

photokina News

Super WA lens for the largest sensor and stitch formats

HR Digaron-W 32 mm f/4

Our lens series Rodenstock HR Digaron-W with an amazing resolution of 80 lp/mm and image circle diameters of at least 90 mm has been designed for the largest sensor formats up to 36x56 mm and 40x54 mm as well as for even larger stitch formats up to 49x71 mm. Now we introduce a new excellent super wide-angle lens **HR Digaron-W 32 mm f/4** with an equivalent (35 mm full-format) focal length of 20.6 mm when used with a 40x54 mm sensor or of 16,5 mm when used for stitching to a format of 49x71 mm. Despite its very short focal length, it provides the same large image circle of 90 mm like the other HR Digaron-W wide-angle lenses, and it allows the same wide shift-and-tilt movements for perspective control and extended depth of field. Now, the Rodenstock lens series HR Digaron-W for large sensor formats up to 40x54 mm and stitch formats up to 49x71 mm comprises five focal lengths of 32 mm, 40 mm, 50 mm, 70 mm and 90 mm.

The HR Digaron-W 32 mm f/4 provides the following features:

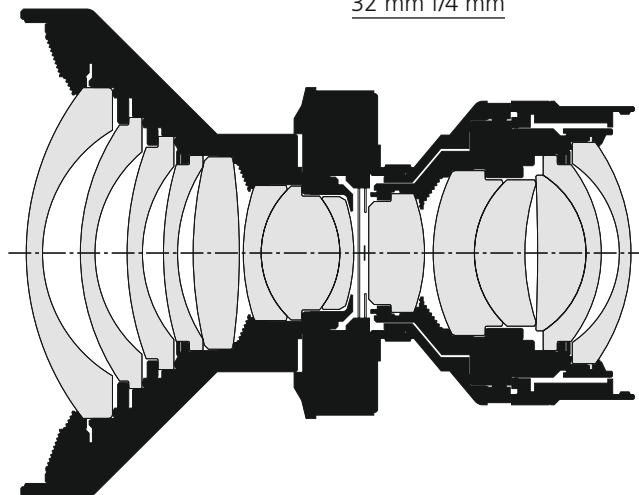
- For shift-and-tilt movements, its large back focal length of 22.3 mm leaves free space between the rear mount and the sensor, without touching the sensor or the rear standard.
- The long flange focal length of 69.2 mm allows focusing at infinity with all technical cameras with a flat lens board, which makes it much easier to set the aperture and the shutter speed and permits the use of the Rollei Electronic shutter.
- The retro-focus design causes a steeper light incidence at the margin. Therefore, the further fall-off in illumination, which is inevitable when using micro lens sensors, can be avoided.
- Vignetting eliminated at f/8.
- The optical effect of the sensor cover glass has been taken into account in the optic calculation for eliminating its spherical and chromatic aberration, as well as its astigmatism.
- The high tech multi-coating ensures ultimate transmission, excellent contrast and freedom from ghost and flare.
- A new dedicated center filter with specially matched sloping absorption will be available for the HR Digaron-W 32 mm f/4.

The HR Digaron-W 32 mm f/4 in Copal shutter size 0 is available also with the "Focus-Mount" helical focusing mount.



Data sheets

- [Formats, dimensions, shutter data](#)
- [Image circles, movement ranges](#)
- [Performance data 32 mm f/4 mm](#)



A breathtaking super wide-angle lens with an image circle for sensor up to 40x54 mm and even larger stitch formats and a resolution up to 60 megapixels (pixel pitch ≈ 6 µm)

photokina News

HR Digaron-W

[◀ Back to lens description](#)

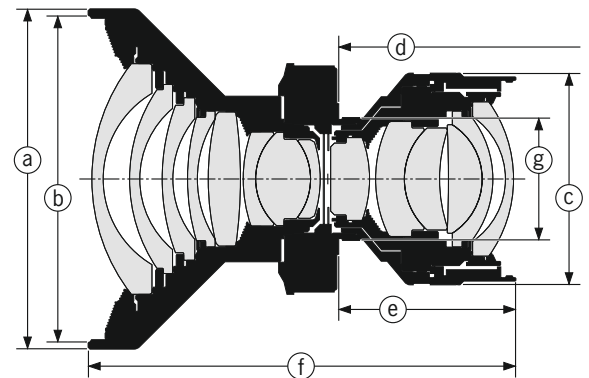
Formats, shutter sizes, dimensions, weight

