

CA-LH8

High-resolution Low-distortion Lens 8 mm

CONTROLLED ENGINEERING COPY

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.

INSTALLATION IDENTITY	REQUIRED VALUE
Complete model	CA-LH8
Manufacturer part	CA-LH8
Hardware type	8 mm
System family	KEYENCE CA-L machine-vision lens system



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01 PRE-INSTALLATION PLAN

- 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.
- 5

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.

MATCHED HARDWARE

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

INSTALLATION CONTROL RECORD

CONTROL ITEM	REQUIRED RECORD
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

02 WIRING & INTERFACE CHECKS

CHECK ITEM	REQUIRED 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

FIELD 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.

03 COMMISSIONING WORKFLOW



COMMISSIONING ACCEPTANCE EVIDENCE

EVIDENCE ITEM	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

04 RETURN-TO-SERVICE RECORD

- ☐
- Confirm that the selected camera sensor does not exceed the documented 2/3-inch compatible format.

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VERIFICATION RECORD

PRODUCT IDENTITY	CA-LH8
INSTALLED POSITION	Documented KEYENCE CA-L machine-vision lens system position
VERIFICATION METHOD	Controlled inspection and functional test
RELEASE RECORD	Final diagnostic state retained before service

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER 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
EX-416	KEYENCE amplifier unit	View EX-416 page
LJ-V7300	KEYENCE laser profiler controller	View LJ-V7300 page

SOURCE IDENTIFIERS

KEYENCE CA-LH8 official product data sheet

KEYENCE CA-LH8

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