

# MONITOUCH

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**V10** STANDARD MODEL  
*Series*



**TS4000** BASIC MODEL  
*Series*



**X1** STANDARD MODEL  
*Series*



# Meeting customer needs through a lineup of products with various specifications and sizes.

	5.7"	7.0" wide	7.5"	8.4"	10.1" wide	10.4"	12.1"	12.1" wide	15.0"	15.6" wide
<b>X1 Series</b> Quad-core CPU Windows OS model								 X112iSD		 X115iSD
<b>V10 Series</b> Quad-core CPU high performance model				 V1008iSD   V1008iSBD		 V1010iS (D)   V1010iSB (D)	 V1012iS (D)   V1012iSB (D)		 V1015iS (D)   V1015iSB (D)	
<b>TS4000 Series</b> Basic model		 TS4070i			 TS4100i			 TS4120i		 TS4150i
<b>TS2000 Series</b> Basic model	 TS2060 (i)									
<b>V8 Series</b> Handy model			 V808 (i) CH							



SOFT MONITOUCH  
**TELLUS and V-Server**  
 Bringing the factory floor to your desk  
 ● Data collection ● Remote monitoring ● HMI software

TELLUS and V-Server  
 Catalog



**V9 series**  
 V9 makes automation complete.  
 Satisfying, intuitive control  
 Impressive ability to convey data

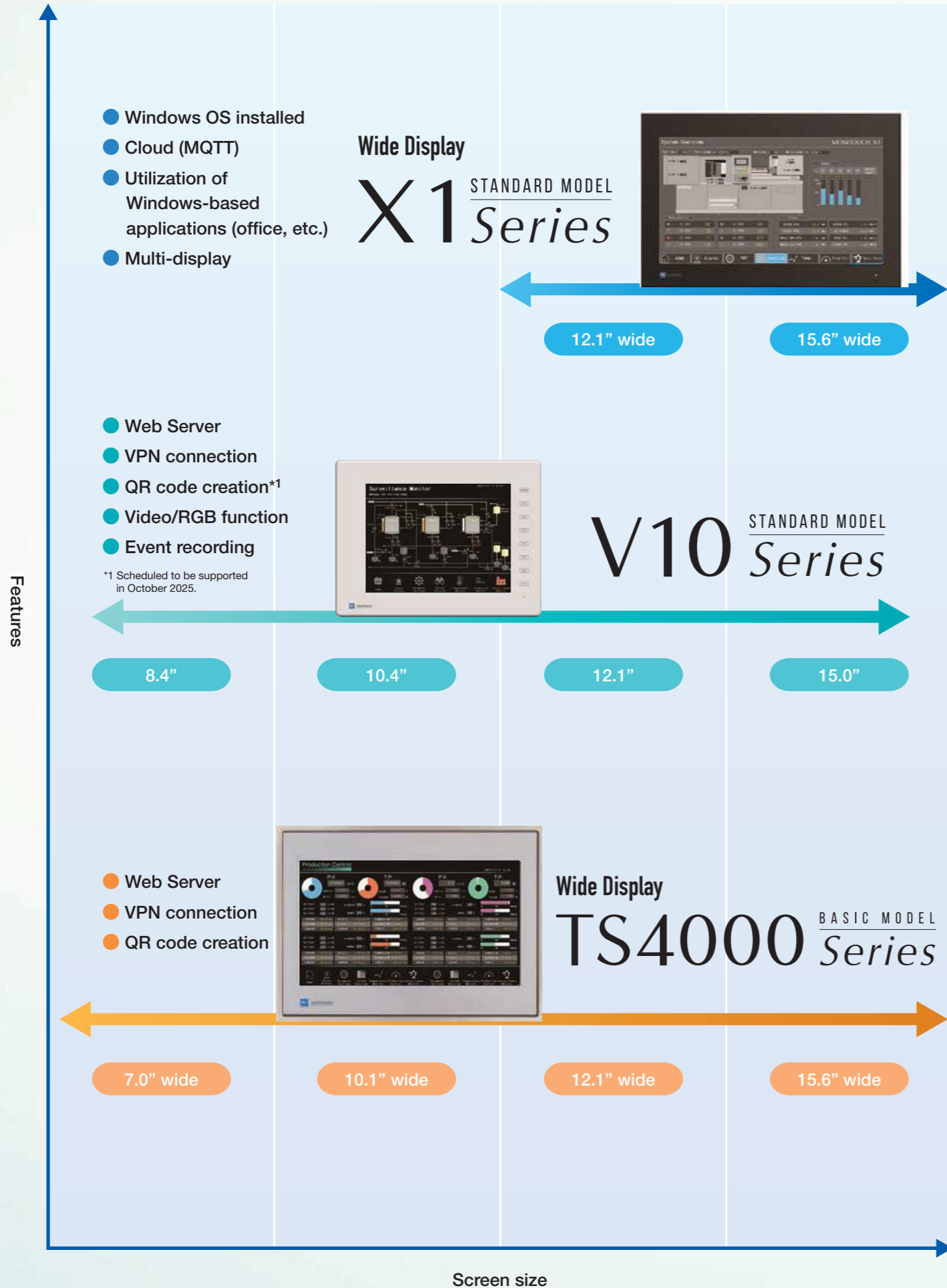


TECHNOSHOT  
**TS1000 Smart Series**  
 Consolidating Essential Functionality  
 while Enhancing Operability and Visibility



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### Windows OS model for smart production sites

**Wide Display**

- Integration with IT systems
- Utilization of user applications
- Improved visibility (high-resolution LCD)
- Improved operability (PCAP touch screen)
- Inheritance of V-series screen assets

**X1 Series** (STANDARD MODEL)

### High performance model for overwhelmingly high speed

In addition to benchmarking HMI's 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).

**Industry best performance**

- Rendering
- Operation
- Start-up
- Transferring
- Communication
- Custom Code

**V10 Series** (STANDARD MODEL)

### Basic model with a vivid, high-precision widescreen LCD

**Wide Display**

Reliable Japanese quality with advanced network functionality

- Web Server
- VPN
- Gateway
- QR code
- E-mail

**MADE IN JAPAN**

**TS4000 Series** (BASIC MODEL)

## The new standard for high speed HMI

# V10 Series



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).



## Industry best performance \*1

**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).

## Model

V10   i S

**Screen size**  
15: 15.0"  
12: 12.1"  
10: 10.4"  
08: 8.4"

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

**Video/RGB** \*3  
G: Supported N/A: Not supported  
**Power supply**  
N/A: 100-240V AC D: 24V DC  
**Front case color**  
N/A: Light gray B: Black

\*3 Expansion units (GUX-xx) are only for use with G-type in the V10 series.

## Product Lineup



V1015iS (D)



V1012iS (D)



V1010iS (D)



V1008iSD



V1015iSB (D)



V1012iSB (D)



V1010iSB (D)



V1008iSBD

Analog resistance film	16.7M Colors	Serial 3ch	Ethernet *1 1ch	Wireless LAN *2	SD I/F	USB A/mini B	Audio	COM I/F Option	VIDEO Option	RGB Option
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\*1 2CH for extended wired LAN products. \*2 Wireless LAN compatible products only.

Model	Specifications				External Interface				Standard					Delivery		
	Display Size	Resolution	Touch Switch	Unit Color	Power Supply	Video/RGB	AUDIO Output	Wireless LAN	Extended Wired LAN	UL 61010	UL 121201*4	CE/UKCA	KC		Radio Act	Classification Standard *5-7
V1015iS (G)	15.0"	1024 x 768	Analog resistance film	Light gray	AC	△*3	✓	-	-	-	-	-	✓*7	-	-	✓
V1015iSD (G)					DC	△*3	✓	-	-	✓	✓*7	✓	✓*7	-	✓	✓
V1015iSLD (G)					DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△
V1015iSRD					-	✓	✓	-	✓	✓	-	✓	✓	-	✓	△
V1015iSB (G)					AC	△*3	✓	-	-	-	-	✓*7	-	-	-	△
V1015iSBD (G)					DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△
V1015iSLBD (G)	DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△				
V1015iSRBD	-	✓	✓	-	✓	✓	-	✓	✓	-	✓	△				
V1012iS (G)	12.1"	800 x 600	Analog resistance film	Light gray	AC	△*3	✓	-	-	-	-	-	✓*7	-	-	✓
V1012iSD (G)					DC	△*3	✓	-	-	✓	✓*7	✓	✓*7	-	✓	✓
V1012iSLD (G)					DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△
V1012iSRD					-	✓	✓	-	✓	✓	-	✓	✓	-	✓	△
V1012iSB (G)					AC	△*3	✓	-	-	-	-	✓*7	-	-	-	△
V1012iSBD (G)					DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△
V1012iSLBD (G)	DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△				
V1012iSRBD	-	✓	✓	-	✓	✓	-	✓	✓	-	✓	△				
V1010iS (G)	10.4"	800 x 600	Analog resistance film	Light gray	AC	△*3	✓	-	-	-	-	-	✓*7	-	-	✓
V1010iSD (G)					DC	△*3	✓	-	-	✓	✓*7	✓	✓*7	-	✓	✓
V1010iSLD (G)					DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△
V1010iSRD					-	✓	✓	-	✓	✓	-	✓	✓	-	✓	△
V1010iSB (G)					AC	△*3	✓	-	-	-	-	✓*7	-	-	-	△
V1010iSBD (G)					DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△
V1010iSLBD (G)	DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△				
V1010iSRBD	-	✓	✓	-	✓	✓	-	✓	✓	-	✓	△				
V1008iSD (G)	8.4"	800 x 600	Analog resistance film	Light gray	AC	△*3	✓	-	-	✓	✓*7	✓	✓*7	-	✓	✓
V1008iSLD (G)					DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△
V1008iSRD					-	✓	✓	-	✓	✓	-	✓	✓	-	✓	△
V1008iSBD (G)					DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△
V1008iSLBD (G)					DC	△*3	✓	-	✓	✓*7	✓	✓*7	-	✓	✓	△
V1008iSRBD					-	✓	✓	-	✓	✓	-	✓	✓	-	✓	△

\*3 Video/RGB is available only for V10 series G-type. (G at the end of the model name) \*4 Hardware version b or later. For models incompatible with UL121201, please contact us.

\*5 Serial No. 2312xxxx or later. \*6 The rear case is light gray. \*7 V10 series G-type is not compatible.

## General Specifications

Item	V1015iS	V1015iSD	V1012iS	V1012iSD	V1010iS	V1010iSD	V1008iSD
Power Supply	Rated Voltage	100~240VAC	24VDC	100~240VAC	24VDC	100~240VAC	24VDC
	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
Insulation Resistance	Between AC external terminal and FG: 500VDC, 10MΩ or more						
	Between DC external terminal and FG: 500VDC, 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			
	Storage Ambient Humidity	85%RH or less (without dew condensation, max. wet-bulb temperature 39°C or lower) *1					
Mechanical Operating Conditions	Resistance to Oscillation	JIS B 3502 (IEC61131-2) compliant Vibration frequency: 5 to 9Hz, Half amplitude: 3.5mm, Vibration frequency: 9 to 150Hz, Constant acceleration: 9.8 m/s <sup>2</sup> (1G) X, Y, Z: 3 directions 10 times each					
	Resistance to Shock	JIS B 3502 (IEC61131-2) compliant Peak acceleration: 147m/s <sup>2</sup> (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)		
	Weight	Approx. 3.7kg (G-type approx. 3.9kg)	Approx. 2.6kg (G-type approx. 2.8kg)	Approx. 2.1kg (G-type approx. 2.3kg)	Approx. 1.4kg (G-type approx. 1.6kg)		
Case	Color	Front case, Surface sheet: Light gray/Black		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	V1015iS	V1012iS	V1010iS	V1008iS	
Screen Memory (FROM)	256MB				
Backup Memory (SRAM)	900KB				
Display	Display Device	TFT color			
	Resolution	XGA: 1024×768	SVGA: 800×600		
	Screen Size	15.0"	12.1"	10.4"	8.4"
	Display Colors	16.77 million colors *3			
	Backlight	LED			
	Backlight Life	Approx. 100,000 hours	Approx. 70,000 hours		
Touch Switch	Type Analog resistance film				
Function Switch	Quantity 8				
External Interface	D-Sub 9-pin × 1 (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 × 2 (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(RJ-45) × 1 *5	IEEE802.3(10BASE-T)/IEEE802.3u(100BASE-TX)/IEEE802.3ab(1000BASE-T) compliant, Compatible with Auto-MDIX			
	Wireless LAN(WLAN) × 1 *6	IEEE802.11b/g/n compliant (2.4GHz band)			
	SD Card × 1	Compatible with SD/SDHC/SDXC card (max. 2TB), Class10, UHS-I			
Clock	USB × 2	Type A (Ver.3.0), Type mini-B (Ver.2.0)			
	AUDIO Output × 1	3.5φ stereo mini jack			
	Backup Period	5 years (Ambient temperature 25°C)			
Standard	Calendar Accuracy	Gap ±90 sec. per month (Ambient temperature 25°C, When the battery is backed up)			
	CE-UKCA *7 *13	EMC direction: EN61000-6-2, 6-4 RoHS direction: EN IEC63000 Battery regulation: Compatible Radio direction: Not compatible			
	UL-cUL *7	UL61010-1/UL61010-2-201 (E313548), UL121201 (E315977) *8 *9			
	KC *10	Compatible			
Radio Act *6 *7	MIC(Japan), FCC(USA), ISED(Canada), KC(South Korea)				
Classification Standard *7 *10 *11 *12	Nippon Kaiji Kyokai (NK), Lloyd's Register of Shipping (LR), American Bureau of Shipping (ABS), Det Norske Veritas (DNV)				

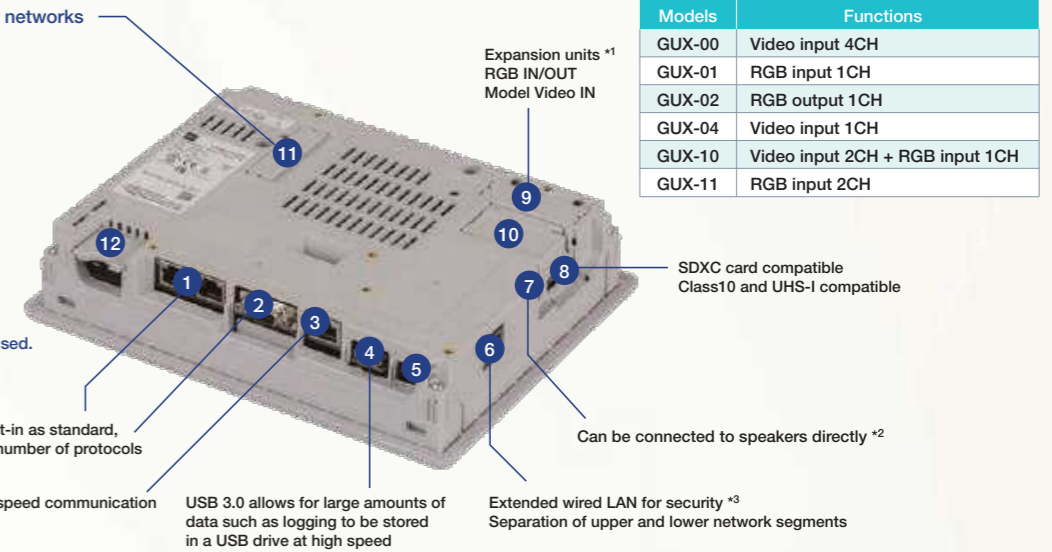
\*3 For displaying pictures, 3D parts, video/RGB input (V10 series G-type) only. Other parts are displayed in 65,536 colors. \*4 Only for Siemens MPI/PP1. \*5 2CH for extended wired LAN products. \*6 Wireless LAN compatible products only. \*7 DC products only. \*8 Hardware version b or later. V10 series G-type is not compatible. \*9 For models incompatible with UL121201, please contact us. \*10 Excluding V10 series G-type. \*11 Excluding wireless LAN compatible products. \*12 Serial No. 2312xxxx or later. \*13 Wireless LAN compatible models have no CE/UKCA markings because they are not compliant with RED-DA.

## Interface

Connection with a wide range of industrial networks

Models	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.



