

Bi-telecentric lens for 2/3" sensor (X23 series)

LS-X23 series · Telecentric lenses · 23 models



Bi-telecentric C-mount lens supporting 2/3" (dia. 11 mm) target-face cameras, with an ultra-low-distortion bilateral telecentric optical path, large depth of field and a hardware measurement error below 0.3 pixel over the full field of view; built-in coaxial versions (C suffix).

Features

- Maximum support for 2/3" dia. 11 mm target face camera
- Excellent bilateral telecentric optical path, ultra low distortion design
- Large depth of field design for high and low difference imaging products
- High-precision tuning: hardware measurement error in the full field of view is <0.3 pixel
- Lightweight fastening structure designed to perform stably at high speed
- Ultra high differentiation
- Built-in coaxial versions (C suffix)

Applications

- Imaging products with high and low differences (large depth of field)

Common specifications

Mount	C
Sensor size	2/3" dia.11mm

Ordering code: HF<WD>-<magnification>X23[C = built-in coaxial]

Models

Model	Lighting mode	Working distance (mm)	DOF (mm)	Iris (F)	MTF>0.3 (LP/mm)	Telecentricity (°)	Optical distortion (%)
LS-HF110-2X23	non-coaxial	110	0.55mm	F9	125	<0.05°	<0.05%
LS-HF110-2X23C	Built-in coaxial	110	0.55mm	F9	125	<0.05°	<0.05%
LS-HF110-15X23	non-coaxial	110	0.85mm	F9	120	<0.05°	<0.05%
LS-HF110-15X23C	Built-in coaxial	110	0.85mm	F9	120	<0.05°	<0.05%
LS-HF110-1X23	non-coaxial	110	1.5mm	F7	125	<0.05°	<0.05%
LS-HF110-1X23C	Built-in coaxial	110	1.5mm	F7	125	<0.05°	<0.05%
LS-HF110-08X23	non-coaxial	110	1.8mm	F9	130	<0.05°	<0.05%

LS-HF110-08X23C	Built-in coaxial	110	1.8mm	F9	130	<0.05°	<0.05%
LS-HF110-05X23	non-coaxial	110	3.5mm	F8	120	<0.03	<0.03%
LS-HF110-05X23C	Built-in coaxial	110	3.5mm	F8	120	<0.03	<0.03%
LS-HF178-05X23	non-coaxial	178	4mm	F9	110	<0.03	<0.03%
LS-HF110-03X23	non-coaxial	110	7mm	F7	130	<0.03°	<0.03%
LS-HF110-03X23C	Built-in coaxial	110	7mm	F7	130	<0.03°	<0.03%
LS-HF178-03X23	non-coaxial	178	6.5mm	F6	160	<0.01°	<0.03%
LS-HF178-0265X23	non-coaxial	178	9mm	F6	160	<0.01°	<0.03%
LS-HF200-022X23	non-coaxial	200	8.5mm	F6	160	<0.01°	<0.02%
LS-HF178-02X23	non-coaxial	178	9mm	F7	135	<0.03°	<0.03%
LS-HF238-L90-015X23	non-coaxial	238	21mm	F6.5	145	<0.05°	<0.03%
LS-HF200-014X23	non-coaxial	200	22mm	F6.5	145	<0.02°	<0.02%
LS-HF250-012X23	non-coaxial	250	35mm	F8	125	<0.05°	<0.05%
LS-HF250-0095X23	non-coaxial	250	48mm	F7.5	125	<0.05°	<0.05%
LS-HF290-0078X23	non-coaxial	290	60mm	F5	140	<0.05°	<0.05%
LS-HF320-0063X23	non-coaxial	320	85mm	F5	140	<0.05°	<0.05%

More values per model (Magnification (X), View distance maximum (mm), View distance 1/2.5" (5.7x4.2) (mm), View distance 1/2.3" (6.4x4.5) (mm), View distance 2/3" (8.4x7.1) (mm), Sensor format, Aperture, Field of view) are on each product page.