AI Detection Camera
FHV7-AI series

AI Vision Made Easy:
Smarter Detection, Simple Setup

Ever given up automating a defect inspection due to cost and effort?

Difficult to configure/adjust

Can’t figure out which processing items to use.

Expertise is key to achieving accurate results.

Limited to high-cost options

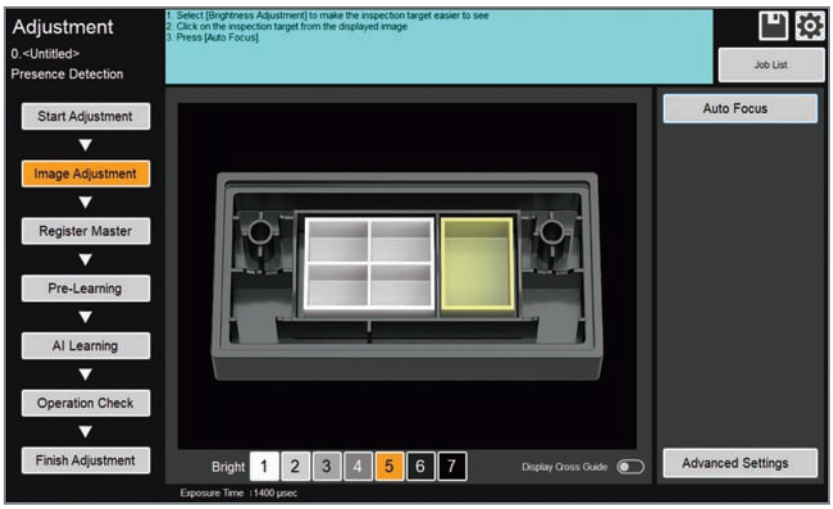
Simple inspections shouldn't require a big budget.

Smarter automation made easy with OMRON's AI Detection Camera.

Discover AI Detection Camera Features

Easy configuration, no expertise required

Easy setup by simply following the guide.



Smart Value, Smarter Vision

All-in-One lighting and lenses for effortless selection

Powered by AI

Setup completed in just a few minutes

How-to Video
Presence/Product Detection/Product type

How-to Video
Defect Check

Intuitive UI for effortless use

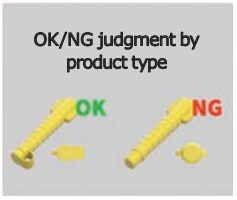
The AI Detection Camera is so intuitive that even first-time users can set it up. Just follow the on-screen steps and configure it in a few clicks.

Select inspection content

Simply select from three candidates

Presence Detection

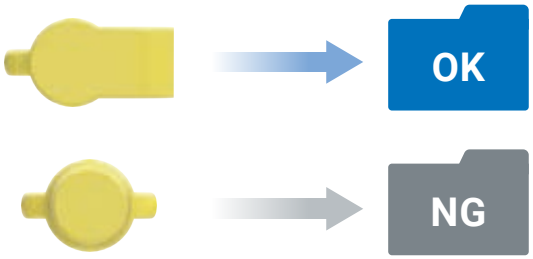
Product Type



Defect Check

Record images for learning

Simply record images for learning, and sort them to OK / NG folders



Start Learning

Simply click the “Start Learning” button

Done

New Self-learning AI that can be used with zero AI skills

AI itself selects the right images to learn

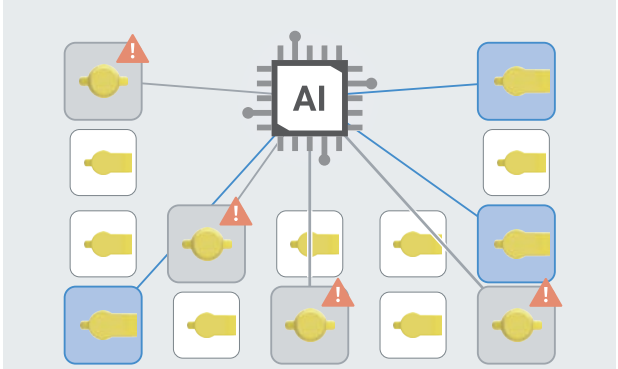
Conventional AI

For AI to make proper judgments, it's critical that you teach it the right data. With conventional AI, it's up to humans to select the images to teach, which requires skills for identifying such images. Also, repeated additional learning can take days.

One whole day to a few days

New Self-learning AI

All you need to do is provide it with just a few images, and the right ones will be selected automatically to achieve zero overdetection through accurate judgment.



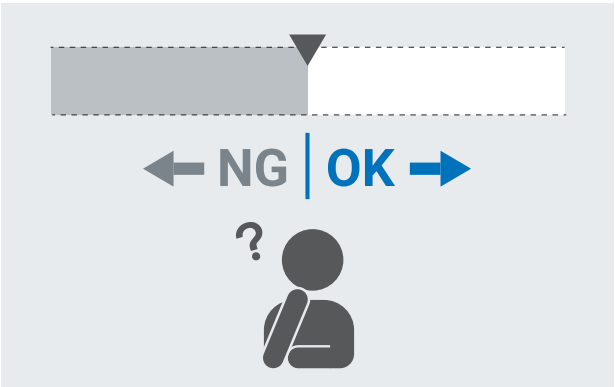
A mere few minutes

*Detection rate is that of images provided for learning.

AI itself sets threshold values

Conventional Vision Sensor

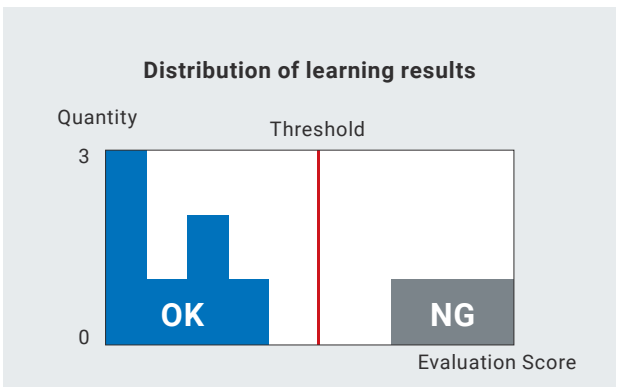
Teaching conventional AI to correctly distinguish between OK/NG for products requires testing repeatedly while fine-tuning threshold values. This can take days to complete.



