RICOH

Interchangeable unit camera system

GXR

With each slide & change,
a new world of expression

For your next camera, accept no creative limitations.

A camera system shakes up the world of candid photography: GXR

In your everyday world, frankly capture the scenes that unexpectedly sync with your sensibility.

The sweetest expression may be the casual one noticed only by you.

Preserving in an honest image the things you see and the things that touch your heart,

the candid photo becomes a kind of personal documentary,

a landscape of your mind sketched out in images.

For this a compact camera is best, one that can always be with you,

always ready for a casual shot.

And if you could also change the lens in the same way that your perspective

changes to match the scene and mood of the moment, it would bring even

greater possibilities and enjoyment to photo expression.

In search of this ideal, an unprecedented new camera system was born.

The interchangeable unit camera system: GXR.

For a subtlety of sensibility that cannot be touched by an SLR camera.

For a diverse expressiveness out of reach of a compact camera.

Today the candid photo is transcending old boundaries of shooting range.

Interchangeable unit camera system

GXR

Camera unit

GR LENS
A12 50mm F2.5 MACRO

12.30 megapixels	CMOS 23.6mm×15.7mm	50mm fixed focal length	Maximum magnification 1/2x (minimum shooting distance 7 cm)

Camera unit

RICOH LENS
S10 24-72mm F2.5-4.4 VC

10.00 megapixels	CCD 1/1.7-inch	24-72mm optical zoom	1cm minimum shooting distance

*All lens focal lengths in this catalog are converted into 35 mm camera equivalents.

An original system expanding range of expression with interchangeable units

GXR is a unique camera system that consists of a body and camera units. Each camera unit contains a lens (focal lengths differ between units), an image sensor of optimum type and size for the unit, and an image processing engine. By changing units, the photographer can handle a diverse shooting range in a way that satisfies sophisticated requirements for photo expression. The slide mechanism for attachment/removal enables smooth camera units changes.

Compact, high-performance lens design at a level only possible with the interchangeable unit system

It is the lens that gives life to the photograph. In interchangeable lens camera systems up to now, the distance from the mount and the back of the lens to the sensor image plane was subject to requirements for flange back distance and back focal length. This made it difficult to achieve both compactness and high optical performance.
Eliminating the lens mount, however, means that the back focal length can be freely defined for the GXR, enabling it to use the most optically efficient lens designs with the minimum size. In addition, combining the lens and image sensor increases design flexibility so camera units can be developed based on a variety of concepts. This practical inspiration has given birth to a totally new camera system with portability, high image quality and superb expandability and growth potential as a system.

Compact size, high image quality, and unlimited

A highly airtight system so no worrying about dust when changing lenses

The ease with which dust can adhere to image sensors has been a system problem for interchangeable lens digital cameras up to now. In the case of GXR camera units, however, the lens and the image sensor are integrated into a single unit. This structure makes it difficult for dust to get in since it is not necessary to expose the inside of the camera when changing lenses. In addition, the inside of the units are highly airtight with light-shielded walls. Even in highly dusty shooting environments, camera units can be changed without hesitation.

Designs optimized to make the most of lens and image sensor capabilities

In order to make the best use of the inherent power of the lens and the image sensor, the ideal solution is to combine both in a single unit. Consider, for example, the low-pass filter covering the surface of the image sensor.
The dilemma faced is that while the filter helps prevent color noise and color moiré, increasing this benefit results in an ever greater sacrifice in lens resolution. Traditional interchangeable lens systems must use a single low-pass filter for all lenses so they are unable to avoid situations where the filter effect is excessive or inadequate. With the GXR, on the other hand, we can design a low-pass filter optimized for the resolution of the specific lens. In this way, Ricoh has succeeded in effectively preventing color noise while minimizing filter influence on lens resolution.

future potential. When compromise is not an option, this is the camera system you get.

Slide mechanism for high precision and reliability

In a relationship similar to that of an SLR and its lens mount, the guide rail is a defining characteristic of the GXR system. To create a highly reliable slide mechanism, stainless steel with superior strength and corrosion resistance was adopted for the rails. Surface hardness and wear resistance were further enhanced with a soft-nitriding process, the end result being a high-precision slide for attachment and removal. The combination of the slide, the resin components, and the pressure-welded springs give an appropriate sliding feel and quietness. The reliability of both the mechanical and electrical connections has been verified in high-stress attachment/removal testing of the slide mechanism.

