



## FHV7X-C016-S12-W

FH Vision Smart Camera, high performance, color type, 1.6 Mpix resolution, 3.45  $\mu\text{m}$  pixel size, 1/2.9" chip size, global shutter, motorized lens module, focal length 12 mm, white illuminator, 24 VDC, IP67, pre-assembled

# Specifications

Number of pixels	1.6 MP
Camera with lens	✓
Communication port(s)	EtherNet/IP, Ethernet TCP/IP, PROFINET Slave, Serial RS-232C
Communication option(s)	EtherCAT Slave
Focal length	12 mm
Focus distance	60-1000 mm
Autofocus	✓
Camera family	FHV
Camera type	Color
Frame rate	224 fps
Illumination	White LED
Image width	1440 pixels
Image height	1080 pixels
Pixel size	3.45 µm
Shutter type	Global
Image sensor format	1/2.9"
Image sensor type	CMOS
Lens mount	Other
Lens type	Motorized
Optics class	Not Applicable
Degree of protection (IP)	IP67
Application	2D Robot guidance, Bead inspection, Code reading, Code verification, Color inspection, Counting, Defect inspection, Measurement inspection, OCR / OCV, Presence / Absence



**FHV-SDU30**

FHV7 extended data unit, EtherCAT interface



**FHV-VDB2 10M**

FHV7 Power / IO Cable, straight 10 m, M12 connector



**FHV-VDB2 20M**

FHV7 Power / IO Cable, straight 20 m, M12 connector



**FHV-VDB2 2M**

FHV7 Power / IO Cable, straight 2 m, M12 connector



**FHV-VDB2 3M**

FHV7 Power / IO Cable, straight 3 m, M12 connector



**FHV-VDB2 5M**

FHV7 Power / IO Cable, straight 5 m, M12 connector



**FHV-VDBX2 10M**

FHV7 Power / IO Cable, straight, super bend resistant, 10 m, M12 connector



**FHV-VDBX2 5M**

FHV7 Power / IO Cable, straight, super bend resistant, 5 m, M12 connector



**FHV-VDLB2 10M**

FHV7 Power / IO Cable, right angle 10 m, M12 connector



**FHV-VDLB2 20M**

FHV7 Power / IO Cable, right angle 20 m, M12 connector



**FHV-VDLB2 2M**

FHV7 Power / IO Cable, right angle 2 m, M12 connector



**FHV-VDLB2 3M**

FHV7 Power / IO Cable, right angle 3 m, M12 connector



**FHV-VDLB2 5M**

FHV7 Power / IO Cable, right angle 5 m, M12 connector



**FHV-VDLBX2 10M**

FHV7 Power / IO Cable, right angle, super bend resistant, 10 m, M12 connector



**FHV-VDLBX2 5M**

FHV7 Power / IO Cable, right angle, super bend resistant, 5 m, M12 connector



**FHV-VNB2 10M**

FHV7 Ethernet cable, straight 10 m, M12 connector



**FHV-VNB2 20M**

FHV7 Ethernet cable, straight 20 m, M12 connector



**FHV-VNB2 2M**

FHV7 Ethernet cable, straight 2 m, M12 connector



**FHV-VNB2 3M**

FHV7 Ethernet cable, straight 3 m, M12 connector



**FHV-VNB2 5M**

FHV7 Ethernet cable, straight 5 m, M12 connector



**FHV-VNBX2 5M**

FHV7 Ethernet cable, straight, super bend resistant, 5 m, M12 connector



**FHV-VNLB2 10M**

FHV7 Ethernet cable, right angle 10 m, M12 connector



**FHV-VNLB2 20M**

FHV7 Ethernet cable, right angle 20 m, M12 connector



**FHV-VNLB2 2M**

FHV7 Ethernet cable, right angle 2 m, M12 connector

















**FHV-VNLB2 3M**

FHV7 Ethernet cable, right angle 3 m, M12 connector



**FHV-VNLB2 5M**

FHV7 Ethernet cable, right angle 5 m, M12 connector

	<b>FHV-VNLBX2 10M</b>	FHV7 Ethernet cable, right angle, 10 m, super bend resistant, M12 connector
	<b>FHV-VNLBX2 5M</b>	FHV7 Ethernet cable, right angle, super bend resistant, 5 m, M12 connector
	<b>FHV-VUB2 10M</b>	Smart Camera data unit cable, bend resistant, 10 m
	<b>FHV-VUB2 2M</b>	Smart Camera data unit cable, bend resistant, 2 m