One whole day to a few days

New Self-learning AI

AI automatically sets threshold values based on the distribution of learning results.

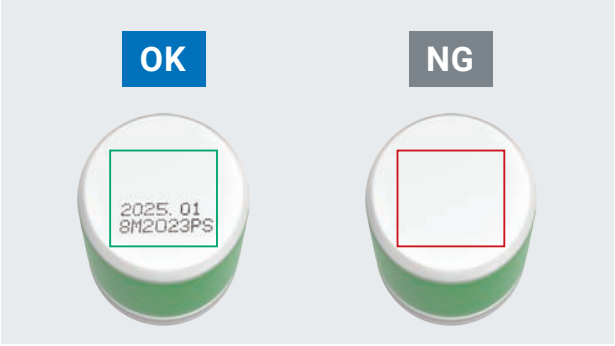


A mere few minutes

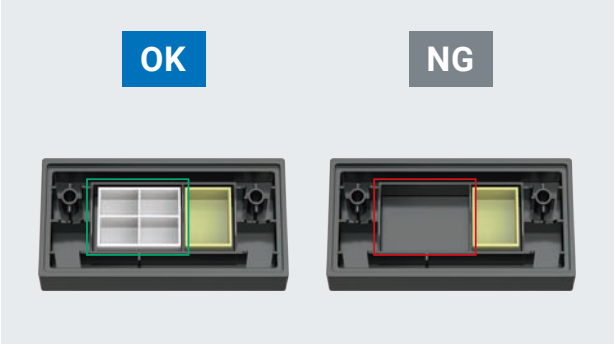
Applications

Presence detection

Printing on food containers



Assembly components on molded products

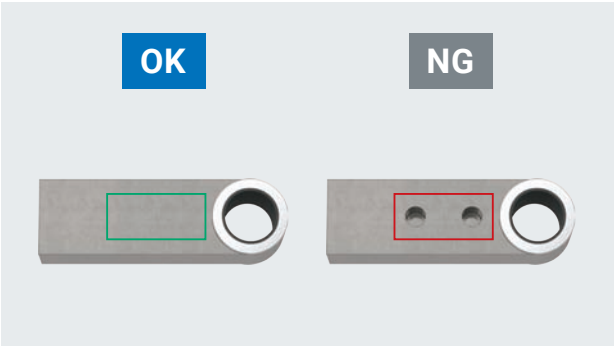


Orientation detection

Orientation of component positioning/placement

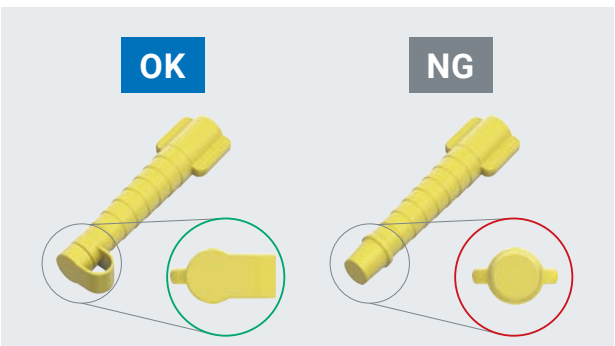
Front/back detection

Front/back of machine components



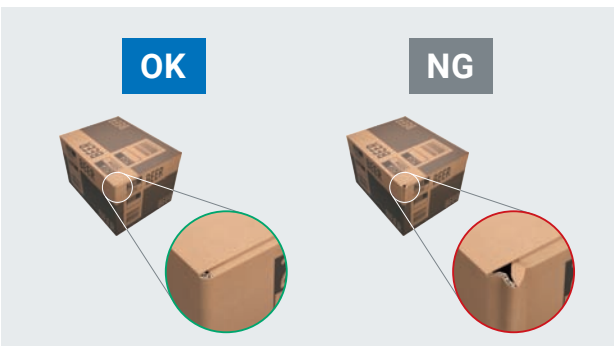
Type detection

Incorrect cap types for tube containers



Simple defect detection

Pre-shipment inspection of dents in cardboard



Usable in a wide range of settings

Robust structure

IP67 waterproof structure

IP67 compatible to allow use in wet conditions, such as regular wash-downs at the sites where the cameras are installed.

High-mix production

Easy switching with autofocus

Autofocus lens lets you perform changeover just by switching your condition settings,* even in high-mix production of items of varying sizes.

Configuration operations

From your PC

You can download the software for free after purchasing the product and signing up online.
For details, see the member registration sheet included with the AI Detection Camera unit.

Operation via touch screen PC

You can use the touch screen PC by installing the software for AI Detection Camera. You can download the software for free after purchasing the product and signing up online.
For details, see the member registration sheet included with the AI Detection Camera unit.