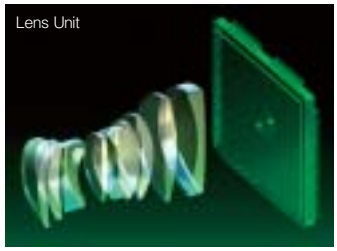
The exterior itself is a functional aspect of the camera. Magnesium alloy cover

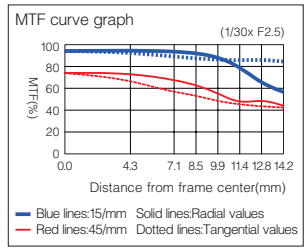
For their exterior covers, both the body and the camera units utilize a light and strong magnesium alloy with superior precision-molding, heat-dissipation, and magnetic-shielding characteristics. Durability and high-class impression are further enhanced by a high-class, non-slip "pear-skin" baked finish with strong corrosion and wear resistance.

Paired with a 23.6 mm×15.7 mm image sensor, this GR LENS is a standard macro boasting superb definition and refined bokeh.

New system enables higher dimension of optical performance

The lens configuration has 8 groups and 9 elements. Making good use of the new system's advantage of not having to accommodate back focal length, we were able to design the refractive capabilities of each element in a more efficient and practical manner than is possible for SLR interchangeable lenses. Partly thanks to the use of a large-diameter aspherical element, this lens achieves a superior level of edge-to-edge resolution and image quality unimaginable for its small size.
In addition, there is little vignetting so richly luminous, natural-form bokeh extends to the edge. The floating structure corrects various types of aberrations that tend to occur in close-up photography. Even at the minimum shooting distance, this lens gives excellent definition and sharpness worthy of the GR LENS name.





Beautiful bokeh and imaging power.23.6 mm × 15.7 mm CMOS sensor

The CMOS sensor boasts 23.6 mm × 15.7 mm size for rich bokeh and approximately 12.30 million effective pixels for superior resolution. Supporting the exceptional optical performance of the GR LENS, this image sensor enables the photographer to obtain both crisp details and refined bokeh, and the wide dynamic range gives rich tonal gradations. The result is high image quality that demands printing in large format.

Maximum 1/2x magnification and a focus ring for full-fledged close-up photography

Close-up photography at a maximum magnification of 1/2x is possible, with the minimum shooting distance approximately 7 cm from the front of the lens. A manual focus ring is also provided. If the body focus setting selected is AF+MF, after the AF focusing is done it is possible to turn the focus ring to make fine adjustments to the focus.

*When the focus setting is AF, it is not possible to adjust the focus with the focus ring.

Beautifully shoot and relive the excitement. High definition (HD) movie function

Enjoy shooting HD movies. Image size is 1280×720, aspect ratio 16:9, and frame rate 24 frames/sec. Utilizing the high sensitivity (maximum ISO 3200) and the beautiful bokeh made possible by the F2.5 aperture and the large image sensor, it is possible to create impressive movies with a different feel than those of standard video cameras. The GXR body has an HDMI connector so for large-screen movie viewing it can be connected to TVs supporting HDMI. *HDMI cable sold separately.

GR LENS A12 50mm F2.5 MACRO – Other Major Specifications

Item		Specifications
Effective pixels		Approximately 12.30 million
Image sensor		23.6x15.7mm CMOS (total pixels: 12.90 million)
Lens	Focal length	33 mm (35 mm format equivalent: 50mm)
	Aperture(f-number)	f/2.5 – f/22(ND filter used for apertures of f/22 in auto shooting mode)
	Focus range	Normal shooting: Approx. 30 cm –infinity, Macro shooting: Approx. 7 cm - infinity (maximum magnification 1/2x)
	Construction	9 elements in 8 groups
Zoom		4.0× digital zoom (3.6x for movies), 5.9x auto resize zoom (VGA)
ISO sensitivity (Standard Output Sensitivity)		AUTO, AUTO-HI, ISO200 / ISO400 / ISO800 / ISO1600 / ISO3200
Shutter speed		Photographs: 1/3200 – 180 sec. Movies: 1/30 – 1/2000 sec.
Continuous mode (Picture Size: RAW)		Noise Reduction off: 4 pictures (ISO800 and higher)
Continuous shooting capacity		Photographs: 4288 × 2416, 3776 × 2832, 4288 × 2848, 2848 × 2848, 3456 × 1944, 3072 × 2304, 3456 × 2304, 2304 × 2304, 2592 × 1944, 2048 × 1536, 1280 × 960, 640 × 480 Movies: 1280 × 720, 640 × 480, 320 × 240
Battery life		Based on CIPA standard, DB-90: approx. 320 shots
Dimensions (W × H × D)		Camera unit only:68.7 mm × 57.9 mm × 38.6 mm (excluding projections) When mounted on the camera body:113.9 mm × 70.2 mm × 44.4 mm (excluding projections)
Weight		Camera unit only: Approx. 263g Mounted on camera body: Approx. 423g (not including battery, SD memory card, or neck strap), accessory weight: approx. 23g (battery, strap)

