Xenon-Diamond

Schneider offers a highly sophisticated, new family of line scan lenses, called Diamond lenses for large magnifications such as -2.6x, -3.5x or -5.2x. They are optimized for highest resolution and very high image quality when used with 12K scan lines with 5 µm pixel size (pitch) which means MTF@72 lp/mm > 0.40 on the image side for an image size of 62.5 mm. Actually Diamond lenses can also be used for image sizes as large as 82 mm to also cover 16 K/5 µm-pitch lines.As usual Diamond lenses are compact, robust and lockable in distance and apertures. The 400 - 1000 nm broadband coating makes it suitable for applications in the visible and the near infrared spectrum. The V-mount makes it easy to install and rotate into the desired azimuth position. For each magnification there are two lens versions: one regular type for use without beam splitter or with pellicle and one for use with a beam splitter prism made of BK 7 and a thickness of 25 mm.

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product	mount	focal length (F) in mm	aperture (f)	recommended magnification range	length in mm	lens Ø max in mm	Filter-thread	weight in grams	code no.
XENON-DIAMOND 2.7/111	V70-Mount	111	2.7 - 8	2.6X (±5%)	132.4	75	M 40.5 x 0.5	ca. 950	1078039
XENON-DIAMOND 2.9/106	V70-Mount	105	2.9 - 8	2.6X with beam splitter	127	75 / 95	M 40.5 x 0.5	ca. 1200	1076949
XENON-DIAMOND 2.2/117	V90-Mount	117	2.2 - 11.3	3.5X (±5%)	174	95.6	M 40.5 x 0.5	ca. 1920	1076963
XENON-DIAMOND 2.3/116	V90-Mount	116	2.3 - 11.3	3.5X with beam splitter	174	95.6 / 95	M 40.5 x 0.5	ca. 2160	1079718
XENON-DIAMOND 1.5/82	V70-Mount	82	1.5 - 11	5.2X (±3%)	140	75	M58 x 0.75	ca. 1040	1079320
XENON-DIAMOND 1.6/80	V70-Mount	80	1.5 - 11	5.2X with beam splitter	166.1	75 / 95	M58 x 0.75	ca. 1290	1081873

Image circle in mm / (Sensor): 62.5 (12k) / 82 (16k) • Resolution in Mpixel at max. sensor size: 5µm (12k) / 5µm (16k)