

Programmable Operator Interface

MONITOUCH

The new standard for high speed HMI



V10 STANDARD MODEL
Series

MONITOUCH



Realizing smooth,
stress-free operation
with functions required for HMI



The chief reason to select the V10 series is its overwhelming performance against competitors.

Industry best performance^{*1}



In addition to benchmarking HMIs from all over the world, we thoroughly analyzed how they were used in the field, and achieved industry-leading performance in six aspects (rendering, operation, startup, communication, transfer and custom code).

-  **Rendering**
Highest screen switching speed
-  **Operation**
Quickest input response time

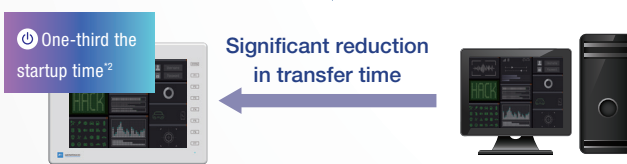
Reducing the stress of switching screens



Smooth screen switching and continuous operation

-  **Start-up**
Shortest startup time from power-on
-  **Transferring**
Highest screen data transfer speed!!

Reducing the stress of wait time




Reducing the wait time for startup and screen transfer

-  **Communication**
Highest communication speed

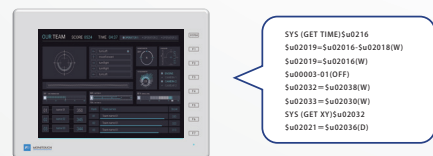
Reducing the reading and writing time of multipoint data



Smooth operation even with multiple devices connected for multi-point logging

-  **Custom Code**
Highest processing speed for macro command execution!

Reducing stress in the operation of high-load screens



Stable operation even for four arithmetic operations and logical operation in multiple lines, comparison and transfer

*1 Comparison with currently available products of the world's major HMI manufacturers using our sample screen programs (according to our own research)

*2 Comparison with V9 series using our sample screen programs (according to our own research)

- XGA SVGA
- 16.7M Colors
- Serial 3ch
- LAN 1ch
- SD I/F
- USB A/mini B
- Audio
- COM I/F Option
- VIDEO Option
- RGB Option

Minimal development cost in HMI replacement!



V9 series

V-SFT Ver. 6

Just select the V10 series in the model setting.
Any screen data of the previous model is automatically converted to the V10 series.



V10 series

Full compatibility in software!^{*3}

*3 Some functions are scheduled to be available in October 2023



Panel Cutout



V9 series

Panel cutout dimensions are the same for all models.



V10 series

Communication Units



Communication units are fully compatible!
Communication units (CUR-xx) for V9 series can be used.

Full compatibility in hardware!^{*4}

*4 Expansion units (Video/RGB) are under development, scheduled to be released in April 2024.

Advantages to use the V10 series

Operation / Communication

High-speed processing of quad-core CPU allows for stable operation and communication performance even on high-load screens!

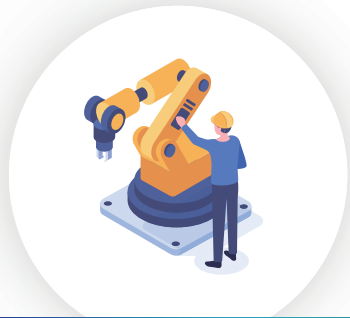
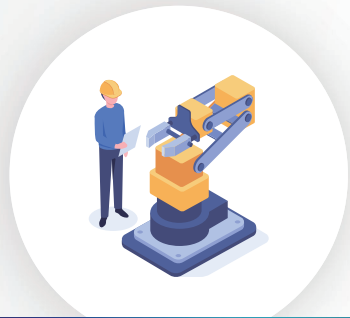
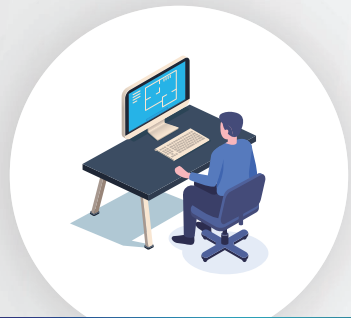
Start-up / Transfer

Advanced storage device (eMMC) reduced startup/transfer time and man-hours!

Compatibility

Panel cutout size and functions Fully compatible with existing V series!

Benefits for every department!



Designer

- Start-up / Transfer** Reduced wait time for start-up and screen data transfer!
- Compatibility** Reduced debugging time for system updates thanks to full compatibilities with previous models!

Operator

- Start-up / Transfer** Reduced start-up wait time
- Operation / Communication** Smooth setup and operation is now possible!

Maintenance Engineer

- Compatibility** Identical panel cutout size allows for easy updating from existing models.
- Operation / Communication** Smooth screen switching enables quick location of the error source when troubleshooting.