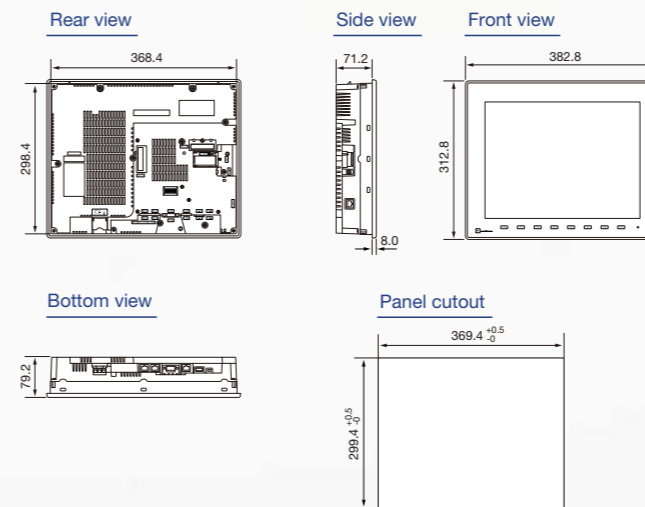
- 1 Modular jack (RJ45) x 2
- 2 D-Sub 9 pin x 1
- 3 Wired LAN x 1
- 4 USB Type A Ver. 3.0 x 1
- 5 USB mini-B Ver. 2.0 x 1
- 6 Extended wired LAN \*3 x 1
- 7 Audio jack x 1
- 8 SD Card x 1
- 9 Expansion Units \*1
- 10 Battery holder (V9-BT)
- 11 Communication Units
- 12 Power supply terminal block

\*1 GUX-xx is only for use with V10 series G-type. (For details, refer to P. 20 and P. 37) \*2 A separate amplifier is required. \*3 Extended wired LAN compatible products only.

## Dimensions

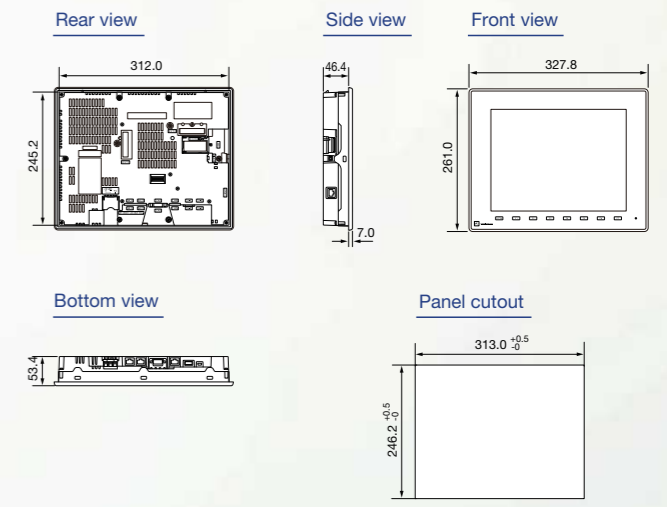
### V1015iS

(Unit: mm)



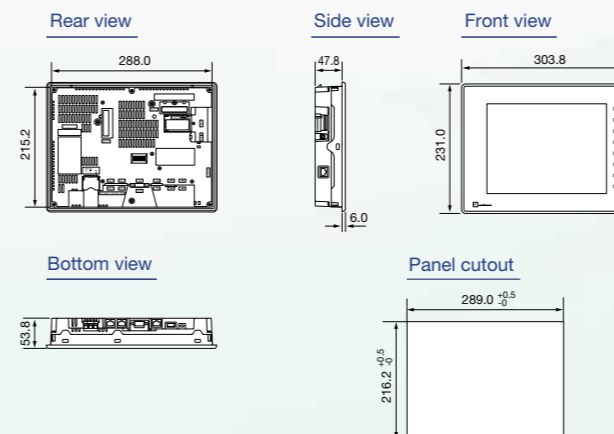
### V1012iS

(Unit: mm)



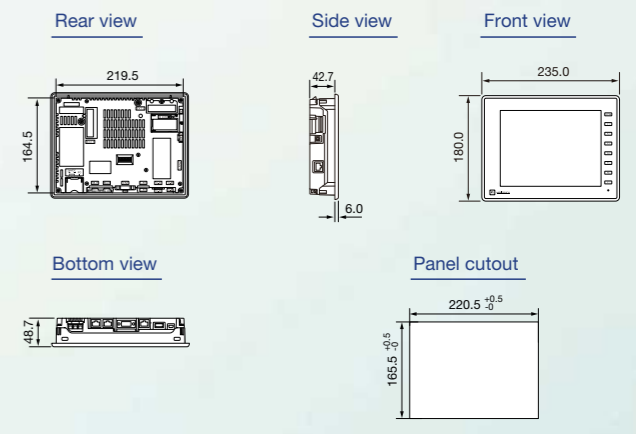
### V1010iS

(Unit: mm)



### V1008iS

(Unit: mm)



## New basic model with a vivid, high-precision widescreen LCD



# Wide Display TS4000 BASIC MODEL Series

### 01 Large Widescreen LCD

High-resolution widescreen LCD allows precise rendering of both text and parts. Great volume of information can be displayed together on 1 screen at site.



(Example) Resolution  
640 x 480 (V9 Lite 10 inch)

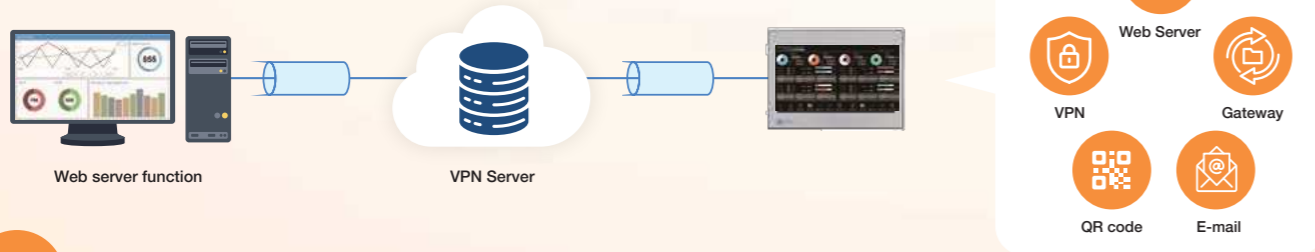


1024 x 600 (TS4000 series 10 inch wide)

### 02 Networking Functions

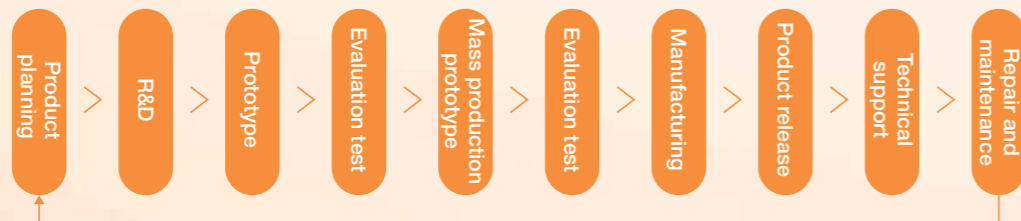
It comes equipped with full networking functions. For example, when using the web server function, the same data as at the site can be easily checked in Google Chrome (web browser) and the information collected by TS4000 helps to visualize the site.

Combination image of VPN connection and Web server function



### 03 Made in Japan for Quality

We have achieved high quality and cost reduction through efficiency improvements by carrying out all activities from R&D to manufacturing at a single base in Japan.



## TS4□□0i

Screen size  
15: 15.6" wide 12: 12.1" wide 10: 10.1" wide 07: 7.0" wide

### Product Lineup



- Wide Display
  - Analog resistance film
  - 16.7M Colors
  - Serial 2ch \*1
  - Ethernet 1ch
  - USB A/mini B
- \*1 Available as 3ch by using COM2/COM3 simultaneously.

Model	Specifications				External Interface				Standard					Delivery			
	Display Size	Resolution	Touch Switch	Unit Color	Power Supply	Video/RGB	AUDIO Output	Wireless LAN	Extended Wired LAN	UL 61010	UL 121201	CE/UKCA	KC	Radio Act	Classification Standard	Made to order : △ Standard : ✓	
TS4150i	15.6" wide	1366 x 768	Analog resistance film	Silver *2	DC	-	-	-	-	✓	-	✓	✓	-	-	✓	
TS4120i	12.1" wide	1280 x 800			DC	-	-	-	-	✓	-	✓	✓	-	-	-	✓
TS4100i	10.1" wide	1024 x 600			DC	-	-	-	-	✓	-	✓	✓	-	-	-	✓
TS4070i	7.0" wide	800 x 480			DC	-	-	-	-	✓	-	✓	✓	-	-	-	✓

\*2 The case color is black.

## General Specifications

Item	TS4150i	TS4120i	TS4100i	TS4070i	
Power Supply	Rated Voltage	24VDC			
	Permissible Range of Voltage	±10%			
	Permissible Momentary Power Failure	Within 1ms			
	Power Consumption (Max. Rating)	12W or less	11W or less	10W or less	8W or less
	Rush Current	20A or less, 4.0ms (Ambient temperature 25°C)			
Insulation Resistance					
Between DC external terminal and FG: 500VDC, 10MΩ or more					
Physical Environment	Operating Ambient Temperature	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	-10~60°C *1			
	Storage Ambient Humidity	85%RH or less (without dew condensation, max. wet-bulb temperature 39°C or lower) *1			
Pollution Degree	2				
Mechanical Operating Conditions	Resistance to Oscillation	JIS B 3502 (IEC61131-2) compliant Vibration frequency: 5 to 9Hz, Half amplitude: 3.5mm, Vibration frequency: 9 to 150Hz, Constant acceleration: 9.8m/s <sup>2</sup> (1G) X, Y, Z: 3 directions 10 times each			
	Resistance to Shock	JIS B 3502 (IEC61131-2) compliant Peak acceleration: 147m/s <sup>2</sup> (15G), X,Y,Z: 3 directions, 3 times each (18 times in total)			
Electric Operating Conditions	Resistance to Noise	Noise voltage: 1,000Vp-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: IP65 (when water-proof gasket is used)*2, Rear case: IP20 Installation method: panel mounting			
	Cooling System	Natural air cooling			
	Dimensions W*H*D (mm)	402.8×256.8×48.0	303.8×223.8×48.0	263.8×191.8×38.0	198.8×141.8×38.0
	Panel Cutout W*H (mm)	393 (+0.5/-0) × 249 (+0.5/-0)	294 (+0.5/-0) × 216 (+0.5/-0)	254 (+0.5/-0) × 184 (+0.5/-0)	189 (+0.5/-0) × 134 (+0.5/-0)
	Weight (display only)	Approx. 2.3kg	Approx. 1.5kg	Approx. 1.1kg	Approx. 0.6kg
Case	Color	Black (Surface sheet: Silver)			
	Material	PBT+GF30 resin			

\*1 Use at a wet-bulb temperature of 39°C or less because higher temperatures may cause failure. \*2 Waterproof gasket is available as an option. When waterproof gasket is not used, it is equivalent to IP40.

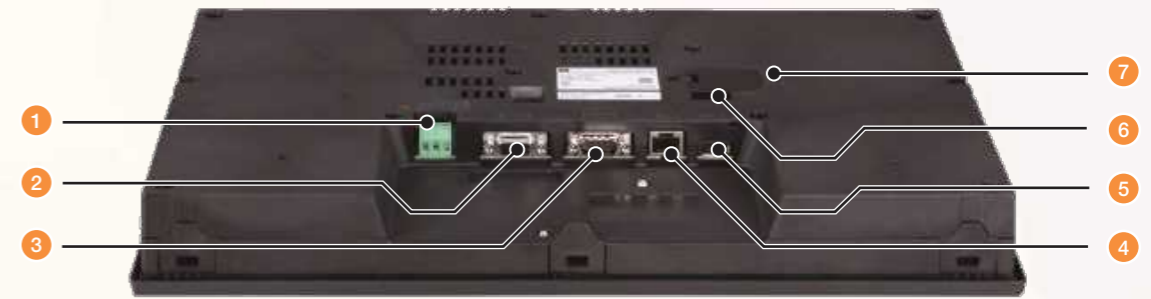
## Performance Specifications

Item	TS4150i	TS4120i	TS4100i	TS4070i	
Screen Memory (FROM)	128MB				
Backup Memory (SRAM)	230KB				
Display	Display Device	TFT color			
	Resolution	FWXGA: 1366×768	WXGA: 1280×800	WSVGA: 1024×600	WVGA: 800×480
	Screen Size	15.6" wide	12.1" wide	10.1" wide	7.0" wide
	Display Colors	16.77 million colors *3	16.20 million colors *3	16.77 million colors *3	
	Backlight	LED			
	Backlight Life	Approx. 50,000 hours		Approx. 30,000 hours	Approx. 45,000 hours
Touch Switch	Type	Analog resistance film			
Function Switch	Quantity	-			
External Interface	D-Sub 9-pin (female) × 1 (COM1)	RS-422/RS-485 (4-wire or 2-wire type is switched by DIP switches) Asynchronous Data length: 7, 8 bits Parity: Even, odd, none Stop bit: 1, 2 bits Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200 *4 bps			
	D-Sub 9-pin (male) × 1 *5 (COM2/COM3)	COM2:RS-232C COM3: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(RJ-45) × 1	IEEE802.3(10BASE-T)/IEEE802.3u(100BASE-TX) compliant, Compatible with Auto-MDIX			
	Wireless LAN	-			
	SD Card	-			
	USB × 2	Type-A(Ver. 2.0), Type mini-B(Ver. 2.0)			
Clock	AUDIO Output	-			
	Backup Period	5 years (Ambient temperature 25°C)			
Standard	Calendar Accuracy	Gap ±80 sec. per month (Ambient temperature 25°C, When the battery is backed up)			
	CE-UKCA	EMC direction: EN61000-6-2, 6-4 RoHS direction: EN IEC63000 Battery regulation: Compatible			
	UL-cUL	UL61010-1/UL61010-2-201(E313548)			
	KC	Compatible			
Radio Act	-				
Classification Standard	-				

\*3 For displaying pictures and 3D parts only. Other parts are displayed in 65,536 colors.

\*4 Only for Siemens MPU/PI. \*5 COM2/COM3 can be used simultaneously.

## Interface



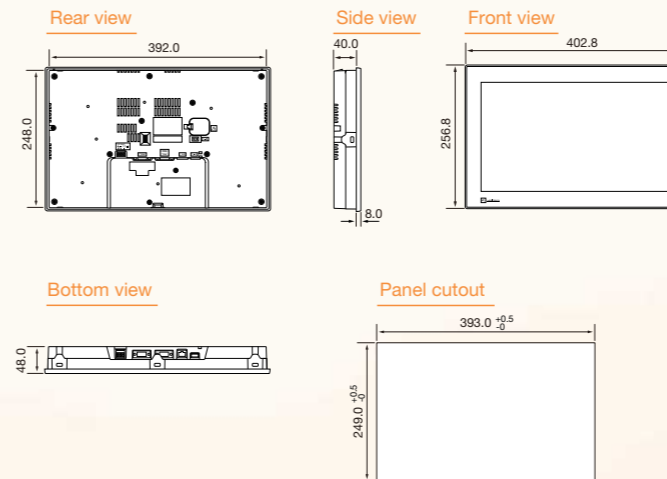
- 1 Power supply terminal block
- 2 RS-422/RS-485 communication connector female (COM1)
- 3 RS-232C/RS-485 communication connector male (COM2/COM3) \*1
- 4 100BASE-TX/10BASE-T connector (LAN)
- 5 USB-A(U-A)
- 6 USB miniB(U-B)
- 7 Battery holder (TS-BT)

\*1 COM2(RS-232C) and COM3(RS-485) can be used simultaneously.

