



LENSES FOR JAI CAMERAS

BRING FOCUS TO YOUR VISION SYSTEM
WITH JAI'S LENS COLLECTION

June 2025 - v.7



Lenses for JAI Cameras

JAI provides a collection of lenses pre-qualified for use with various JAI cameras. The collection is divided into three separate series tailored to the sensor formats, pixel sizes, and other camera specifications critical to maximizing optical performance for specific JAI camera models.



Content overview



Camera models	Compact C-mount lens series	High resolution lens series	Prism-optimized lens series
Go-X Series			
GOX-2402	● Page 4		
GOX-3200	● Page 5		
GOX-3201	● Page 5		
GOX-5102	● Page 6		
GOX-5103	● Page 6		
GOX-5105	● Page 5		
GOX-6409	● Page 9		
GOX-8105	● Page 9		
GOX-8901	● Page 7		
GOX-12401	● Page 8		
GOX-12405	● Page 9		
GOX-12409	● Page 8		
GOX-16205	● Page 9		
GOX-20405	● Page 9		
GOX-20409	● Page 9		
GOX-24505	● Page 9		
Go Series			
GO-2400	● Page 7		
GO-2401	● Page 7		
GO-5000	● Page 7		
GO-5100	● Page 6		
GO-5101	● Page 6		
Spark Series			
SP-5000	● Page 7	● Page 9	
SP-12400	● Page 8	● Page 9	
SP-12401	● Page 8	● Page 9	
SP-25000		● Page 9	
Apex Series			
AP-3200T			● Page 10
AP-1600T			● Page 10
Apex Life Sciences			
AP-3200T-LS			● Page 10
AP-3200T-LSX			● Page 10
AP-1600T-LSX			● Page 10
Fusion Series			
FS-3200T & FS-3200D			● Page 10
FS-1600T & FS-1600D			● Page 10
Fusion Flex-Eye			
FSFE-3200T & FSFE-3200D			● Page 10
FSFE-1600T & FSFE-1600D			● Page 10
Sweep Series			
SW-2005	● Page 7		
SW-4005	● Page 8		
Sweep+ Series			
SW-4010Q-MCL			● Page 11

Compact C-mount lens series

JAI's compact C-mount lenses are designed to deliver an exceptional combination of performance and price when combined with the state-of-the-art sensors found in JAI's Go-X Series of compact machine vision cameras.

The selection of over 40 lenses includes fixed-focal lengths from 4 mm to 75 mm depending on the sensor format, with C-mounts and locking screws on focus and iris settings to ensure reliable operation in typical factory environments.

The lenses are also suitable for Go Series and Spark Series cameras with up to 12-megapixel resolutions.



Group 1 Recommended for:



GOX-2402
(Go-X Series)

Lens Model	Lens Mount	Focal Length	Image Format	Aperture	Working Distance [mm]	TV Distortion [%]	Lens Dimensions Diameter x Length [mm]
JCH-C118-0420C	C-mount	4 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,50 %	ø38,2 x 31,9
JCH-C118-0620C	C-mount	6 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,10 %	ø27 x 27,5
JCH-C118-0820C	C-mount	8 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,10 %	ø27 x 29
JCH-C118-1220C	C-mount	12 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,30 %	ø27 x 23
JCH-C118-1620C	C-mount	16 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,10 %	ø27,2 x 26,4
JCH-C118-2520C	C-mount	25 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,10 %	ø28 x 27,5
JCH-C118-3520C	C-mount	35 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	200 - Inf.	0,10 %	ø28 x 37

Compact C-mount lens series - continued

Group 2

Recommended for:



GOX-3200
(Go-X Series)



GOX-3201
(Go-X Series)



GOX-5105
(Go-X Series)

Lens Model	Lens Mount	Focal Length	Image Format	Aperture	Working Distance [mm]	TV Distortion [%]	Lens Dimensions Diameter x Length [mm]
JCH-C118-0420C	C-mount	4 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,50 %	ø38,2 x 31,9
JCH-C118-0620C	C-mount	6 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,10 %	ø27 x 27,5
JCH-C118-0820C	C-mount	8 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,10 %	ø27 x 29
JCH-C118-1220C	C-mount	12 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,30 %	ø27 x 23
JCH-C118-1620C	C-mount	16 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,10 %	ø27,2 x 26,4
JCH-C118-2520C	C-mount	25 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	100 - Inf.	0,10 %	ø28 x 27,5
JCH-C118-3520C	C-mount	35 mm	1/1.8" (ø 9 mm)	F2 ~ F11/C	200 - Inf.	0,10 %	ø28 x 37