GR LENS A12 50mm F2.5 MACRO, 1/125sec, f/2.5, ISO200, WB: MANUAL, no

trimming

Camera unit

GR LENS A12 50mm F2.5 MACRO

12.30 megapixels	**CMOS** 23.6mm×15.7mm	**50mm** fixed focal length
Maximum magnification 1/2x (minimum shooting distance 7 cm)	**HD movies** 1280×720P	**4 frames/sec.** RAW continuous shooting

RICOH LENS S10 24-72mm F2.5-4.4 VC, 1/25sec, f/2.5, ISO400, WB: MANUAL, no trimming

For a diverse range of photo subjects.
"Everyday" zoom coverage from wide-angle to medium telephoto.

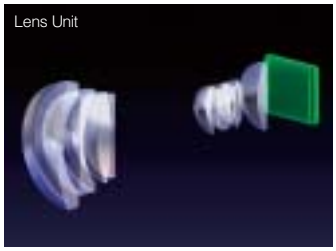
Camera unit

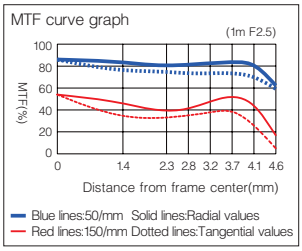
RICOH LENS S10 24-72mm F2.5-4.4 VC

10.00 megapixels	**CCD** 1/1.7-inch	**24-72mm** optical zoom
1cm minimum shooting distance	**VGA movies** 640×480P	**5 frames/sec** RAW continuous shooting

Excellent correction of various types of aberrations. Sharp optical performance at all focal lengths

With wide focal length coverage in a single lens, the 24-72 mm 3x optical zoom can handle a diverse range of subjects. The lens configuration has 7 groups and 11 elements, and the rear focus technique convenient for fast AF is used.
Beginning with a large-diameter aspherical lens as the first element, there are a total of four aspherical lens elements situated in optimum positions. Using special low-dispersion glass and other techniques, we have achieved suppressing image distortion and color fringing near the edge, even at 24 mm wide-angle. With an extravagant optical design, compact size is maintained while achieving high-resolution and contrast at all focal lengths. In production, the lens group optical axis and image sensor gradient are precisely adjusted in micron units. Superior optical performance to the edge of the image is insured before the image is delivered to the photographer.





Approach subject detail from 1 cm range. Close-up photography

Close-up photography with a minimum shooting distance of 1 cm (wide-angle; distance from front of lens) is possible. When used in combination with the digital zoom, which provides greater magnification than standard shooting, it is possible to fill the frame with a subject of about 4.4×3.3 mm size.

High-sensitivity CCD achieves natural and high image quality

Because it can achieve both high image quality and the portability needed for a photographer's "everyday" zoom lens, a 1/1.7-inch CCD is used as image sensor. Providing both high-sensitivity and low-noise, this CCD can handle the wide sensitivity setting range of ISO100 to 3200. Even when shooting at high ISO sensitivity, it is possible to obtain natural high-quality images with low levels of both color noise and luminance noise.

Distinct images without blurring.
Camera shake correction and high-sensitivity setting

RICOH LENS S10 24-72 mm uses the CCD-shift method of camera shake correction. It is effective for preventing the camera shake that can occur in various situations, such as when you want an ambient-light atmosphere for sunset or party scenes, when shooting in museums and other public facilities where flash use is prohibited, when shooting nightscapes beyond flash range, and when shooting dark scenes with medium telephoto. In addition, blurring from both camera shake and subject movement can be suppressed using Auto-Hi (high sensitivity auto), which can be set as high as ISO3200.