## Dimensions

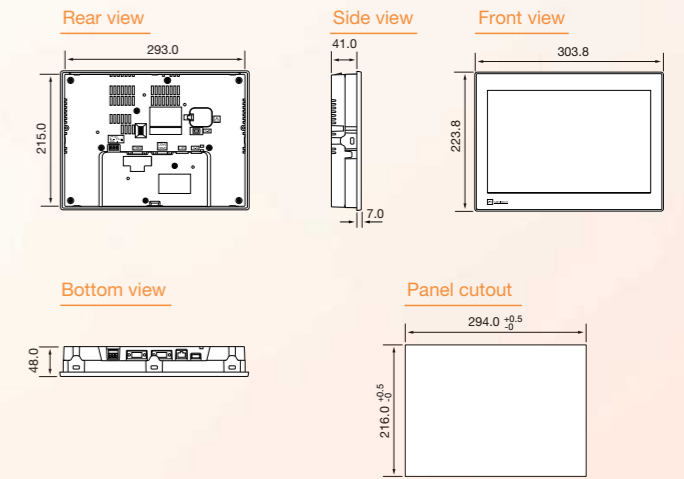
### TS4150i

(Unit: mm)



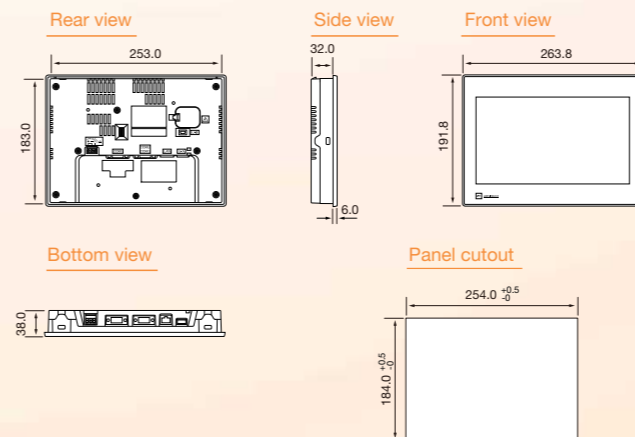
### TS4120i

(Unit: mm)



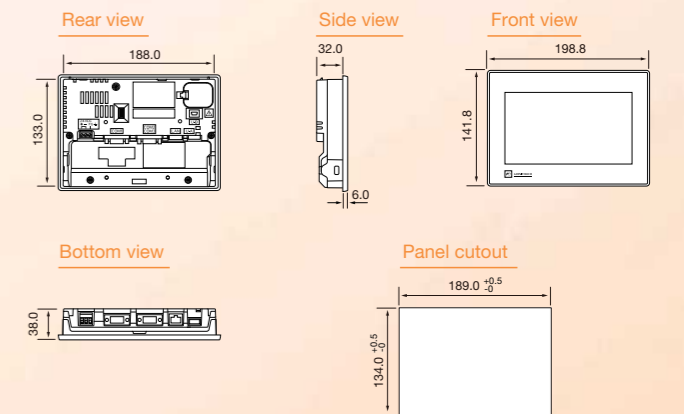
### TS4100i

(Unit: mm)



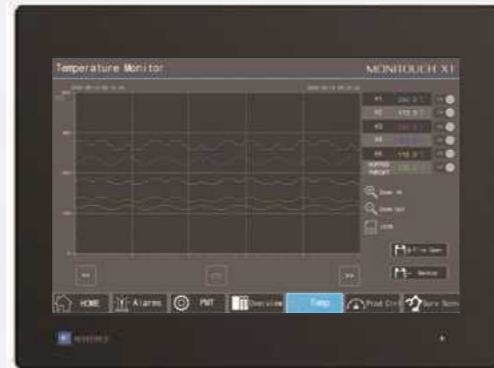
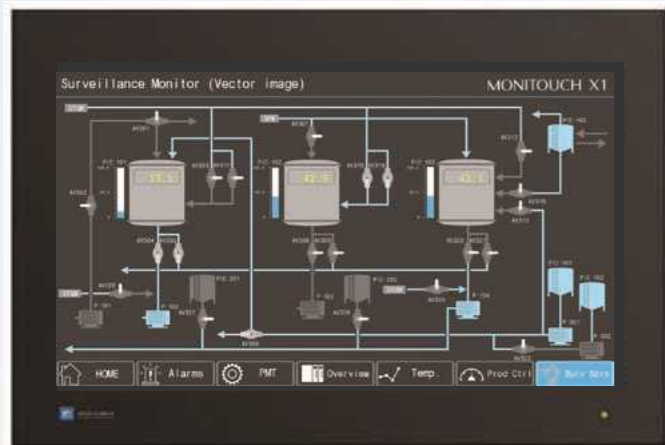
### TS4070i

(Unit: mm)



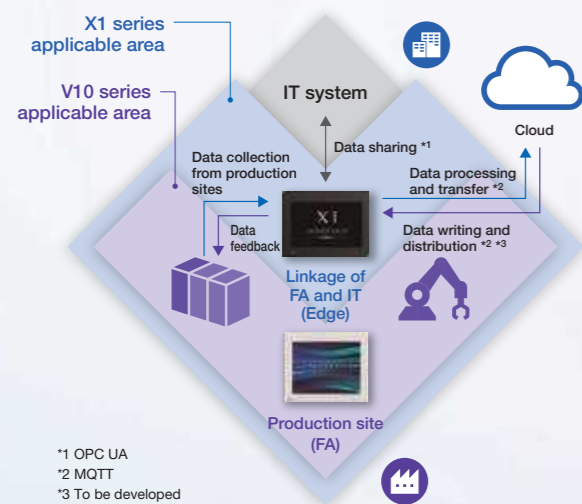
Edge-computing accelerates the transition to smart production sites

# X1 STANDARD MODEL Series



## Integration with IT Systems

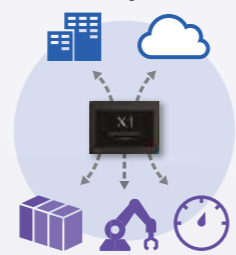
Data visualization, improvement of productivity and optimization of production management can be conducted.



\*1 OPC UA  
\*2 MQTT  
\*3 To be developed

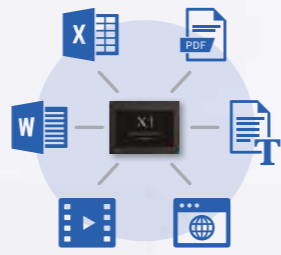
### Smart factory realization factors

Seamless connection between production sites and IT systems



- Various communication functions
- Linkage with cloud servers

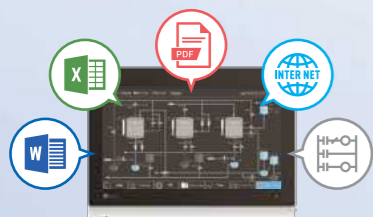
Utilization of user applications



- Windows installed
- User applications are fully utilized at production sites

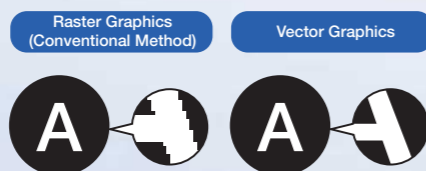
## Utilization of User Applications

Since Windows is installed, Windows applications and user applications can be used at production sites. Applications can be run by switches on the HMI display and used freely at production sites.



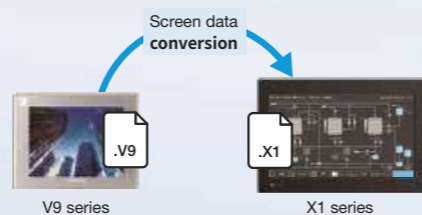
## Visibility and User-friendliness

A vectorized rendering engine allows for high quality scaling. Beautiful high quality screens can be created regardless of the display resolution.



## Inheritance of V-series Screen Assets

Screen assets created for the V-series can be converted for use in the X1 series.



# X1 □ □ □ iSD □ D

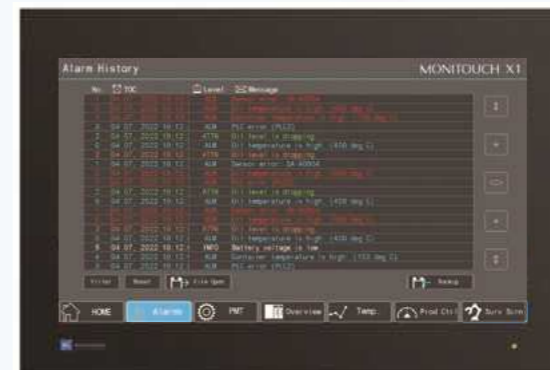
Screen size  
15: 15.6" wide  
12: 12.1" wide

Main memory  
1: 4GB  
2: 8GB \*1

\*1 Models without WLAN and Bluetooth only.

Functions  
R: with WLAN and Bluetooth  
N/A: without WLAN and Bluetooth

## Product Lineup



X115□iSD



X112□iSD

- PCAP (Capacitive type)
- 16.7M Colors\*2
- Ethernet 2ch
- Wireless LAN \*3
- Bluetooth \*3
- USB-A 3.0x2 2.0x2
- HDMI 1ch
- Serial 1ch
- IP66
- Sound output 1ch

\*2 Only pictures and 3D parts are available for HMI screens. \*3 Wireless LAN compatible products only.

Model	Specifications						External Interface				Standard					Delivery	
	Display Size	Resolution	Touch Switch	Main Memory	Unit Color	Power Supply	HDMI	AUDIO Output	Wireless LAN	Blue tooth	UL 61010	UL 121201	CE/UKCA *4	KC	Radio Act		Classification Standard
X1151iSD	15.6" wide	1920 x 1080	PCAP (Capacitive type)	4GB	Black	DC	✓	✓	-	-	✓	-	✓	✓	-	-	✓
X1151SRD				4GB			✓	✓	✓	✓	✓	-	-	✓	✓	-	△
X1152iSD				8GB			✓	✓	-	-	✓	-	✓	✓	-	-	△
X1121iSD	12.1" wide	1280 x 800	PCAP (Capacitive type)	4GB	Black	DC	✓	✓	-	-	✓	-	✓	✓	-	-	✓
X1121SRD				4GB			✓	✓	✓	✓	✓	-	-	✓	✓	-	△
X1122iSD				8GB			✓	✓	-	-	✓	-	✓	✓	-	-	△

\*4 UKCA is compatible with hardware version b or later.

## General Specifications

Item		X115□iSD	X115□iSRD	X112□iSD	X112□iSRD
Power Supply	Rated Voltage	24VDC			
	Permissible Range of Voltage	±10%			
	Permissible Momentary Power Failure	Within 1ms			
	Power Consumption (Max. Rating)	51W or less		41W or less	
	Rush Current	24A or less, 6ms (Ambient temperature 25°C)			
Insulation Resistance	Between DC external terminal and FG: 500VDC, 10MΩ or more				
Physical Environment	Operating Ambient Temperature	0~45°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	-10~60°C *1			
	Storage Ambient Humidity	85%RH or less (without dew condensation, max. wet-bulb temperature 39°C or lower) *1			
	Pollution Degree	2			
Mechanical Operating Conditions	Resistance to Oscillation	JIS B 3502 (IEC61131-2) compliant Vibration frequency: 5 to 9Hz, Half amplitude: 3.5mm, Vibration frequency: 9 to 150Hz, Constant acceleration: 9.8m/s <sup>2</sup> (1G) X, Y, Z: 3 directions 10 times each			
	Resistance to Shock	JIS B 3502 (IEC61131-2) compliant Peak acceleration: 147m/s <sup>2</sup> (15G), X,Y,Z: 3 directions, 3 times each (18 times in total)			
Electric Operating Conditions	Resistance to Noise	Noise voltage:1,000Vp-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	D class grounding (3rd-class grounding) FG/SG is internally connected in the X1 series.			
	Structure	Protection structure: Front case: IP66 (when water-proof gasket is used), Rear case: IP20 Installation method: panel mounting			
	Cooling System	Natural air cooling			
	Dimensions W*H*D (mm)	406 × 271 × 68.2		320 × 241 × 66.7	
	Panel Cutout W*H (mm)	395 (+0.5/-0) × 260 (+0.5/-0)		309 (+0.5/-0) × 230 (+0.5/-0)	
	Weight	Approx. 3.9kg		Approx. 3.2kg	
Case	Color	Black			
	Material	PBT+GF30 resin (front)			

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

## Performance Specifications

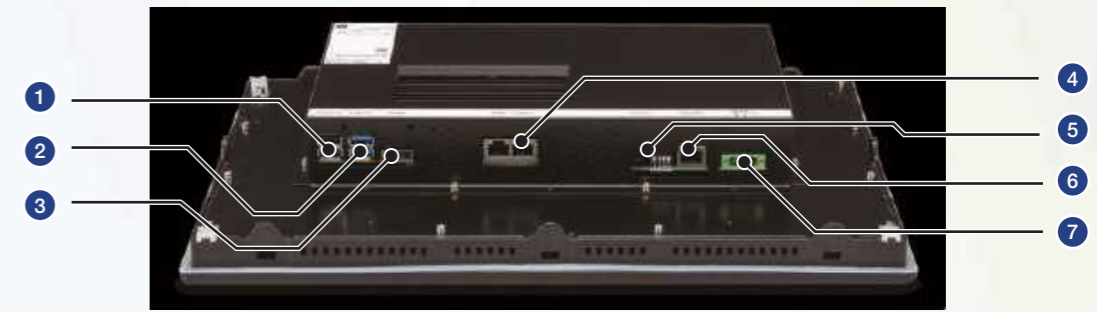
Item		X115□iSD	X115□iSRD	X112□iSD	X112□iSRD
Hardware	Processor	Intel Atom® x5-E3940			
	Number of Cores / Number of Threads	4/4			
	Main Memory	□:1 4GB □:2 8GB			
	Internal Storage	SSD(3D NAND): 64GB (free space 30GB)			
Software	OS	Windows 10 IoT Enterprise 2019 LTSC(64bit)			
Display	Display Device	TFT color			
	Resolution	FHD : 1920 × 1080		WXGA : 1280 × 800	
	Screen Size	15.6" wide		12.1" wide	
	Display Colors	16.77 million colors (for HMI screens, pictures and 3D parts only)			
	Backlight	LED			
	Backlight Life	Approx. 50,000 hours			
Touch Switch	Type	PCAP (Capacitive type)			
Function Switch	Quantity	-			
External Interface	Serial Port (RJ-45) × 1	RS-232C/RS-422/RS-485 (switchable) 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(RJ-45) × 2	IEEE802.3(10BASE-T)/IEEE802.3u(100BASE-TX)/IEEE802.3ab(1000BASE-T) compliant, Compatible with Auto-MDIX			
	Wireless LAN × 1 *2	-	IEEE 802.11 ac/a/b/g/n (2.4/5.0GHz band)	-	IEEE 802.11 ac/a/b/g/n (2.4/5.0GHz band)
	USB-A Ver. 3.0 × 2	Ver.3.0 (Low speed: 1.5Mbps, Full speed: 12Mbps, High speed: 480Mbps, Super speed: 5.0Gbps)			
	USB-A Ver. 2.0 × 2	Ver.2.0 (Low speed: 1.5Mbps, Full speed: 12Mbps, High speed: 480Mbps)			
	AUDIO Output × 1	3.5φ stereo mini jack, line output			
	Bluetooth × 1 *2	-	Bluetooth	-	Bluetooth
	HDMI	1920 × 1080		1280 × 800	
	Clock	Backup Period	3 years (Ambient temperature 25°C)		
Calendar Accuracy		Gap ±2 sec. per day (Ambient temperature 25°C)			
Standard	CE-UKCA *3*4	EMC direction: EN61000-6-2, 6-4 RoHS direction: EN IEC63000 Battery regulation: Compatible Radio direction: Not compatible			
	UL-cUL	UL61010-1/UL61010-2-201(E313548)			
	KC	Compatible			
	Radio Act *2	MIC(Japan), FCC(USA), ISED(Canada), KC(South Korea), NCC(Taiwan)			

\*2 Wireless LAN compatible models only. \*3 UKCA is compatible with hardware version b or later.

\*4 Wireless LAN compatible models have no CE/UKCA markings because they are not compliant with RED-DA.