Model

V10 i S

Screen size
15: 15.0 inches
12: 12.1 inches
10: 10.4 inches
08: 8.4 inches

Model type
S: Standard

Functions
N/A: Standard,
L: With extended wired LAN,
R: With wireless LAN

Power supply
N/A: 100-240V AC, D: 24V DC
Front case color
N/A: Light gray, B: Black



15.0 inches | V1015IS

12.1 inches | V1012IS

10.4 inches | V1010IS

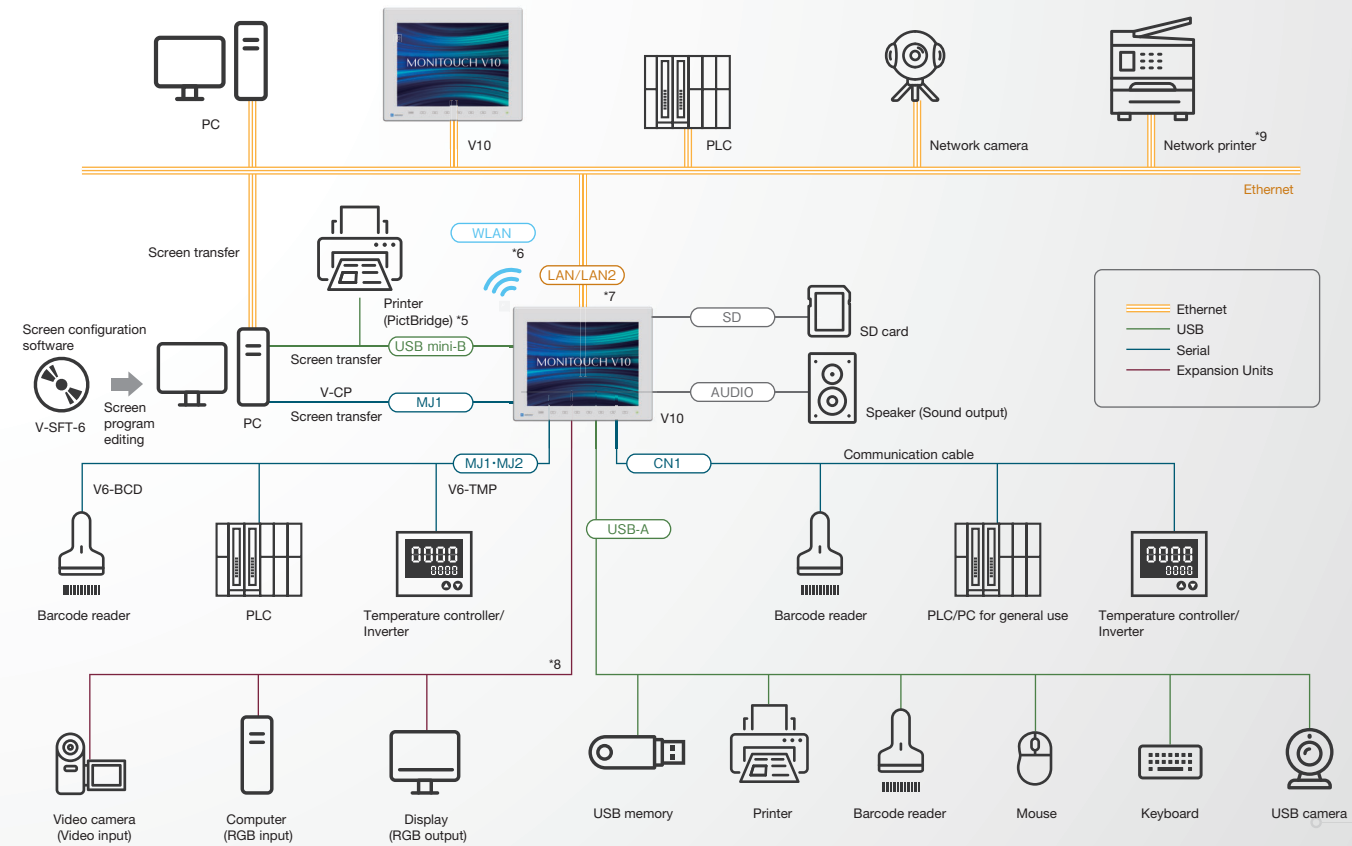
8.4 inches | V1008IS

Product Details

Model	Specifications					External Interface				Standard					Delivery Standard: ✓ Made to order: △				
	Display Size	Resolution	Touch Screen	Case Color	Power Supply	Video/RGB ¹	AUDIO Output	Wireless LAN	Extended Wired LAN	UL	CE/UKCA	KC	ANSI/ISA ²	Radio Act		Classification Standard ³			
V1015IS	15.0 inches	1024 × 768	Analog resistance film	Light gray	AC	✓	✓	—	—	—	—	✓	—	—	—	—			
V1015ISD					DC	✓	✓	—	—	✓	✓	✓	✓	—	✓	—	✓	✓	
V1015ISLD					DC	✓	✓	—	—	✓	✓	✓	✓	✓	—	✓	—	✓	△
V1015ISRD					DC	✓	✓	—	—	✓	✓	—	✓	✓	✓	✓	—	—	△
V1015ISB				Black ⁴	AC	✓	✓	—	—	—	—	—	—	✓	—	—	—	—	△
V1015ISBD					DC	✓	✓	—	—	—	—	✓	✓	✓	✓	—	—	✓	△
V1015ISLBD					DC	✓	✓	—	—	✓	✓	✓	✓	✓	✓	—	—	✓	△
V1015ISRBD					DC	✓	✓	—	—	✓	✓	—	✓	✓	✓	✓	—	—	△
V1012IS	12.1 inches	800 × 600	Analog resistance film	Light gray	AC	✓	✓	—	—	—	—	✓	—	—	—	—	✓		
V1012ISD					DC	✓	✓	—	—	✓	✓	✓	✓	✓	—	—	✓	✓	
V1012ISLD					DC	✓	✓	—	—	✓	✓	✓	✓	✓	✓	—	—	✓	△
V1012ISRD					DC	✓	✓	—	—	✓	✓	—	✓	✓	✓	✓	—	—	△
V1012ISB				Black ⁴	AC	✓	✓	—	—	—	—	—	—	✓	—	—	—	—	△
V1012ISBD					DC	✓	✓	—	—	—	—	✓	✓	✓	✓	—	—	✓	△
V1012ISLBD					DC	✓	✓	—	—	✓	✓	✓	✓	✓	✓	—	—	✓	△
V1012ISRBD					DC	✓	✓	—	—	✓	✓	—	✓	✓	✓	✓	—	—	△
V1010IS	10.4 inches	800 × 600	Analog resistance film	Light gray	AC	✓	✓	—	—	—	—	✓	—	—	—	—	✓		
V1010ISD					DC	✓	✓	—	—	✓	✓	✓	✓	✓	—	—	✓	✓	
V1010ISLD					DC	✓	✓	—	—	✓	✓	✓	✓	✓	✓	—	—	✓	△
V1010ISRD					DC	✓	✓	—	—	✓	✓	—	✓	✓	✓	✓	—	—	△
V1010ISB				Black ⁴	AC	✓	✓	—	—	—	—	—	—	✓	—	—	—	—	△
V1010ISBD					DC	✓	✓	—	—	—	—	✓	✓	✓	✓	—	—	✓	△
V1010ISLBD					DC	✓	✓	—	—	✓	✓	✓	✓	✓	✓	—	—	✓	△
V1010ISRBD					DC	✓	✓	—	—	✓	✓	—	✓	✓	✓	✓	—	—	△
V1008ISD	8.4 inches	800 × 600	Analog resistance film	Light gray	AC	✓	✓	—	—	—	—	✓	—	—	—	—	✓		
V1008ISLD					DC	✓	✓	—	—	✓	✓	✓	✓	✓	—	—	✓	△	
V1008ISR					DC	✓	✓	—	—	✓	✓	✓	✓	✓	✓	—	—	✓	△
V1008ISRD					DC	✓	✓	—	—	✓	✓	—	✓	✓	✓	✓	—	—	△
V1008ISB				Black ⁴	AC	✓	✓	—	—	—	—	—	—	✓	—	—	—	—	△
V1008ISBD					DC	✓	✓	—	—	—	—	✓	✓	✓	✓	—	—	✓	△
V1008ISLBD					DC	✓	✓	—	—	✓	✓	✓	✓	✓	✓	—	—	✓	△
V1008ISRBD					DC	✓	✓	—	—	✓	✓	—	✓	✓	✓	✓	—	—	△

¹ Compatible with expansion units under development (Scheduled for release in April 2024) ² Scheduled to be compliant in June 2023 ³ Scheduled to be compliant in October 2023 ⁴ The rear case is light gray.

System Configuration



⁵ Scheduled to be available in October 2023
⁶ Wireless LAN compatible products only
⁷ LAN2 is available only in products with extended wired LAN
⁸ Compatible with expansion units under development (Scheduled for release in April 2024)
⁹ Compatible with EPSON ESC/P-R, HP HPLIP only. Wireless LAN connection is possible for wireless LAN compatible products.