RICOH LENS S10 24-72mm F2.5-4.4 – Other Major Specifications

Item		Specifications
Effective pixels		Approximately 10.0 million
Image sensor		1/1.7" CCD (total pixels: approx. 10.40 million)
Lens	Focal length	5.1mm – 15.3mm (35 mm format equivalent: 24-72 mm)
	Aperture(f-number)	f/2.5 – f/4.4
	Focus range	Normal shooting: Approx. 30 cm to infinity/Macro shooting: Approx. 1 cm to infinity (wide angle); Approx. 4 cm to infinity (telephoto); approx. 1 cm to infinity (zoom macro)
	Construction	11 elements in 7 groups
Zoom		3.0 × optical zoom; 4.0 × digital zoom; approx. 5.7 × auto resize zoom (VGA)
ISO sensitivity (Standard Output Sensitivity)		Auto, Auto-Hi, ISO 100, ISO 200, ISO 400, ISO 800, ISO 1600, ISO 3200
Shutter speed		Photographs: 1/2000 – 180 sec. Movies: 1/30 – 1/2000 sec.
Continuous mode (Picture Size: RAW)		Noise Reduction off: 5 pictures (under ISO800)
Continuous shooting capacity		Photographs: 3648 × 2048, 3648 × 2736, 3648 × 2432, 2736 × 2736, 3264 × 1840, 3264 × 2448, 3264 × 2176, 2448 × 2448, 2592 × 1944, 2048 × 1536, 1280 × 960, 640 × 480 Movies: 640 × 480, 320 × 240
Battery life		Based on CIPA standard DB-90: approx. 410 shots
Dimensions (W × H × D)		68.7 mm × 57.9 mm × 38.6 mm (excluding projections) When mounted on the camera body: 113.9 mm × 70.2 mm × 44.4 mm (excluding projections)
Weight		Camera unit only: Approx. 161g Mounted on camera body: Approx. 325g (not including battery, SD memory card, or neck strap), accessory weight: approx. 23g (battery, strap)

What to say, and how to say it?
This system understands the photographer's intentions.

GR LENS A12 50mm F2.5 MACRO, 1/290sec, f/2.5, ISO1600, WB: MANUAL, no trimming

RICOH LENS S10 24-72mm F2.5-4.4 VC, 1/75sec, f/4.4, ISO100, WB: AUTO, no trimming

Freedom to create the best image quality. Image settings adjustable to 9 levels

Image settings include Vivid, Standard, Natural, Black & White, B&W (TE), and Setting. In addition, for Black & White, B&W (TE), and Setting, the range across which vividness, contrast, sharpness, and individual color settings can be adjusted has been broken down into nine levels. So it is now possible to fine tune image finishing in greater detail across a wider range.

ISO3200 high sensitivity, a strong ally in shooting dark scenes and preventing subject blur

Depending on the camera unit being used, high sensitivity settings of up to ISO1600 or ISO3200 are possible. An image sensor with a high signal-to-noise ratio together with an advanced image processing engine make it possible to obtain natural-looking images with a low-noise feel even at high ISO settings. For the sensitivity setting, you can select Auto or Auto-Hi (high sensitivity auto), or specify the sensitivity yourself.

Natural color reproduction. Multi-pattern auto white balance

The GXR segregates the image into multiple areas and applies the optimum white balance to each. For example, in cases such as where a person is photographed with flash in a room illuminated by incandescent light, even if the subject and background have different color temperatures, both are reproduced with natural colors.

Seize that shutter chance. Full press snap

With this quick-shooting function, a one-push full-press of the shutter-release button instantly takes the shot, skipping the usual AF operation. It is possible to select from the following focus distances: 1 m, 1.5 m, 2 m, 2.5 m, 3 m, 3.5 m, 5 m, or infinity.

*Can only be used when focus is set to Multi AF or Spot AF.

Don't miss the moment. M-continuous plus

The camera shoots continuously while the shutter-release button is pressed, and when you remove your finger, it records multiple still images shot just before that instant. For the setting, you can select HI, which gives priority to shooting speed (shooting 30 images in one second), or LO, which gives priority to resolution (shooting 15 images).

*The consecutively shot images are recorded as a single MP file (a file format with multiple still images in a single file). With MP file images, a selected frame can be extracted and saved as an individual JPEG image within the camera. *Focus, exposure, and image size are fixed.

Speedy function settings via DIRECT screen

Pressing the DIRECT button located on the back of the body displays the current shooting settings. Since the settings are transparently displayed over the image, the image and the settings can be simultaneously checked. Then selecting an individual setting with the directional pad, a change* can be quickly made. Background image density (four levels) can be changed by pressing the DISP. button while the DIRECT screen is displayed.

