

Ordering Information

(1) 3D Vision Sensor

Item	Model
 3D Vision Sensor	FH-SMDA-GS050B

(2) Sensor Controller

Item	Model
 Sensor Controller	FH-5052 FH-5051

Note: FH-505□-10, FH-505□-20 are not applicable.

Software Sold Separately

Item	Model
 3D Robot Vision Software Installer *	FH-UM3D1

* This product can be installed on the FH-505□ (version 6.40 or later).

(3) Camera Cables

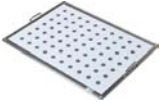
Item	Descriptions	Cable length	Model
	Straight Ethernet Cable	5 m	FHV-VNBX2 5M
		10 m	FHV-VNBX2 10M
	Right-angle Ethernet Cable	5 m	FHV-VNLBX2 5M
		10 m	FHV-VNLBX2 10M

(4) Camera I/O Cables

Item	Descriptions	Cable length	Model
	Straight	5 m	FH-VSDX-BX 5M
		10 m	FH-VSDX-BX 10M
	Right-angle	5 m	FH-VSDX-LBX 5M
		10 m	FH-VSDX-LBX 10M

FH-SMD Series

(5) Calibration Targets

Item	Model
 Handeye Calibration Target	FH-XCAL-R
 Camera Calibration Target	FH-XCAL-S

(6) Monitor

Item	Descriptions	Model
 Touch Panel Monitor 12.1 inches For FH Sensor Controllers *		FH-MT12
 LCD Monitor 8.4 inches		FZ-M08

* FH Series Sensor Controllers version 5.32 or higher is required.

(7) Monitor Cables

Item	Descriptions	Cable length	Model
	DVI-Analog Conversion Cable for Touch Panel Monitor/LCD Monitor	2 m	FH-VMDA 2M
		5 m	FH-VMDA 5M
		10 m	FH-VMDA 10M
	RS-232C Cable for Touch Panel Monitor	2 m	XW2Z-200PP-1
		5 m	XW2Z-500PP-1
		10 m	XW2Z-010PP-1
	USB Cable for Touch Panel Monitor	2 m	FH-VUAB 2M
		5 m	FH-VUAB 5M

A video signal cable and an operation signal cable are required to connect the Touch Panel Monitor.

Signal	Cable	2 m	5 m	10 m
Video signal	DVI-Analog Conversion Cable	Yes	Yes	Yes
Touch panel operation signal	USB Cable	Yes	Yes	No
	RS-232C Cable	Yes	Yes	Yes

(8) Parallel I/O Cables

Item	Descriptions	Model
	Parallel I/O Cable *1 Cable length: 2m, 5m or 15m	XW2Z-S013-□ *2
	Parallel I/O Cable for Connector-terminal Conversion Unit *1 Cable length: 0.5 m, 1 m, 1.5 m, 2 m, 3 m, 5 m Connector-Terminal Block Conversion Units can be connected (Terminal Blocks Recommended Products: OMRON XW2K-34G-T)	XW2Z-□□□EE *3
	Ultra-Compact Interface Wiring System (General-Purpose)	XW2K-34G-T *4

*1. 2 Cables are required for all I/O signals.

*2. Insert the cables length into □ in the model number as follows. 2 m = 2, 5 m = 5, 15 m = 15

*3. Insert the cables length into □□□ in the model number as follows. 0.5 m = 050, 1 m = 100, 1.5 m = 150, 2 m = 200, 3 m = 300, 5 m = 500

*4. Refer to the XW2K Series Datasheet (Cat. No. G152) for details.

Touch Panel Monitor

Model		FH-MT12
Major Function	Display area	12.1 inch
	Resolution	1024 (V) × 768 (H)
	Number of color	16,200,000 colors (8 bit/color)
	Brightness	500cd/m ² (Typ)
	Contrast Ratio	700:1 (Typ)
	Viewing angle	Horizontal (left and right): -80° to 80° (Typ) Vertical (top and bottom): -70° to 70° (Typ)
	Backlight Unit	LED, edge-light
	Backlight lifetime	About 80,000 hour
	Touch panel	4 wire resistive touch screen
External interface	Video input	analog RGB
	Touch panel signal	USB RS-232C
Ratings	Power supply voltage	24 VDC (21.6 to 26.4 VDC)
	Current consumption	0.5 A
	Insulation resistance	Between DC power supply and Touch Panel Monitor FG: 20 MΩ or higher (rated voltage 250 V)
Operating environment	Ambient temperature range	Operating: 0 to 50°C, Storage: -20 to +65°C (with no icing or condensation)
	Ambient humidity range	Operating and Storage: 20 to 90%RH (with no icing or condensation)
	Ambient environment	No corrosive gas
	Vibration resistance	10 to 150 Hz, one-side amplitude 0.1 mm (Max. acceleration 15 m/s ²) 10 times for 8 minutes for each three direction
	Degree of protection	Panel mounting: IP65 on the front
Operation		Touch pen
Structure	Mounting	Panel mounting, VESA mounting
	Weight	Approx. 2.4 kg
	Material	Front panel: PC/PBT, Front Sheet: PET, Rear case: SUS

Note: FH Series Sensor Controllers version 5.32 or higher is required.

Monitor Cables

Model	FH-VMDA (2 m)	FH-VUAB (2 m)	XW2Z-200PP-1 (2 m)
Cable type	DVI-Analog Conversion Cable	USB Cable	RS-232C Cable
Vibration resistance	10 to 150 Hz, one-side amplitude 0.1 mm, 10 times for 8 minutes for each three direction		
Ambient Temperature	Operating Condition: 0 to 50°C, Storage Condition: -10 to 60°C (with no icing or condensation)		
Ambient Humidity	Operating Condition: 35 to 85%RH, Storage Condition: 35 to 85%RH (with no icing or condensation)		
Ambient environment	No corrosive gases		
Material	Cable outer sheath, Connector: PVC		Cable outer sheath: PVC, Connector: ABS/Ni Plating
Minimum bend radius	62 mm	25 mm	59 mm
Weight	Approx. 210 g	Approx. 95 g	Approx. 162 g

LCD Monitor

Model	FZ-M08
Size	8.4 inches
Type	Liquid crystal color TFT
Resolution	1,024 × 768 dots
Input signal	Analog RGB video input, 1 channel
Power supply voltage	21.6 to 26.4 VDC
Current consumption	Approx. 0.7 A max.
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% (with no condensation)
Weight	Approx. 1.2 kg
Accessories	Instruction Sheet and 4 mounting brackets