General Specifications

Item	V1015iS	V1015iSD	V1012iS	V1012iSD	V1010iS	V1010iSD	V1008iSD
Power Supply	Rated Voltage	100~240V AC	24V DC	100~240V AC	24V DC	100~240V AC	24V DC
	Permissible Range of Voltage	-15%, +10%	±10%	-15%, +10%	±10%	-15%, +10%	±10%
	Permissible Momentary Power Failure	Within 20ms (100VAC or higher)	Within 1ms	Within 20ms (100VAC or higher)	Within 1ms	Within 20ms (100VAC or higher)	Within 1ms
	Power Consumption (Max. Rating)	76VA or less	38W or less	53VA or less	25W or less	60VA or less	27W or less
Rush Current	56A or less, 3ms (Ambient temperature 25°C)	29A or less, 12ms (Ambient temperature 25°C)	48A or less, 3ms (Ambient temperature 25°C)	23A or less, 5ms (Ambient temperature 25°C)	43A or less, 3ms (Ambient temperature 25°C)	25A or less, 5ms (Ambient temperature 25°C)	21A or less, 6ms (Ambient temperature 25°C)
Insulation Resistance		Between AC external terminal and FG: 500V DC, 10MΩ or more				Between DC external terminal and FG: 500V DC, 10MΩ or more	
Physical Environment	Operating Ambient Temperature	0~40°C ^{*1}			0~50°C ^{*1}		
	Operating Ambient Humidity	85%RH or less (without dew condensation, max. wet-bulb temperature 39°C or lower) ^{*1}					
	Operating Altitude	2,000m or less					
	Operating Atmosphere	No exposure to corrosive gas or conductive dust					
	Storage Ambient Temperature	-10~50°C ^{*1}			-10~60°C ^{*1}		
Mechanical Operating Conditions	Resistance to Oscillation	JIS B 3502 (IEC61131-2) compliant Vibration frequency 5 to 9Hz, Half amplitude: 3.5mm, 9 to 150Hz, Constant acceleration: 9.8m/s ² (1G) X, Y, Z 3 directions 10 times each					
	Resistance to Shock	JIS B 3502 (IEC61131-2) compliant Peak acceleration: 147m/s ² (15G), X,Y,Z 3 directions, 3 times each (18 times in total)					
Electric Operating Conditions	Resistance to Noise	Noise voltage: 1,500Vp-p, pulse width: 1μs, pulse rise time: 1ns (by noise simulator)	Noise voltage: 1,000Vp-p, pulse width: 1μs, pulse rise time: 1ns (by noise simulator)	Noise voltage: 1,500Vp-p, pulse width: 1μs, pulse rise time: 1ns (by noise simulator)			
	Resistance to Static Discharge	IEC61000-4-2 compliant, Contact: 6kV, air: 8kV					
Installation Conditions	Grounding	Grounding resistance: Less than 100Ω, FG/SG separation					
	Structure	Protection structure: Front case: IP66, Type 4X/13 ² (when water-proof gasket is used), Rear case: IP20 Installation method: panel mounting					
	Cooling System	Natural air cooling					
	Dimensions W×H×D (mm)	382.8×312.8×79.2	327.8×261.0×53.4	303.8×231.0×53.8	235.0×180.0×48.7		
	Panel Cutout W×H (mm)	369.4(+0.5/-0)×299.4(+0.5/-0)	313.0(+0.5/-0)×246.2(+0.5/-0)	289.0(+0.5/-0)×216.2(+0.5/-0)	220.5(+0.5/-0)×165.5(+0.5/-0)		
Case	Weight (display only)	Approx. 3.7kg	Approx. 2.6kg	Approx. 2.1kg	Approx. 1.4kg		
	Color	Front case, Surface sheet: Light gray / Black (black model) Rear case: Light gray					
	Material	PBT+GF30 resin					