Lens	Maximum recomm. format ¹⁾	Shutter size	Push-on mount Ø (a)	Filter thread (b)	Rear barrel Ø (c)	Flange foc. length ²⁾ (d)	Flange to lens end (e)	Overall length (f)	Weight with Copal
New: 32 mm f/4	40×54 mm	0	90 mm	M 86 × 1.0	56.0 mm	69.2 mm	46.9 mm	113.2 mm	795 g
40 mm f/4	40×54 mm	0	70 mm	M 67 × 0.75	56.0 mm	69.5 mm	44.4 mm	96.4 mm	530 g
50 mm f/4	40×54 mm	0	70 mm	M 67 × 0.75	51.0 mm	76.0 mm	44.3 mm	98.4 mm	550 g
70 mm f/5.6	40×54 mm	0	60 mm	M 58 × 0.75	48.0 mm	72.7 mm	23.6 mm	72.8 mm	340 g
90 mm f/5.6	72×96 mm	0	70 mm	M 67 × 0.75	60.0 mm	93.1 mm	33.2 mm	82.0 mm	460 g

1) Larger stitch formats up to 49×71 mm may also be used with smaller movement range (please see table and image circle drawing on the next page)

2) With Copal shutter for scale 1:∞

All lenses of the HR Digaron-S series are available not only with the shutters given in the following table, but also with a normal mount (with 39 mm Leica thread) or alternatively with the helical "Focus-Mount".



Focusing range & flange focal length with the helical Focus-Mount

Lens	Focusing range	Flange foc. length (d)	Max. flange to lens end (e)
New: 32 mm f/4	∞ – 0.4 m / 1.2 ft	50.5 mm	28,2 mm
40 mm f/4	∞ – 0.5 m / 1.6 ft	50.8 mm	25,7 mm
50 mm f/4	∞ – 0.8 m / 2.6 ft	57.3 mm	25.6 mm
70 mm f/5.6	∞ – 0.8 m / 2.6 ft	54.0 mm	4.9 mm
90 mm f/5.6	∞ – 1.3 m / 5.0 ft	74.4 mm	14.5 mm

Using digital lenses on cameras without bellows such as shift or panoramic cameras requires the use of a focusing facility. For this purpose, the Focus-Mount can be combined with all Rodenstock lenses in Copal shutter size 0. Existing lenses can be installed at a later date by the manufacturer.

Shutter data		Manual cocking	Self cocking	Mechanical	Electronic	X-synchronized	Smallest f-stop increments	Screw thread (g)	Lens board opening	Lens board thickness	Accessories required
Shutter type and size	Shutter speeds range										
Copal 0	B, T, 1/500 s ... 1 s	•	•	•	•	•	1/10	M 32.5 × 0.5	34.8 mm	1.5 ... 4 mm	
Rollei Electron. 0	B, 1/500 s ... 30 s					•		M 39 × 0.75	41.8 mm	1.5 ... 3 mm	Control Unit

The lenses of the Rodenstock series HR Digaron-W have been optimized for large sensor formats with a pixel pitch of about 6 µm for highest resolution up to 60 megapixels