*For certain functions, setting changes cannot be made.

Interchangeable unit camera system

GXR

Flexible response to creative intent. Settings read when camera unit attached

The GXR remembers shooting settings in both the body and the camera unit. It is possible to specify in advance which settings are to be used. Select the body settings if you want to shoot and process images in the same way regardless of the camera unit. Select the camera unit settings if you want to change settings for image creation in a style specific to the camera unit. This increases shooting flexibility and speed by saving the time and effort involved in redoing settings.

Intuitive operation. 8-Directional pad handles diagonal movement

The directional pad handles diagonal movement in addition to the standard up-down and right-left. For example, the directional pad enables smoother and easier operations for AE/AF target selection, for item selection on the DIRECT screen, for image selection on the micro-thumbnail display, etc.

Three My Settings and the My Settings Box

The GXR provides three My Settings. In addition, up to six special purpose and infrequently used My Settings can be saved in a My Settings Box and quickly assigned to the mode dial as necessary.

Direct operability. ADJ. lever and two Fn buttons

Frequently used functions can be assigned to the ADJ. lever. Press at the center to call up the registered functions and then press to the left or right to select a function. Use the + or – button to quickly complete the setting. In addition, there are two Fn buttons to which selected functions can be registered for switching with one push. Setting changes can be made directly without menu operations.

Precise focus checking with a 920,000-dot picture display

The GXR has a 3.0-inch, 920,000-dot VGA picture display. A wide color reproduction range with 100% sRGB coverage gives a high-reality image for both shooting and playback. Precise focus checking and a micro-thumbnail display with up to 81 images are possible. Various coatings are used to insure superior visibility and durability.

[Other functions]

- Pixel output interpolation algorithm effectively suppresses whiteout.
- Noise reduction increases image quality during high-sensitivity shooting.
- Distortion correction reduces the distortion that is characteristic of wide-angle lenses.
  *Done on certain camera units only.
- Level compensation adjusts contrast and tone gradations after shooting.
- Pre-AF speeds up focusing.
- AE/AF target selection provides greater freedom in framing and creative use of light.
- Auto bracketing and white balance bracketing enhance shooting certainty.
- Color bracketing simultaneously records black and white and tinted monochrome images, each with a different feel.
- Manual flash amount enables the control of subject and background light balance.
- Tilt indicator supports quick and accurate camera leveling.
- Flag function enables registration of up to 20 images for easy viewing later.
- Grid guide function provides three patterns for selection to suit the subject.

The GXR system expands your range of expression with a full line of accessories.

Performing with light and shadow. External TTL Flash GF-1

This is an external flash with G.No 18 (24mm) -33(105mm) (ISO100•m). It utilizes an original TTL flash technique to provide precise flash exposure with auxiliary flash. Also capable of bounce flash to softly and naturally illuminate the subject with indirect light, the GF-1 enables the photographer to enjoy a wide range of creative shooting options only possible with an external flash. There are built-in wide-angle diffuser and catch-light panels. When the wide-angle diffuser panel is used, a coverage angle equivalent to 18 mm is possible.

Small size and 920,000-dot high definition. LCD Viewfinder VF-2

Attached to the hot shoe, the LCD viewfinder has a 100% field of view equivalent to approx. 920,000 dots. It provides a wealth of benefits to the photographer, such as eliminating the influence of sunlight to provide a consistently excellent field of view and helping control hand-motion blur by enabling a three-point hold. It can also increase shooting ease by giving a clear view in the viewfinder while the DIRECT screen is shown on the camera picture display. With a high-performance viewfinder optical system utilizing an aspherical lens, the VF-2 achieves a low-distortion field of view, a high image magnification ratio, and a wide diopter correction range (–4.5 - +2.5Dpt). The tilt capability is convenient for low-angle shooting. (Case included)

For wide-angle shooting wider than the naked eye. Wide Conversion lens DW-6

This is a convenient accessory for shooting at a wider wide-angle and for achieving a more extreme sense of distance. Magnification is 0.79x, and used at the maximum wide-angle setting it enables 19 mm ultra-wide-angle photography. Optimized for the optical system of the camera unit, the DW-6 consists of three glass lenses.

*Optional accessories for RICOH LENS S10 24-72 mm
*For use, the hood & adapter (HA-3) are necessary.
*When attached, the internal flash cannot be used because vignetting would occur.