*1 Use at a wet-bulb temperature of 39°C or less because higher temperatures may cause failure. *2 DC products only.

Performance Specifications

Item	V10 Standard			
	V1015iS	V1012iS	V1010iS	V1008iS
Screen Memory (FROM)	256MB			
Backup Memory (SRAM)	900KB			
Display	Display Device	TFT color		
	Resolution	1024×768	800×600	8.4 inches
	Display Size	15.0 inches	12.1 inches	10.4 inches
	Display Colors	16.77 million colors ^{*3}		
	Backlight	LED		
Touch Switch	Backlight Life	Approx. 100,000 hours	Approx. 70,000 hours	
	Type	Analog resistance film		
External Interface	Quantity	8		
	D-Sub 9-pin (CN1)	RS-232C/RS-422/RS-485 Asynchronous, Data length: 7, 8 bits Parity: Even, odd, none Stop bit: 1, 2 bits Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200, 187500 ^{*4} bps		
	Modular 8-pin (MJ1/MJ2)	RS-232C/RS-485 (2-wire type) Asynchronous, Data length: 7, 8 bits Parity: Even, odd, none Stop bit: 1, 2 bits Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200 bps		
	Ethernet	1CH ^{*5} IEEE802.3(10BASE-T)/IEEE802.3u(100BASE-TX)/IEEE802.3ab(1000BASE-T) compliant, Compatible with Auto-MDIX		
	Wireless LAN ^{*6}	IEEE802.11b/g/n compliant (2.4GHz band)		
Clock	SD Card	Compatible with 1CH SD/SDHC/SDXC card (max. 2TB), Class10, UHS-I		
	USB	Type A(Ver.3.0) 1CH, Type mini-B(Ver.2.0) 1CH		
	Sound Output	1CH		
Standard	Backup Period	5 years (Ambient temperature 25°C)		
	Calendar Accuracy	Gap ±90 sec. per month (Ambient temperature 25°C, When the battery is backed up)		
Classification Standard ^{*7-9,10}	CE·UKCA ^{*7}	EN61000-6-2, EN61000-6-4		
	UL·cUL ^{*7}	UL61010-1/UL61010-2-201(E313548), ANSI/ISA12.12.01 ^{*8}		
	KC	Compatible		
	Radio Act ^{*6,7}	MIC(Japan), FCC(USA), ISED(Canada), RE/UKCA(Europe), KC(South Korea)		
		Nippon Kaiji Kyokai (NK), Lloyd's Register of Shipping (LR), American Bureau of Shipping (ABS), Det Norske Veritas (DNV)		

*3 For displaying pictures, 3D parts, video, and RGB input (excluding high-speed mode) only. Other parts are displayed in 65,536 colors. *4 Only for Siemens MPI *5 2CH for extended wired LAN products *6 Wireless LAN compatible products only *7 DC products only. *8 Scheduled to be compliant in June 2023 *9 Excluding wireless LAN compatible products *10 Scheduled to be compliant in October 2023

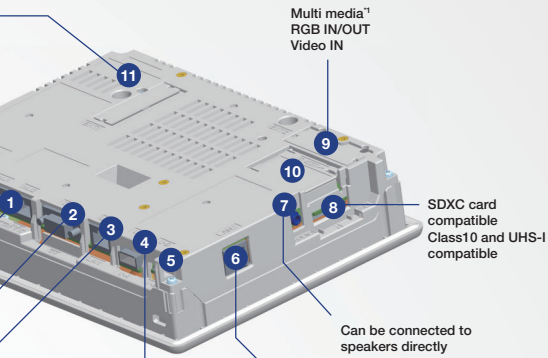
Interface

Connection with a wide range of industrial networks

Model	Compatible network
CUR-00	OPCN-1
CUR-01	T-Link
CUR-02	CC-Link (Ver.1.10, Ver.2.00)
CUR-03	Ethernet (UDP/IP)
CUR-04	PROFIBUS-DP
CUR-06	SX-bus
CUR-07	DeviceNet
CUR-08	FL-net (Ver.2.00)
CUR-09	EtherCAT

Communication units for the V9 series can be used.