OMRON

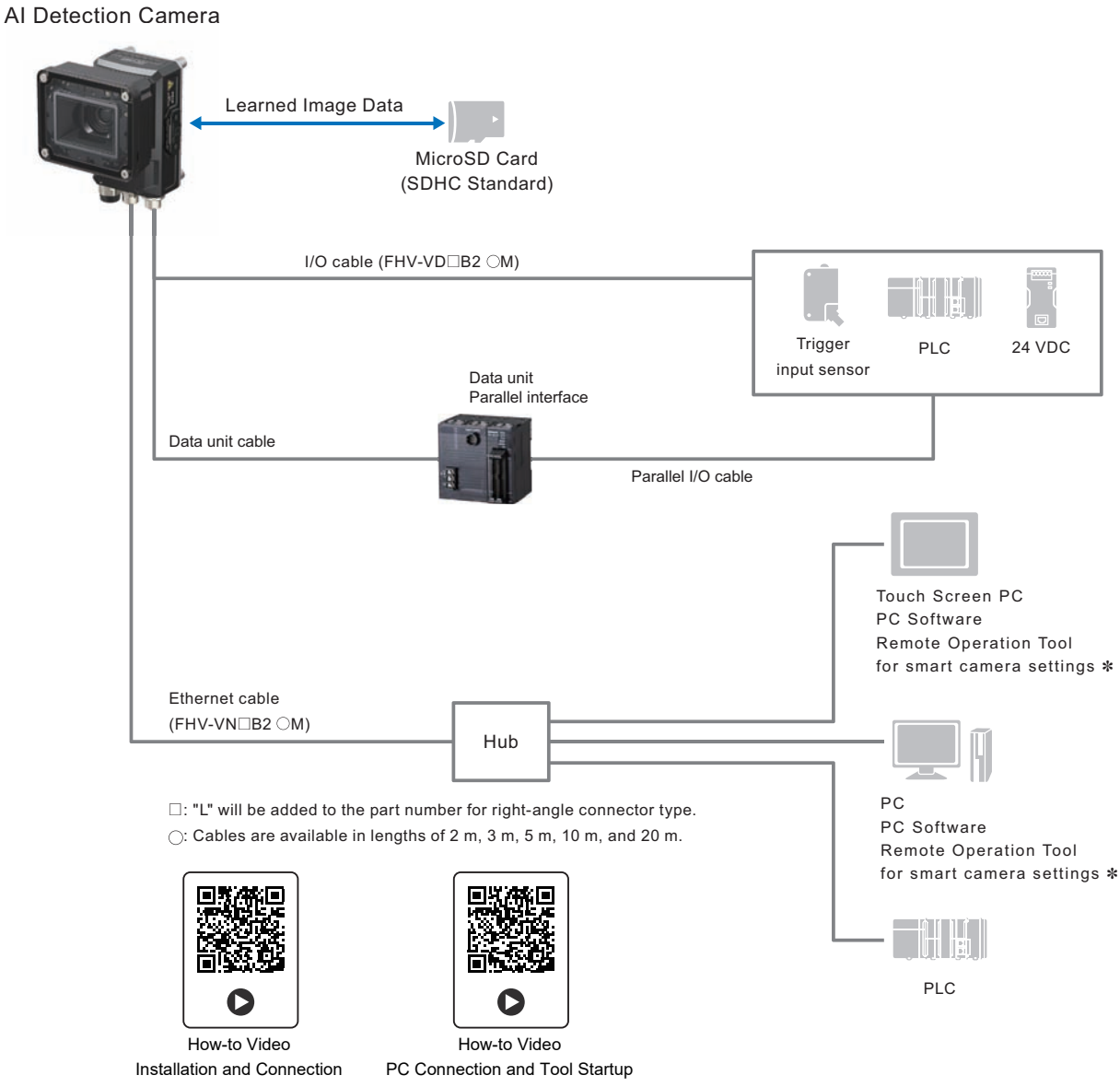
AI Detection Camera

FHV7-AI Series

AI Vision Made Easy:
Smarter Detection, Simple Setup

- Easy configuration, no expertise required
- Smart Value, Smarter Vision

System Configuration



✻ After purchasing the product, you can register as a member to download this for free. For details, see the member registration sheet included with the AI Detection Camera.

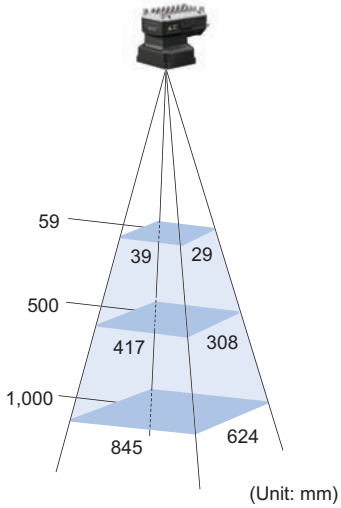
Ordering Information

AI Detection Cameras

Item	Resolution	Color/ Monochrome	Light color	Camera installation distance (mm)	X field of view × Y field of view (mm)	Model
	1.6 million pixels	Color	White	59 to 1,000	39 × 29 to 845 × 624	**FHV7X-C016-S06-W-01**
				60 to 1,000	23.5 × 17.5 to 543 × 407	**FHV7X-C016-S09-W-01**
				60 to 1,000	16.5 × 12.5 to 407 × 305	**FHV7X-C016-S12-W-01**
				110 to 2,000	27 × 20 to 614 × 460	**FHV7X-C016-S16-W-01**
				188 to 2,000	30 × 23 to 390 × 290	**FHV7X-C016-S25-W-01**

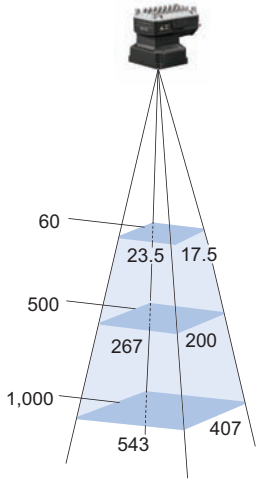
Camera installation distance and field of view

FHV7X-C016-S06-W-01



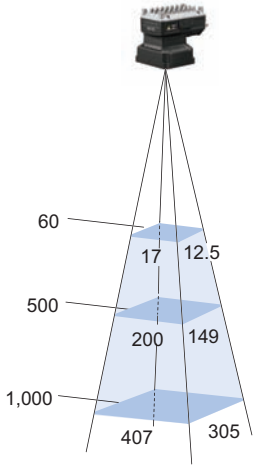
(Unit: mm)

FHV7X-C016-S09-W-01



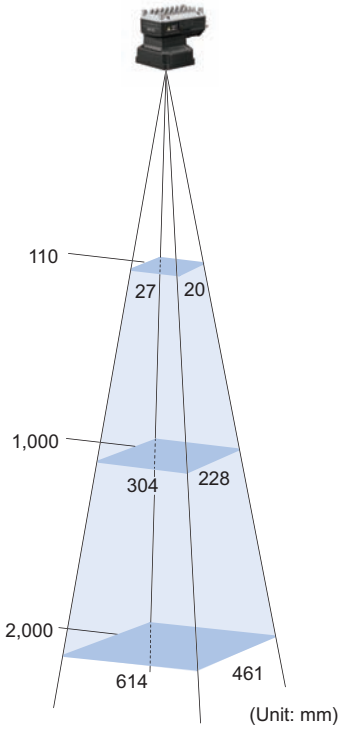
(Unit: mm)