Compact C-mount lens series - continued

Group 3

Recommended for:



GOX-5102
(Go-X Series)



GOX-5103
(Go-X Series)



GO-5100
(Go Series)



GO-5101
(Go Series)

Lens Model	Lens Mount	Focal Length	Image Format	Aperture	Working Distance [mm]	TV Distortion [%]	Lens Dimensions Diameter x Length [mm]
JCH-C23-0828D	C-mount	8 mm	2/3" (ø 11 mm)	F2.8 ~ F16	100 - Inf.	1,00 %	ø39,3 x 44
JCH-C23-1228D	C-mount	12 mm	2/3" (ø 11 mm)	F2.8 ~ F16	100 - Inf.	-0,01 %	ø32,9 x 40,5
JCH-C23-1628D	C-mount	16 mm	2/3" (ø 11 mm)	F2.8 ~ F16	100 - Inf.	0,10 %	ø33,5 x 37,9
JCH-C23-2528D	C-mount	25 mm	2/3" (ø 11 mm)	F2.8 ~ F16	100 - Inf.	0,20 %	ø33,5 x 40,33
JCH-C23-3528D	C-mount	35 mm	2/3" (ø 11 mm)	F2.8 ~ F16	200 - Inf.	-0,01 %	ø39,8 x 47,7
JCH-C23-5028D	C-mount	50 mm	2/3" (ø 11 mm)	F2.8 ~ F16	300 - Inf.	-0,01 %	ø39,6 x 61

Compact C-mount lens series - continued

Group 4

Recommended for:



GOX-8901
(Go-X Series)



GO-2400
(Go Series)



GO-2401
(Go Series)



GO-5000
(Go Series)



SP-5000
(Spark Series)



SW-2005
(Sweep Series)

Lens Model	Lens Mount	Focal Length	Image Format	Aperture	Working Distance [mm]	TV Distortion [%]	Lens Dimensions Diameter x Length [mm]
JCH-C1-1214A	C-mount	12 mm	1" (ø 16 mm)	F1.4 ~ F16	100 - Inf.	0,02 %	ø50 x 61,6
JCH-C1-1614A	C-mount	16 mm	1" (ø 16 mm)	F1.4 ~ F16	100 - Inf.	0,00 %	ø50 x 62,2
JCH-C1-2514A	C-mount	25 mm	1" (ø 16 mm)	F1.4 ~ F16	100 - Inf.	0,00 %	ø44,8 x 51,7
JCH-C1-3514A	C-mount	35 mm	1" (ø 16 mm)	F1.4 ~ F16	150 - Inf.	0,00 %	ø52 x 57
JCH-C1-5014A	C-mount	50 mm	1" (ø 16 mm)	F1.4 ~ F16	300 - Inf.	0,00 %	ø52 x 59,3
JCH-C1-7518A	C-mount	75 mm	1" (ø 16 mm)	F1.8 ~ F16	800 - Inf.	0,00 %	ø60 x 94,6

Compact C-mount lens series - continued

Group 5

Recommended for:



Lens Model	Lens Mount	Focal Length	Image Format	Aperture	Working Distance [mm]	TV Distortion [%]	Lens Dimensions Diameter x Length [mm]
JCH-C11-0618A	C-mount	6 mm	1.1" (ø 17.6 mm)	F1.8 - F16	100 - Inf.	2,50 %	ø66 x 81,8
JMO-C11-0817SR	C-mount	8 mm	1.1" (ø 17.6 mm)	F1.7 - F16	100 - Inf.	-1,90 %	ø58 x 77
JCH-C11-0814A	C-mount	8 mm	1.1" (ø 17.6 mm)	F1.8 - F16	100 - Inf.	5,50 %	ø60 x 81,8
JMO-C11-1217SR	C-mount	12 mm	1.1" (ø 17.6 mm)	F1.7 - F16	100 - Inf.	-2,00 %	ø39,5 x 66
JCH-C11-1228A	C-mount	12 mm	1.1" (ø 17.6 mm)	F2.8 - F22	100 - Inf.	1,50 %	ø48 x 17,8
JMO-C11-1615SR	C-mount	16 mm	1.1" (ø 17.6 mm)	F1.5 - F16	100 - Inf.	-0,86 %	ø39,5 x 67
JCH-C11-1628A	C-mount	16 mm	1.1" (ø 17.6 mm)	F2.8 - F22	100 - Inf.	0,50 %	ø38 x 82
JMO-C11-2515SR	C-mount	25 mm	1.1" (ø 17.6 mm)	F1.5 - F16	100 - Inf.	-0,74 %	ø42 x 67
JCH-C11-2528A	C-mount	25 mm	1.1" (ø 17.6 mm)	F2.8 - F22	100 - Inf.	0,10 %	ø37 x 86
JMO-C11-3518SR	C-mount	35 mm	1.1" (ø 17.6 mm)	F1.8 - F16	200 - Inf.	-0,09 %	ø54,5 x 46
JCH-C11-3528A	C-mount	35 mm	1.1" (ø 17.6 mm)	F2.8 - F22	150 - Inf.	0,02 %	ø38 x 47,6
JMO-C11-5022SR	C-mount	50 mm	1.1" (ø 17.6 mm)	F2.2 - F16	300 - Inf.	0,01 %	ø39,5 x 58,5
JCH-C11-5028A	C-mount	50 mm	1.1" (ø 17.6 mm)	F2.8 - F22	300 - Inf.	0,04 %	ø38 x 57,88

High performance, high resolution lens series

High resolution cameras require high performance lenses capable of delivering sharp contrast even in applications requiring resolving power of 200 lp/mm and above.

JAI's selection of high performance, high resolution lenses ensures that you can leverage the small pixel sizes and high level of detail afforded by JAI's Spark Series 26-megapixel high resolution cameras while maintaining maximum image quality.

Can also be used with selected Spark Series 12-megapixel and 5-megapixel camera models, as well as the 8.1, 12.4, 16.2, 20.3, and 24.5-megapixel Go-X Series Pregius S models.



Recommended for:



Lens Model	Lens Mount	Focal Length	Image Format	Aperture	Working Distance [mm]	TV Distortion [%]	Lens Dimensions Diameter x Length [mm]
JCH-C43-1228A	C-mount	12 mm	4/3" (ø 22 mm)	F2.8 ~ F22	100 - Inf.	2,00 %	ø48 x 81,8
JCH-C43-1628A	C-mount	16 mm	4/3" (ø 22 mm)	F2.8 ~ F22	100 - Inf.	1,00 %	ø38 x 82
JMO-C11-2518XR	C-mount	25 mm	1.2" (ø 19.3 mm)	F1.8 ~ F16	70 - 400	-0,09 %	ø38 x 57,2
JCH-C43-2528A	C-mount	25 mm	4/3" (ø 22 mm)	F2.8 ~ F22	100 - Inf.	0,30 %	ø37 x 86
JMO-C11-3518XR	C-mount	35 mm	1.2" (ø 19.3 mm)	F1.8 ~ F16	150 - 600	0,07 %	ø35 x 49,51
JCH-C43-3528A	C-mount	35 mm	4/3" (ø 22 mm)	F2.8 ~ F22	200 - Inf.	0,04 %	ø38 x 51,6
JMO-C11-5020XR	C-mount	50 mm	1.2" (ø 19.3 mm)	F2 ~ F16	180 - 600	-0,05 %	ø79,8 x 40
JCH-C43-5028A	C-mount	50 mm	4/3" (ø 22 mm)	F2.8 ~ F22	300 - Inf.	0,10 %	ø38 x 57,9
JMO-C11-9028XR	C-mount	90 mm	1.2" (ø 19.3 mm)	F2.8 ~ F16	330 - 400	0,03 %	ø105,8 x 40

Prism-optimized lens series

JAI's prism-optimized lenses feature special designs to compensate for the different optical paths and focusing characteristics of a multi-waveband camera so that you can reap the full benefits of the prism technology.