Frame and capture your target. Teleconversion Lens TC-1

This magnification 1.88x teleconversion lens extends the focal length of the camera unit lens, reaching 135 mm at maximum telephoto. Of course, a telephoto lens will bring far away subjects closer, but the photographer can also enjoy a variety of other effects, such as isolating one small area from the overall field of view, creating dramatic scenes, and imposing order on the image composition.

*Optional accessories for RICOH LENS S10 24-72 mm
*For use, the hood & adapter (HA-3) are necessary.
*When attached, the internal flash cannot be used because vignetting would occur.
*When attached, vignetting may occur at all zoom positions other than maximum telephoto.

Great for preventing hand-motion blur. Cable Switch CA-1

The cable switch is effective for scenes where hand-motion blur tends to occur and also for long exposures when using a tripod for nightscapes or macro shooting. It can do both half-press and full-press operations. Easy to use total length of approx. 65 cm (from grip end to connector end).

System diagram

For greater shooting flexibility. Self-retaining Lens Cap LC-2

This hinged-type lens cap opens and closes automatically when the lens barrel extends and retracts. It increases shooting flexibility by eliminating the inconvenience of having to remove/attach the lens cap. There is also no more worry about lens cap loss. Bayonet-type mount.

*Optional accessories for RICOH LENS S10 24-72 mm
*When the LC-2 is used, Hood & Adapter HA-3 cannot be used.

Bayonet type for easy mounting. Hood & Adapter HA-3

Attaches to camera unit with a bayonet-type mount. The 43 mm diameter filter threading at the tip can be used to attach conversion lenses and the exclusive hood. Universal filters (43 mm diameter), such as polarization, cross-screen, and soft-focus filters, can also be attached to expand range of expression.

*Optional accessories for RICOH LENS S10 24-72 mm

Small size and high capacity. Rechargeable Battery DB-90

This lithium-ion battery boasts the high capacity of 1700mAh while still being small size and light weight. When traveling for business or pleasure, a charged spare will provide peace of mind with respect to an unforeseen dead battery.

Be ready to charge anywhere. Battery Charger BJ-9

This is the charger for rechargeable battery DB-90. Small and light, it can be easily carried for charging while away from home or office. With a rated input current of 100 to 240 V, 50/60 Hz, it can also be used overseas. Same as charger supplied with camera body.

*Electric plug shapes vary by country and region. Please check in advance and bring an adapter if necessary.

Stylish neck strap. Neck Strap ST-3

A slim two-point neck strap with the RICOH logo. Total length 1 m.

Protect your camera. Soft Cases SC-55S/SC-55L

The SC-55S can be used when RICOH LENS S10 24-72 mm is attached to the body, and the SC-55L is also available for use with GR LENS A12 50 mm.

*Camera will not fit in case when LCD viewfinder VF-2 is attached to the body.

Soft Case SC-55S

Soft Case SC-55L

GXR

< Accessories included >
•Rechargeable Battery •Battery charger •AV Cable •USB Cable •Strap
•CD-ROM •Instruction Manual(Camera User Guide)
*Warranty CardSoftware manual supplied on CD-ROM

GR LENS A12 50mm F2.5 MACRO

< Accessories included >
•Lens cap •Connector cap •Soft case •Instruction manual •Warranty