FHV7X-C016-S12-W-01



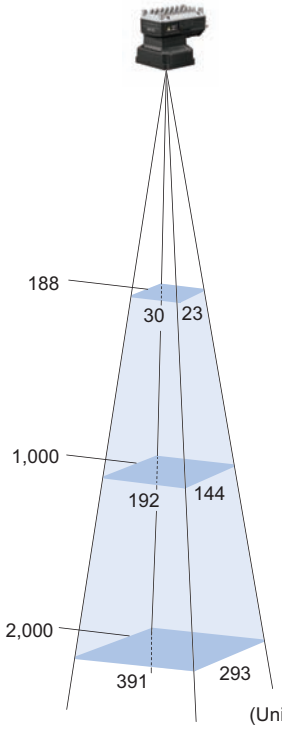
(Unit: mm)

FHV7X-C016-S16-W-01

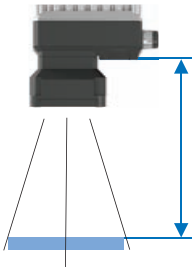


(Unit: mm)

FHV7X-C016-S25-W-01



(Unit: mm)



Distance is measured from the mounting face on front of the unit.

Minimum inspectable size (reference value)

Minimum inspectable size is 180 pixels (X) × 180 pixels (Y). Size in millimeters varies depending on FOV, as is shown in the table below.

Y field of view (mm)	15	35	50	100	150	200	250	300	400	500	600
Minimum inspectable size (mm) ✻	2.5	6	8	17	25	33	42	50	67	83	100

✻ Size corresponding to 180 pixels for specified FOV.

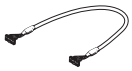
Cables

Item		Cable length	Model
	I/O Cable (Bend Resistant)	2m	**FHV-VDB2 2M**
		3m	**FHV-VDB2 3M**
		5m	**FHV-VDB2 5M**
		10m	**FHV-VDB2 10M**
		20m	**FHV-VDB2 20M**
	I/O Cable (Bend Resistant, Right-angle)	2m	**FHV-VDLB2 2M**
		3m	**FHV-VDLB2 3M**
		5m	**FHV-VDLB2 5M**
		10m	**FHV-VDLB2 10M**
		20m	**FHV-VDLB2 20M**
	Ethernet Cable (Bend Resistant)	2m	**FHV-VNB2 2M**
		3m	**FHV-VNB2 3M**
		5m	**FHV-VNB2 5M**
		10m	**FHV-VNB2 10M**
		20m	**FHV-VNB2 20M**
	Ethernet Cable (Bend Resistant, Right-angle)	2m	**FHV-VNLB2 2M**
		3m	**FHV-VNLB2 3M**
		5m	**FHV-VNLB2 5M**
		10m	**FHV-VNLB2 10M**
		20m	**FHV-VNLB2 20M**

Smart Camera Data Unit

Item		Model
	Paralle linterface	**FHV-SDU10**

Smart Camera Data Unit Cable

Item			Cable length	Model
	Smart Camera data unit cable (Bend resistant) ✻1		2m	**FHV-VUB2 2M**
			3m	**FHV-VUB2 3M**
			5m	**FHV-VUB2 5M**
			10m	**FHV-VUB2 10M**
			20m	**FHV-VUB2 20M**
	Smart Camera data unit cable (Bend resistant, Right-angle) ✻1		2m	**FHV-VULB2 2M**
			3m	**FHV-VULB2 3M**
			5m	**FHV-VULB2 5M**
			10m	**FHV-VULB2 10M**
			20m	**FHV-VULB2 20M**
	Parallel I/O Cable		2m	**XW2Z-S013-2**
			5m	**XW2Z-S013-5**
	Parallel I/O Cable for Connector-terminal Conversion Unit Connector-Terminal Block Conversion Units can be connected (Terminal Blocks Recommended Products: OMRON XW2R-□34G-T)		0.5m	**XW2Z-050EE**
			1m	**XW2Z-100EE**
			1.5m	**XW2Z-150EE**
			2m	**XW2Z-200EE**
			3m	**XW2Z-300EE**
			5m	**XW2Z-500EE**
	Connector-Terminal Block Conversion Units, General-purpose devices ✻2	Phillips screw	---	**XW2R-J34GD-T**
		Slotted screw (rise up)	---	**XW2R-E34GD-T**
		Push-in spring	---	**XW2R-P34GD-T**

✻1. The FHV-VDB2/VDLB2/VDBX2/VDLBX2 I/O Cable cannot be connected when this cable is used.
✻2. Refer to the XW2R datasheet for details.

Optical Filters

Item			Model
	Polarization Filter	For visible light	**FHV-XPL**
	Diffusion Filter		**FHV-XDF**

How-to Video
Replaceing the light cover/optical filter

Accessories

Item			Model
	Base Mount for Smart Cameras and Lighting Controllers		**FHV-XMT-7**
	Light Cover (for replacement)		**FHV-XCV**
	Waterproof Packing ✻1 (for replacement, 5 pcs)	for Lighting Module	**FHV-XWP-LTM**
	Waterproof Cap (for replacement)	for Ethernet Connecter	**FHV-XWC-ECN**
		for Light Connecter	**FHV-XWC-LCN**
	Light-shielding for Lighting Module (for replacement, 3 pcs) ✻2		**FHV-XLS-LTM**
---	Screw for microSD card cover (for replacement, 10 pcs)		**FHV-XSCR-MSD**

✻1. Always replace when a module is removed.
✻2. It is considered a consumable item that will deteriorate. Please replace as needed.

Accessories

Item	Descriptions			Model
	Industrial Switching Hubs for EtherNet/IP and Ethernet	5 port	Current consumption: 0.07 A	**W4S1-05D**

Touch Screen PC

Recommended products are available. Please contact your sales representative for details.

