Photon etc
A spectrum of solutions

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HypIRia™

SWIR LENSES - 1.0 to 2.9 µm

The HypIRia are wide-aperture, image-space telecentric lenses precisely crafted to provide clear and bright images in the SWIR spectral range. A broadband anti-reflective coating on carefully selected glass delivers high throughput and low-aberration imaging on an range extending from 1.0 to 2.9 µm.

A translational focus provides excellent stability during focusing. Robustly built, they are well suited for industrial applications or field work.

Three focal lengths are currently available.

OPTICAL CHARACTERISTICS			
	HypIRia 11	**HypIRia 15**	**HypIRia 25**
Focal length (mm)	11	15	25
f-number	2.1	2.1	2.6
Image size (diameter, mm)	12.3	12.3	12.3
Spectral range	1 - 2.9 µm	1 - 2.9 µm	1 - 2.9 µm
Optical output (image space)	Telecentric ± 2.9°	Telecentric ± 1.1°	Telecentric ± 0.1°
RMS spot radius (µm) **	11.2	10.4	8.8
Maximum working distance	Infinity	Infinity	Infinity
Minimum working distance (mm)	300	300	300
Full diagonal angle view	60.4°	44.6°	27.6°
Horizontal angle of view (9.6 mm sensor)	47.2°	34.8°	21.7°
Vertical angle of view (7.68 mm sensor)	37.8°	27.8°	17.5°
Full diagonal FOV at 1 m distance (mm)	1164	820	491
MTF-50 on the sensor (lp/mm)	19	21	25
Distortion	< 5%	< 3%	< 3%
MECHANICAL CHARACTERISTICS			
Dimensions (mm)	56 x 56 x 91	55 x 48 x70	55 x 48 x 60
Mount	C-Mount	C-Mount	C-Mount
Weight (kg)	0.8	0.5	0.4
Front filter thread	M45 x 0.5	1.035-40 UNS-2A	1.035-40 UNS-2A

**Average over the whole image and all wavelengths