## Interface

Various interfaces for achieving edge-computing

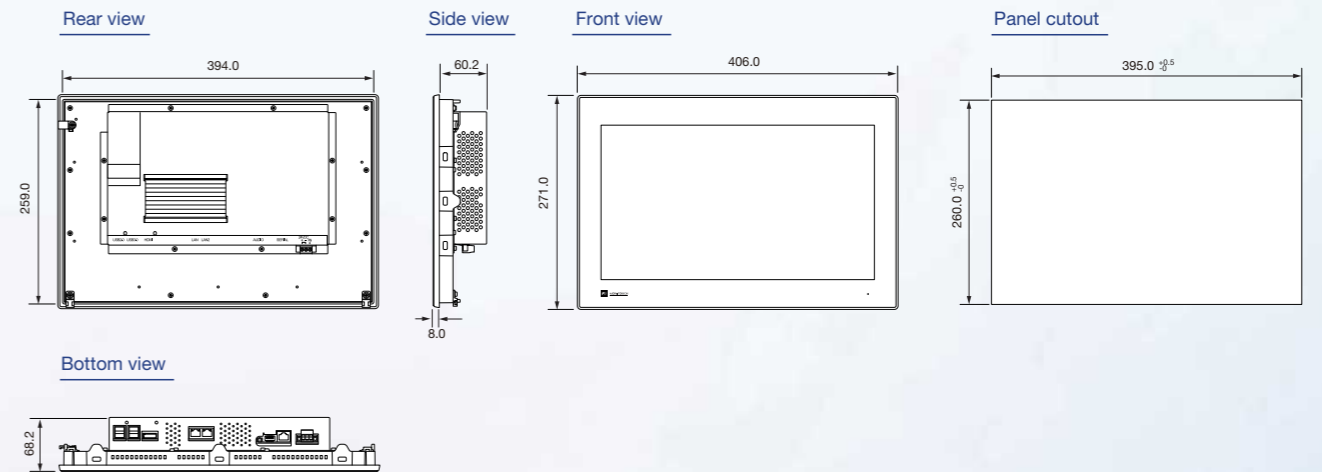


- ① USB2.0×2
- ② USB3.0×2
- ③ HDMI output
- ④ Ethernet×2
- ⑤ AUDIO output
- ⑥ Serial interface
- ⑦ Power supply terminal block

## Dimensions

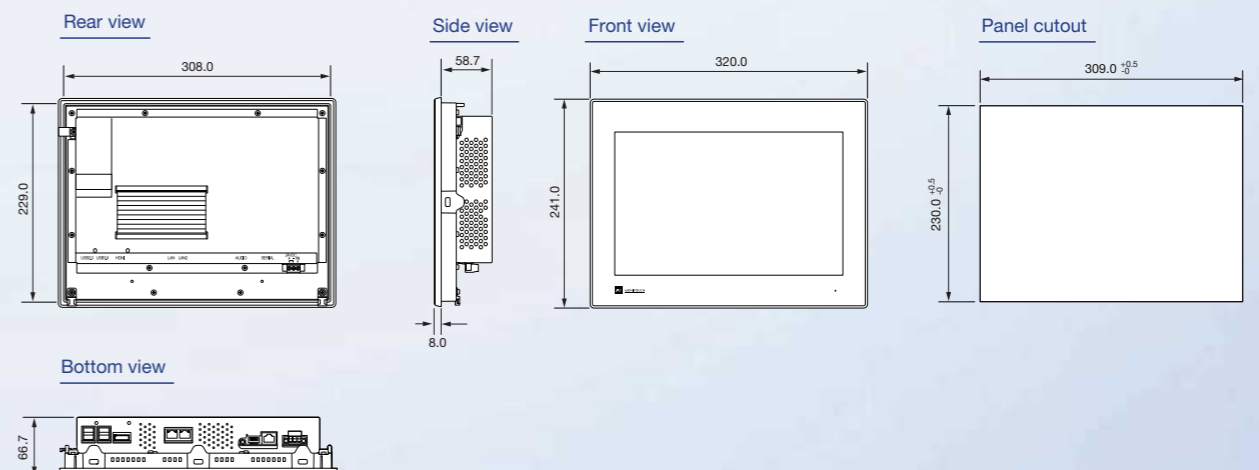
### X115□iSD

(Unit: mm)



### X112□iSD

(Unit: mm)



## Various Networking Functions Connecting Offices and Factories

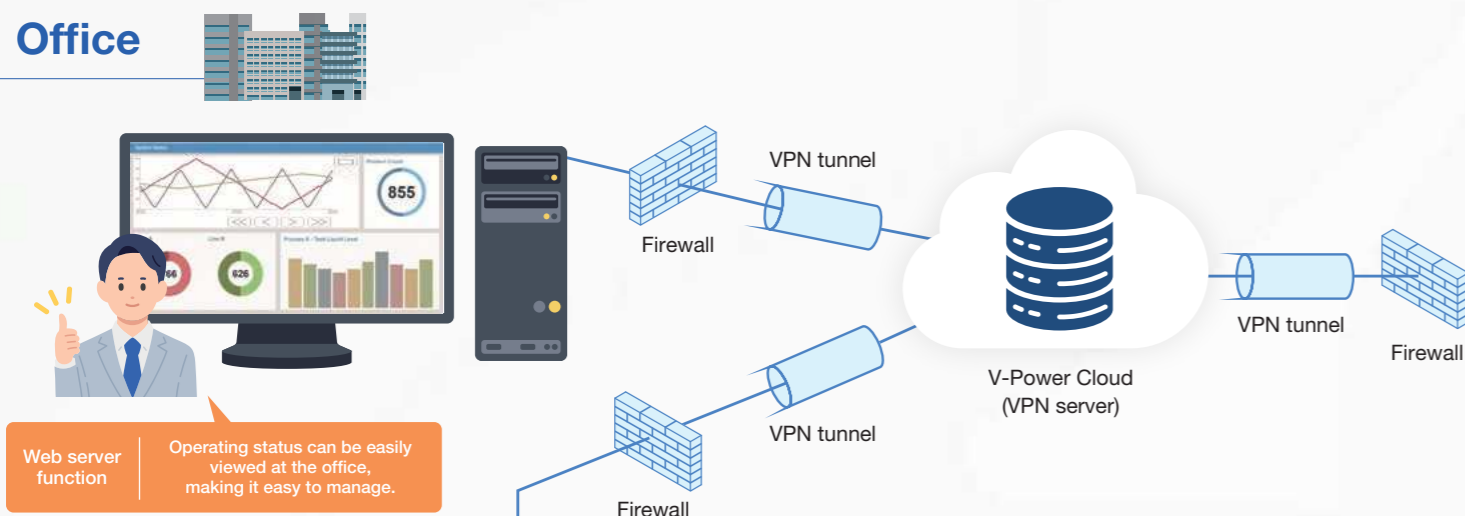
### Web Server Function \*1 \*2

V10 TS4000

Without installing a dedicated application, it is possible to remotely monitor production facilities in the web browser (Google Chrome) on a computer or a tablet. The status of facilities can be checked at your office so you can save the trip to the production site. By accessing the screens for Web Server created and stored in MONITOUCH at the office, information can be easily viewed with numerical values and graphs.

\*1 Web pages are created using "Web Editor", a Web Server configuration software built into Smart Editor.  
\*2 VPN connection is not essential. Available as long as MONITOUCH and the terminal device are on the same network.

#### Office



**Web server function**  
Operating status can be easily viewed at the office, making it easy to manage.

### VPN Connection

V10 TS4000

Remote access is available in a highly secure environment through encrypted SSL-VPN. With the V10 series extended LAN model, you can also access devices, such as PLCs under HMI control, enabling you to edit ladder data from your office.

See VPN (Web Machine Interface) catalog



### VNC Server Function

V10 TS4000

By accessing MONITOUCH with a VNC application, the MONITOUCH screen can be displayed on a computer. When debugging or making adjustments, you can operate and check the MONITOUCH without being in front of it, saving significant travel time. Our "Simple Remote" VNC application is available free of charge. It can also be accessed from a tablet.

Download Simple Remote



### SOFT MONITOUCH TELLUS and V-Server

#### Bringing the factory floor to your desk

TELLUS Remote allows remote access to MONITOUCH by using MONITOUCH's screen assets.

See TELLUS and V-Server catalog



### QR Code Creation

V10 TS4000

QR codes can be created and displayed on MONITOUCH. By linking with Web Server function, QR codes can be read by smart devices to quickly display the dashboard screen. Also, by using the URL of a PDF manual or video file as the QR code information, the file in the web browser can be displayed and played on the smart device.

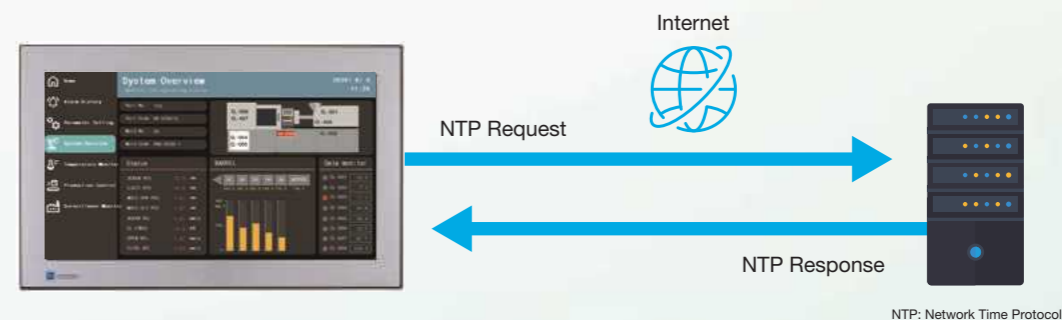
\*3 Scheduled to be supported in October 2025



### NTP Time Server Connection

V10 TS4000

Simply specify the IP address of the time server and connect to the network for easy and accurate time correction. Automatic time correction eliminates the need to create a screen for time correction.



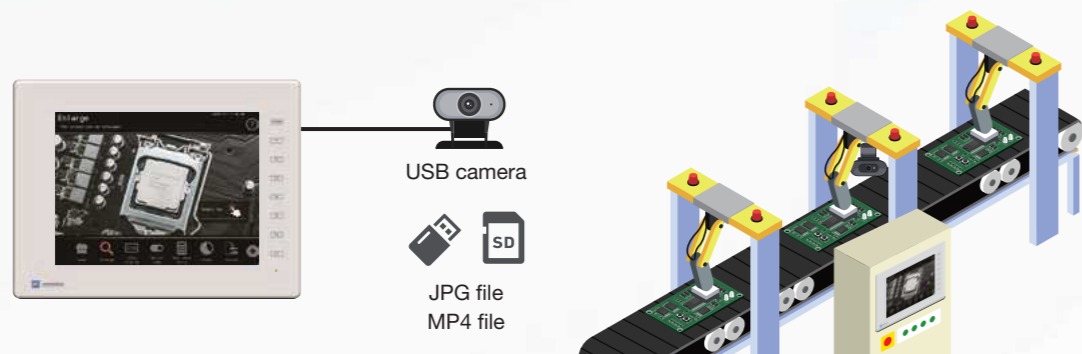
X1 Manual connection with "Time setting" in System Configurator or automatic connection when turning on the power is possible.

## Extensive multimedia functions for on-site visualization

### USB Camera Event Recording Function

V10

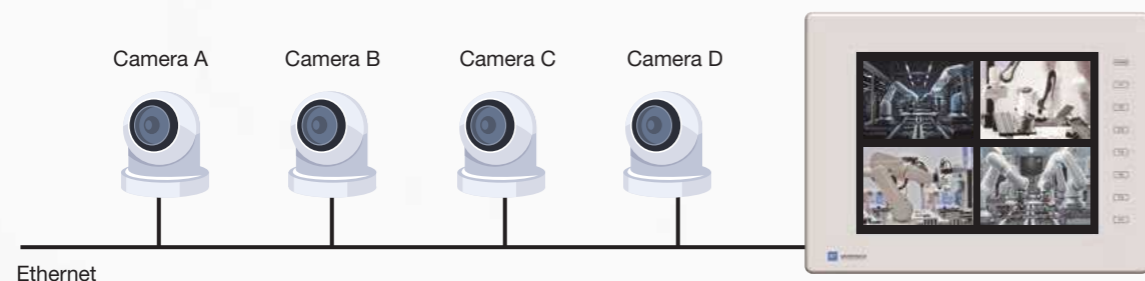
USB camera images can be displayed in real time. By double-touching the area, video can be paused/released and JPEG files can be saved. By linking with the alarm function, up to 180 seconds of video can be recorded before and after the occurrence of an abnormalities. Recorded video can be played using a video viewer.



### Network Camera

V10 TS4000

By connecting to network camera using an Ethernet connection, it is possible to display camera images on the MONITOUCH screen. Up to 4 camera images can be displayed simultaneously. For cameras that support remote control, you can zoom in the camera images or change the orientation of the camera on the MONITOUCH screen.



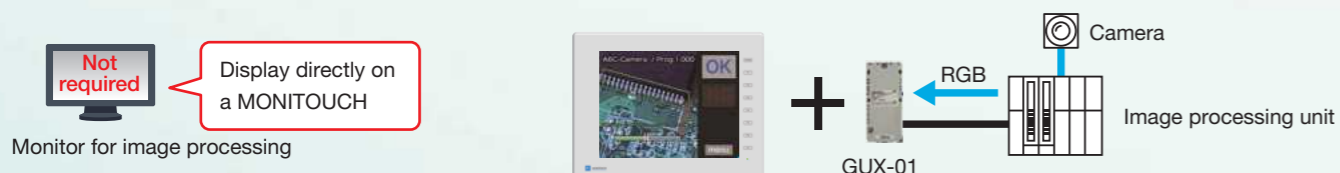
### Video/RGB Function

V10 G-type only

By attaching an optional unit, videos and RGB input images can be displayed and images displayed on the V10 series can be sent to external displays.



By integrating the image processing unit for RGB input into the V10 series (G type) using the GUX-01, it is possible to display the image of the image processing unit while also displaying the operation screen of the facility.



### Image Function Comparison

V10 TS4000

Item	Image input					Image output
	Camera			PC		
Connected device	USB Camera	Network camera	Video camera	RGB input	Remote desktop *2	External monitor (RGB output)
Connected port	USB-A	LAN	BNC co-axial connector	Dsub15 (mini)	LAN	Dsub15 (mini)
No. of connectable device	1	Register: 255 SIML display: 4	1~4	1~2	1	1
Camera image display	✓	✓	✓	—	—	—
Event record function	✓	—	—	—	—	—
PC screen display	—	—	—	✓	✓	—
PC screen operation	—	—	—	✓*1	✓	—
Supported HMI models and optional units	V10	V10 TS4000	V10 G-type + GUX-00(4CH) V10 G-type + GUX-04(1CH) V10 G-type + GUX-10(2CH)	V10 G-type + GUX-01(1CH) V10 G-type + GUX-10(1CH) V10 G-type + GUX-11(2CH)	V10 TS4000	V10 G-type + GUX-02 (1CH)

\*1 A separate driver needs to be installed on a PC. \*2 VNC server software needs to be installed on a PC.

### Hardware Specifications Comparison

V10 TS4000

Item	V10 series				TS4000 series				
	V1015iS	V1012iS	V1010iS	V1008iS	TS4150i	TS4120i	TS4100i	TS4070i	
Display	Display Size	15.0"	12.1"	10.4"	8.4"	15.6" wide	12.1" wide	10.1" wide	7.0" wide
	Resolution	XGA 1024×768	SVGA 800×600			FWXGA 1366×768	WXGA 1280×800	WSVGA 1024×600	WVGA 800×480
Power supply	AC/DC			DC	DC				
Interface	Serial	3 ports CN1: D-sub 9-pin(female), MJ1: RJ-45, MJ2: RJ-45			2 ports COM1: D-sub 9-pin(female), COM2/COM3: D-sub 9-pin(male) *6				
	USB	2CH Type-A(Ver.3.0), Type-mini B(Ver.2.0)			2CH Type-A(Ver.2.0), Type-mini B(Ver.2.0)				
	Ethernet	1CH *3(10BASE-T/100BASE-TX/1000BASE-T)			1CH(10BASE-T/100BASE-TX)				
	Wireless LAN	1CH *4			—				
	SD	1CH(max. 2TB)			—				
	AUDIO	Compatible			—				
	Communication Units (CUR-xx)	Compatible			—				
Expansion Units (GUX-xx)	Compatible *5			—					
Memory	Screen Memory (FROM)	256MB			128MB				
	Backup Memory (SRAM)	900KB			230KB				
Case Color	2 types: Light gray/Black				1 type: Silver				

\*3 2CH for extended wired LAN products (V10xxiSLD). \*4 Wireless LAN compatible products (V10xxiSRD) only. \*5 Video/RGB compatible products (G-type V10 series) only. \*6 Simultaneous use of COM2/COM3 is possible.

## Support for environments with strict restrictions on bringing in devices, such as clean rooms

### Recipe Function with Built-in Storage

V10 TS4000

Recipe data for each product can be stored in the HMI unit's built-in storage for use in production changeovers. Since no external storage is required, the recipe function can be used even at sites where the use of external storage is prohibited. This eliminates the need to worry about storage failure and the hassle of selecting storage."

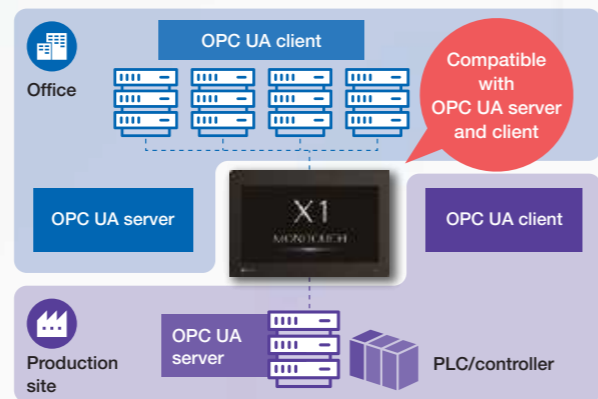


\*7 Scheduled to be supported in October 2025.