FHV7-AI Series

Ratings and Specifications

AI Detection Cameras

Item		FHV7X-C016-S06-W-01	FHV7X-C016-S09-W-01	FHV7X-C016-S12-W-01	FHV7X-C016-S16-W-01	FHV7X-C016-S25-W-01
Imaging	CMOS image elements	1/2.9-inch equivalent				
	Color/Monochrome	Color				
	Effective pixels	1440 (H) × 1080 (V)				
	Pixel size	3.45 × 3.45 um				
	Shutter system	Global Shutter				
	Frame rate (image acquisition time)	224 fps (4.5 ms)				
	Color of light	White				
	LED risk group	Risk group 2				
	Lens focal length	6 mm	9 mm	12 mm	16 mm	25 mm
	Field of view, Installation distance	Refer to the Camera installation distance, X and Y fields of view listed in *Ordering Information* on page 9.				
External interface	Ethernet	I/F: 1000BASE-T Protocol: Non-procedure (TCP)				
	EtehrNet/IP	Yes (Target/Ethernet port)				
	PROFINET	Yes (Slave/Ethernet port), Conformance class A				
	EtherCAT	N/A				
	Serial	N/A				
	Parallel I/O	NPN/PNP common				
	Parallel I/F	High-speed input: 1, General input: 3, High-speed output: 1, General output: 4				
	SD Card I/F	microSD card: SDHC				
Indicator lamps	Main	PWR: Green, RUN: Green, LINK: Yellow, BUSY: Green, OR: Yellow, ERR: Red				
	SD	SD ACCESS: Yellow				
Supply voltage		21.6 VDC to 26.4 VDC When an I/O cable with 20 m is connected, it is 24.0 VDC to 26.4 VDC.				
Current consumption		4.2 A or less				
Usage environment	Ambient temperature range	Operating: 0 to +40°C, Storage: -25 to +65°C (with no icing or condensation)				
	Ambient humidity range	Operating and Storage: 35 to 85%RH (with no condensation)				
	Ambient atmosphere	No corrosive gases				
	Vibration tolerance	Oscillation frequency: 10 to 150 Hz, Half amplitude: 0.15 mm, Vibration direction: X/Y/Z, Sweep time: 8 minute/count, Sweep count: 10				
	Shock resistance	Impact force: 150 m/s^2, Test direction: 6 directions, three time each (up/down, front/behind, left/right)				
	Noise immunity	Fast transient burst • DC power Direct infusion: 2 kV, Pulse rising: 5 ns, Pulse width: 50 ns, Burst continuation time: 15 ms/0.75 ms, Period: 300 ms, Application time: 1 min. • I/O line Direct infusion: 1 kV, Pulse rising: 5 ns, Pulse width: 50 ns, Burst continuation time: 15 ms/0.75 ms, Period: 300 ms, Application time: 1 min.				
	Grounding	Class D grounding (100 Ω or less grounding resistance)				
External shape	Dimensions	113.5 mm × 91.0 mm × 103.4 mm (H × W × D)				
	Weight	Approx. 990 g				
	Ingress protection rating	IEC60529 - IP67 When a connector cap removed, IEC60529 - IP40				
	Case material	Housing: Aluminum die-casting (ADC12) Imaging part: Polycarbonate				
Included items		• Connector cap for Ethernet cable (mounted on the body): 1 • Connector cap for an external lighting (mounted on the body): 1 • Instruction sheet: 1 • Membership registration: 1 • General Compliance Information and Instructions for EU: 1				
Specifications	UI operation	Remote Operation Tool				
	Language	Japanese, English, Simplified Chinese, Traditional Chinese, German, French, Italian, Spanish, Korean, Vietnamese, Polish				

Optical Filters

Model		FHV-XDF	FHV-XPL
Filter type		Diffusion filter	Polarization filter
Wavelength		Visible to infrared	Visible
Adapted lighting module		FHV-LTM-W FHV-LTM-R FHV-LTM-IR FHV-LTM-MC	FHV-LTM-W FHV-LTM-R FHV-LTM-MC (Infrared light is not used.)
Usage environment	Ambient temperature range	Operating: 0 to +40°C, Storage: -25 to +65°C (with no icing or condensation)	
	Ambient humidity range	Operating & Storage: 35 to 85%RH (With no condensation)	
	Vibration tolerance	No corrosive gases	
	Shock resistance	Oscillation frequency: 10 to 150Hz, Half amplitude: 0.35 mm, Vibration direction: X/Y/Z, Sweep time: 8 minute/count, Sweep count: 10 times	
	Vibration tolerance	Impact force: 150 m/s^2, Test direction: 6 directions, three time each (up/down, front/behind, left/right)	
Material		Aluminum (A6061), polycarbonate	
Weight		Approx. 70 g	Approx. 70 g

Smart Camera Data Unit

Item		Parallel interface
Model		FHV-SDU10
Input/output specifications	Parallel I/O	Input: 12 Output: 24 (NPN/PNP combined use)
Smart Camera Interface		Special cable to connect No. of connectable cameras: 1
Indicator	Main	POWER: Green, ERROR: Red, RUN: Green, BUSY: Green, CAMERA: Yellow, OR: Yellow
Power supply voltage		21.6 to 26.4 VDC (Note: 24.0 to 26.4 VDC when a data unit cable with 20 m is connected.)
Insulation resistance		Between DC terminal block and FG terminal: 0.5 MΩ (250V Megger)
Current consumption		4.5 A or less
Usage environment	Ambient temperature range	Operating: 0 to +50°C, Storage: -25 to +65°C (with no icing or condensation)
	Ambient humidity range	Operating and storage: 35 to 85%RH (with no condensation)
	Ambient atmosphere	No corrosive gases
	Vibration tolerance	Oscillation frequency: 10 to 150 Hz, Half amplitude: 0.1 mm, Vibration direction: X/Y/Z, Sweep time: 8 minutes, Sweep count: 10 times
	Shock resistance	Impact force: 150 m/s^2, Test direction: 6 directions, Three times each (up/down, front/behind, left/right)
	Noise immunity	Fast transient burst • DC power Direct infusion: 2 kV, Pulse rising: 5 ns, Pulse width: 50 ns, Burst continuation time: 15 ms / 0.75 ms, Period: 300 ms, Application time: 1 minute • I/O line Coupling clamp: 1 kV, Pulse rising: 5 ns, Pulse width: 50 ns, Burst continuation time: 15 ms / 0.75 ms, Period: 300 ms, Application time: 1 minute
	Grounding	Class D grounding (100 Ω or less grounding resistance) ❇ Existing the third class grounding
External shape	Dimensions	H (90 mm) × W (93 mm) × D (65 mm)
	Weight	Approx. 250 g
	Degree of protection	IEC60529 - IP20
	Case material	PC+ABS, PC
Accessories		• Instruction sheet: 1 • Compliance sheet: 1