3CH serial ports are built-in as standard, allowing for the largest number of protocols
Supports 1000BASE-T high-speed communication



USB 3.0 allows for large amounts of data such as logging to be stored in a USB drive at high speed

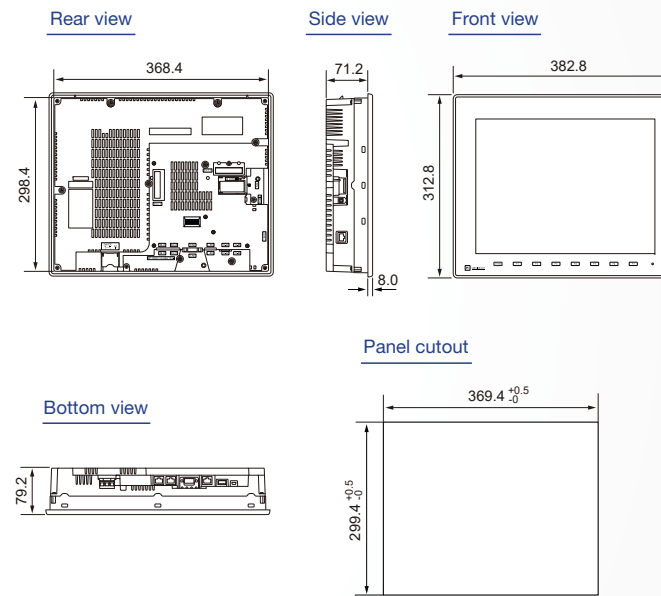
Extended wired LAN for security² Separation of upper and lower network segments

- 1 Serial port 1 and 2 Modular jack (RJ45)
- 2 Serial port 3 D-SUB 9-pin
- 3 Wired LAN
- 4 USB Type A Ver. 3.0
- 5 USB mini-B Ver. 2.0
- 6 Extended wired LAN²
- 7 Audio jack
- 8 SD Card
- 9 Expansion Units¹
- 10 Battery V9-BT
- 11 Communication Units
- 12 Power supply terminal block

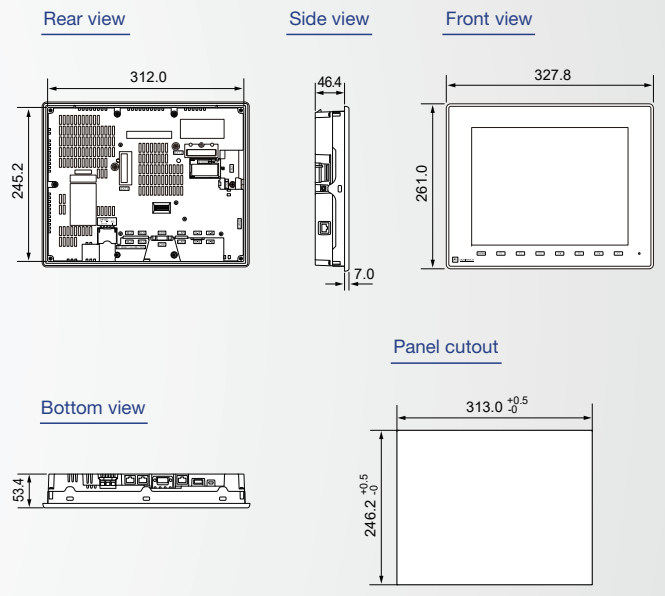
¹ Under development; scheduled for release in April 2024.
² Extended wired LAN products only

Dimensions

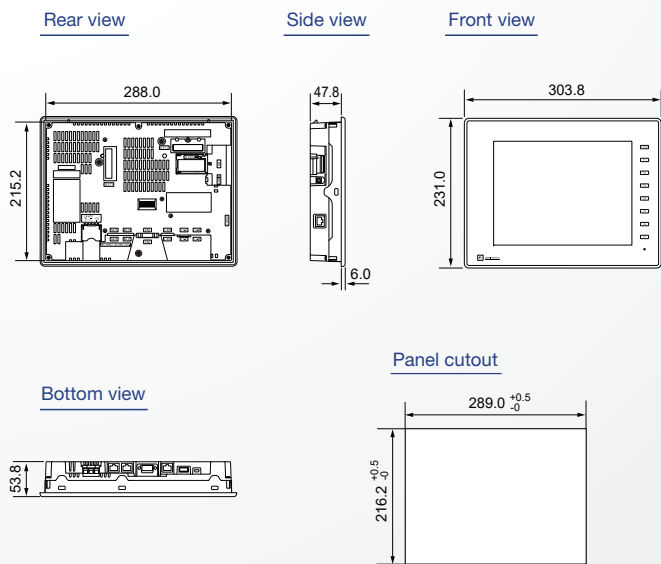
V1015iS (Unit: mm)



