujifilm.co.uk

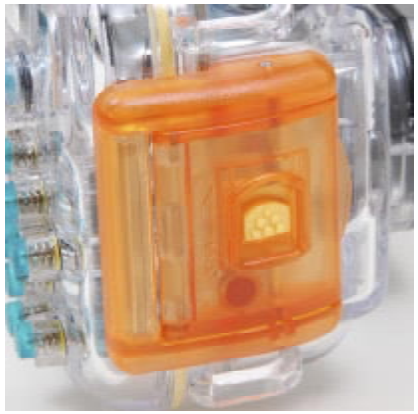
Canon PowerShot A570 IS and WP-DC12

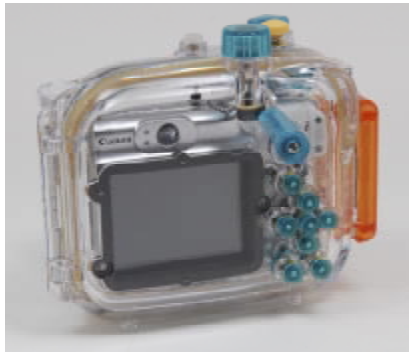


Looking slightly old fashioned compared to some designs, the A570 nevertheless comes packed with features and controls normally associated with an upper price bracket. As well as Programme Mode there is also Aperture and Shutter priority and even full Manual Mode.

This was the only camera which has to be switched to ‘playback’ to view previous images.

The housing is a well proven, ergonomic design. The external controls are transparent in colour which gives the housing a slightly less rugged appearance which is deceptive because this is a fully rated 40 metre housing.



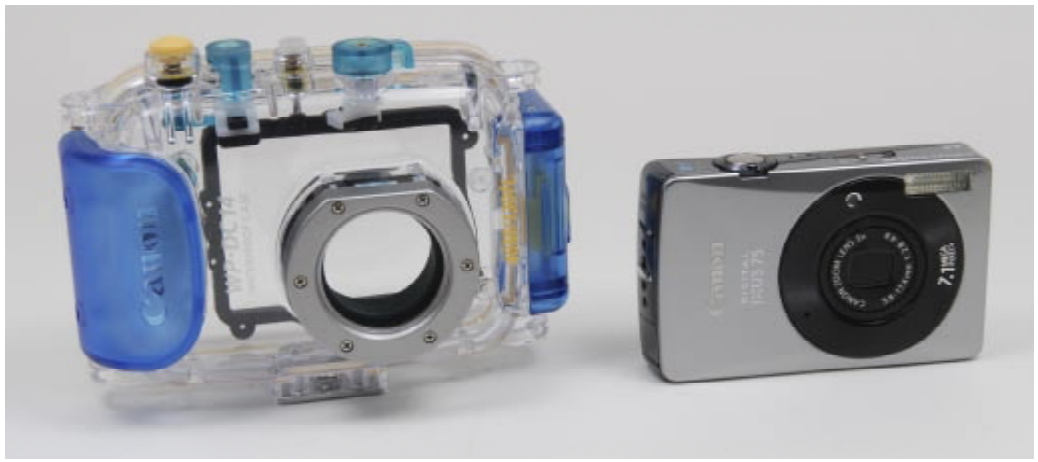


VERDICT

Versatile workhorse
Value 9/10
Performance 8/10

www.canon.co.uk

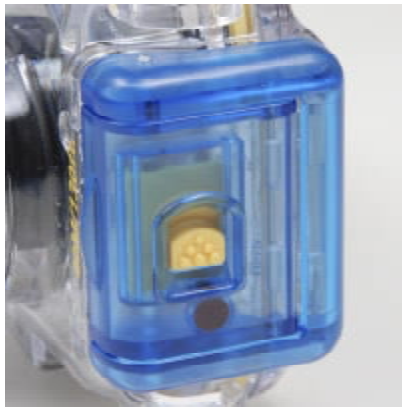
Canon IXUS 75 and WP-DC14 housing



This camera is stylish, sleek and even, dare I say it, sexy. Turn it round to see the gorgeous 3” LCD screen and you have a visually stunning camera.

The set up functions took a bit of getting used you but were OK once I understood the logic. With such a big LCD screen the camera controls are squeezed into the remaining space which can make operating them a bit fiddly but with practice they worked fine. The 7.1 megapixel chip gave excellent images but the 1600 ISO performance was disappointing.