I/O cables

Item		FHV-VDB2 2M	FHV-VDLB2 2M	FHV-VDB2 3M	FHV-VDLB2 3M	FHV-VDB2 5M	FHV-VDLB2 5M	FHV-VDB2 10M	FHV-VDLB2 10M	FHV-VDB2 20M	FHV-VDLB2 20M
Cable length		2 m		3 m		5 m		10 m		20 m	
Connector type		Straight connector	Right angle connector	Straight connector	Right angle connector	Straight connector	Right angle connector	Straight connector	Right angle connector	Straight connector	Right angle connector
Cable type		Bending resistance cable									
Size	**Power line**	AWG21									
	Others	AWG26									
Outer diameter		8.8±0.3 mm dia.									
Min. bending radius		Fixed use: 40 mm, Sliding use: 70 mm									
Input/Output signals	**Input signals**	4 signals: STEP, DI 0 to 2									
	Output signals	5 signals: ERROR, OR, BUSY, READY, STGOUT/SHTOUT									
	RS-232C	2 signals: Transmission data, Reception data (RS-232C communication is not supported on this product.)									
Usage environment	**Ambient temperature range**	Operating: -10 to +70°C, Storage: -25 to +85°C (with no icing or condensation)									
	Ambient humidity range	Operating & Storage: 0 to 93%RH (With no condensation)									
	Ambient atmosphere	No corrosive gases									
	Vibration tolerance	Oscillation frequency: 10 to 150 Hz, Half amplitude: 0.35 mm, Vibration direction: X/Y/Z, Sweep time: 8 minute/count, Sweep count: 10 times									
	Shock resistance	Impact force: 150 m/s^2, Test direction: 6 directions, three time each (up/down, front/behind, left/right)									
Material		Mold part: Nylon, PVC, Sheath part: PVC									
Weight		Approx. 250 g		Approx. 370 g		Approx. 590 g		Approx. 1,170 g		Approx. 2,310 g	

Ethernet Cables

Item		FHV-VNB2 2M	FHV-VNLB2 2M	FHV-VNB2 3M	FHV-VNLB2 3M	FHV-VNB2 5M	FHV-VNLB2 5M	FHV-VNB2 10M	FHV-VNLB2 10M	FHV-VNB2 20M	FHV-VNLB2 20M
Cable length		2 m		3 m		5 m		10 m		20 m	
Connector type		Straight connector	Right angle connector	Straight connector	Right angle connector	Straight connector	Right angle connector	Straight connector	Right angle connector	Straight connector	Right angle connector
Cable type		Bending resistance cable									
Outer diameter		6.7±0.3 mm dia.									
Min. bending radius		Fixed use: 35 mm, Sliding use: 50 mm									
Usage environment	**Ambient temperature range**	Operating: -10 to +70°C, Storage: -25 to +85°C (with no icing or condensation)									
	Ambient humidity range	Operating & Storage: 0 to 93%RH (With no condensation)									
	Ambient atmosphere	No corrosive gases									
	Vibration tolerance	Oscillation frequency: 10 to 150 Hz, Half amplitude: 0.35 mm, Vibration direction: X/Y/Z, Sweep time: 8 minute/count, Sweep count: 10 times									
	Shock resistance	Impact force: 150 m/s^2, Test direction: 6 directions, three time each (up/down, front/behind, left/right)									
Material		Mold part: PVC, Sheath part: PVC									
Weight		Approx. 140 g		Approx. 200 g		Approx. 310 g		Approx. 590 g		Approx. 1,150 g	

Smart Camera Data Unit Cable

Bending Resistance Cables

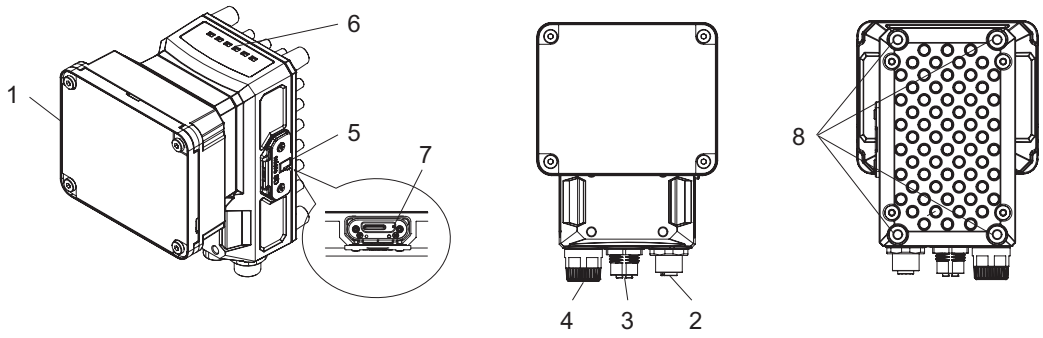
Item		FHV-VUB2 2M	FHV-VULB2 2M	FHV-VUB2 3M	FHV-VULB2 3M	FHV-VUB2 5M	FHV-VULB2 5M	FHV-VUB2 10M	FHV-VULB2 10M	FHV-VUB2 20M	FHV-VULB2 20M
Cable length		2 m		3 m		5 m		10 m		20 m	
Connector type		Straight connector	Right angle connector	Straight connector	Right angle connector	Straight connector	Right angle connector	Straight connector	Right angle connector	Straight connector	Right angle connector
Cable type		Bending resistance cable									
Outer diameter		7.8±0.3 mm dia.									
Min. bending radius		Fixed use: 40 mm, Sliding use: 65 mm									
Usage environment	Ambient temperature range	Operating: -10 to +70°C, Storage: -25 to +85°C (with no icing or condensation)									
	Ambient humidity range	Operating & Storage: 0 to 93%RH (With no condensation)									
	Ambient atmosphere	No corrosive gases									
	Vibration tolerance	Oscillation frequency: 10 to 150 Hz, Half amplitude: 0.35 mm, Vibration direction: X/Y/Z, Sweep time: 8 minute/count, Sweep count: 10 times									
	Shock resistance	Impact force: 150 m/s^2, Test direction: 6 directions, three time each (up/down, front/behind, left/right)									
Material		Mold part: PVC, Sheath part: PVC									
Weight		Approx. 200 g		Approx. 290 g		Approx. 470 g		Approx. 900 g		Approx. 1,780 g	