### Compatible with OPC UA Server and Client \*1

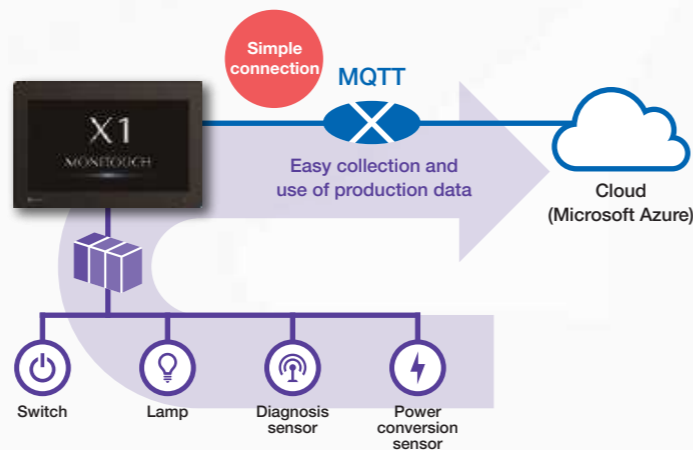
- The X1 series is equipped with OPC UA server and client, so data can be collected by connecting to both offices and production sites.
- Even if devices at the production site are incompatible with OPC UA, the X1 series can fulfil the role of a gateway to OPC UA in order to transfer data to OPC UA clients in the host system.
- OPC UA enables data sharing between production sites and the host system, and facilitates the standardization of equipment.

\*1 OPC UA server and client cannot be used simultaneously.



### Cloud (MQTT) Compatible

- Operation data, production data, status data, etc. are sent to the cloud system via MQTT for collection and storage. It contributes to the visualization and improvement of the factory.
- Since the system is linked with the Microsoft Azure platform, various tools and frameworks of the cloud service can be used.

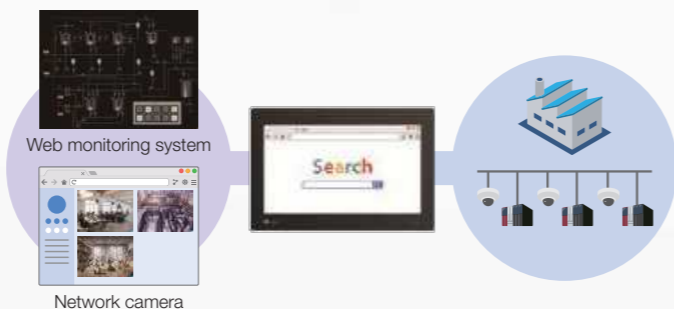


#### Linkage with Microsoft services via Azure IoT Hub is possible.

- Visualization, analysis, AI / Machine learning
- Visualization
  - Progress management
  - Diagnosis / Analysis
  - Prediction / Status detection
  - Cause analysis
  - KPI management

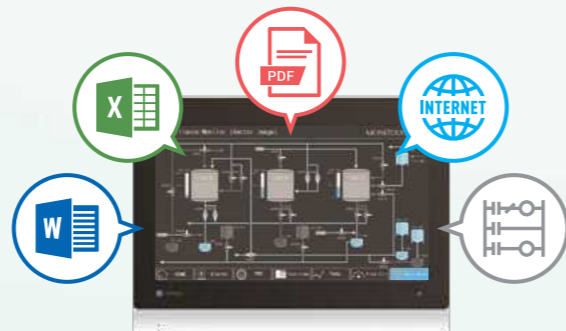
### Standardized Web Browser

Since the X1 series is equipped with a web browser as standard, it is possible to use the browser function in applications and IT systems. When combined with a monitoring system or network cameras, it is possible to monitor different machines on the network, and to check each status easily.



### Utilization of User Applications

Since Windows is installed on the X1 series, Windows applications can be used, meaning there is no need to bring your computer to the manufacturing site. The display position and window size of the application can also be specified, allowing for operation with a display position and size suited to the X1 series screen layout. In addition, it is possible to reduce maintenance tasks and the space required for PCs at the production site by integrating PCs with the X1 series. The X1 series with Windows applications improve versatility and expandability, as well as functioning of HMIs.



### Vector Graphics

Vector graphics enable high quality and tailored screen creation as it allows the enlargement/reduction of parts while maintaining a clear image.

#### Raster Image (Conventional Method)

Color and density are specified for each pixel

Jagged edges become visible when scaling

Indicate "white, white, black, black, black, white, white ..."

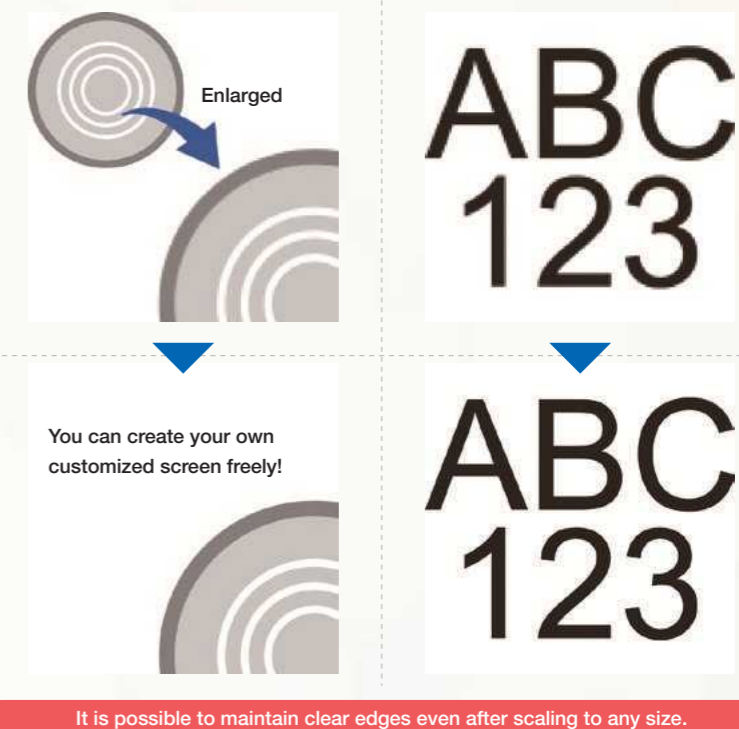
#### Vector Image (New Method)

Images are defined by mathematical equations

Images remain sharp and smooth in all sizes by changing the parameters

Draw a circle by specifying the reference point and radius

<circle cx="150" cy="150" r="150"/>

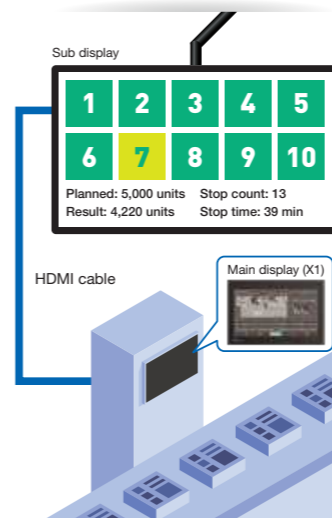


### Multi-Display

Two screens can be used simultaneously, each with independent display and operation. A different screen can be displayed on a large external monitor, or 2-split screen is available. Since the X1 series display and the external display can be installed in landscape or portrait (90° to the right) mode, setups matching the on-site environment and space are possible.

#### Andon monitor display

It's possible to visualize the operating status of equipment and share information by displaying details such as production plans and results on an Andon monitor (large display) connected via an HDMI cable. There is no need to prepare a computer for the Andon display; the X1 series alone can display and operate as an HMI as well as display information on an Andon monitor.



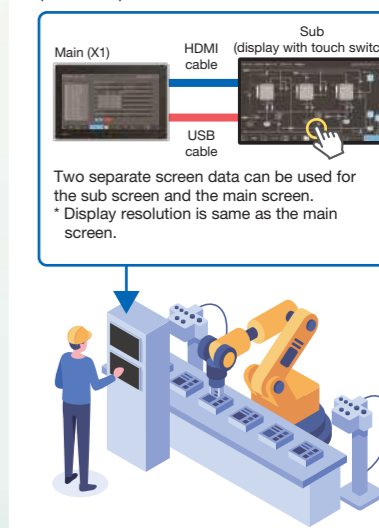
#### 2-split screen

Two X1 applications (main & sub) can be run on the X1 series and displayed and operated on the same screen simultaneously by splitting the screen horizontally or vertically. In addition to displaying data from the same or a different screen, it also supports the display of user applications such as engineering tools, displaying information with a high degree of density and freedom.



#### Expansion of the display / operation screen

To improve work efficiency, the amount of information that can be checked at one time can be increased by using the X1 series with an external display. Touch operation is also possible on external displays with a touch switch, via connection using a USB cable. One X1 series unit can be used for HMI display and operation equivalent to two units.



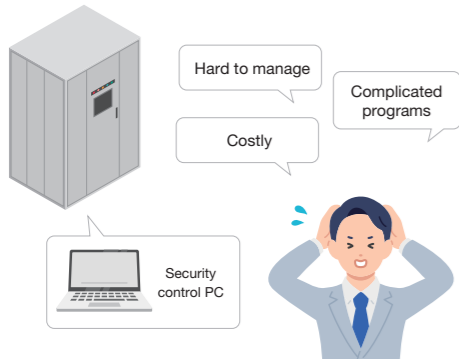
Easy to manage password with operating authorities.

Security Features

V10 TS4000 X1

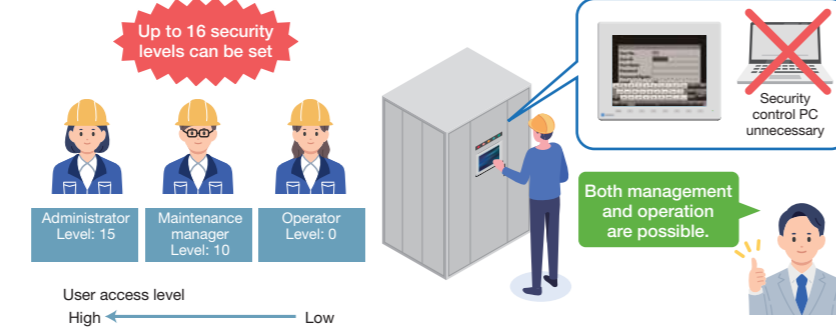
Before

PCs were introduced for security control, however...



After

User IDs and passwords can be registered, changed or deleted on the HMI screen. In addition, by assigning levels to password, you can control the operating privileges of each operator.



Speedy identification of the cause of alarms, and analysis and resolution of problems.

Operation Log Function

V10 TS4000 X1

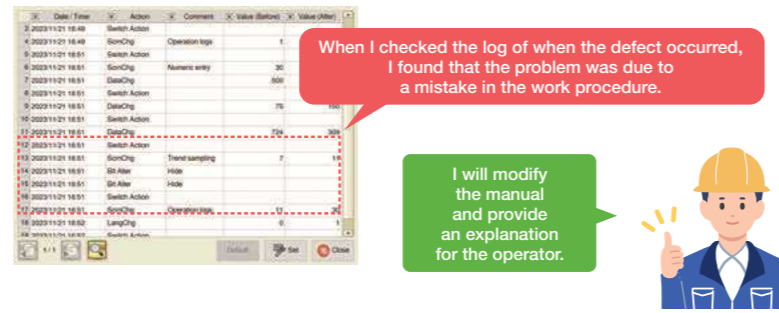
Before

When an alarm occurs, I can't see the history leading up to it and I don't know the cause. I want to achieve traceability, but I don't know what to do...



After

Operators' activity and machine settings can be confirmed. Quick identification of the cause and early resolution of problems are possible, contributing to the improvement of yield rate and a decrease of defective products.

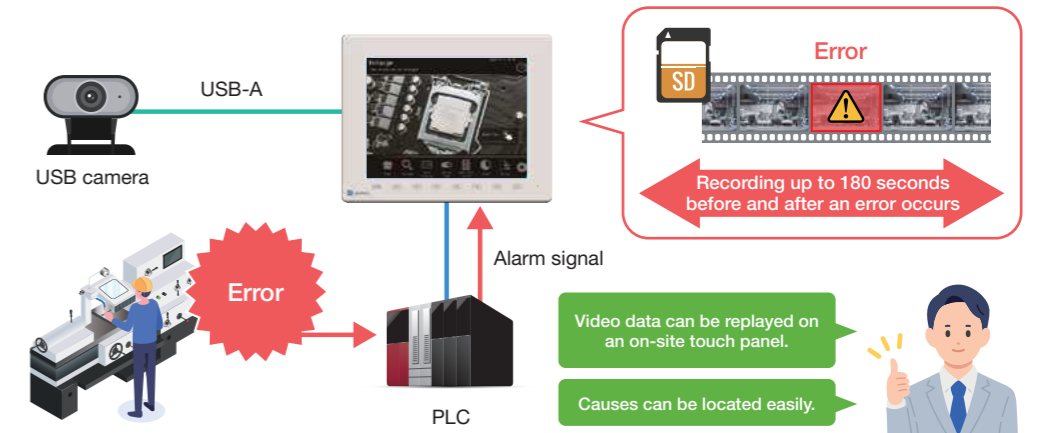


Display images from a USB camera. Recorded footage when an error occurs can help investigate the cause.

Event Recording Function

V10

Operation status before and after the error can be recorded. By looking back at the saved video, causes can be identified quickly and easily, improving on-site operating efficiency.



Check blind spots and distant areas with camera feeds

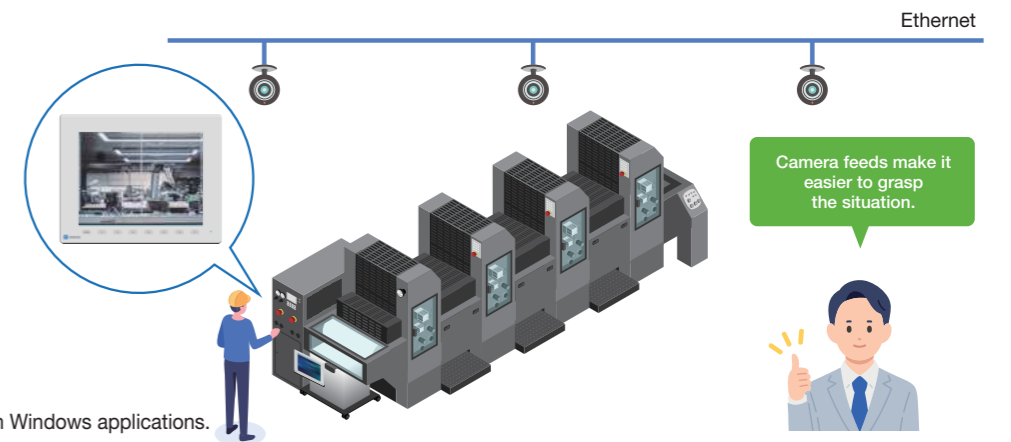
Network Cameras

V10 TS4000

Install network cameras in narrow, inaccessible or distant areas, and display the camera feeds on the HMI unit. The entire site can be checked, leading to safety improvements.

Up to 255 cameras can be registered, and images from up to 4 cameras can be displayed simultaneously.

X1 Available for display in Windows applications.



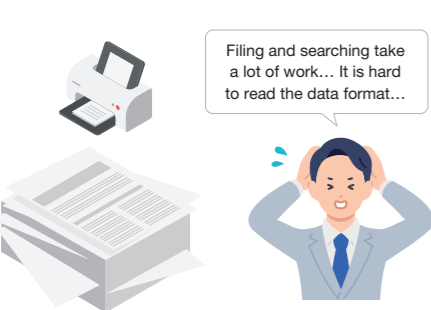
Go paperless with PDF output of data sheets. Contribute to carbon neutrality.

Reporting Function

V10 TS4000 X1

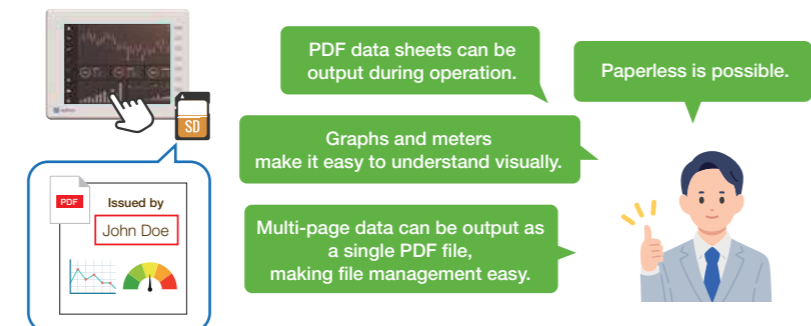
Before

Currently we output inspection results via hardcopy printing, however we want to set up a paperless system...



After

PDF files can be output with the layout unchanged. With the extended features, designs using graphs and meters are available. You can also add handwritten electronic signatures.



On-site viewing of video manuals for better understanding and work efficiency.

