



V9 – makes automation complete.

MONITOUCH **V9** series

Hakko Electronics Co., Ltd.

April 2, 2014



V9 Strength

< User Friendly Operation >

Capacitance Type Touch Panel

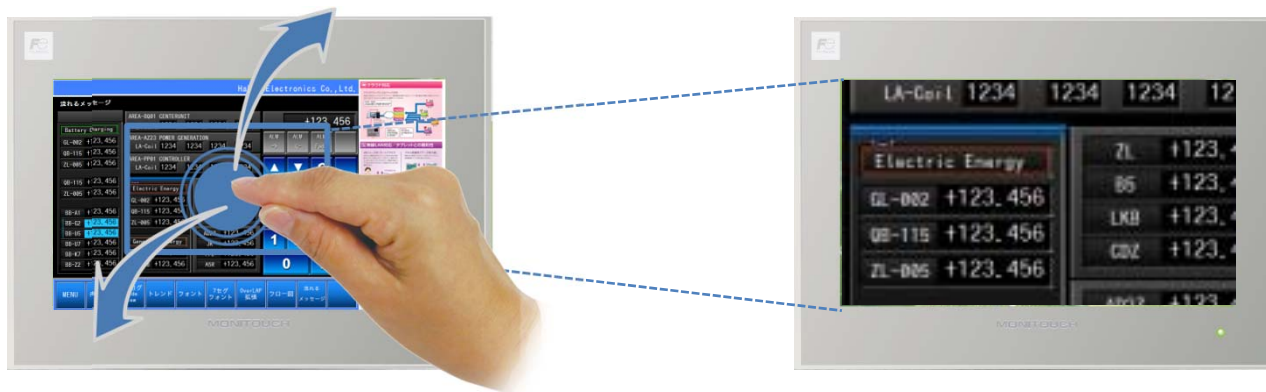
User Friendly Operation is performed.

V9 Advanced only

V9 Advanced

V9 Standard

V9 Lite



Pinch-in/Pinch-out supported

It is possible to expand the screen to the maximum of 200%.^{*1} The size of expanded screen can be controlled by pinch-in pinch-out operation.

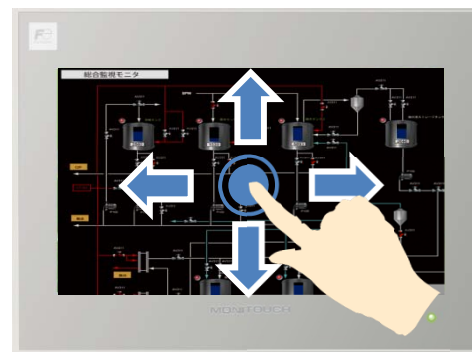
V9 Advanced only



Max.
200%
expansion

Scroll Operation supported

It is possible to see a particular part in close-up while scrolling around the entire screen.



*1 V9 Standard/Lite are available for screen expansion by double-touching.

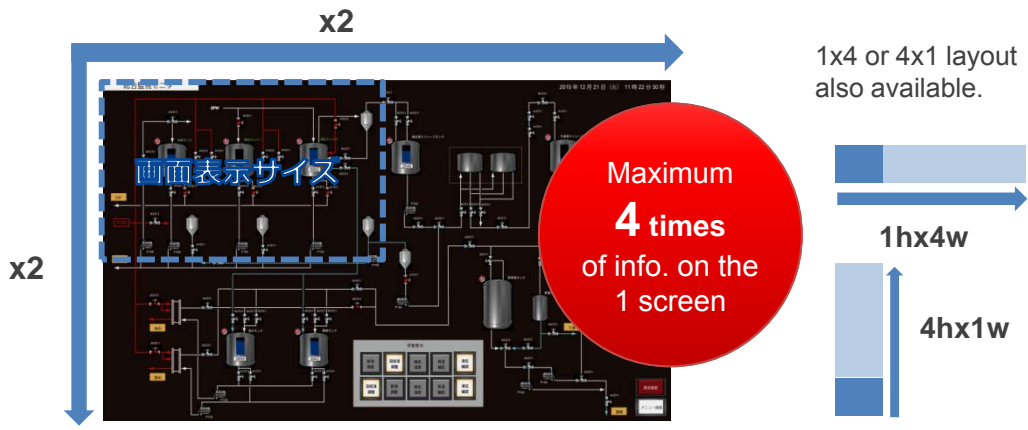
< Improved Expression >



- V9 Advanced
- V9 Standard
- V9 Lite

Versatile Screen Size (Max. 4 times of the size are available to register)

Screen can be enlarged in height and width depending on your needs.



Navigator window supported

There is the navigator window on the screen when the scroll function is used. It helps to find the location of zoomed area.

Overlap supports the screen expansion

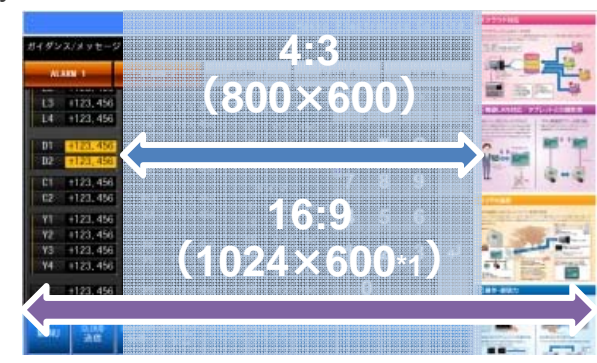
It is possible to use the overlap as the sub-screen and it can be operated individually without changing the screen pages. (Max. 4 times of the size.)



10.1 wide LCD

V9 Advanced only

Equipped with high-resolution, widescreen LCD (16:9). Greater volume and variety of information can be displayed on the screen.

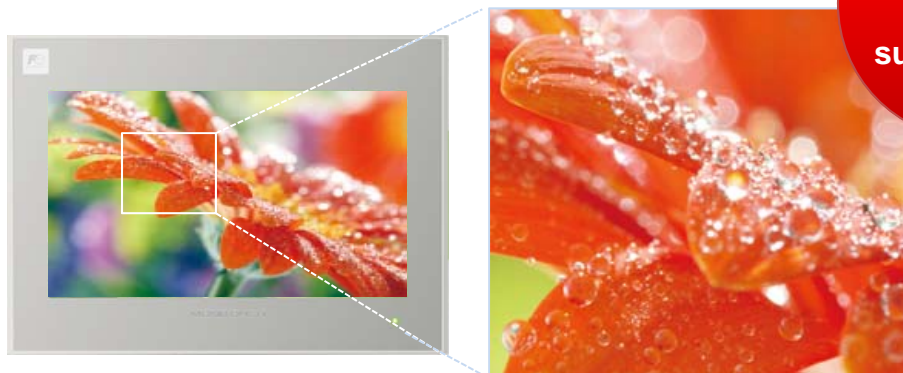


*1 V9101iW only.