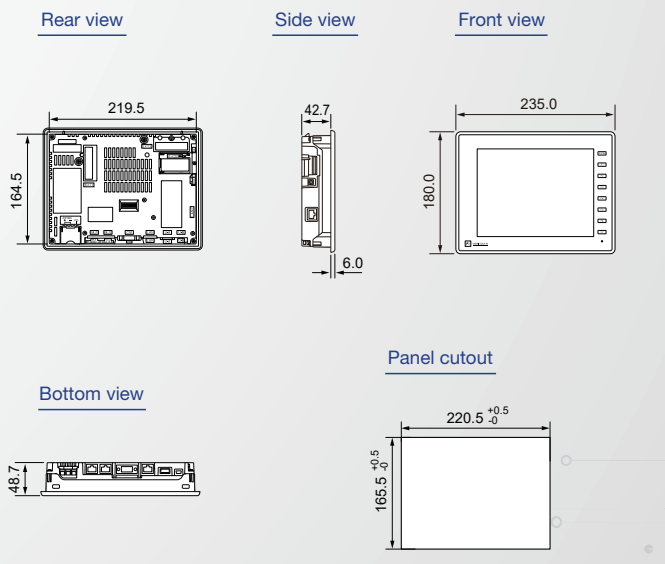
V1012iS (Unit: mm)



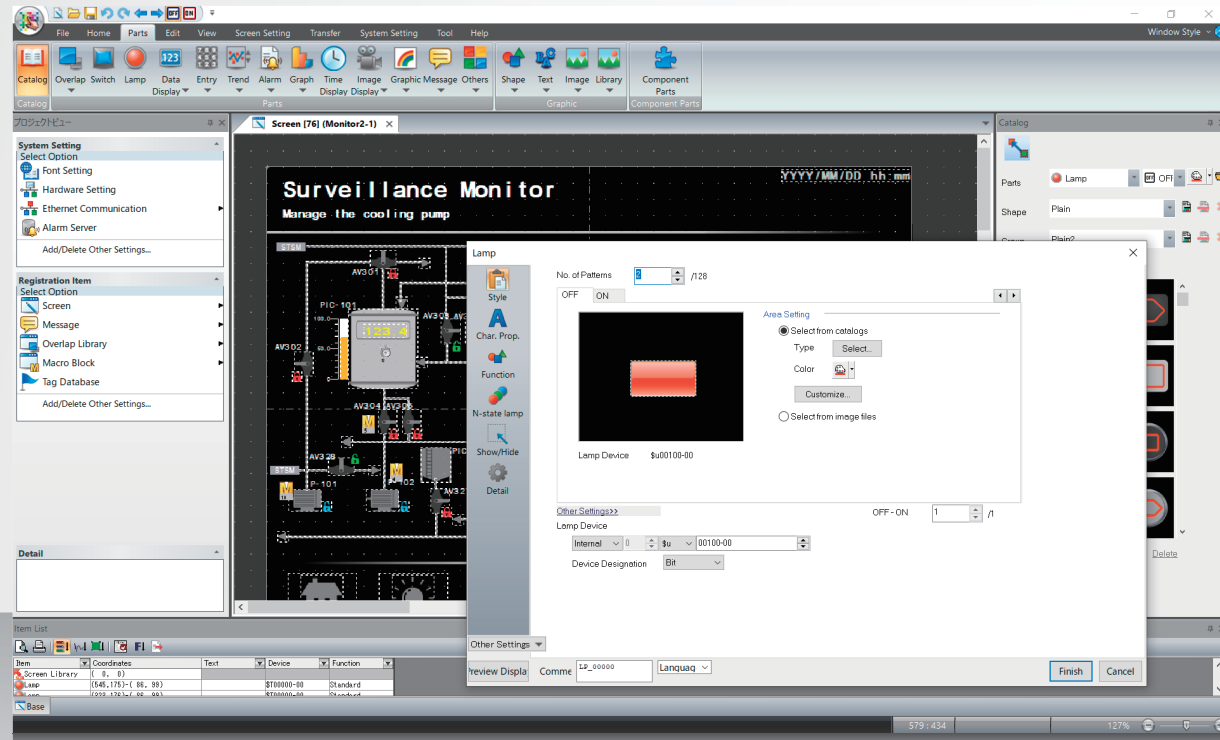
V1010iS (Unit: mm)



V1008iS (Unit: mm)



Achieve sleeker screens with simple, easy-to-understand operations



V-SFT Ver. 6^{*1}

Reduction of screen data transfer time

Modification and improvement of the transfer process has reduced the transfer time of screen data. The significant reduction of time for repetitive transfer during design debugging etc. contributes to the reduction of design and maintenance man-hours.

Computer	PC/AT compatible computer for Windows
OS^{*2,3}	Vista(32bit, 64bit)/7(32bit, 64bit)/8(32bit, 64bit)/8.1(32bit, 64bit)/10(32bit, 64bit)/11(64bit)
CPU	Pentium 4 2.0 GHz or above recommended
Memory	1 GB or above (2 GB or above recommended)
Hard Disk	When installed: 4.0 GB or above

Disk Drive	DVD-ROM drive
Display	Resolution 1024 x 768 (XGA) or above recommended
Display Colors	High color (16-bit) or above
Others	Microsoft .NET Framework 4.0 or 4.5 (If a PC does not have .NET Framework 4.0 or 4.5, Framework 4.0 will automatically be installed on the PC.)

*1 The V10 series is compatible with Ver.6.2.0.0 and later. *2 Administrator privileges are required for installation.

