

Press release

June 2003 / Nr. 24e / 03

LEICA DIGITAL-MODUL-R in preparation Cooperation with Imacon A/S and Kodak ISS for digital components in the Leica R System

At the Photokina 2004 photographic trade show in Cologne, Germany, Leica Camera AG of Solms, Germany, is going to present a digital solution for the Leica single lens reflex system: the LEICA DIGITAL-MODUL-R. This new MODUL is being developed in cooperation with the Danish firm Imacon A/S and the Kodak Image Sensor Solutions (ISS) division. The LEICA DIGITAL-MODUL-R is a digital camera back designed to fit regular production LEICA R8 and R9 cameras. Because the two cameras are already designed to function with digital solutions, the new digital back will communicate with the camera's controls, thus integrating seamlessly with the uncomplicated operation of the camera.

Core technical data plans call for a resolution of 10 million pixels (10 megapixels), image storage on SD cards, the use of a firewire interface and a low focal length extension factor of 1.37x. The LEICA DIGITAL-MODUL-R will consist of a digital back and a power supply unit. Available as an accessory, the compact MODUL can be attached to the camera quickly and easily. LEICA R8 and R9 cameras will thus become the world's very first hybrid 35 mm cameras that can be used optionally

for digital or analog photography. All the Leica R high-performance lenses can also be used for digital photography.

“Progress in sensor technology and image processing now makes it possible for us to offer a perfected digital solution at the level of quality that we demand. In keeping with a long established Leica tradition, we are offering a solution that does not depart from the system, but one that also constitutes a harmonious expansion for existing clients”, explains Stefan Daniel, manager of the System Products business unit. With Imacon A/S and Kodak ISS we have gained competent partners whose know-how in digital photography is relevant for the development of the LEICA DIGITAL-MODUL-R.”

With the development of this accessory, having introduced the LEICA R9 at Photokina 2002, and combined with additional lens innovations, Leica Camera AG reasserts its commitment to the high-grade single lens reflex segment. “To us, the image is the primary consideration”, emphasizes the chief executive officer of Leica Camera AG Hanns-Peter Cohn. “The Leica R system stands for the very best optical quality and creative freedom. With the LEICA DIGITAL-MODUL-R, this now applies to its application in digital photography as well”, adds Mr. Cohn.

In the development of the LEICA DIGITAL-MODUL-R, the camera designers in Solms applied the same quality standards for imaging performance, mechanical precision and handling that were used for the cameras themselves. The software and the control of the digital back will be developed and produced by Imacon, based on the profile of Leica requirements. Over the years, the Danish partner has accumulated extensive experience in the field of professional digital photography and high-end scanners.

The sensor The image sensor will consist of a 10 million pixel CCD sensor that is being developed and produced by Kodak ISS especially for the LEICA DIGITAL-MODUL-R. The integration of the sensor into an existing camera concept requires that the sensor and its housing be positioned at the film gate of the LEICA R8 or R9 camera. That is why the active surface of the sensor is smaller than the area of the film gate. We succeeded in limiting the resulting focal length extension factor to a modest 1.37x. The pixels on the surface of the sensor, which measure 6.8 μm , were optimized for the stringent requirements of digital still camera applications. The effective imaging area of the sensors measures 26.4 x 17.6 mm and it encompasses 10 million picture elements. The range of sensitivity is to extend from ISO 100 to at least ISO 800. “Kodak selected this pixel structure and a special sensor solution in order to satisfy the high demands of photo enthusiasts regarding resolution, sensitivity and dynamic range”, comments Helen Titus, worldwide marketing manager for Kodak Image Sensor Solutions in Rochester, NY. “The pictorial results will meet the high quality standards that the market expects of Leica cameras and also of Kodak sensors”.

Operating concept In addition to the quality of the resulting picture, the most important objective in the development of the LEICA DIGITAL-MODUL-R is to provide the photographer with a solution that is as compact as possible, with a logical operating procedure. This means that the settings that are relevant for the exposure are easy to control by means of a clearly legible display and a setting dial, without having to use the menu guide on the color monitor. The functions that can be controlled directly by the photographer are, for example: the sensitivity setting, resolution, compression, white balance, self-timer, and exposure corrections (over-ride). The menu functions on the color monitor serve primarily for the configuration of the LEICA DIGITAL-MODUL-R, such as setting the user profile, color management, or brightness and contrast of the color monitor.

Because of the functions that can be controlled directly during a picture-taking session by means of the setting dial, the content of the menu is minimal and it provides a clear overview.

Color monitor The color monitor on the digital back is used for evaluating the images stored after the exposures: A histogram furnishes detailed information about the dynamics of the photograph, thus providing the possibility of a differentiated analysis of the pictorial result. An audio histogram signals over- and under-exposures acoustically: The photographer is assured of correct exposures while working continuously, without having to move the camera away from the eye.

Power will be supplied by a lithium-ion battery that is being developed especially for the LEICA DIGITAL-MODUL-R.

The dimensions of the camera with an attached LEICA DIGITAL-MODUL-R and its power unit are similar to those of a LEICA R8 / R9 with an attached Motor-Drive R. This is approximately equivalent to (width x height x depth) 158 x 140 x 89 millimeters (6 ¼ x 5 ½ x 3 ½ inches).

The planned non-binding price recommendation for the LEICA DIGITAL-MODULE-R in Germany is to 4,500 Euro.

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