< Power of Expression improved (1) >

16 million colors supported*1

High-performance of gradation is available.



16M
colors
supported *1

*1 Picture parts and Video input only. The other functions support 64K colors.

V9 Advanced

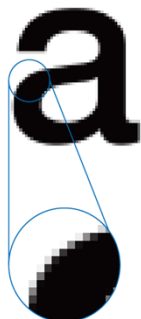
V9 Standard

V9 Lite

Smooth Font

True Type fonts have been added, and the new anti-aliasing function ensures clear expression.

Before smoothing



After smoothing



7-segment fonts supported

The power of expression has been improved by supporting the 7-segment fonts which is used on the real measuring machine.



V9 Advanced

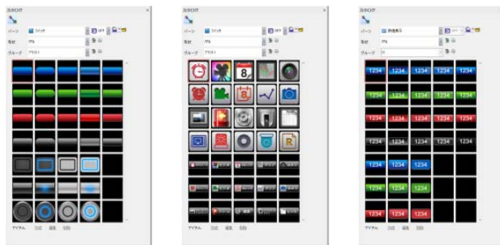
V9 Standard

V9 Lite

< Power of Expression improved (2) >

Plain Parts (Extend the parts)

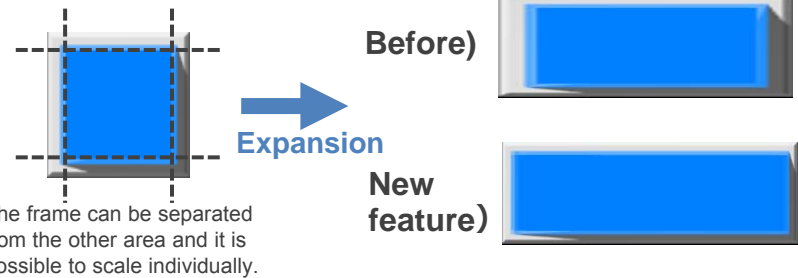
The new useful parts are added.



Any parts can be user-friendly since it supports PNG file.

3D parts improved

The frame size of 3D parts will not be expanded when it is expanded.



The frame can be separated from the other area and it is possible to scale individually.

Screen Transition supported

15 kinds of function are available for screen switching and operating.

Slide-In



Box-In



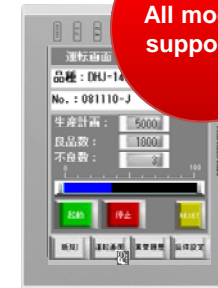
Swap



15 kinds of function are available

Portrait supported

It is possible to mount MONITOUCH in portrait form since the software supports the portrait function.



All models supported



CW/CCW supported.

Also available with system menu.

< Wireless LAN >

It is possible to connect with the wireless device without preparing the external access point.

Main features

Item	Specifications
Standard	IEEE802.11b, IEEE802.11g, IEEE802.11n
Frequency	2.4GHz band (2.412GHz - 2.472GHz)
Channel	1 - 13ch (Channel interval: 5MHz)
Transmission method	11b, 11g, 11n
Access method	Infrastructure mode, adhoc mode
Operation mode	Access point mode, station mode
Wireless LAN security	WEP, WPA PSK, WPA2 PSK
Connectable nodes (per 1S-AP)	6 (max.)



V9 program/PLC program transmission

It is possible to transfer screen program or PLC program via wireless LAN between a PC and V9.

- Screen program
- PLC program



Exchanging the data between the panels

It is possible to exchange the data between the connected device though the touch panel.



V9 Advanced

V9 Standard

V9 Lite

<VNC server>

It is possible to connect with the wireless device without preparing the external access point.



- Available with all models
- No license needed

*1 Write-protect is possible.

VNC client application

It is possible to display the same V9 application to monitor/operate from remote site by installing a VNC client application on a tablet terminal. (1:1 connection only.)

Verified VNC application

For iPad/iPhone:



Jump Desktop

JPY1,500



abtoVNC Viewer

JPY400



VNC Viewer

JPY1,000

For Android:



Vnc-Viewer Lite

Free



RemoteToGo

Free

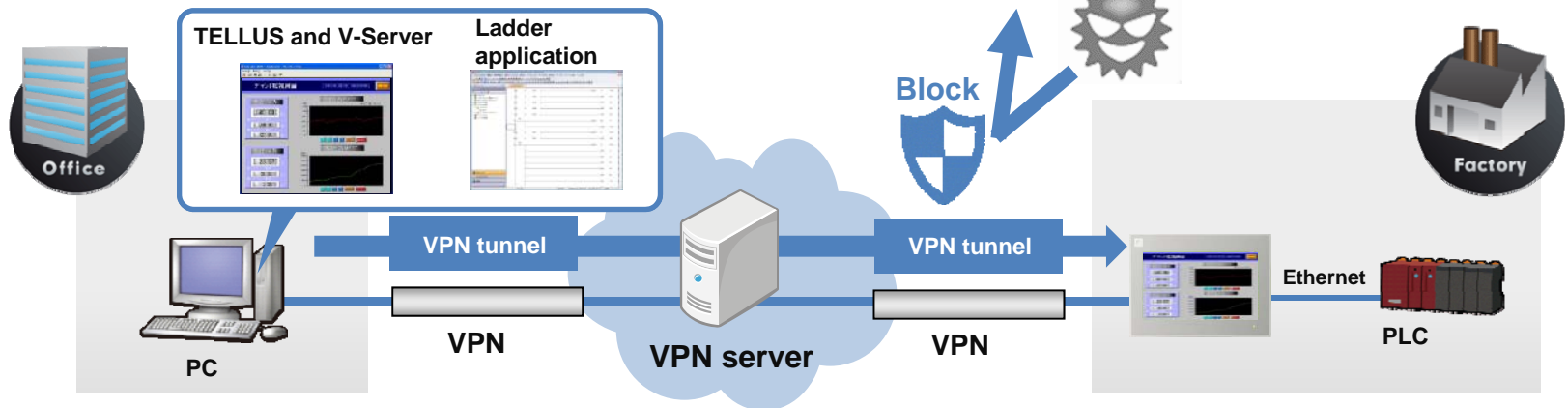
* Prices as of January 2014.
Please check the price before the purchase.