photokina News

HR Digaron-W

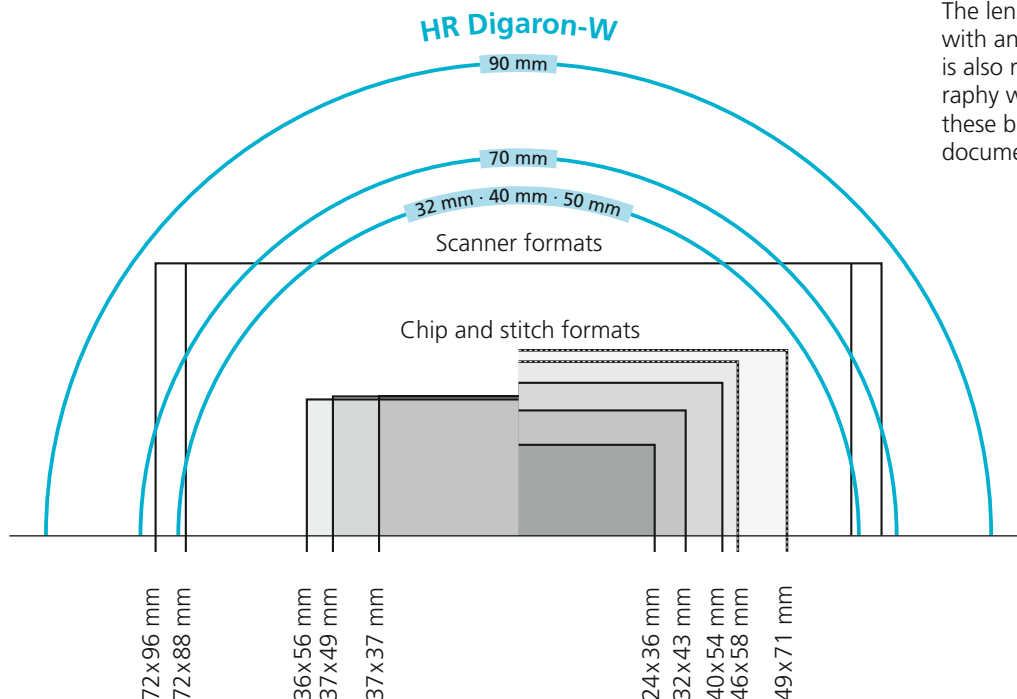
[◀ Back to lens description](#)

Working apertures, image angles, image circles and movement ranges

Lens	Ref. image scale	Recomm. working f-stop	Image angle	Image circle diameter	Movement range [mm] ³⁾ vertical/horizontal (landscape format)					
					24x36 mm	37x37 mm	33x44 mm	37x49 mm	36x56 mm	40x54 mm
New: 32 mm f/4	1:∞	5.6-8	107°	90 mm	29 / 25	23 / 23	23 / 20	19 / 17	17 / 13	16 / 13
40 mm f/4	1:∞	5.6-8	94°	90 mm	29 / 25	23 / 23	23 / 20	19 / 17	17 / 13	16 / 13
50 mm f/4	1:∞	5.6-8	82°	90 mm	29 / 25	23 / 23	23 / 20	19 / 17	17 / 13	16 / 13
70 mm f/5.6	1:∞	5.6-8	70°	100 mm	35 / 31	28 / 28	23 / 25	25 / 22	23 / 19	22 / 19
90 mm f/5.6	1:∞	5.6-11	70°	125 mm	48 / 43	41 / 41	42 / 38	39 / 35	38 / 32	36 / 32

³⁾ These values apply to the recommended working aperture at the given scale; with increasing scale image circle and movement ranges increase

Image circles (original size)