Video Playback

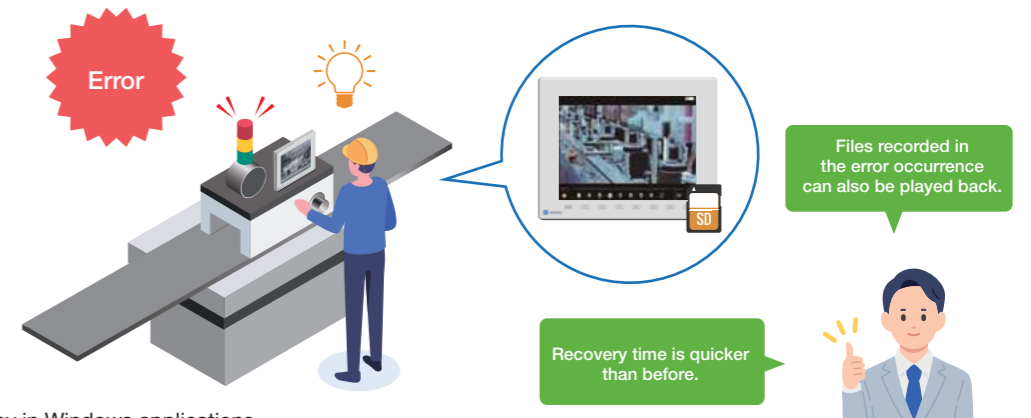
V10

Video files (mp4) can be played.

The work procedures can be checked on video, allowing anyone to perform daily maintenance work and recovery work in the event of troubles.

Recorded files saved with the event recording function can also be played back.

X1 Available for display in Windows applications.



Reduce program design time and connection unit equipment costs.

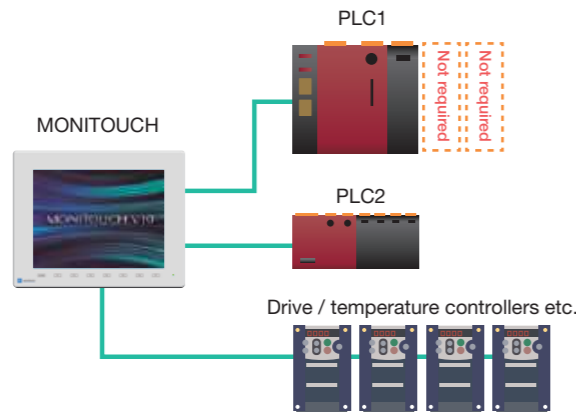
8-way Communication

V10 TS4000 X1

Reduce the time required to design programs by having MONITOUCH handle the connection with devices.

Equipment can be expanded without the need for units, leading to cost reduction.

Additionally, data can be shared between devices at intervals specified by MONITOUCH.



Industry-leading number of connectable devices \*1

77 manufacturers 466 protocols \*2

Connectable device list  
<https://monitouch.fujielectric.com/site/support-e/list27.html>

\*1 According to our own research \*2 As of April 2025

Reduce debugging and maintenance time through remote monitoring and operation.

VNC Server Function

V10 TS4000

The HMI screen can be displayed and operated on a tablet or PC. Remote operation is possible during debugging and maintenance, saving time.

Our "Simple Remote" VNC application is available free of charge.



Download Simple Remote  
<https://monitouch.fujielectric.com/site/support-e/download-index-01.html>

X1 Available for display in Windows applications.

Changes in the data are analyzed and used for preventive maintenance.

Trend Analysis

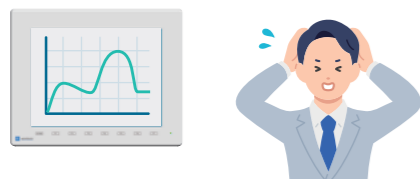
V10 TS4000 X1

Before

I'm checking the quality of products using trend graphs, but there is nothing to compare them to, so it is difficult to understand whether the quality is good or bad...

I want to compare it with past data, and also display the past production data in a graph...

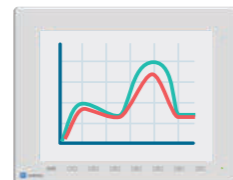
Waveform monitor screen



After

Past and current trend data can be superimposed. Visually understand trends in production data while checking changes in data during the manufacturing process in real time. Obtain improved yields by using it for preventive maintenance.

Waveform monitor screen



Even if you switch screens, the previous graphs are displayed superimposed, making it easy to understand changes in quality.

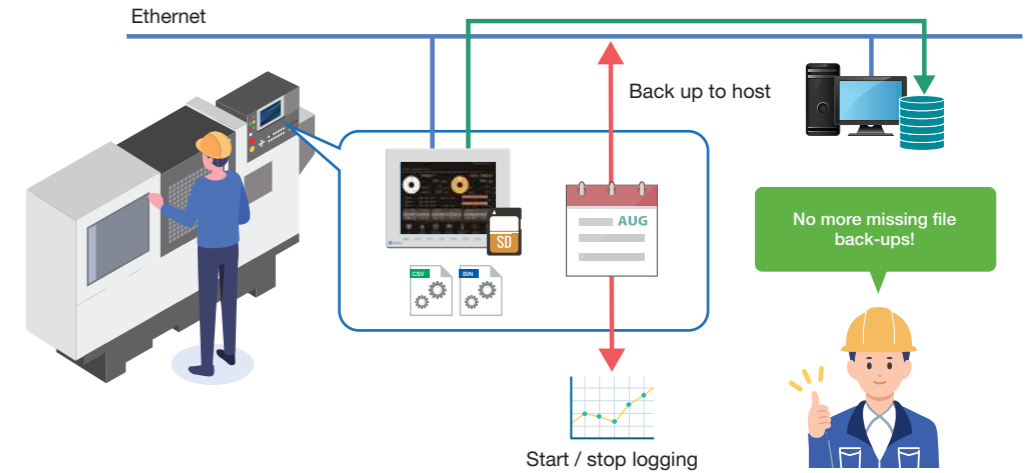


Prevent omission of work by scheduling function execution

Scheduler Function

V10 TS4000 X1

Operations can be scheduled and executed by month, day and time, preventing forgetting to execute due to human error. Since functions are executed automatically, it also leads to a reduction in work time.

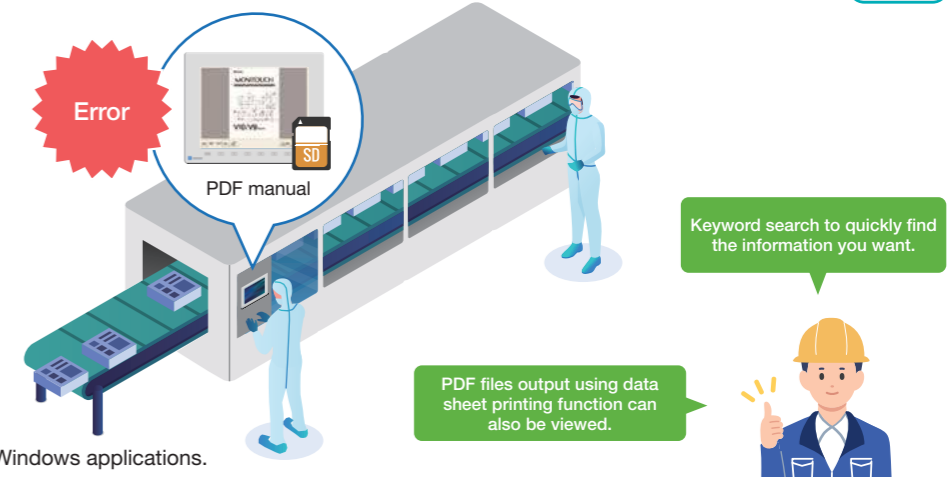


On-site PDF files viewing reduces recovery time in the event of an error.

PDF Viewer

V10

Even in environments where you need to change your clothes or take an air shower, such as in a clean room, you can instantly check PDF files without going to the office to pick up the manual.



X1 Available for display in Windows applications.

The entire system can be grasped by scrolling operation.

Scrolling Function

V10 TS4000 X1

Before

Switching screens makes it difficult to understand the overall situation...

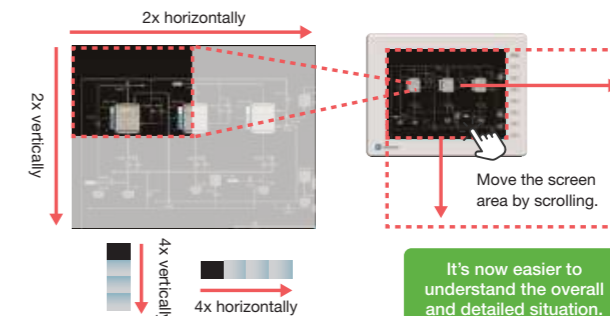
When a lot of information is displayed, visibility and operability become poor...

The whole picture doesn't fit to a screen...



After

Scrolling display is possible by creating a screen larger than the HMI unit's resolution (up to 4 times the display size). Even screens with a large amount of information, such as an overall plant diagram, can be displayed without switching screens.



Navigator display helps to confirm current location.

It's now easier to understand the overall and detailed situation.

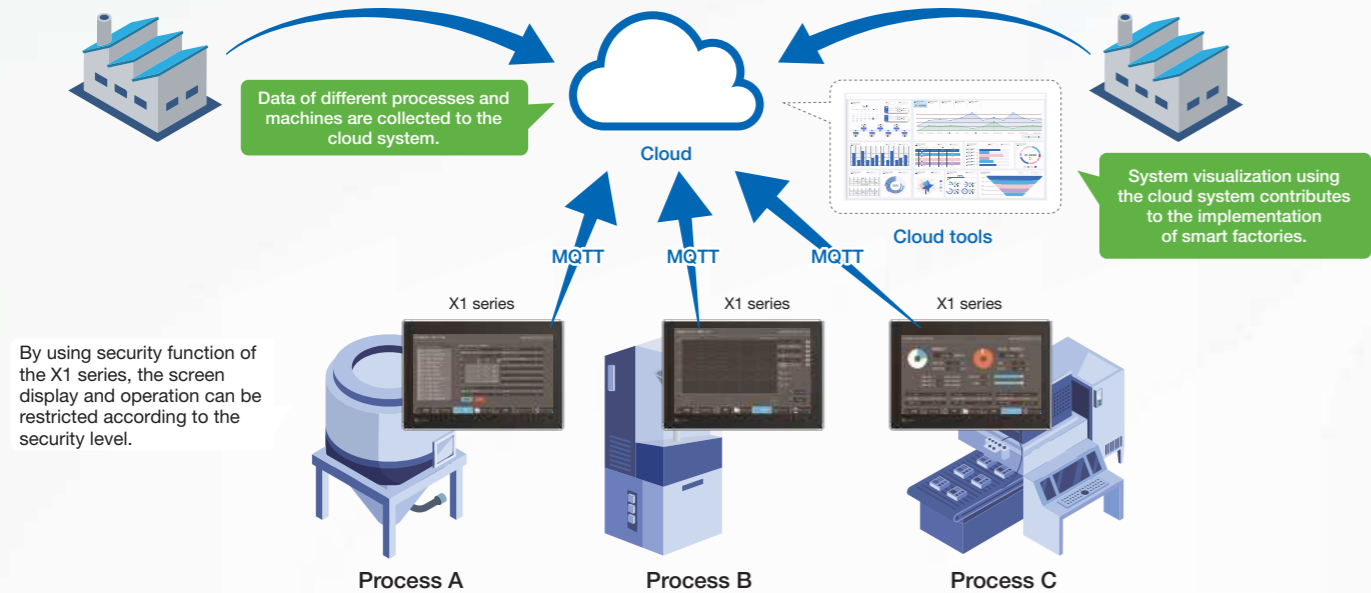


Application example > Analysis of production issues using the cloud

Pharmaceutical equipment

X1

Increased efficiency and improvement of the production system is realized by connecting to the cloud and analyzing, visualizing and identifying trends of the collected data. Besides, it contributes to ensuring the security in pharmaceutical manufacturing by installing the X1 series on pharmaceutical equipment that requires high-level security management.



Application example > Connection to IT system for centralized management of equipment status

Workpiece conveyor

X1

The X1 series collects data from multiple machines at production sites and shares it with the host system via OPC UA. This helps to improve productivity and product quality, and it facilitates the standardization of equipment. Adoption of the X1 series for devices equipped with industrial robots adds further value to the robots that contribute to factory automation.



**Engineering tool**

If engineering tools of connected devices are installed, it is possible to edit and monitor the programs of robots or PLCs through the X1 series. Bringing a PC into the production site is no longer necessary.

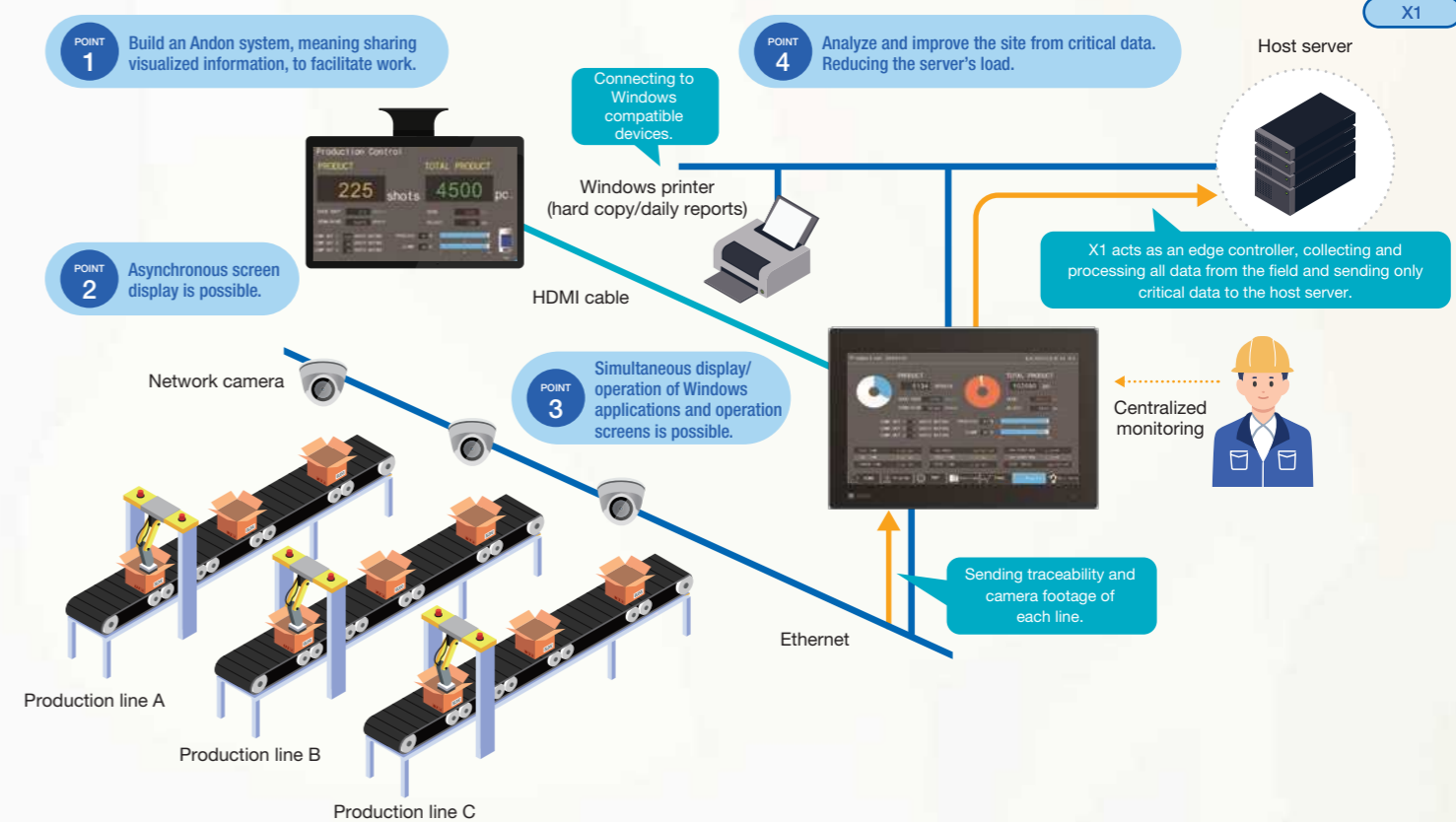
**Data collection using Excel**

Operation data of transfer robots can be linked to Excel on the X1 via V-Server (our data collection software). Graphs created by Excel can be displayed on the X1 by installing and linking Excel and V-Server.

It is possible to use applications such as Excel on the X1 at the production sites.