< Network function improved >

VPN is supported as the standard function.

“Easy” “Low-price” “Safe” monitoring is available.

- V9 Advanced
- V9 Standard
- V9 Lite

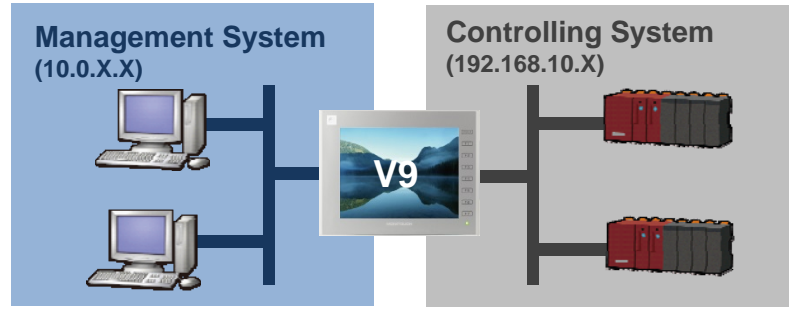
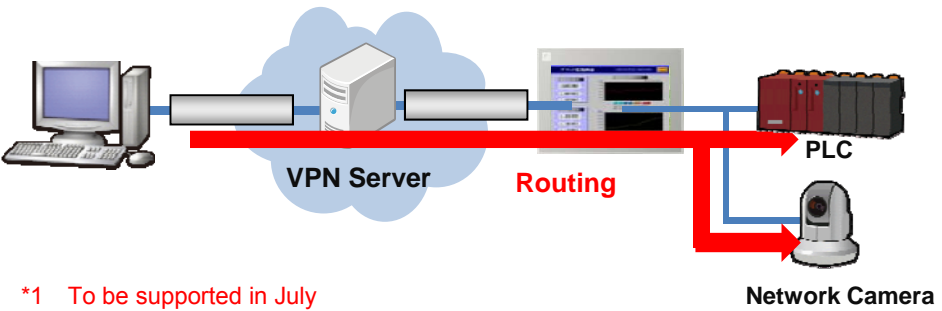


Router function supported *1,2

It is possible to monitor/control the devices which is connected to V9 series via Ethernet remotely with this function.

2CH LAN ports supported *3

It is possible to use V9 as the gateway of the different networks.



*1 To be supported in July

*2 It is available with V9 which supports the extended wired-LAN V9.

*3 The optional unit (under development) will be required except V9101iW.



Extended features Improvements

- V9 Advanced
- V9 Standard
- V9 Lite

< Trend Sampling >

Backup data display

It is possible to display backup files on the V9.



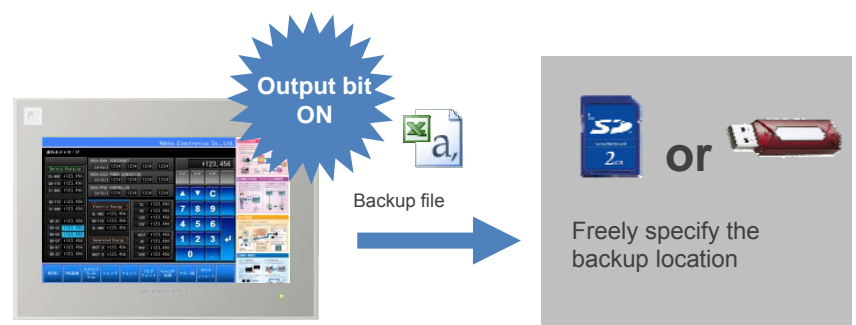
Link to "Scheduler"

You can run/stop sampling and save backup files at preset date (even everyday, week, or time).



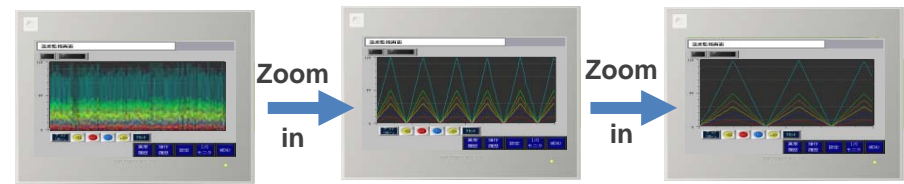
Backup file can be created

Just turning on the arbitrary bit once can create the backup files easily.



Zoom-in/out display

It is possible to zoom-in/out by timeline.



- **Scroll up/down the graph**
Trend graph in magnified view can be scrolled by touch & drag operation.



< Alarm Display >

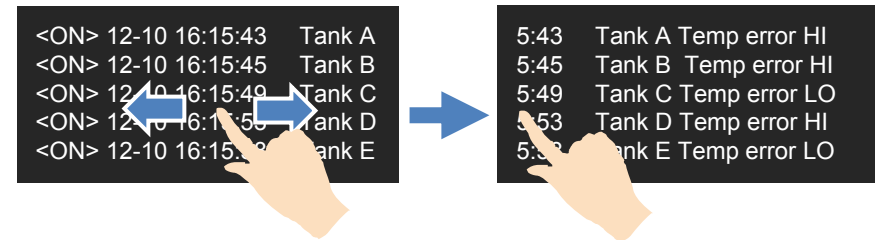
Backup data display

It is possible to display backup files on the V9.



Scrolling messages in horizontal direction

It is possible to display the messages that does not fit in the display area by touch & drag.



Display complete messages by scrolling entire display area.

Flowing message

Flowing message can be displayed at predefined position when alarms occur.