The housing is similar to the A570 and the controls, being slightly spaced apart, make the camera easier to use underwater than on land!

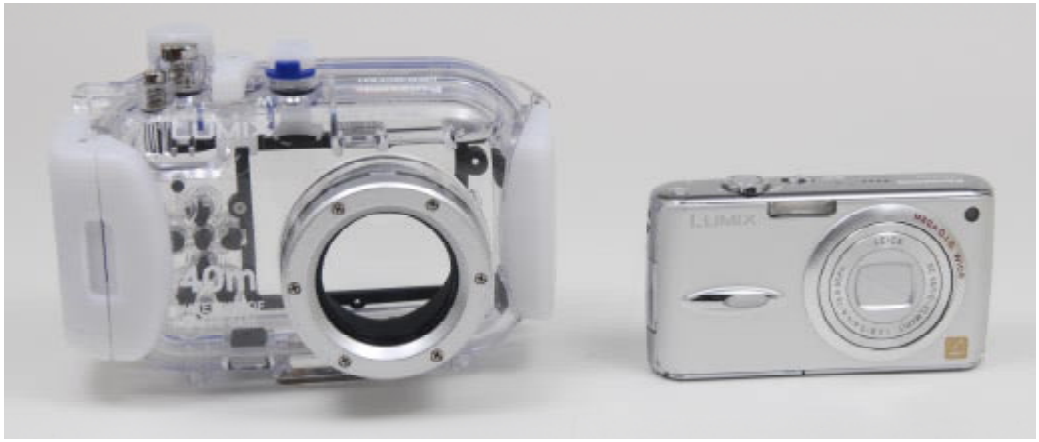


VERDICT

Gorgeous looking performer
Value 9/10
Performance 9/10

www.canon.co.uk

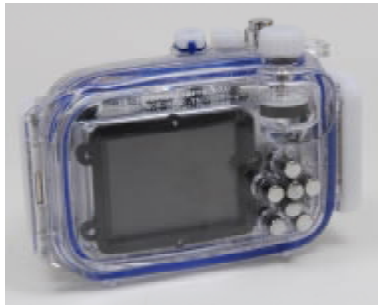
Panasonic DMC-FX01 and DMW-MCFX01



This is actually my camera and housing which is no longer current but it does have one feature which appealed to me – 16:9 format of which I am a great fan. Admittedly it's not true 16:9 (it chops off the top and bottom) but it saves me having to crop each frame.

In addition it is the widest lens of this group at 28mm which is very useful underwater. The camera is a good point and shoot with an uncluttered layout but I would say that because I've used this one much more than the others.

The camera has recently been superceeded with a 12mp version but I don't see the need to upgrade the camera and then the housing because this combination produces exactly what I need. I never thought I'd ever say that!