Whether you need the precise color differentiation of JAI's Apex and Apex Medical/Life Sciences Series, or the multispectral capabilities of JAI's Fusion Series, Sweep+ Series and Flex-Eye cameras, JAI's line of prism-optimized lenses deliver the sharp, high quality images you rely on from your prism-based camera



Optimized for:



AP-3200T
(Apex Series)



AP-1600T
(Apex Series)



AP-3200T-LS
(Apex Life Sciences)



AP-3200T-LSX
(Apex Life Sciences)



AP-1600T-LSX
(Apex Life Sciences)



FS-3200D
FS-3200T
(Fusion Series)



FS-1600D
FS-1600T
(Fusion Series)



FSFE-3200D
FSFE-3200T
(Fusion Flex-Eye)



FSFE-1600D
FSFE-1600T
(Fusion Flex-Eye)

Lens Model	Lens Mount	Focal Length	Image Format	Aperture	Working Distance [mm]	TV Distortion [%]	Lens Dimensions Diameter x Length [mm]
JVS-C118-0628-C3	C-Mount	6 mm	1/1.8" (ø 9 mm)	F2.8 ~ F16/C	100 - Inf.	-0,68 %	ø38 x 60
JMO-C118-0730-C3	C-Mount	7 mm	1/1.8" (ø 9 mm)	F3 ~ F16	500 - Inf.	1,8 %	ø29,5 x 50,7
JVS-C118-0824-C3	C-Mount	8 mm	1/1.8" (ø 9 mm)	F2.4 ~ F16/C	100- Inf.	-0,86 %	ø37 x 58
JMO-C118-0930-C3	C-Mount	9.3 mm	1/1.8" (ø 9 mm)	F3 ~ F16	150- Inf.	1,3 %	ø29,5 x 42
JVS-C118-1218-C3	C-Mount	12 mm	1/1.8" (ø 9 mm)	F1.8 ~ F16/C	150- Inf.	-0,8 %	ø32 x 56
JMO-C118-1430-C3	C-Mount	14 mm	1/1.8" (ø 9 mm)	F3 ~ F16	235- Inf.	0,67 %	ø29,5 x 43
JVS-C118-1618-C3	C-Mount	16 mm	1/1.8" (ø 9 mm)	F1.8 ~ F16/C	150- Inf.	-0,63 %	ø36 x 56

Prism-optimized lens series - continued (Lenses for line scan cameras)

Optimized for:



SW-4010Q-MCL
(Sweep+ Series)

Lens Model	Lens Mount	Focal Length	Image Format	Aperture	Working Distance [mm]	TV Distortion [%]	Lens Dimensions Diameter x Length [mm]
JMO-M5231-2828-C4	M-52 mount	28 mm	30,72 mm 25,6 mm	F2.8 - F16	510 (ideal)	-0.8 %	ø95 x 133,5

Lenses for other JAI line scan cameras

If you need lenses for other line scan camera models in the Sweep+ Series, Sweep Series and Wave Series, please contact JAI to discuss your needs.



Use our free lens calculator to select the right focal length

JAI provides a free lens selection calculator to help you find the right focal length for your application. This simple spreadsheet-based calculator lets you enter a few parameters like working distance, and FOV, and recommends the focal length you will need. Visit JAI website at www.jai.com/products/lenses or contact your JAI sales representative for assistance.

EMEA

Denmark - JAI A/S

E-mail: camerasales.emea@jai.com
Phone: +45 4457 8888

Germany - JAI A/S

E-mail: camerasales.emea@jai.com
Phone: +49 152 590 165 42

The Netherlands - JAI A/S

E-mail: camerasales.emea@jai.com
Phone: +31 625 258 556

APAC

Japan: JAI Ltd., Japan

E-mail: camerasales.japan@jai.com
Phone: +81 45-440-0154

China - JAI Technology (Beijing) Co., Ltd.

E-mail: camerasales.apac@jai.com
Phone: +8610-8588-0278

South Korea - JAI

E-mail: camerasales.apac@jai.com
Phone +82-2-6735-4243

Taiwan - JAI Representative Office

E-mail: camerasales.apac@jai.com
Phone: +886 933 781972

AMERICAS

United States - JAI Americas Inc.

E-mail: camerasales.americas@jai.com
Phone: +1 (312) 763-6570

www.jai.com



See the possibilities