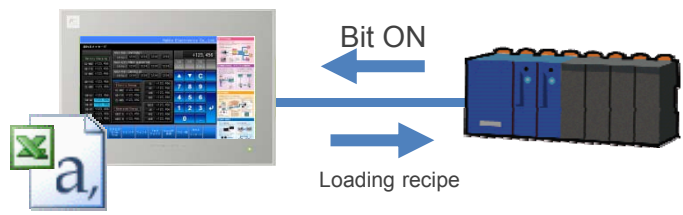


- V9 Advanced
- V9 Standard
- V9 Lite

< Recipe >

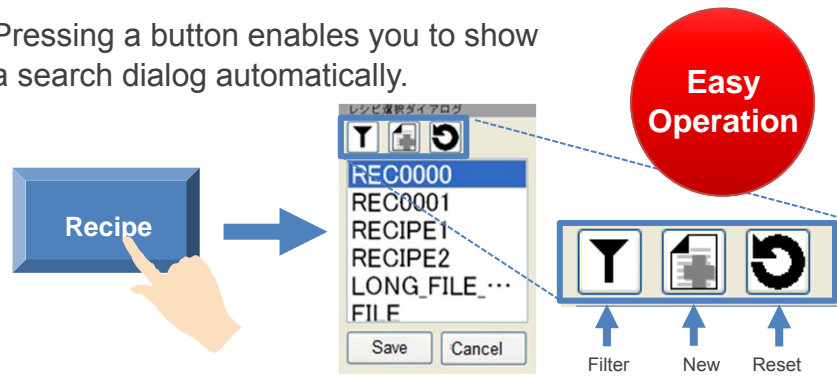
Global recipe

Read out/ write in of specified file or record can be done by setting a bit on any screen.



Search/filter function

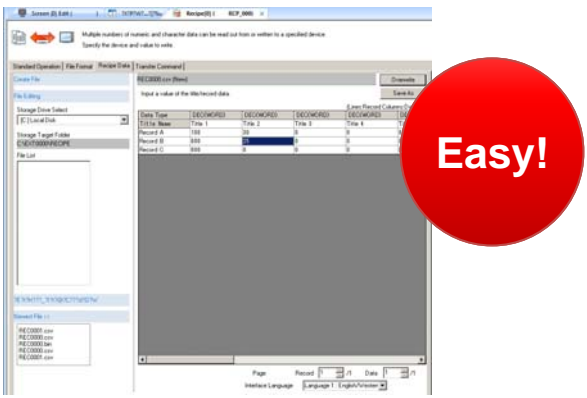
Pressing a button enables you to show a search dialog automatically.



*1 Image of the dialog may differ from the final specifications.

Recipe file edit on V-SFT

It is possible to edit a CSV/BIN file on V-SFT₂.



*2 Image of the dialog may differ from the final specifications.

- V9 Advanced
- V9 Standard
- V9 Lite

< Overlap >

Extended overlap number

Up to 10 overlaps can be displayed on a screen.

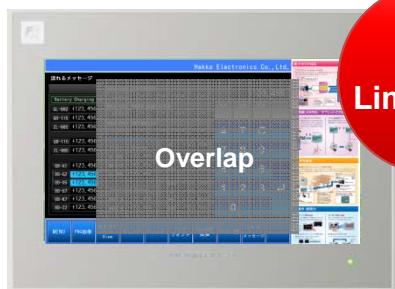
10
ovlps
at the
same time



Superimpose overlap without limitation

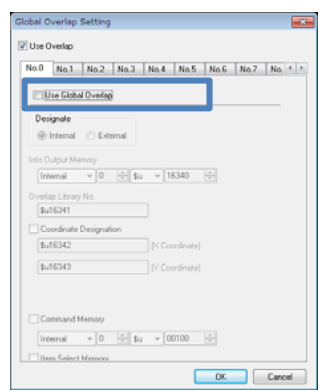
You can set 10 overlaps to "superimpose".

No
Limitation



Global overlap without limitation

All the ten overlaps can be assigned as global overlaps.



Check the ID which you wish to use as a global overlap.

Use of Overlap Example

Various screen representation can be achieved by using these extended overlaps.



Display message box

Common menu screen displayed as global overlap

Entry Key pad display

- V9 Advanced
- V9 Standard
- V9 Lite

< Operation log >

Renewed log viewer

New viewer will give you better operability and visibility.

Title line *1
Filter will be available by item.

File switch
Switches the log files to display.

Log display
Double click the line to call details.

Settings
Set various settings related to the viewer.

Better visibility

Search function

You can search the log by specifying operator or date/time.

Dialog

Search

Item: Date

String: []

back next Close

Viewer supported as standard

By simply placing a log viewer display button, you do not need to set display area for operation log screen.

Easy setting

Setting by item

You can determine when you use the operation log by item.

Save an operation log

*1 To be supported in fall 2014.

V9 Advanced

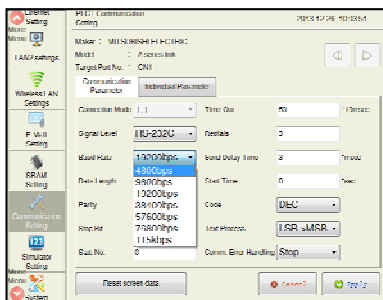
V9 Standard

V9 Lite

< Main Menu >

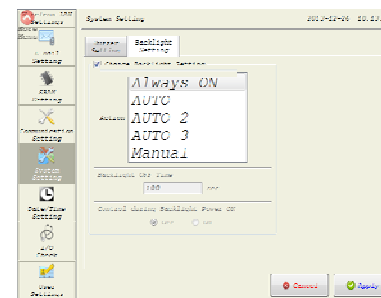
Changing comm parameters

You can change parameters on V9.



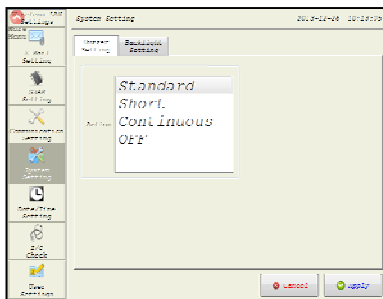
Changing backlight settings

Backlight settings can be changed on V9.



Changing buzzer settings

It is possible to change the buzzer settings on V9.



