

INDUSTRIAL AUTOMATION PRODUCT

CA-LH8

High-resolution Low-distortion Lens 8 mm

Forms the imaging path for a compatible KEYENCE area-camera inspection system while limiting geometric distortion across the documented sensor format.

IDENTITY	VERIFIED VALUE
Manufacturer	KEYENCE
System family	KEYENCE CA-L machine-vision lens system
Part number	CA-LH8
Country	Japan
HS code	8537101190

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Technical Specifications

Technical values below are limited to the named KEYENCE product record.

PARAMETER	TECHNICAL VALUE
Focal length	8 mm
F-stop range	F1.4 to F16
Minimum working distance	0.1 m
Lens mount	C-mount
Filter size	27.0 mm P0.5
Compatible image sensor	2/3 inch
TV distortion, 2/3 inch	-0.6%
TV distortion, 1/3 inch	-0.28%
Resolving power, center	100 cycles/mm
Resolving power, periphery	80 cycles/mm
Ambient temperature	0 to +50 degC
Ambient humidity	80% RH or less, non-condensing

ENGINEERING DATA SUMMARY

DATA GROUP	VERIFIED ASSIGNMENT
Installed host / carrier	Compatible KEYENCE area camera
Companion hardware	C-mount camera interface
Field connection	27 mm P0.5 optical filter
Primary system function	Provides an 8 mm focal length for wide machine-vision fields
Controlled acceptance duty	Wide-field component presence inspection

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System Role and Architecture

Forms the imaging path for a compatible KEYENCE area-camera inspection system while limiting geometric distortion across the documented sensor format.

FUNCTION 1

Provides an 8 mm focal length for wide machine-vision fields

FUNCTION 2

Uses a C-mount mechanical camera interface

FUNCTION 3

Covers compatible image sensors up to 2/3 inch

FUNCTION 4

Resolves 100 cycles/mm at the center and 80 cycles/mm at the periphery

Matched system components

- Compatible KEYENCE area camera
- C-mount camera interface
- 27 mm P0.5 optical filter
- Close-up ring when required by the named camera

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	Compatible KEYENCE area camera
Companion hardware	C-mount camera interface
Field connection	27 mm P0.5 optical filter
Primary system function	Provides an 8 mm focal length for wide machine-vision fields
Controlled acceptance duty	Wide-field component presence inspection

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Applications and Engineering Context

Wide-field component presence inspection

Provides an 8 mm focal length for wide machine-vision fields

Low-distortion dimensional gauging

Uses a C-mount mechanical camera interface

Orientation and assembly verification

Covers compatible image sensors up to 2/3 inch

High-resolution packaging inspection

Resolves 100 cycles/mm at the center and 80 cycles/mm at the periphery

TECHNICAL NOTE

Thread CA-LH8 fully into the C-mount without loading the optical barrel, set the working distance at or above 0.1 m, and use a close-up ring of at least 1.5 mm with CV-020, CV-070, CV-035C/M or CV-H035C/M cameras.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	CA-LH8 / CA-LH8 recorded
Physical interface	Compatible KEYENCE area camera
Companion check	C-mount camera interface
Functional proof	Provides an 8 mm focal length for wide machine-vision fields
Application test	Wide-field component presence inspection

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Engineering Precautions

1

Verify the CA-LH8 marking and the 8 mm focal-length designation before removing the installed lens.

2

Power down the camera and protect the image sensor opening from dust while the C-mount is exposed.

3

Do not touch the optical surfaces; use clean lens-handling methods for the front and rear elements.

4

Maintain a working distance of at least 0.1 m when establishing the inspection geometry.

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Use a close-up ring at least 1.5 mm thick when CA-LH8 is paired with CV-020, CV-070, CV-035C/M or CV-H035C/M.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
CA-H200C	KEYENCE 2-megapixel color camera	View CA-H200C page
CV-X420F	KEYENCE multi-camera vision controller	View CV-X420F page
CA-CH10	KEYENCE high-speed camera cable	View CA-CH10 page
CV-X470F	KEYENCE high-performance vision controller	View CV-X470F page
SZ-VH1	KEYENCE safety-laser-scanner display unit	View SZ-VH1 page
LJ-X8080	KEYENCE laser profiler sensor head	View LJ-X8080 page
CV-X320F	KEYENCE two-camera vision controller	View CV-X320F page
GT2-H32	KEYENCE high-accuracy contact sensor head	View GT2-H32 page

MANUFACTURER SOURCE RECORD

KEYENCE CA-LH8 official product data sheet

KEYENCE CA-LH8

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