RICOH LENS S10 24-72mm F2.5-4.4 VC

< Accessories included >
•Connector cap •Soft case •Instruction manual •Warranty

•GXR Major Specifications

Item		Specifications
Flash	Mode	Auto (flash fires when lighting is poor or subject is backlit), red-eye, on, slow sync, manual, off
	Range (built-in flash)	Refer to camera unit specifications.
	Flash compensation	±2.0 EV in increments of 1/2EV or 1/3EV
	Manual flash amount	FULL, 1/1.4, 1/2, 1/2.8, 1/4, 1/5.6, 1/8, 1/11, 1/16, 1/22, 1/32, 1/64
Picture display		3.0˝ transparent LCD; approx. 920,000 pixels
Shooting mode		Auto, program shift, aperture priority, shutter priority, manual, scene (movie, portrait, sports, landscape, nightscape, skew correction) My Settings"
Picture quality		Fine, Normal, RAW (DNG) *1
Storage		SD/SDHC memory card, internal memory (approx. 86 MB)
File format	Still Image	JPEG (Exif Ver. 2.21) *2, RAW (DNG)
	Movie	AVI *3 (Open DML Motion JPEG compliant)
	Compression	JPEG baseline compliant (photographs and movies)
Other shooting options		Continuous shooting (continuous, M-Cont Plus); self-timer (shutter release delay of approx. 10 s or 2 s, or custom setting); interval timer (intervals of 5 s to 1 hour in increments of 5 s) *4; color bracketing; B&W (TE); color space selection; noise reduction; histogram display; framing grid; depth-of-field indicator; tilt indicator; hot shoe
Other playback options		Auto image rotation (when camera unit attached); multi-frame playback; playback zoom (up to 16 ×); resize
Interface		USB 2.0 (High-Speed) Mini-B connector; Mass Storage *5; AV output (NTSC), HDMI connector (Mini HDMI Type C)
Video signal format		NTSC, PAL
Power source		DB-90 rechargeable battery (3.6V)
Battery life		Refer to camera unit specifications.
Dimensions (W × H × D)		113.9 mm × 70.2 mm × 28.9 mm (excluding projections)
Weight		Camera body (excluding battery, memory card, neck strap, and connector cap): 160 g Battery, neck strap, and connector cap: 66 g
Tripod screw hole		1/4-20UNC
Operating temperature		0 °C to 40 °C
Date storage time		Approx. 1 week
Operating humidity		85% or less
Storage temperature		–20 °C to 60 °C

*1 A JPEG file is also recorded (the JPEG file may be a fine or normal quality file with the same dimensions as the RAW file or a VGA file). RAW files use the standard DNG format promoted by Adobe Systems Incorporated
*2 Compatible with the Design rule for Camera File system (DCF, a JEITA standard) and DPOF. Full compatibility with other devices is not guaranteed.
*3 Audio: PCM 32 kHz, 16 bit monaural
*4 Flash off.
*5 Mass Storage is supported under Windows 2000, Windows XP, Windows Vista®, and Mac OS X 10.4–10.5.7.

•GXR Optional Accessories

Product Name	Model Name
Hood & Adapter *3	HA-3
Wide Conversion Lens *1 *3	DW-6
Teleconversion Lens *1 *3 *4	TC-1
External Flash	GF-1
External Viewfinder	VF-2
Cable Switch	CA-1
Soft Case *3	SC-55S
Soft Case *2	SC-55L
Neck Strap	ST-3
Self-retaining Lens Cap *3	LC-2
Rechargeable Battery	DB-90
Battery Charger	BJ-9

*1 For use, the hood & adapter (HA-3) are necessary. When attached, the internal flash cannot be used because vignetting would occur.
*2 Optional accessories for GR LENS A12 50mm F2.5 MACRO
*3 Optional accessories for RICOH LENS S10 24-72 mm
*4 When attached, vignetting may occur at all zoom positions other than maximum telephoto.

•GXR Software

	Windows Vista	Windows XP	Windows 2000
1. DL-10	○	○	○
2. Irodio Photo & Video Studio	○	○	○
3. Adobe Reader	○	○	○

*To playback MP files and output still images from MP files on a Macintosh PC, please use the enclosed VM-1 Macintosh software for viewing MP files (compatible OS: Mac OS X 10.4-10.5.7).

•GXR System Requirements

	Windows
Operating system	Windows 2000 Professional Service Pack4 Windows XP Home Edition Service Pack 3/ Professional Service Pack 3 Windows Vista Service Pack 2
CPU	Windows 2000/ Windows XP : Pentium®III 500MHz or more, Windows Vista : Pentium®III 1GHz or more
Memory	Windows 2000 / Windows XP : 256MB or more , Windows Vista : 512MB or more
Available disk space on hard drive at installation time	160MB or more
Display Resolution	1024×768 dots or greater
Display Colors	65,000 colors or greater
CD-ROM Drive	A CD-ROM drive compatible with the above-mentioned computer
USB Port	A USB port compatible with the above-mentioned computer

*When the GXR is connected to a PC, only a USB connection can be used. Serial connection is not supported.
*It is necessary for the above OS to be preinstalled and for the USB port to be standard equipment.
*The 64-bit OS version is not supported.
*The GXR is compatible with MAC OS 9.0 to 9.2.2 and Mac OS X 10.1.2 to 10.5.7 by mass storage connection.