V9 Advanced

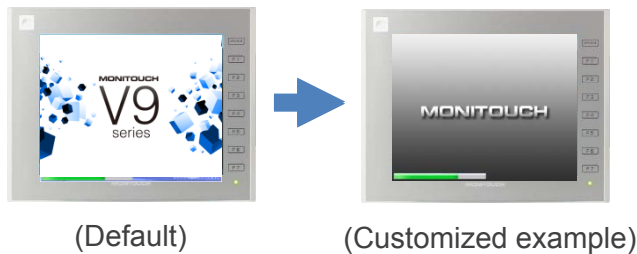
V9 Standard

V9 Lite

< Unit display function >

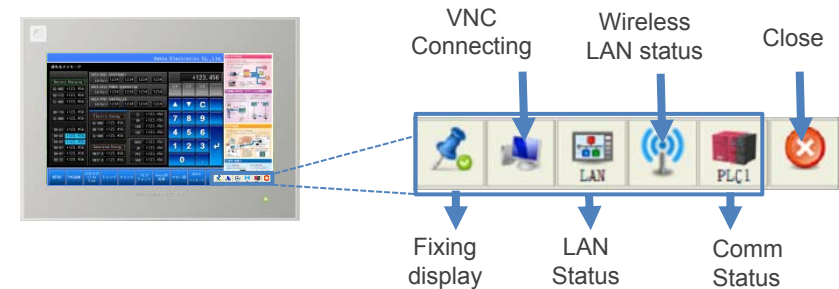
Splash screen setting

Splash screen which is displayed while booting can be customized.



Status display

Status of V9 is displayed in a status bar. *1



*1 Final specifications may differ from above images.

Improved comm error display

1) Improved error messages

Received error content is explained in sentence.

e.g.) **Error code received.**
Specified device no. is out of range.

2) Displaying icon to indicate comm error item

When "Comm. Error Setting" is set to "Disconnect", the item with comm. error shows an icon as below.

123.4



System keyboard

Alphanumeric keyboard with upper/lower cases is equipped as standard.



Simply select "system keyboard" when configuring numeric/character display.



Easy



Line-up

< Lineup >

	5.7"	7.0"	8.4"		10.1"	10.4"		12.1"	15.0"
	VGA(640x480)	WVGA(800x480)	VGA(640x480)	SVGA(800x600)	WSVGA(1024x600)	VGA(640x480)	SVGA(800x600)	SVGA(800x600)	XGA(1024x768)
Advanced		○ V9071iWRD V9071iWLD <i>Under development</i>			○ V9101iWRLD V9101iWLD <i>Under development</i>				
Standard				○ V9080iSD <i>To be released in May 2014</i>			○ V9100iS V9100iSD <i>To be released in May 2014</i>	○ V9120iS V9120iSD <i>Under development</i>	○ V9150iX V9150iXD <i>Under development</i>
Lite	○ V9060iTD <i>Under development</i>		○ V9080iCD <i>To be released in May 2014</i>			○ V9100iC V9100iCD <i>To be released in May 2014</i>			

< Lineup Details >

Advanced

Model	Display Size	Resolution	Touch Switch	Comm. network*1	Video RGB*1	Audio Output	Wireless LAN	Extended Wired LAN	Power Supply	Note
V9101iWRLD	10.1" wide	1024*600	Capacitance	O	O	O	O	O	DC	Under development
V9101iWLD	10.1" wide	1024*600	Capacitance	O	O	O	-	O	DC	Under development
V9071iWRD	7.0" wide	800*480	Capacitance	O	-	-	O	-	DC	Under development
V9071iWLD	7.0" wide	800*480	Capacitance	O	-	-	-	O	DC	Under development

Standard

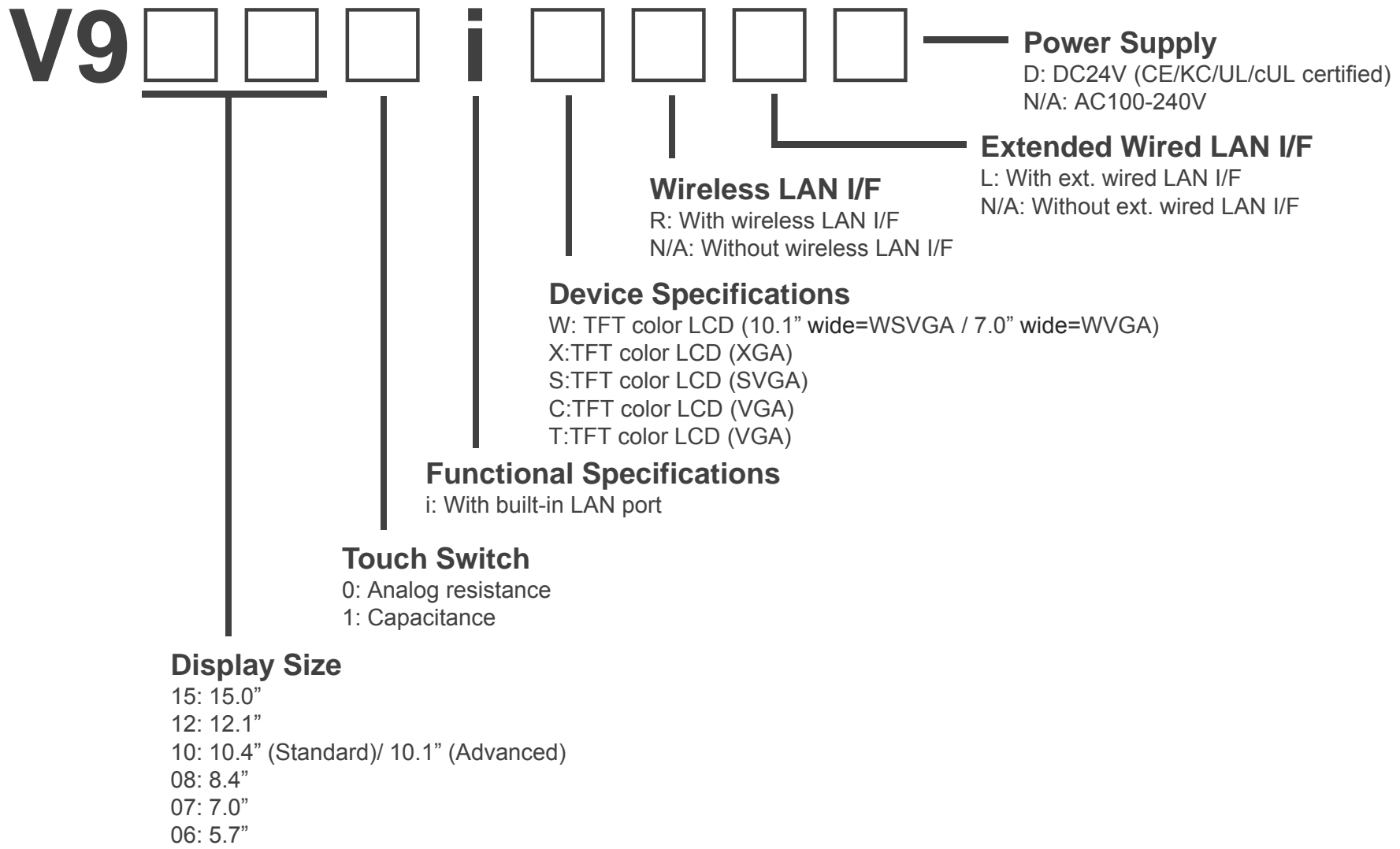
Model	Display Size	Resolution	Touch Switch	Comm. network*1	Video RGB*1	Audio Output	Wireless LAN	Extended Wired LAN	Power Supply	Note
V9150iX	15.0"	1024*768	Analog resistance	O	O	O	-	-	AC	Under development
V9150iXD	15.0"	1024*768	Analog resistance	O	O	O	-	-	DC	Under development
V9120iS	12.1"	800*600	Analog resistance	O	O	O	-	-	AC	Under development
V9120iSD	12.1"	800*600	Analog resistance	O	O	O	-	-	DC	Under development
V9100iS	10.4"	800*600	Analog resistance	O	O	O	-	-	AC	To be released in May 2014
V9100iSD	10.4"	800*600	Analog resistance	O	O	O	-	-	DC	To be released in May 2014
V9080iSD	8.4"	800*600	Analog resistance	O	O	O	-	-	DC	To be released in May 2014