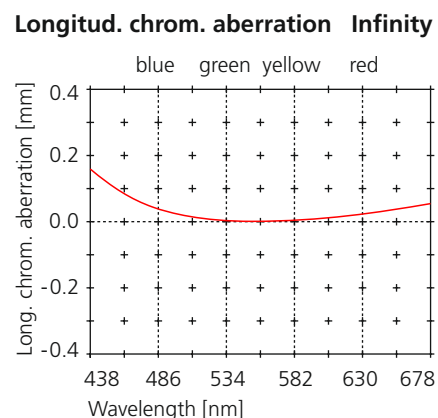
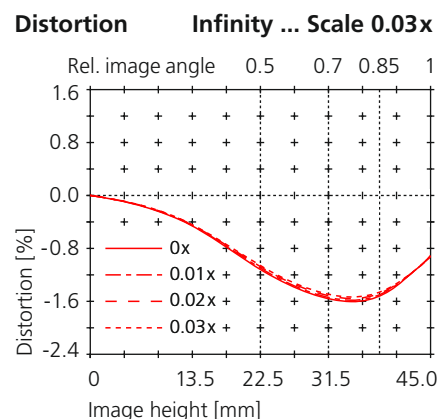
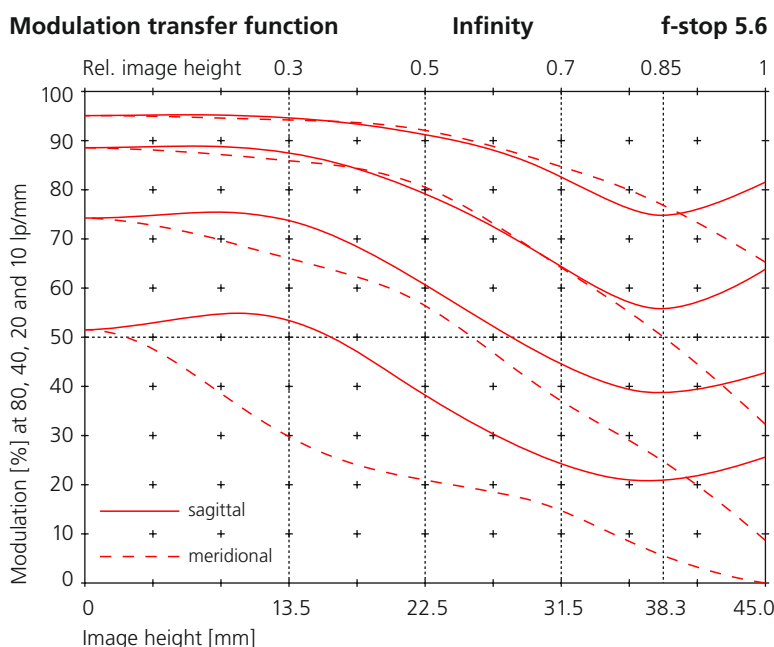
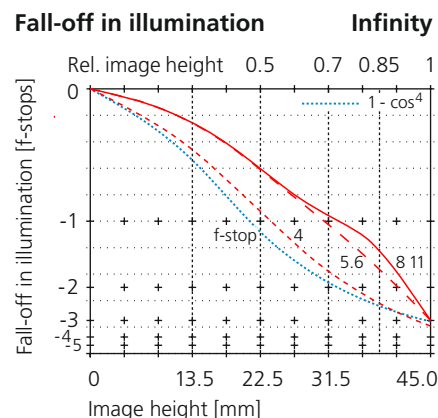
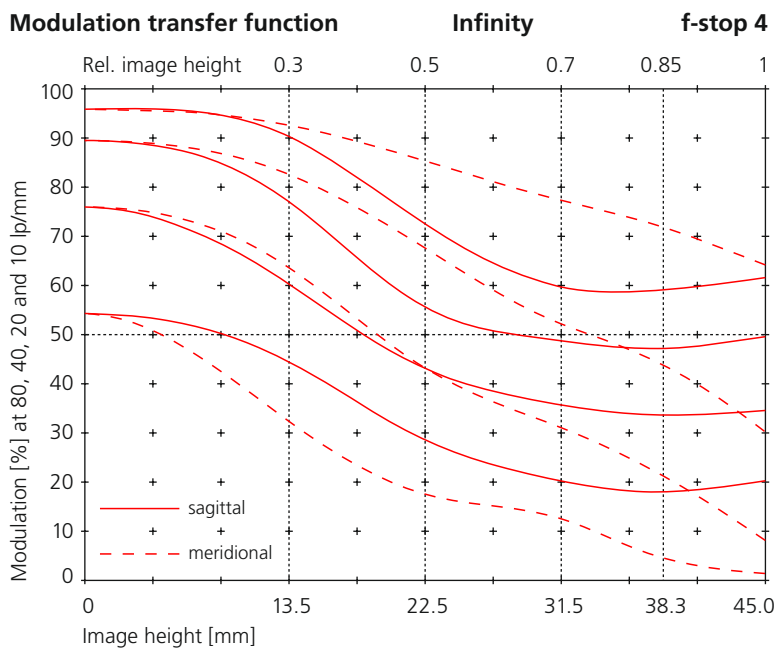
The lens HR Digaron-W 90 mm f/5,6 with an image circle diameter of 125 mm is also recommended for digital photography with scanning backs. Above all, these backs are used for reproduction, documentation and library pictures.

These high-tech digital lenses for studio cameras provide noticeably larger image circles for shift and tilt than those common digital lenses designed for 35 mm format sensors

photokina News

HR Digaron-W 32 mm f/4

[◀ Back to lens description](#)



**All spatial frequencies [line pairs/mm],
image heights [mm] and scales
are related to the film or sensor side**

Qioptiq Photonics GmbH & Co. KG
Rodenstock Photo Optics
Hans-Riedl-Str. 9
85622 Feldkirchen (Muenchen) · Germany

Phone +49 (0)89 25 54 58-285
Telefax +49 (0)89 25 54 58-164
e-mail photo@qioptiq.de
Internet www.rodenstock-photo.com