*3 V-SFT Ver. 6.1.6.0 or later is not supported on Windows XP/XP64 Edition

Optional Accessories List

Model	Product	V10 Standard			
		V1015iS	V1012iS	V1010iS	V1008iS
Configuration Software					
V-SFT-6	MONITOUCH screen configuration software Ver.6	✓	✓	✓	✓
Communication Units					
CUR-00	OPCN-1 (V10/V9/TS2060i)	✓	✓	✓	✓
CUR-01	T-Link (V10/V9/TS2060i)	✓	✓	✓	✓
CUR-02	CC-Link (V10/V9/TS2060i)	✓	✓	✓	✓
CUR-03	Ethernet (V10/V9/TS2060i)	✓	✓	✓	✓
CUR-04	PROFIBUS-DP (V10/V9/TS2060i)	✓	✓	✓	✓
CUR-06	SX-bus (V10/V9/TS2060i)	✓	✓	✓	✓
CUR-07	DeviceNet (V10/V9/TS2060i)	✓	✓	✓	✓
CUR-08	FL-net (V10/V9/TS2060i)	✓	✓	✓	✓
CUR-09	EtherCAT (V10/V9)	✓	✓	✓	✓
Cables^{*1}					
V-CP	Screen transfer cable (3m)	✓	✓	✓	✓
UA-FR	USB-A extension cable (1m)	✓	✓	✓	✓
V6-MLT	Multi-link 2 master cable (3m)	✓	✓	✓	✓
V6-TMP	Temperature controller cable (3m)	✓	✓	✓	✓
V6-TMP-5M	Temperature controller cable (5m)	✓	✓	✓	✓
V6-TMP-10M	Temperature controller cable (10m)	✓	✓	✓	✓
V6-BCD	Barcode reader cable (3m)	✓	✓	✓	✓
D9-FU-SPBCPU-2M	Fuji Electric	✓	✓	✓	✓
D9-FU-SPBCPU-3M	SPH ² , SPB CPU (RJ45) RS-485 (4-cable type)	✓	✓	✓	✓
D9-FU-SPBCPU-5M		✓	✓	✓	✓
D9-FU-SPFCPU-2M	Fuji Electric	✓	✓	✓	✓
D9-FU-SPFCPU-3M	SPF CPU (Mini DIN4) RS-232C	✓	✓	✓	✓
D9-FU-SPFCPU-5M		✓	✓	✓	✓
D9-MB-CPUQ-2M		✓	✓	✓	✓
D9-MB-CPUQ-3M	MITSUBISHI ELECTRIC	✓	✓	✓	✓
D9-MB-CPUQ-5M	A series / QnA series CPU (Dsub25) RS-422	✓	✓	✓	✓
D9-MB-CPUQ-10M		✓	✓	✓	✓
D9-MB-CPUQ-15M		✓	✓	✓	✓
D9-QCPU2-2M		✓	✓	✓	✓
D9-QCPU2-3M	MITSUBISHI ELECTRIC	✓	✓	✓	✓
D9-QCPU2-5M	Q series CPU (Mini DIN6) RS-232C	✓	✓	✓	✓
D9-QCPU2-10M		✓	✓	✓	✓
D9-QCPU2-15M		✓	✓	✓	✓
D9-MI2-09-2M		✓	✓	✓	✓
D9-MI2-09-3M	MITSUBISHI ELECTRIC	✓	✓	✓	✓
D9-MI2-09-5M	link unit (Dsub9) RS-232C	✓	✓	✓	✓
D9-MI2-09-10M		✓	✓	✓	✓
D9-MI2-09-15M		✓	✓	✓	✓
D9-MI4-FX-2M		✓	✓	✓	✓
D9-MI4-FX-3M	MITSUBISHI ELECTRIC	✓	✓	✓	✓
D9-MI4-FX-5M	FX series CPU (Mini DIN8) RS-422	✓	✓	✓	✓
D9-MI4-FX-10M		✓	✓	✓	✓
D9-MI4-FX-15M		✓	✓	✓	✓
D9-D25	Dsub9-Dsub25 conversion cable (0.3m)	✓	✓	✓	✓
Serial Expansion I/O Unit					
V-I/O	Serial expansion I/O unit for V10/V9	✓	✓	✓	✓
Communication Terminal Block					
TC-D9	Terminal converter for V10/V9/TS2000/V8	✓	✓	✓	✓
Battery					
V9-BT	Replacement battery for V10/V9	✓	✓	✓	✓
Protection Sheets					
V1015S-GS	Protection sheet for V1015iS	✓			
V1015S-GSN10	Protection sheet for V1015iS (Non-glare)	✓			
V1012S-GS	Protection sheet for V1012iS		✓		
V1012S-GSN10	Protection sheet for V1012iS (Non-glare)		✓		
V1010S-GS	Protection sheet for V1010iS			✓	
V1010S-GSN10	Protection sheet for V1010iS (Non-glare)			✓	
V1008S-GS	Protection sheet for V1008iS				✓
V1008S-GSN10	Protection sheet for V1008iS (Non-glare)				✓

*1 PLC connection cables other than those listed above are also available. Please contact us for more information.

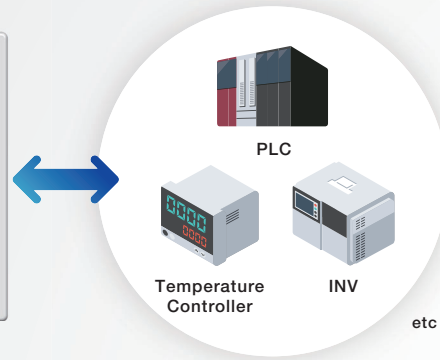
*2 Can only be used with some CPU hardware versions. D9-FU-SPHCPU-□M is required separately. Please contact us for more information.