Lite

Model	Display Size	Resolution	Touch Switch	Comm. network*1	Video RGB*1	Audio Output	Wireless LAN	Extended Wired LAN	Power Supply	Note
V9100iC	10.4"	640*480	Analog resistance	O	-	-	-	-	AC	To be released in May 2014
V9100iCD	10.4"	640*480	Analog resistance	O	-	-	-	-	DC	To be released in May 2014
V9080iCD	8.4"	640*480	Analog resistance	O	-	-	-	-	DC	To be released in May 2014
V9060iTD	5.7"	640*480	Analog resistance	O	-	-	-	-	DC	Under development

*1 Release data will differ by each product. Please ask your contact person for the details.

< Model >



< General Specifications >

		V9101iW	V9100iS / V9100iC	V9080iS / V9080iC
Power Supply	Rated voltage	DC24V	AC100~240V	DC24V
	Permissible range of voltage	±10%	-15%,+10%	±10%
Installation Resistance		DC500V 10MΩ or more		
Physical Environment	Ambient operating temperature	0 to 50 degree C *1		
	Ambient operating humidity	85% RH or less (without dew condensation, Max. wet bulb temperature: 39 degree C or less) *1		
	Operation altitude	2,000 meters or less		
	Operation atmosphere	Not exposed to corrosive gas or conductive dust		
	Ambient storage temperature	-10 to 60 degree C *1		
	Ambient storage humidity	85% RH or less (without dew condensation, Max. wet bulb temperature: 39 degree C or less) *1		
Contamination level		Level 2		
Mechanical Operating Conditions	Oscillation	JIS B 3502 (IEC61131-2) Vibration frequency: 10 to 150Hz, acceleration: 9.8m/s ² (1G), pulsating width: 0.075mm, X,Y,Z: 3 directions 1 hour each way		
	Shock	JIS B 3502 (IEC61131-2) Pulse shape: half-sine, peak acceleration: 147m/s ² (15G), X,Y,Z: 3 directions, 6 times each way		
Electric Operating Conditions	Noise proof	1000Vp-p, pulse width: 1μs, pulse rise time: 1ns	1500Vp-p, pulse width: 1μs, pulse rise time: 1ns	
	Static discharge	Complies with IEC61000-4-2, contact: 6kV, air: 8kV		
Installation Conditions	Grounding	D-class grounding (the third class grounding), FG/SG separation		
	Structure	Protect structure: front panel: NEMA #250 TYPE 4X (indoor)/13 *2,3, rear case: compatible with IP20, form: single unit, installation method: panel mounting		
	Cooling system	Natural air cooling		
	Dimensions WxHxD (mm)	278.5×198.5×53.2	303.8×231.0×54.0	235.0×180.0×48.9
	Panel cutout WxH (mm)	257.0×183.0(+0.5/-0)	289.0×216.2(+0.5/-0)	220.5×165.5(+0.5/-0)
Case color		Gray		
Material		PC		

*1 Please use in the environment of wet bulb temperature 39 degree C or less.

*2 Depending on the material of sheet steel enclosures, the strength will vary. Please confirm the operating environment before using the unit.

*3 To be available after official release.

< Performance Specifications >

		V9101iW	V9100iS	V9100iC	V9080iS	V9080iC
Screen memory (FROM)					64Mbyte	
Backup memory (SRAM)					800Kbyte	
Display specifications	Display device				TFT color	
	Resolution	1024×600	800×600	640×480	800×600	640×480
	Display size	10.1"	10.4"		8.4"	
	Colors	16 million colors *1				
	Backlight	LED				
	Backlight life	50,000 hours	70,000 hours			
Touch switch	Type	Capacitance		Analog resistance		
Function switch		N/A		8 switches		
External interface	D-Sub 9pin (x1)	RS-232C/RS-422/RS-485 Asynchronous type, Data length: 7, 8bit, Parity: even, odd, none, Stop bit: 1, 2bit, baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200, 187500 (*2) bps				
	Modular 8-pin (x2)	RS-232C/RS-422/RS-485(2-wire system) Asynchronous type, Data length: 7, 8bit, Parity: even, odd, none, Stop bit: 1, 2bit, Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115200bps				
	SD card	1 slot as standard equipment				
	Ethernet	2CH Baud rate: 100Mbps, 10Mbps	1CH Baud rate: 100Mbps, 10Mbps			
	Wireless LAN	2.4GHz bandwidth IEEE80.2 11/b/g/n	-			
	USB	Type A, Type mini-B(Ver.2.0)				
	Audio output	1CH as standard equipment		-		1CH as standard equipment
Clock	Backup period	5 years (ambient temperature 25 degree C)				
	Calendar accuracy	Gap ±90 sec. per month (ambient temperature 25 degree C)				
Applicable standards	CE marking	EN61000-6-2, EN61000-6-4				
	UL, cUL*3	UL508	UL508, ANSI/ISA12.12.01-2007 *4	UL508	UL508, ANSI/ISA12.12.01-2007 *4	UL508
	KC	Certified				
	Radio law *3	Japan: TELEC USA: FCC Europe: R&TTE Korea: KC	-			