Application example > Optimization of production equipment visualization and traceability

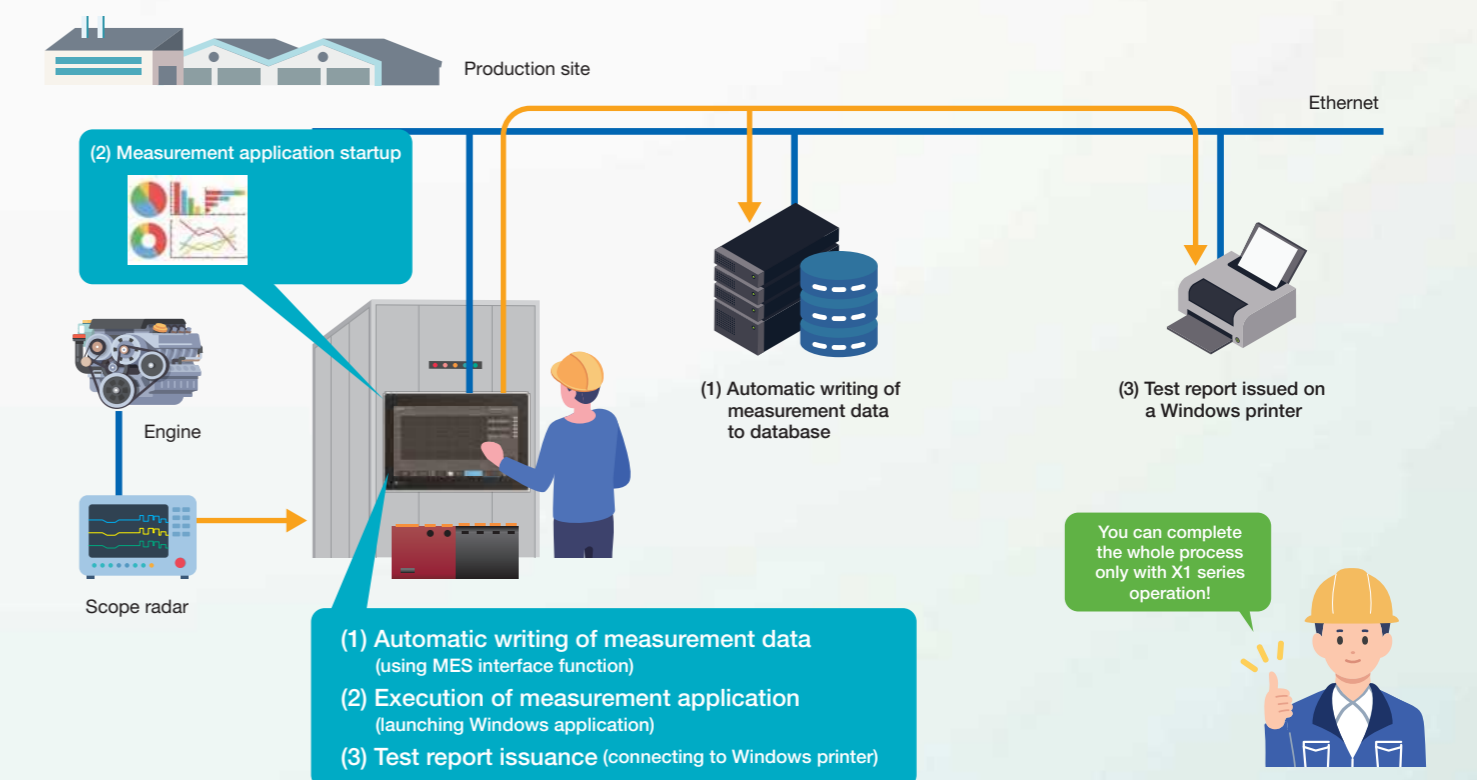
X1



Application example > Automated data entry in the inspection process

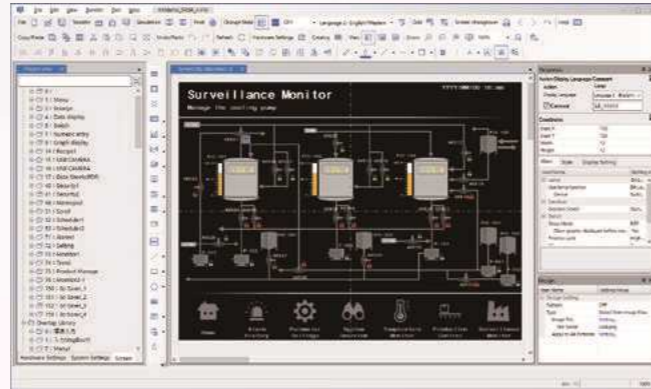
X1

3 roles in 1 unit with the X1 series!  
Automation of data entry work enables a significant reduction in man-hours.

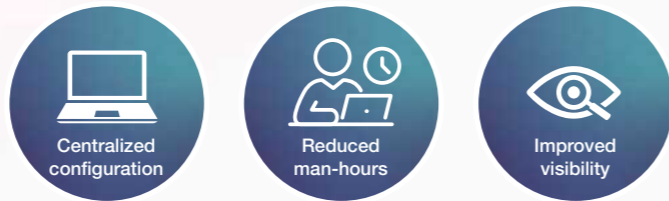


Screen creation has evolved from “learned” to “intuitive” with our smart configuration software.

# MONITOUCH Smart Editor



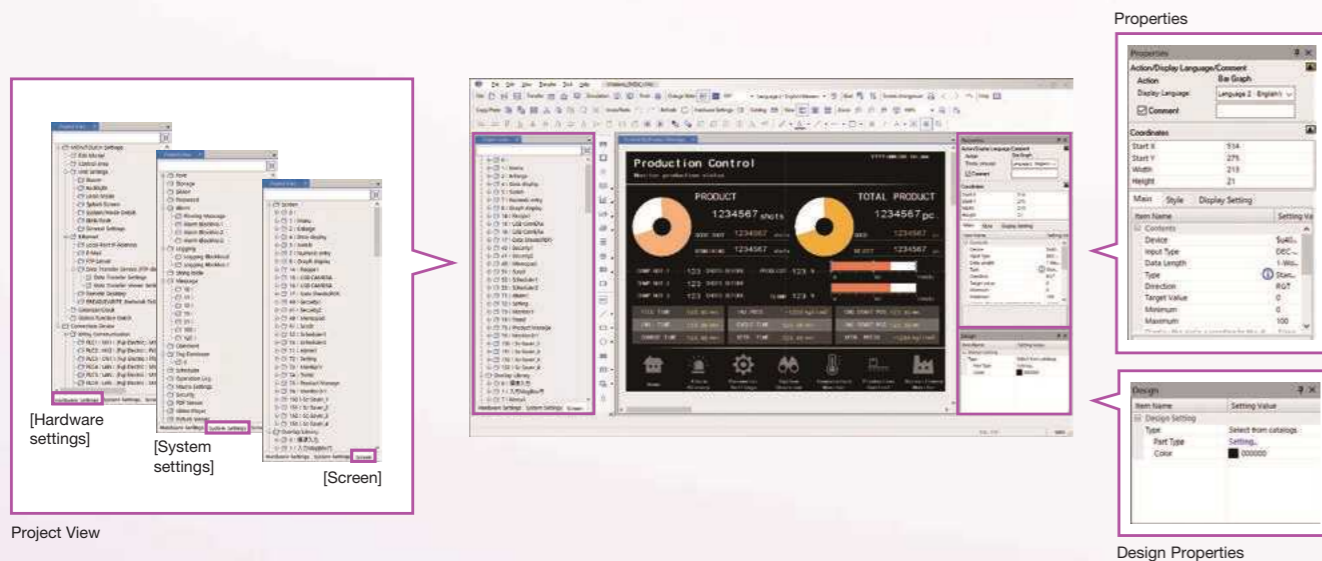
The user interface has been completely redesigned to enable stress-free, intuitive screen creation.



**Centralized configuration** Intuitive configuration, Project View and Properties

**Project View** Point All file settings are consolidated in Project View. Hierarchic tree configuration provides easy confirmation and configuration of the entire project.

**Properties / Design Properties** Point Detailed settings and design attributes for individual items are consolidated in Properties. Configuration can be performed without disruption.



Configuration, from the entire project to individual screens, is consolidated into Project View, and individual settings into Properties. The flow of left to right enables quick, intuitive configuration.

**Reduced man-hours** Reduced debugging time with speedy start-up and screen data transfer



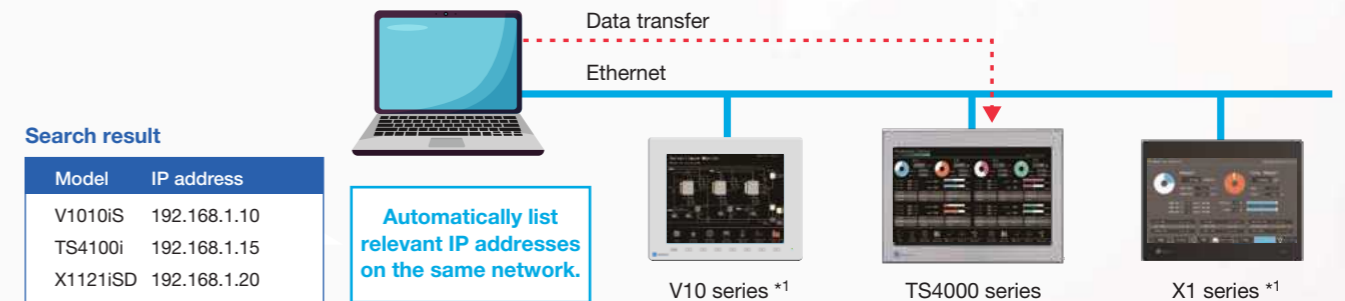
Speedy start-up



Speedy screen data transfer

Example of transfer performance

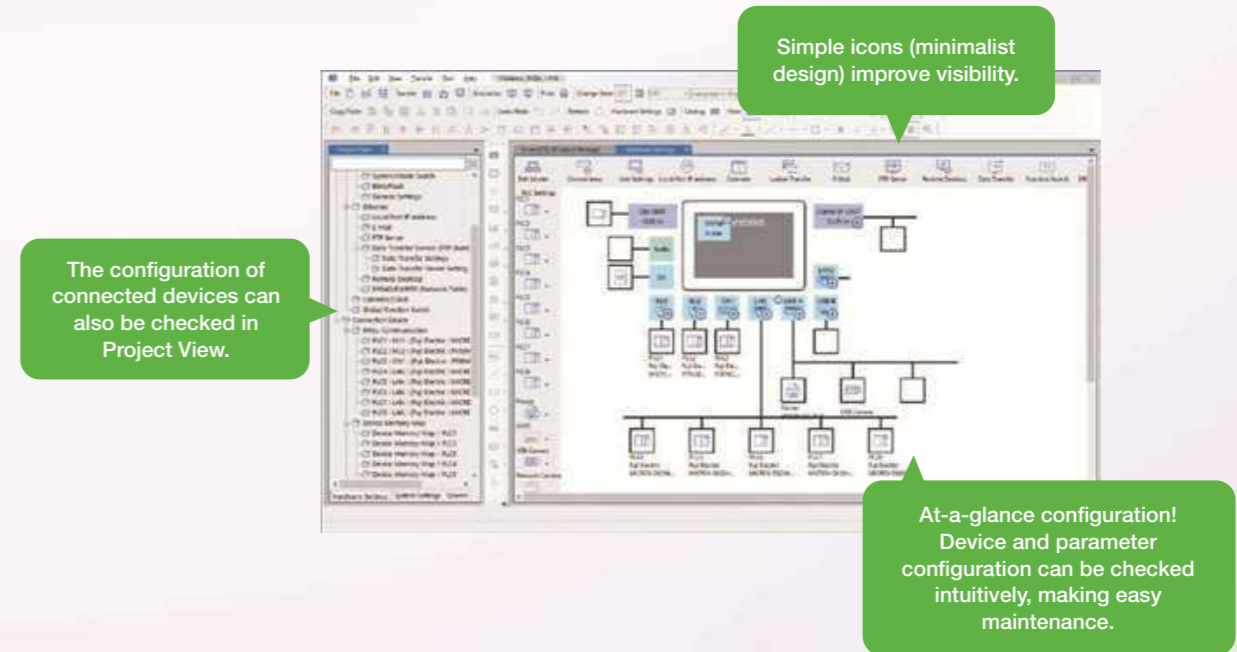
Simply click the “Search All” button in the transfer menu to display a list of MONITOUCH models and IP addresses that exist on the same network. Even if the IP address is unknown, you can transfer screen data.



\*1 Scheduled to be supported in October 2025.

Minimal wait time for start-up and screen data transfer drastically improves operational efficiency.

**Improved visibility** Hardware settings for intuitive configuration and checking of connected devices



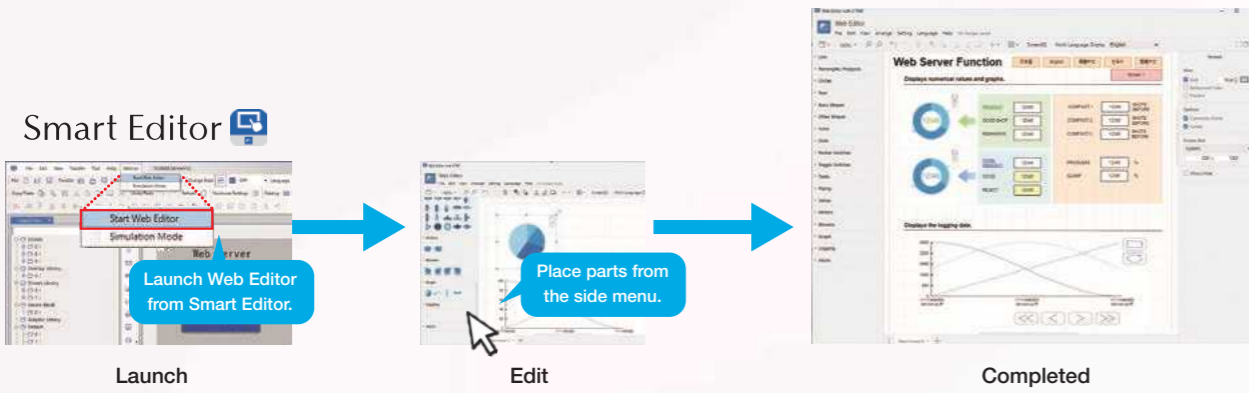
The configuration of connected devices can also be checked in Project View.

Information on connected devices such as PLCs, temperature controllers, inverters and USB cameras can be checked and configured easily and intuitively.

## Smart Editor Features

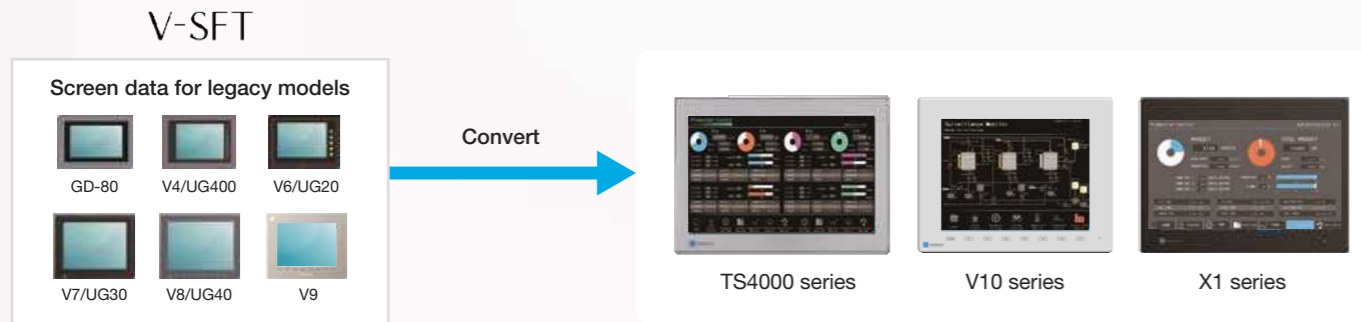
### Web Editor

Smart Editor comes standard with the Web Editor that specializes in designing the Web Server function. Anyone can freely design web server screens without requiring programming skills. Up to 100 screens can be created, and switches, lamps, data displays, graphs, logging, and alarm displays can be placed on the web server screen. You can use the Web Server function by transferring screen data from Smart Editor to the HMI unit.



### Screen Data Compatibility with Legacy Models

You can convert and edit screen data created with V-SFT for legacy models without any changes.



Screen data assets created with the configuration software prior to V-SFT can be converted and edited using Smart Editor.

### System Requirements

PC	Personal computer for Windows	Hard disk	When installed: 6.0 GB or more
OS	Windows10(64bit) Windows11(64bit)	Disc drive *1	DVD-ROM drive
CPU	Windows 10: Intel Core 2 Duo 2GHz or higher recommended Windows 11: 2 cores or higher (64 bit) or System on a Chip (SoC)	Display	1920×1080 (Full HD) or greater
Memory	8GB or more recommended	Other	<ul style="list-style-type: none"> <li>Microsoft .NET Framework 4.0 or higher</li> <li>Visual Studio 2015-2022 Visual C++ Redistributable packages (Automatically installed upon installation, if missing)</li> </ul>

\*1 Not required for the download version of Smart Editor.