Wide variety of devices



Industry-leading number of connectable equipment *1

Outstanding connectability with multiple devices for simultaneous communication and data transfer



Unparalleled number of connectable devices

No. of manufacturers: 77
No. of protocols: 456*2

List of Connectable Devices

www.monitouch.com/site/support-e/plc-01.html



*1 According to our own research. *2 As of April 2023

Support System

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FAX

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WEB

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Global Sales Network

Our distributors are ready to support your worldwide business.

www.monitouch.com/site/distributors-e/distributors-oversea-01.html



To the purchasers:

The warranty of this product is as follows, unless there are special instructions that state otherwise in the quote, contract, catalog, or specifications at the time of the quote or order. The purpose or area of use may be limited, and a routine checkup may be required depending on the product. Please contact the distributor from which you purchased the product, or Fuji Electric/Hakko Electronics for further information. Please conduct inspection of the product promptly upon purchase or delivery. Also, please give sufficient consideration to management and maintenance of the product prior to accepting it.

1 Period and Coverage of the Warranty

1-1 Period

- (1) The period of the warranty is effective until twenty-four (24) months from the date of manufacture printed on the plate.
- (2) The above period may not be applicable if the particular environment, conditions or frequency of use affects the lifetime of the product.
- (3) The warranty for the parts repaired by our service department is effective for six (6) months from the date of repair.

1-2 Coverage

- (1) If malfunction occurs during the period of warranty due to negligence on the part of Fuji Electric/Hakko Electronics, the malfunctioning parts are exchanged or repaired free of charge at the point of purchase or delivery. However, the warranty does not apply to the following cases:
 - 1) The malfunction occurs due to inappropriate conditions, environment, handling or usage that is not specified in the catalog, instruction book or users' manual.
 - 2) The malfunction is caused by factors that do not originate in the purchased or delivered product.
 - 3) The malfunction is caused by another device or software design that does not originate in a Fuji Electric/Hakko Electronics product.
 - 4) The malfunction occurs due to an alteration or repair that was not performed by Fuji Electric/Hakko Electronics.
 - 5) The malfunction occurs because the expendable parts listed in the instruction book or catalog were not maintained or replaced in an appropriate manner.
 - 6) The malfunction occurs due to factors that were not foreseeable by the practical application of science and technology at the time of purchase or delivery.
 - 7) The malfunction occurs because the product is used for a purpose other than that for which it is intended.
 - 8) The malfunction occurs due to a disaster or natural disaster that Fuji Electric/Hakko Electronics are not responsible for.
- (2) The warranty is only applicable to the single purchased and delivered product.
- (3) The warranty is only valid for the conditions stated in (1) above. Any damage induced by the malfunction of the purchased or delivered product, including damage or loss to a device or machine and passive damage, is not covered by the warranty.

1-3 Malfunction Diagnosis

The initial diagnosis of malfunction is to be made by the purchaser. The diagnosis can be conducted by Fuji Electric/Hakko Electronics or our delegated service provider with due charge upon the request of the purchaser. The charge is to be paid by the purchaser at the rate stipulated in the rate schedule of Fuji Electric/Hakko Electronics.

2 Liability for Opportunity Loss

Regardless of the time of occurrence, Fuji Electric/Hakko Electronics are not liable for damage caused by factors that Fuji Electric/Hakko Electronics are not responsible for, opportunity loss on the part of the purchaser caused by the malfunction of a Fuji Electric/Hakko Electronics product, passive damage, damage due to a special situation regardless of whether it was foreseeable or not, or secondary damage, accident compensation, damage to products that were not manufactured by Fuji Electric/Hakko Electronics, or compensation towards other operations.

3 Period for Repair and Provision of Spare Parts after Production is Discontinued (Maintenance Period)

Discontinued models (products) can be repaired for seven (7) years from the date of discontinuation. Also, most spare parts used for repair are provided for seven (7) years from the date of discontinuation. However, some electric parts may not be available due to their short life cycle. In this case, it may be difficult to repair or provide the parts during the seven-year period. Please contact Fuji Electric/Hakko Electronics or our service providers for further information.

4 Delivery

Standard products that do not entail application setting or adjustment are regarded as received by the purchaser upon delivery. Fuji Electric/Hakko Electronics are not responsible for local adjustments and test runs.

5 Service

The price of the delivered or purchased products does not include the service fee for the technician. Please contact Fuji Electric/Hakko Electronics or our service providers for further information.

6 Scope of Application

The above contents shall be assumed to apply to transactions and product use in the country where a Fuji Electric/Hakko Electronics product is purchased. Please consult your local supplier or Fuji Electric/Hakko Electronics for details.

Safety Considerations

- For safe operation, read the instruction manual or user manual that comes with the product carefully or consult the distributor from which you purchased the product, before using the product.
- Products introduced in this catalog have not been designed or manufactured for such applications in a system or equipment that will affect human bodies or lives.
- Customers, who want to use the products introduced in this catalog for special systems or devices such as for atomic-energy control, aerospace use, medical use, passenger vehicle, and traffic control, are requested to consult the Hakko Overseas Sales Section.
- Customers are requested to prepare safety measures when they apply the products introduced in this catalog to such systems or facilities that will affect human lives or cause severe damage to property if the products become faulty.
- For safe operation, wiring should be conducted only by qualified engineers who have sufficient technical knowledge about electrical work or wiring.

Notes to consider before purchasing

- Appearance and specifications are subject to modification without prior notice due to technical improvements.
- Colors in the catalog may differ from the actual colors due to printing inaccuracies.
- Consult your distributor or us for further information about products in this catalog.

www.monitouch.com

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Distributor

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- * Other company and product names in this brochure are registered trademarks.