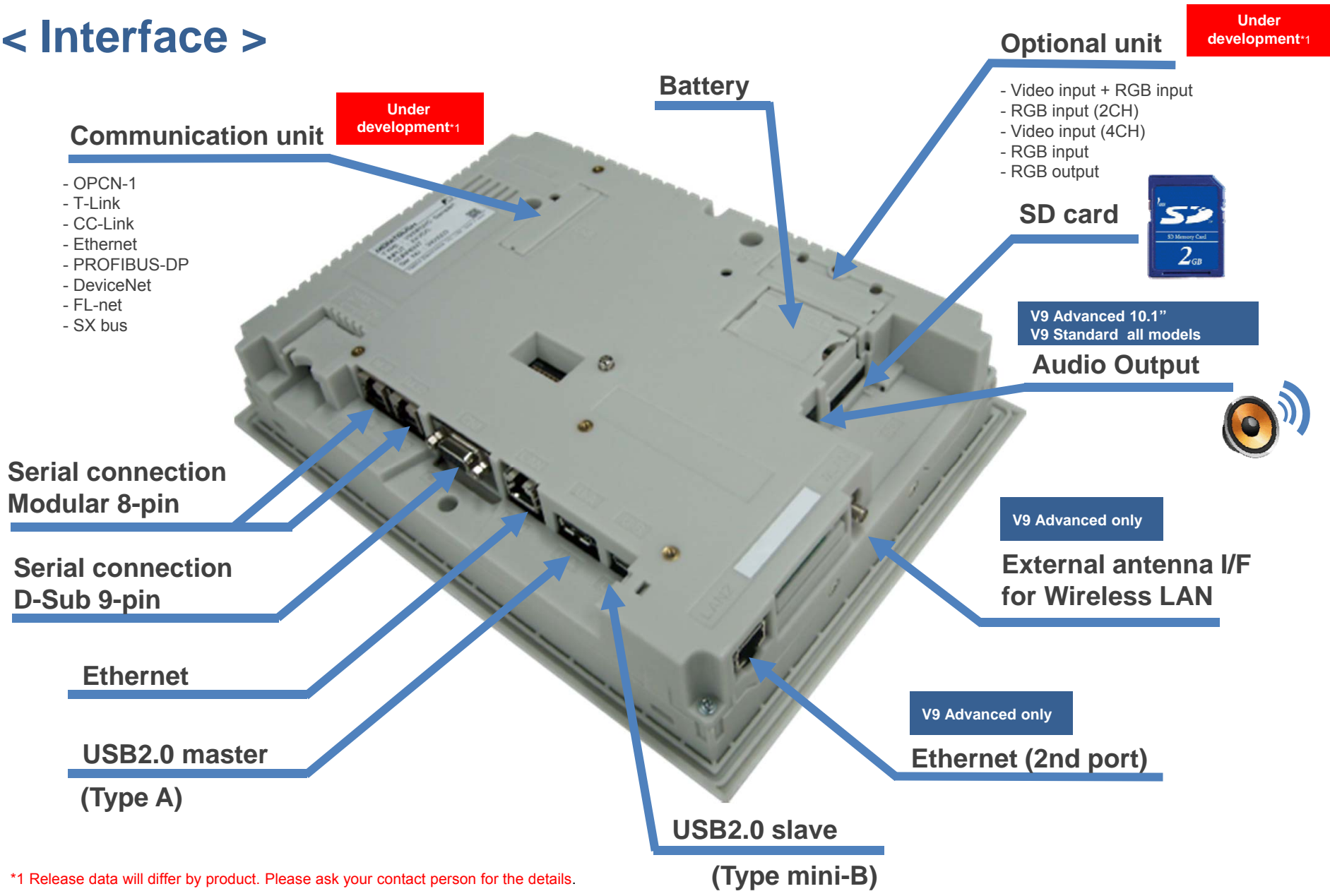
*1 Only for picture parts and video input.

*2 Available only when connecting Siemens PPI/MPI.

*3 DC product only.

*4 To be available after official release.

< Interface >



Communication unit

Under development*1

- OPCN-1
- T-Link
- CC-Link
- Ethernet
- PROFIBUS-DP
- DeviceNet
- FL-net
- SX bus

Battery

Optional unit

Under development*1

- Video input + RGB input
- RGB input (2CH)
- Video input (4CH)
- RGB input
- RGB output

SD card



V9 Advanced 10.1"
V9 Standard all models

Audio Output



V9 Advanced only

External antenna I/F for Wireless LAN

V9 Advanced only

Ethernet (2nd port)

Serial connection Modular 8-pin

Serial connection D-Sub 9-pin

Ethernet

USB2.0 master (Type A)

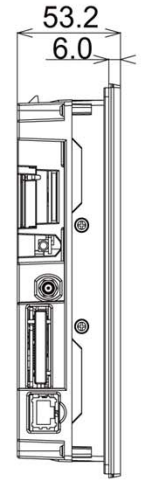
USB2.0 slave (Type mini-B)

*1 Release data will differ by product. Please ask your contact person for the details.

(Unit: mm)