Recommended Operational Environment for PC Software Remote Operation Tool

Name	Description
CPU	Intel Pentium Processor (SSE2 or higher, supports AVX2)
OS	• Windows 10 Pro (32/64-bit) or Enterprise (32/64-bit) • Windows 11 Pro (64bit) or Enterprise (64bit)
Memory	8GB (16GB or more recommended)
Hard disk space	2GB or more
Display	Resolution: 1280 x 800 dots or more Color: True Color (32-bit)
Network	10BASE-T (100BASE-TX recommended)

Using the PC Software Remote Operation Tool requires Microsoft .NET Framework 3.5 installed.

Parts and Names



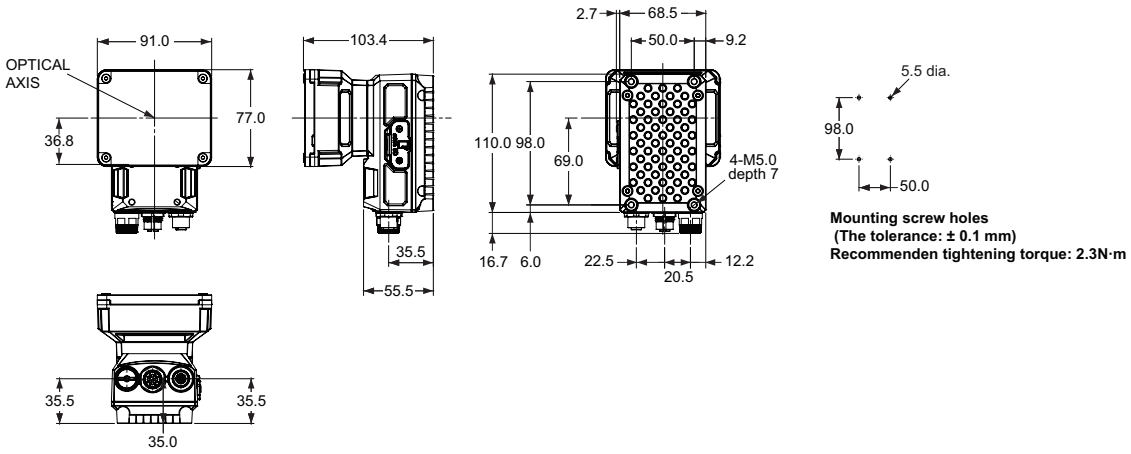
No.	Name		Description
1	Imaging unit		Captures images.
2	I/O cable connector		Use this connector when connecting the smart camera with a power supply or an external device using an I/O cable. Dedicated I/O cable: FHV-VD(L)B2 □□M
3	Ethernet cable connector		Use this connector when connecting the smart camera with a personal computer and so on using an Ethernet cable. Dedicated Ethernet cable: FHV-VN(L)B2 □□M
4	External lighting connector		Use this connector when connecting an external lighting and the external lighting controller. This product does not support connecting to external lighting.
5	Connector to attach microSD card		Use this connector to attach a microSD card. Do not extract/insert the microSD card during processing. Otherwise, measurement time may be influenced or data may be broken.
6	Operation indicator	PWR (Green)	Lights while power is supplied.
		RUN (Green)	Lights when switching to the layout in which the RUN signal output is set ON.
		LINK (Yellow)	Lights when connected with Ethernet equipment and blinks during communication.
		BUSY (Green)	Lights while processing is in progress.
		OR (Yellow)	Lights when the overall judgment output signal is ON.
		ERR (Red)	Lights when an error occurs.
7		SD ACCESS (Yellow)	Lights when accessing to the microSD card.
8	Mounting screw holes		Use them to screw up the smart camera. Recommended tightening torque: 2.3 N·m

Dimensions

(Unit: mm)