•GR LENS A12 50mm F2.5 MACRO Storage Capacity (Number of Images and Time)

Mode	Quality	No. of Pixels Recorded	Internal Memory	1GB	2GB	4GB	8GB	16GB	32GB
Still	RAW*	4288×2416	4 images	49 images	100 images	197 images	404 images	810 images	1625 images
	FINE	3776×2832	4 images	47 images	97 images	191 images	391 images	784 images	1573 images
		4288×2848	3 images	42 images	85 images	168 images	343 images	688 images	1380 images
		2848×2848	5 images	63 images	128 images	251 images	513 images	1029 images	2065 images
	L	4288×2416	21 images	235 images	476 images	935 images	1912 images	3830 images	7684 images
	FINE	3776×2832	20 images	227 images	462 images	907 images	1854 images	3715 images	7453 images
		4288×2848	18 images	200 images	407 images	799 images	1633 images	3272 images	6565 images
		2848×2848	27 images	299 images	608 images	1195 images	2442 images	4893 images	9815 images
	M	3456×1944	32 images	357 images	724 images	1419 images	2902 images	5814 images	11662 images
	FINE	3072×2304	30 images	337 images	683 images	1341 images	2741 images	5491 images	11014 images
		3456×2304	27 images	302 images	614 images	1206 images	2466 images	4941 images	9913 images
		2304×2304	41 images	447 images	903 images	1774 images	3627 images	7267 images	14578 images
Movie	1280×720 24(15frames / sec.)		21"	3'49"	7'46"	15'58"	31'10"	62'26"	125'15"
	640×480 24(15frames / sec.)		1'	11'2"	22'27"	46'10"	90'7"	180'32"	362'9"
	320×240 24(15frames / sec.)		2'25"	26'24"	53'43"	110'27"	215'35"	431'52"	866'19"

*When RAW is selected, this is the compression rate for the simultaneously recorded copy.*For shooting capacity, the number of still images and movie time are estimates. *The number of exposures remaining as shown on the picture display may differ from the actual number because image file size varies depending on the subject. *The shooting capacity for number of still images and movie recording time may vary depending on the capacity of the recording media (internal memory or SD memory card), the shooting conditions, and the type and manufacturer of the SD memory card. *A high-speed memory card is recommended when shooting for long periods. *For other compression rates please check the website.

•RICOH LENS S10 24-72mm F2.5-4.4 VC Storage Capacity (Number of Images and Time)

Mode	Quality	No. of Pixels Recorded	Internal Memory	1GB	2GB	4GB	8GB	16GB	32GB
Still	RAW*	3648×2048	6 images	68 images	138 images	272 images	556 images	1115 images	2237 images
	FINE	3648×2736	4 images	51 images	104 images	204 images	418 images	837 images	1680 images
		3648×2432	5 images	57 images	117 images	229 images	469 images	941 images	1888 images
		2736×2736	6 images	68 images	138 images	271 images	555 images	1113 images	2232 images
	L	3648×2048	29 images	323 images	653 images	1284 images	2624 images	5257 images	10546 images
	FINE	3648×2736	22 images	242 images	497 images	965 images	1973 images	3953 images	7930 images
		3648×2432	24 images	272 images	553 images	1087 images	2222 images	4452 images	8930 images
		2736×2736	29 images	323 images	653 images	1284 images	2642 images	5257 images	10546 images
	M	3264×1840	36 images	397 images	808 images	1588 images	3245 images	6502 images	13043 images
	FINE	3264×2448	27 images	300 images	608 images	1195 images	2442 images	4893 images	9815 images
		3264×2176	30 images	337 images	683 images	1341 images	2741 images	5491 images	11014 images
		2448×2448	36 images	400 images	808 images	1588 images	3245 images	6502 images	13043 images
Movie	640×480 24(15frames / sec.)		49"	8'55"	18'8"	37'18"	72'50"	145'54"	292'41"
	320×240 24(15frames / sec.)		1'59"	21'39"	44'2"	90'33"	176'44"	354'3"	710'13"

*When RAW is selected, this is the compression rate for the simultaneously recorded copy.*For shooting capacity, the number of still images and movie time are estimates. *The number of exposures remaining as shown on the picture display may differ from the actual number because image file size varies depending on the subject. *The shooting capacity for number of still images and movie recording time may vary depending on the capacity of the recording media (internal memory or SD memory card), the shooting conditions, and the type and manufacturer of the SD memory card. *A high-speed memory card is recommended when shooting for long periods. *For other compression rates please check the website.

For more information, visit:
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