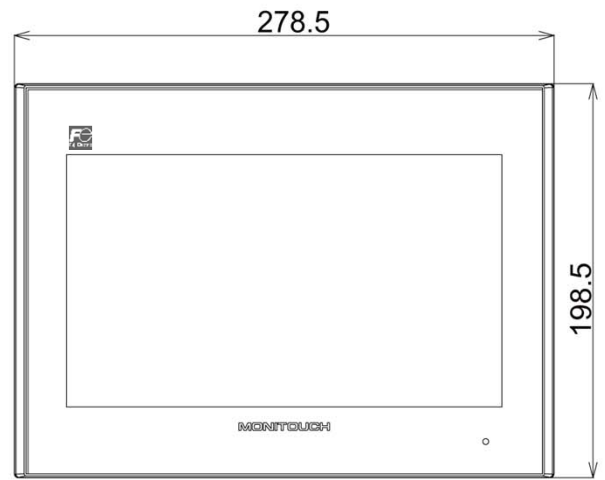
< Dimensions - V9101iW - >

Side view



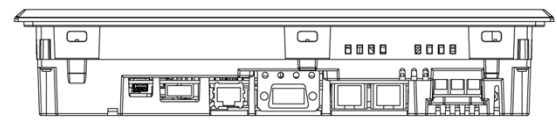
V810: 69mm
V808: 65.6mm

Front view

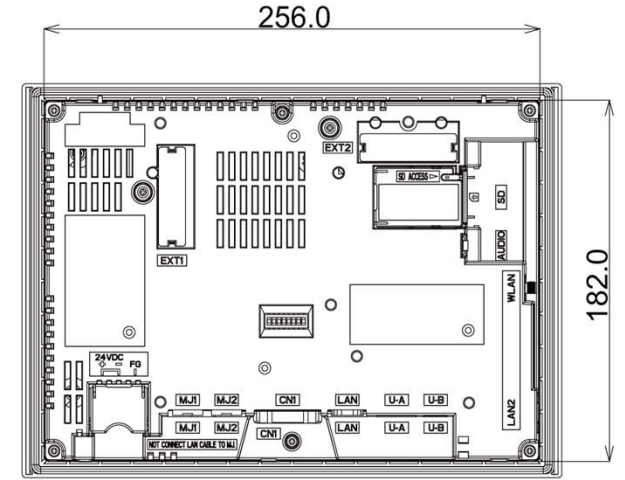


V810: 303.8×231mm
V808: 233×178mm

Bottom view



Rear view



Panel cutout

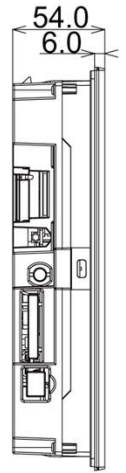
Panel cutout W x H
 $257^{+0.5}_{-0} \times 183^{+0.5}_{-0}$

No compatibility with V8

(Unit: mm)

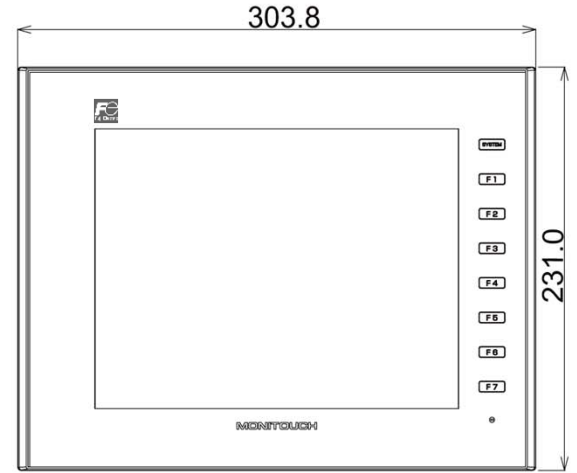
< Dimensions - V9100i - >

Side view



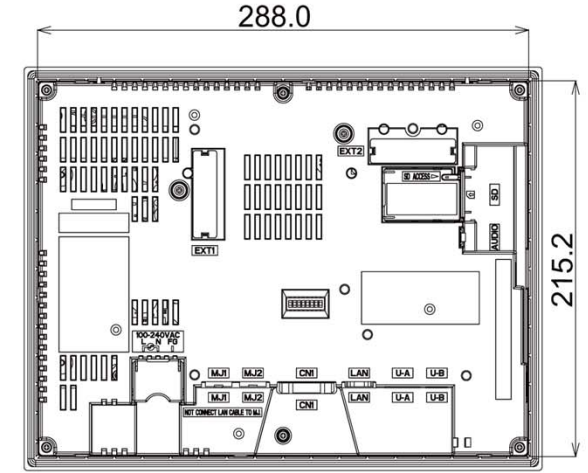
V810: 69mm

Front view

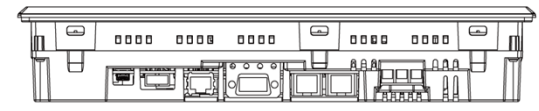


V810: 303.8×231mm

Rear view



Bottom view



Panel cutout

Panel cutout W x H

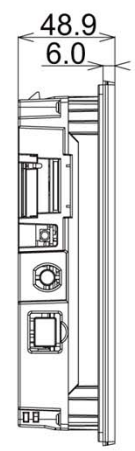
$289^{+0.5}_{-0} \times 216.2^{+0.5}_{-0}$

**Compatible with V8
(V810S/C)**

(Unit: mm)

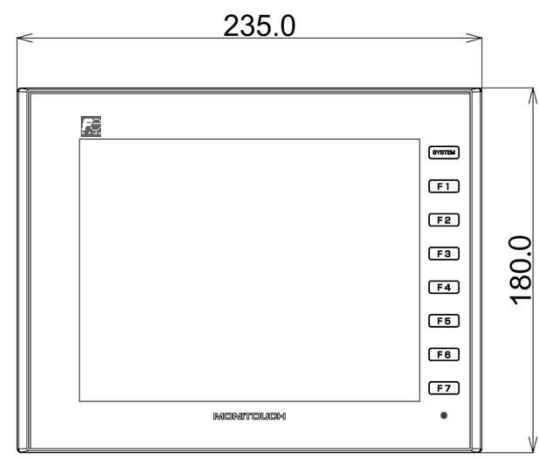
< Dimensions - V9080i - >

Side view



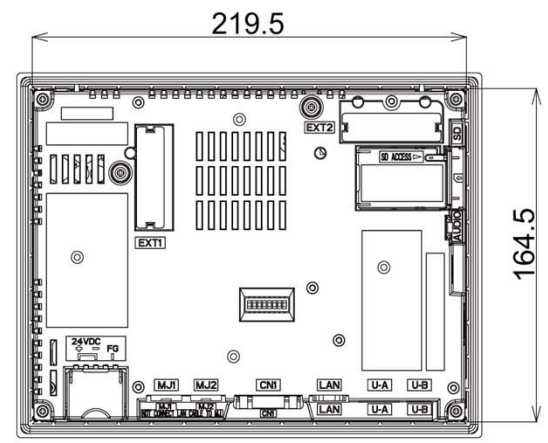
V808: 65.6mm

Front view

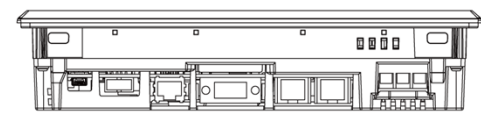


V808: 233×178mm

Rear view



Bottom view



Panel cutout

Panel cutout W x H
 $220.5^{+0.5}_{-0} \times 165.5^{+0.5}_{-0}$
Compatible with V8 (V808S/C)