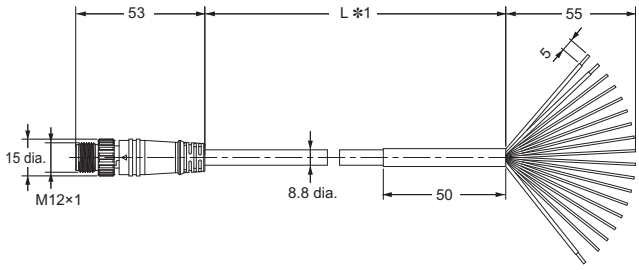
AI Detection Cameras

FHV7X-C016-S□□-W-01

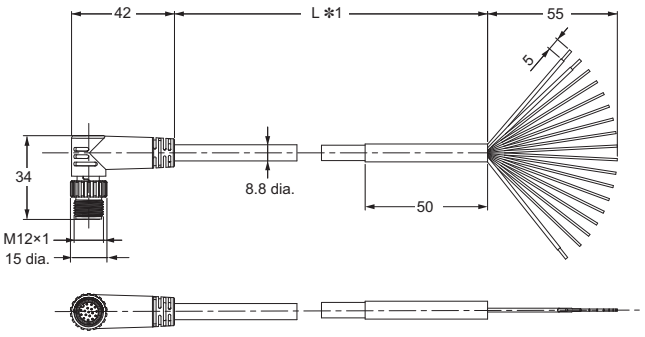


Cables

I/O cable (Bend resistant, straight)
FHV-VDB2 □M

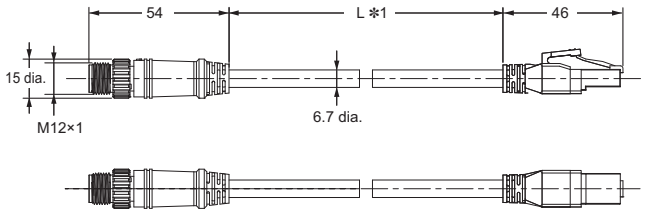


I/O cable (Bend resistant, right angle)
FHV-VDLB2 □M

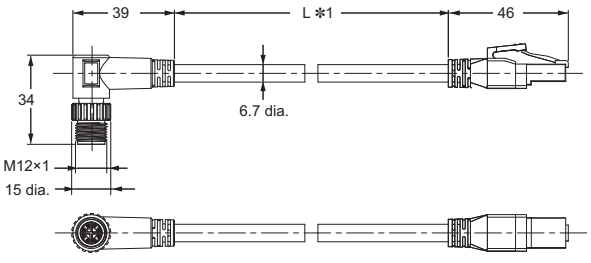


✻1. Cable is available in 2m/3m/5m/10m/20m.

Ethernet cable (Bend resistant, straight)
FHV-VNB2 □M



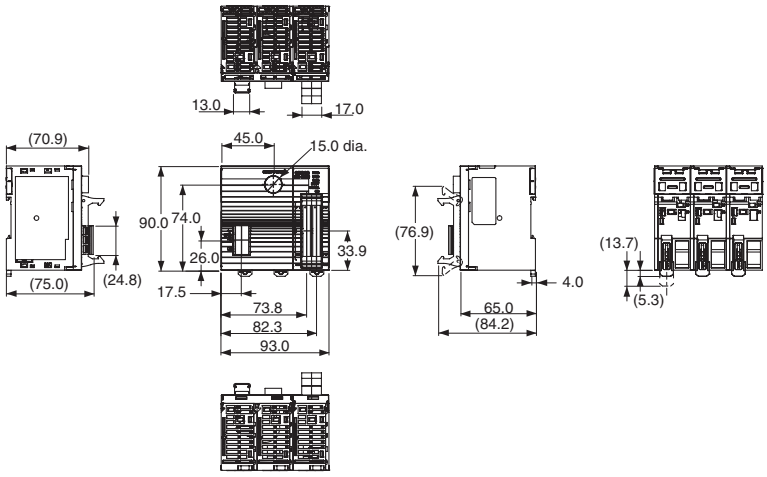
Ethernet cable (Bend resistant, right angle)
FHV-VNLB2 □M



✻1. Cable is available in 2m/3m/5m/10m/20m.

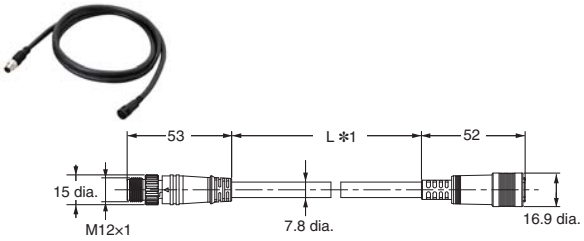
Smart Camera Data Unit

FHV-SDU10

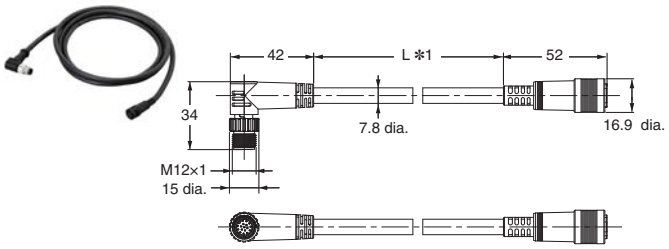


Smart Camera Data Unit Cables

Bending Resistance Cables (Straight)
FHV-VUB2 □M



Bending Resistance Cables (Right angle)
FHV-VULB2 □M



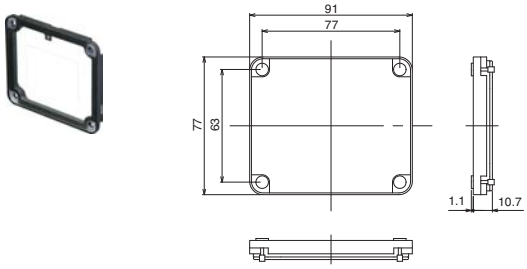
✻1. Cable is available in 2m/3m/5m/10m/20m.

Optical Filters

Polarization Filter, Diffusion Filter
FHV-XDF/-XPL

Light Cover

FHV-XCV



Related Manuals

Cat. No.	Series	Manual
Z507	FHV7X-C016-S□□-W-01	AI Detection Cameras FHV7-AI Series User's Manual

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OMRON's Vision System product lineup

High Performance/cost Low

FH series

OMRON's flagship vision system series that delivers supreme accuracy, speed, and functional diversity. A single unit can provide 360-degree coverage—including of scratches, contamination, dimension, OCR, and even AI.

FHV7 series

High-precision smart cameras that integrate lens, lighting, and image processing. High resolutions of up to 12 megapixels and auto optimization ensure sound operation, even in high-mix, high-speed production lines.

FQ2 series

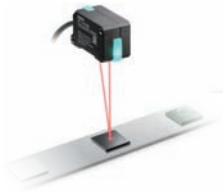
These palm-size cameras are easy to set up, perfect for first-time image inspections. They can be quickly used for presence, position, print, and other simple inspections.

Detect by Height

ZP-L series

Stable detection with initial configuration left intact.
Suitable for inspection/detection of around 10 µm to 1 mm.

- Height/Thickness
- Positioning/Control
- Shape/Curves
- Stroke/Deflection
- Joints/Counting



Note: Do not use this document to operate the Unit.

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