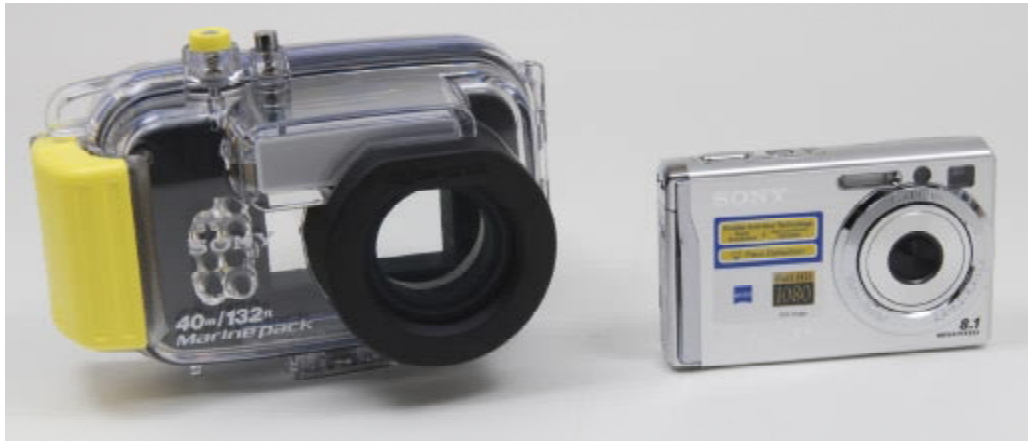


VERDICT

Stylish 16:9 performer
Value 8/10
Performance 8/10

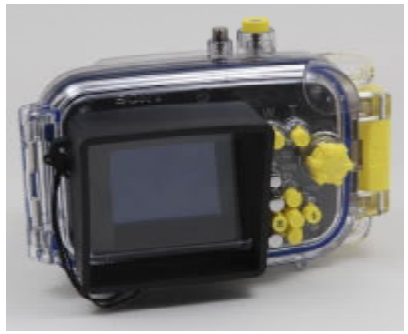
www.panasonic.co.uk

Sony DCS-W90 and MPK-WB



At 8.1 megapixels the DCS-W90 leads the field in image size. The quality is very impressive indeed and, like the Panasonic, it can shoot 16:9. Unfortunately, in a lot of ways, it stops there. This is very much a point and shoot camera with very few Mode adjustments or control over your images. Having said that, if all you want is easy picture taking then this camera will surpass your requirements.

The housing is without doubt the leader. The design and construction is quality and the LCD shade will make viewing in bright conditions much easier. Internally there is a rubber insert which provides precise positioning of the camera as well as light baffling of the LCD screen for maximum contrast.

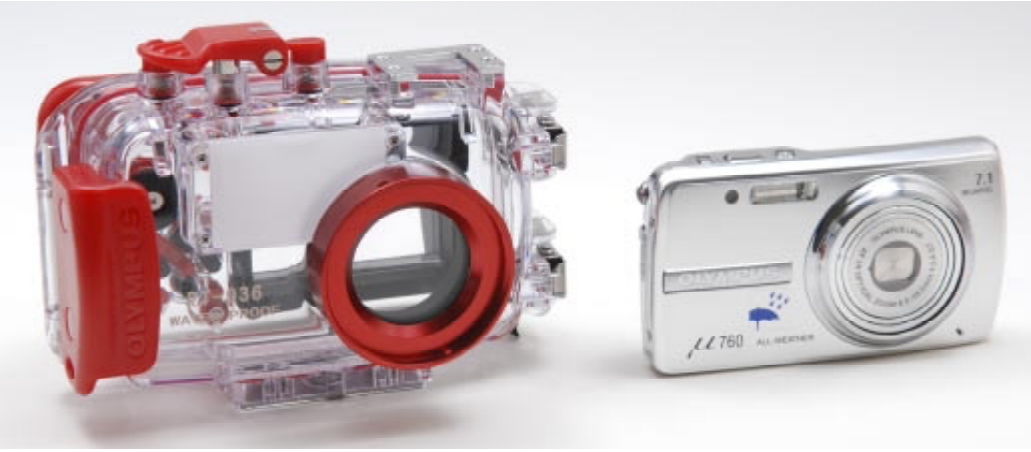


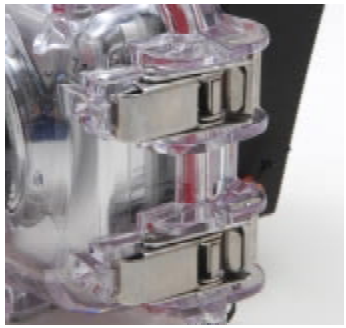
VERDICT

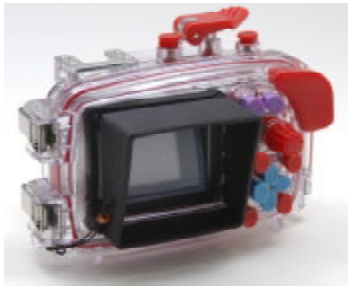
Top quality point and shoot
Value 7/10
Performance 8/10

www.sony.co.uk

Olympus mju760 and PT-036







Olympus housings stand out from the field with their provision of a metal filter thread ring. This allows for accessory lenses and filters to be used which greatly increases the range and quality of pictures they can take. In addition there is an LCD shade. The main push button controls are tiered in length making it easy to differentiate each one.

The closure latches are well shrouded, traditional metal over-centre catches which require a healthy set of fingernails to operate but this does make them virtually foolproof.

The mju760 is a quality point and shoot which is an 'all weather' design so it will survive and shoot in splash environments. Having recently been superceded you can make big savings without a noticeable loss in performance.

VERDICT

Stylish, small and versatile
Value 9/10
Performance 9/10

www.olympus.co.uk