	<b>FHV-VUB2 3M</b>	Smart Camera data unit cable, bend resistant, 3 m
	<b>FHV-VUB2 5M</b>	Smart Camera data unit cable, bend resistant, 5 m
	<b>FHV-VULB2 10M</b>	Smart Camera data unit cable, bend resistant, right angle, 10 m
	<b>FHV-VULB2 2M</b>	Smart Camera data unit cable, bend resistant, right angle, 2 m
	<b>FHV-VULB2 3M</b>	Smart Camera data unit cable, bend resistant, right angle, 3 m
	<b>FHV-VULB2 5M</b>	Smart Camera data unit cable, bend resistant, right angle, 5 m
	<b>FHV-XDF</b>	FHV7 Diffusion filter
	<b>FHV-XMT-7</b>	Fixture for FHV7
	<b>FHV-XPL</b>	FHV7 Polarization filter, for visible light
	<b>NYE2A-20F11-12WR1200</b>	Touch screen HMI Panel PC with FHV7 Viewer, Windows 10 IOT 2021, Intel Atom E3950 CPU, 12 inch, 1 x RS-232C, 2 x Ethernet (10/100/1000 Base-T), 2 x USB 2.0 Ports, 1 x USB 3.0 Port, 128 GB CFAST, 24 VDC, black case



**NYE2A-20F11-12WR1300**

Touch screen HMI Panel PC with FHV7 viewer, Windows 10 IOT 2021, Intel Atom E3950 CPU, 12 inch, 1 x RS-232C, 2 x Ethernet (10/100/1000 Base-T), 2 x USB 2.0 Ports, 1 x USB 3.0 Port, 128 GB CFAST, 24 VDC, silver case



**NYE2A-20F11-15WR1200**

Touch screen HMI Panel PC with FHV7 Viewer, Windows 10 IOT 2021, Intel Atom E3950 CPU, 15 inch, 1 x RS-232C, 2 x Ethernet (10/100/1000 Base-T), 2 x USB 2.0 Ports, 1 x USB 3.0 Port, 128 GB CFAST, 24 VDC, black case



**NYE2A-20F11-15WR1300**

Touch screen HMI Panel PC with FHV7 Viewer, Windows 10 IOT 2021, Intel Atom E3950 CPU, 15 inch, 1 x RS-232C, 2 x Ethernet (10/100/1000 Base-T), 2 x USB 2.0 Ports, 1 x USB 3.0 Port, 128 GB CFAST, 24 VDC, silver case

## Spare parts



**FHV-XCV**

FHV7 Replacement Lighting cover



**FHV-XLS-LTM**

FHV7 lighting shielding sheet

## Downloads

CAD Library



**EAC Mark removal  
Discontinuation Notice**

EN PDF 221 KB



**FH Series Vision System  
- Sysmac Studio  
Operation Manual**

EN PDF 11.9 MB



**FH Series Vision System  
- Hardware  
Setup Manual**

EN PDF 21.4 MB



**FH Series Vision System  
- Macro Customize  
Functions  
Programming Manual**

EN PDF 5.96 MB



**FH/FHV Series  
Communications  
Settings  
Communications  
Manual**

EN PDF 13.2 MB



**FH/FHV Series Vision  
System  
Users Manual**

EN PDF 27.4 MB



### FH/FHV Series Vision System - Processing Item Function

Reference Manual

EN PDF 38.6 MB



### FH/FHV Vision Application Guide for ABB robots

Practice Guide

EN PDF 3.01 MB



### FH/FHV Vision Application Guide for Denso robots

Practice Guide

EN PDF 2.93 MB



### FH/FHV Vision Application Guide for Epson robots

Practice Guide

EN PDF 2.86 MB



### FH/FHV Vision Application Guide for Fanuc robots

Practice Guide

EN PDF 3.02 MB



### FH/FHV Vision Application Guide for Omron robots

Practice Guide

EN PDF 3.27 MB



### FHV Series Setup Manual

EN PDF 26.6 MB



### FHV7 Series Datasheet

EN PDF 7.43 MB



### FHV7H Simulator Launcher v655 Software

EN ZIP 34.1 MB



### FHV7X Simulator Launcher Software

EN ZIP 40.2 MB



### FHV7 -M -C C - Smart Camera Instruction Sheet

EN PDF 4.33 MB



### IfzToBitmap V160 Software

EN ZIP 2.02 MB



### Omron FHV7H-xxxx-x PROFINET GSDML file

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### Robot Setting Tool Software

EN ZIP 3.09 MB



### Selection Guide for Vision Sensors Brochure

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### Touch panel monitor for FHV7 Smart Camera Flyer

EN PDF 313 KB