## Models

Model	Product
SMED-DVD	MONITOUCH Smart Editor Single license - DVD
SMED-DVD-SL	MONITOUCH Smart Editor Site license - DVD
SMED-DL	MONITOUCH Smart Editor Single license - Download
SMED-DL-SL	MONITOUCH Smart Editor Site license - Download
SMED-DVD-VUP *1	MONITOUCH Smart Editor DVD for Version upgrade (License not included)

\*1 This is a DVD for version upgrading, meant for those who have already installed Smart Editor. The update module is also downloadable from our website free of charge. (membership registration required.)

### Site License

Site license is distributed on a worksite basis, and can be installed on an unlimited number of computers within the same worksite. Access the dedicated form from the QR code written in the document packaged with the DVD, and enter the required information to complete the site license registration.



### How to Apply for SMED-DL

Place your order along with the application form at your local distributor, and you will receive a reply e-mail once the procedure is complete.



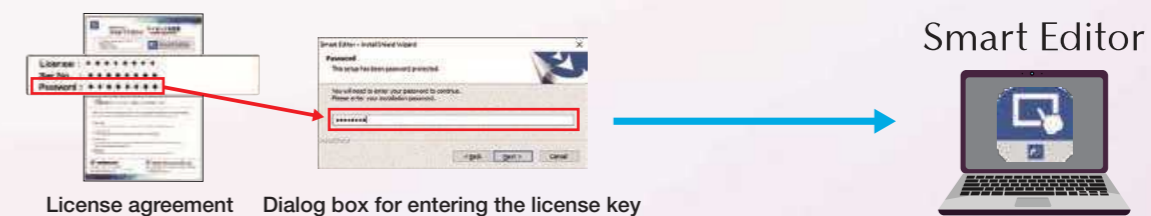
\*2 To download the software, you need to register as a member to Fuji Electric's Document download website.

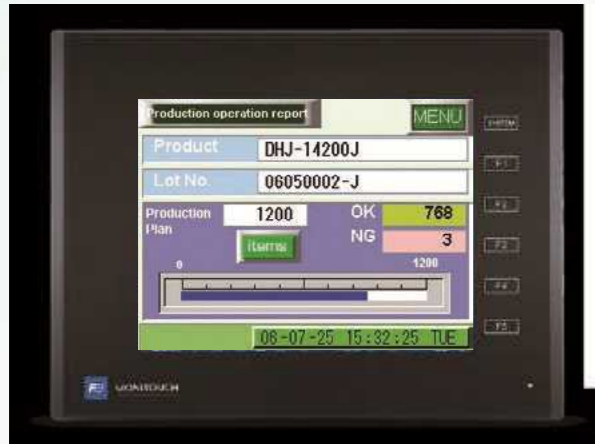
Download the application form <https://monitouch.fujielectric.com/site/support-e/download-index-01.html>



### Installation Procedure

The installation is started by entering the license key written in the license agreement.





# TECHNOSHOT



With Ethernet port  
**TS2060i**



\*1 "DUR-00" or "CUR-xx" is mountable.

No Ethernet port  
**TS2060**



## V8 Handy Type



# V808CH



With Ethernet port  
**V808iCH**



No Ethernet port  
**V808CH**



### V808CH Models

V808□CH□

	Key switch	Deadman switch	
		Type	External output
0	N/A	Momentary	N/A
1	Equipped	Momentary	N/A
2	N/A	3-position	1-contact
3	Equipped	3-position	1-contact
4	N/A	3-position	2-contact

[Feature Specifications]  
N/A: No built-in LAN port  
i: Built-in LAN port

Model	Display Size	Resolution	Touch Switch	Unit Color	Power Supply	Network	Graphic			
Programmable Operator Interface										
V1015IS	15.0"	1024 x 768	Analog resistance film	Light gray	AC	CUR-xx	—			
V1015ISDC					DC	CUR-xx	—			
V1015ISLDC					DC	CUR-xx	—			
V1015ISRDC				Black *1	AC	CUR-xx	—			
V1015ISB						DC	CUR-xx	—		
V1015ISBDC						DC	CUR-xx	—		
V1015SLBDC				Light gray	AC	CUR-xx	GUX-xx			
V1015SRBDC						DC	CUR-xx	GUX-xx		
V1015ISG						DC	CUR-xx	GUX-xx		
V1015ISDG				Black *1	AC	CUR-xx	GUX-xx			
V1015ISBG						DC	CUR-xx	GUX-xx		
V1015ISBDG						DC	CUR-xx	GUX-xx		
V1012IS				12.1"	800 x 600	Analog resistance film	Light gray	AC	CUR-xx	—
V1012ISDC								DC	CUR-xx	—
V1012ISLDC								DC	CUR-xx	—
V1012ISRDC	Black *1	AC	CUR-xx				—			
V1012ISB			DC				CUR-xx	—		
V1012ISBDC			DC				CUR-xx	—		
V1012SLBDC	Light gray	AC	CUR-xx				GUX-xx			
V1012SRBDC			DC				CUR-xx	GUX-xx		
V1012ISG			DC				CUR-xx	GUX-xx		
V1012ISDG	Black *1	AC	CUR-xx				GUX-xx			
V1012ISBG			DC				CUR-xx	GUX-xx		
V1012ISBDG			DC				CUR-xx	GUX-xx		
V1010IS	10.4"	800 x 600	Analog resistance film				Light gray	AC	CUR-xx	—
V1010ISDC								DC	CUR-xx	—
V1010ISLDC								DC	CUR-xx	—
V1010ISRDC				Black *1	AC	CUR-xx	—			
V1010ISB						DC	CUR-xx	—		
V1010ISBDC						DC	CUR-xx	—		
V1010SLBDC				Light gray	AC	CUR-xx	GUX-xx			
V1010SRBDC						DC	CUR-xx	GUX-xx		
V1010ISG						DC	CUR-xx	GUX-xx		
V1010ISDG				Black *1	AC	CUR-xx	GUX-xx			
V1010ISBG						DC	CUR-xx	GUX-xx		
V1010ISBDG						DC	CUR-xx	GUX-xx		
V1008ISDC				8.4"	800 x 600	Analog resistance film	Light gray	DC	CUR-xx	—
V1008ISLDC								DC	CUR-xx	—
V1008ISRDC								Black *1	DC	CUR-xx
V1008ISB	DC	CUR-xx	—							
V1008ISBDC	DC	CUR-xx	—							
V1008SLBDC	Light gray	DC	CUR-xx				GUX-xx			
V1008SRBDC			DC				CUR-xx	GUX-xx		
V1008ISG			DC				CUR-xx	GUX-xx		
V1008ISDG	Black *1	DC	CUR-xx				GUX-xx			
V1008ISLDG			DC				CUR-xx	GUX-xx		
V1008ISBG			DC				CUR-xx	GUX-xx		
V1008ISBDG	DC	CUR-xx	GUX-xx							
TS4150i	15.6" wide	1366 x 768	Analog resistance film				Silver *2	DC	—	—
TS4120i	12.1" wide	1280 x 800						DC	—	—
TS4100i	10.1" wide	1024 x 600						DC	—	—
TS4070i	7.0" wide	800 x 480		DC	—	—				
X1151ISD	15.6" wide	1920 x 1080		PCAP (Capacitive type)	Black	DC		—	—	
X1151SRD			DC			—	—			
X1152ISD			DC			—	—			
X1121ISD			DC			—	—			
X1121SRD			DC			—	—			
TS2000	5.7"	320 x 240	Analog resistance film	Black	DC	CUR-xx *3	—			
V808CH□ *4	7.5"	640 x 480	Analog resistance film	Black	DC	—	—			
V808CH□ *4						—	—			

\*1 The rear case is light gray. \*2 The case is black. \*3 "DUR-00" and "CUR-xx" cannot be attached at the same time.  
\*4 Models vary depending on the key switch and deadman switch specifications. Please contact us.

Model	Product
SOFT MONITOUCH	
TELLUS and V-Server	TELLUS and V-Server license (Password validation)
TELLUS-HMI	TELLUS-HMI license (Password validation)
TELLUS-HMI iPad	TELLUS-HMI iPad license (Password validation)
TELLUS-Remote	TELLUS-Remote license (Password validation)
V-Server	V-Server license (Password validation)
TELLUS and V-Server USB Key	TELLUS and V-Server license (USB license key)
TELLUS-HMI USB Key	TELLUS-HMI license (USB license key)
TELLUS-Remote USB Key	TELLUS-Remote license (USB license key)
Web Machine interface VPN remote access service	
VPN-V	Value type 1st year (Max. 10 stations)
VPN-S	Simple type 1st year (Max. 30 stations)
VPN-W	Wide type 1st year (Max. 100 stations)
VPN-E	Extra type 1st year (Unlimited stations)
VPN-VR	Value type renewal fee (Max. 10 stations)
VPN-SR	Simple type renewal fee (Max. 30 stations)
VPN-WR	Wide type renewal fee (Max. 100 stations)
VPN-ER	Extra type renewal fee (Unlimited stations)

## Optional Accessories List

Model	Product	V10	TS4000	X1	TS2000	V808CH
<b>Configuration Software</b>						
SMED-DL	MONITOUCH Smart Editor Single license - Download	✓	✓	✓	✓	✓
SMED-DL-SL	MONITOUCH Smart Editor Site license - Download	✓	✓	✓	✓	✓
SMED-DVD	MONITOUCH Smart Editor Single license - DVD	✓	✓	✓	✓	✓
SMED-DVD-SL	MONITOUCH Smart Editor Site license - DVD	✓	✓	✓	✓	✓
SMED-DVD-VUP	MONITOUCH Smart Editor DVD for Version upgrade	✓	✓	✓	✓	✓
V-SFT-6	V-SFT Ver.6 Single license - DVD	✓		✓	✓	✓
<b>Cables *1</b>						
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 SPH*3, SPB CPU (RJ45) RS-485 (4-wire type)	✓	✓		✓*2	
D9-FU-SPBCPU-3M		✓	✓		✓*2	
D9-FU-SPBCPU-5M		✓	✓		✓*2	
D9-FU-SPFCPU-2M	Fuji Electric SPF CPU (Mini DIN4) RS-232C	✓	✓*4		✓*2	
D9-FU-SPFCPU-3M		✓	✓*4		✓*2	
D9-FU-SPFCPU-5M		✓	✓*4		✓*2	
D9-MB-CPUQ-2M	MITSUBISHI ELECTRIC A series / QnA series CPU (Dsub25) RS-422	✓	✓		✓*2	
D9-MB-CPUQ-3M		✓	✓		✓*2	
D9-MB-CPUQ-5M		✓	✓		✓*2	
D9-MB-CPUQ-10M		✓	✓		✓*2	
D9-MB-CPUQ-15M		✓	✓		✓*2	
D9-QCPU2-2M	MITSUBISHI ELECTRIC Q series CPU (Mini DIN6) RS-232C	✓	✓*4		✓*2	
D9-QCPU2-3M		✓	✓*4		✓*2	
D9-QCPU2-5M		✓	✓*4		✓*2	
D9-QCPU2-10M		✓	✓*4		✓*2	
D9-MI2-09-2M	MITSUBISHI ELECTRIC link unit (Dsub9) RS-232C	✓	✓*4		✓*2	
D9-MI2-09-3M		✓	✓*4		✓*2	
D9-MI2-09-5M		✓	✓*4		✓*2	
D9-MI2-09-10M		✓	✓*4		✓*2	
D9-MI2-09-15M		✓	✓*4		✓*2	
D9-MI4-FX-2M	MITSUBISHI ELECTRIC FX series CPU (Mini DIN8) RS-422	✓	✓		✓*2	
D9-MI4-FX-3M		✓	✓		✓*2	
D9-MI4-FX-5M		✓	✓		✓*2	
D9-MI4-FX-10M		✓	✓		✓*2	
D9-MI4-FX-15M	✓	✓		✓*2		
D9-D25	Dsub9-Dsub25 conversion cable (0.3m)	✓			✓*2	
D9-COM2	RS-232C conversion cable for replacement of V9/V8 with TS4000 (0.3m)		✓			
D9-COM3	RS-485 conversion cable for replacement of V9/V8 with TS4000 (0.3m)		✓			
MJF-COM2COM3	RS-232C conversion cable for replacement of TS2000 with TS4000 (0.3m)		✓			
MJ2F-COM1	RS-422/485 conversion cable for replacement of TS2000 with TS4000 (0.3m)		✓			
V8H-C3	V808CH external connection cable (3m)					✓
V8H-C5	V808CH external connection cable (5m)					✓
V8H-C15	V808CH external connection cable (15m)					✓
V8H-C20	V808CH external connection cable (20m)					✓
<b>Waterproof Gaskets</b>						
TS4150-WP	Waterproof gasket (for TS4150i)		✓			
TS4120-WP	Waterproof gasket (for TS4120i)		✓			
TS4100-WP	Waterproof gasket (for TS4100i)		✓			
TS4070-WP	Waterproof gasket (for TS4070i)		✓			

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

\*2 TS2060i+DUR-00 only. \*3 Cannot be used with some CPU hardware versions. D9-FU-SPHCPU-□M is required separately. Please contact us for more information.

\*4 Conversion cable D9-COM2 is required. \*5 Available for TS2060i only. \*6 GUX-xx is only for use with V10 series G-type.

Model	Product	V10	TS4000	X1	TS2000	V808CH
<b>Communication Units</b>						
CUR-00	OPCN-1 (For V10/TS2060i)	✓			✓*5	
CUR-01	T-Link (For V10/TS2060i)	✓			✓*5	
CUR-02	CC-Link (For V10/TS2060i)	✓			✓*5	
CUR-03	Ethernet (For V10/TS2060i)	✓			✓*5	
CUR-04	PROFIBUS-DP (For V10/TS2060i)	✓			✓*5	
CUR-06	SX-bus (For V10/TS2060i)	✓			✓*5	
CUR-07	DeviceNet (For V10/TS2060i)	✓			✓*5	
CUR-08	FL-net (For V10/TS2060i)	✓			✓*5	
CUR-09	EtherCAT (For V10)	✓			✓*5	
<b>Expansion Units *6</b>						
GUX-00	Video input 4CH	✓				
GUX-01	RGB input 1CH	✓				
GUX-02	RGB output 1CH	✓				
GUX-04	Video input 1CH	✓				
GUX-10	Video input 2CH + RGB input 1CH	✓				
GUX-11	RGB input 2CH	✓				
DUR-00	Optional unit for V907xiW/V9060iTD/TS2060i				✓*5	
<b>Serial Expansion I/O Unit</b>						
V-I/O	Serial expansion I/O unit for V10/TS4000/TS2000	✓	✓		✓	
<b>Communication Terminal Block</b>						
TC-D9	Terminal converter for V10/TS4000/TS2000	✓	✓		✓	
<b>Battery</b>						
V9-BT	Replacement battery for V10	✓				
X1-BT	Replacement battery for X1			✓		
TS-BT	Replacement battery for TS4000/TS2000		✓		✓	
V7-BT	Replacement battery for V808CH					✓
<b>Protection Sheets (5 sheets per set)</b>						
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)	✓				
TS4150S-GS	Protection sheet for TS4150		✓			
TS4150S-GSN10	Protection sheet for TS4150 (Non-glare)		✓			
TS4120S-GS	Protection sheet for TS4120		✓			
TS4120S-GSN10	Protection sheet for TS4120 (Non-glare)		✓			
TS4100S-GS	Protection sheet for TS4100		✓			
TS4100S-GSN10	Protection sheet for TS4100 (Non-glare)		✓			
TS4070S-GS	Protection sheet for TS4070		✓			
TS4070S-GSN10	Protection sheet for TS4070 (Non-glare)		✓			
V906T-GS	Protection sheet for TS2000				✓	
V906T-GSN10	Protection sheet for TS2000 (Non-glare)				✓	
V608CH-GSN10	Protection sheet for V808CH (Non-glare)					✓
<b>Security Software</b>						
X1-SS	USB media for X1 security function setup			✓		



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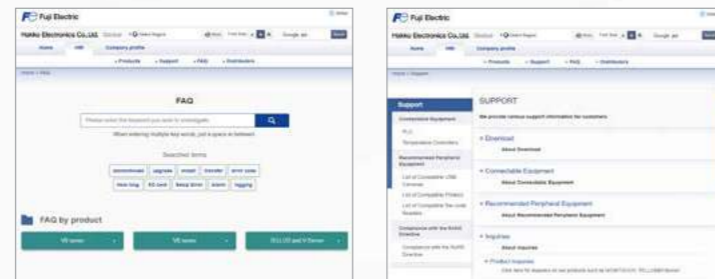
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WEB

**www.monitouch.com**

Various information regarding MONITOUCH.

- Questions
- FAQ page (useful for troubleshooting)
- Manual
- Upgrading configuration software, etc.

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**[www.monitouch.com/site/distributors-e/distributors-oversea-01.html](http://www.monitouch.com/site/distributors-e/distributors-oversea-01.html)**



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 1-1 (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.