

VICPAS Innovating Energy Technology

Programmable Operator Interface MONITOUCH

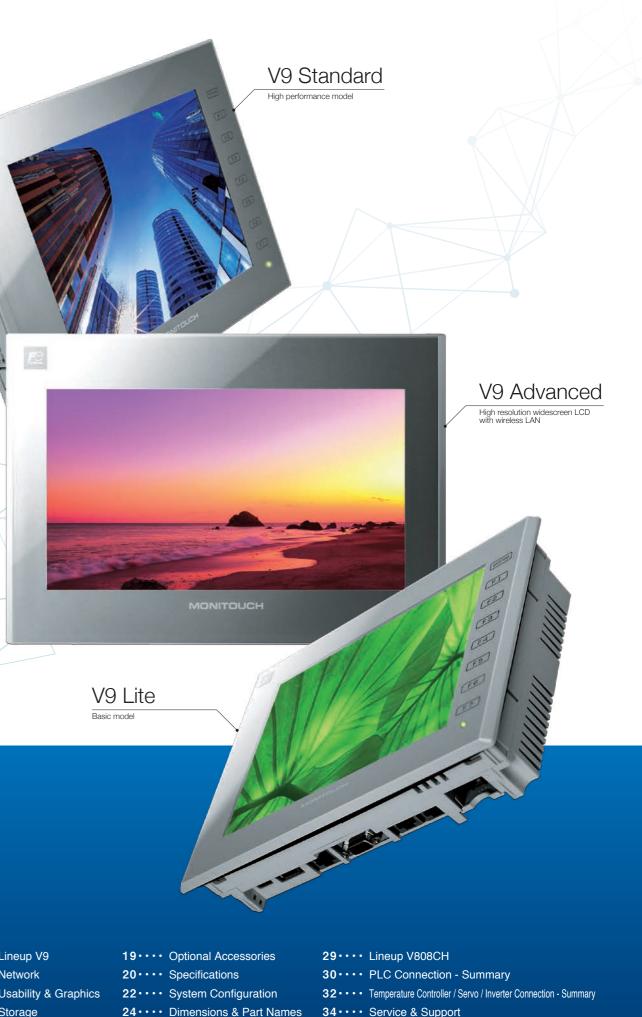


Satisfying, intuitive control Impressive ability to convey data. **Boosts efficiency in the field** through enhanced performance.

On its release in 1988 as the first ever programmable display*, MONITOUCH ushered in a new era of human-machine interface technology. It is now used as an information terminal for countless different purposes in production sites all over the world. The total number of shipments has reached around one million.

We have continuously pioneered the field of programmable displays through an impressive array of exciting new cutting-edge features specifically designed to meet the needs of our clients. MONITOUCH THE PREMIUM.

We are confident that this lineup will meet your requirements for all types of application. *According to our own research





MONITOUCH V9 series

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12	Storage
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16	V-SFT Ver.6

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Meeting customer needs with a product lineup suited to all kinds of applications.



Display Device	TFT color	TFT color	TFT color	TFT color
Resolution W:H (dots)	1024×600	800×480	1024×768	800×600
Display Colors	16.7 million ^{*1}	16.7 million *1	16.7 million "	16.7 million ^{*1}
Touch Switch	Capacitance	Capacitance	Analog resistance film	Analog resistance film
Screen Memory (FROM)	64MB	64MB	64MB	64MB
Backup Memory (SRAM)	800KB	800KB	800KB	800KB
Ethernet(LAN)	\checkmark	~	~	√
Extended Cable LAN	\checkmark	\checkmark	△*²	△*²
Wireless LAN	△*²	△*²	△*2	△*2
Serial (CN1)	RS-232C/422/485	RS-232C/422/485 *3	RS-232C/422/485	RS-232C/422/485
Serial (MJ1)	RS-232C/485	RS-232C/485	RS-232C/485	RS-232C/485
Serial (MJ2)	RS-232C/485	RS-232C/422/485	RS-232C/485	RS-232C/485
Communication I/F (CUR-XX)	~	~	~	\checkmark
Expansion Unit I/F (GUR-XX)	\checkmark	-	\checkmark	\checkmark
SD Card I/F	√	~	\checkmark	\checkmark
USB (Type A)	√	~	\checkmark	\checkmark
USB (Type mini-B)	\checkmark	~	~	√
Sound Output	~	-	~	\checkmark

Please refer to page 26 for the details of each model.

64MB

800KB

 \checkmark

△^{*2}

RS-232C/422/485

RS-232C/485

RS-232C/485

 \checkmark

64MB

800KB

✓ △^{*2}

 \triangle^{*2}

RS-232C/422/485

RS-232C/485

RS-232C/485

*1 For pictures, 3D parts, video and RGB input (excluding high-speed mode) only. Other items are displayed in 65,536 colors. *2 Depending on the model. *3 When optional unit DUR-00 is installed

6

80

RS-232

RS-2

RS-2

	• V9080iCD DC BLACK	
100iC	V9080iCD	V9060iTD
10.4"	8.4"	5.7"
T color	TFT color	TFT color
0×480	640×480	640×480
7 million ^{*1}	16.7 million ¹	260 thousand 1
esistance film	Analog resistance film	Analog resistance film
64MB	64MB	64MB
00KB	800KB	800KB
\checkmark	~	\checkmark
-	-	-
-	_	-
2C/422/485	RS-232C/422/485	RS-232C/422/485 *3
232C/485	RS-232C/485	RS-232C/485
232C/485	RS-232C/485	RS-232C/422/485
\checkmark	\checkmark	\checkmark
-	_	-
1	~	\checkmark
~	√	\checkmark
~	√	\checkmark
_	_	_

5.7 inches

• V9060iTD DC

8.4 inches

• V9080iCD DC



Tablet PC

Google Pla

VNC Server

Remote Connection from Tablet PCs

All of the V9 family has remote monitoring/maintenance capabilities via Ethernet, thanks to its VNC feature.



*1 Wireless LAN compatible products only

VNC App: Simple Remote

By installing Simple Remote on your Android device, you can get connected remotely right away. The app is available for free on Google Play.*2

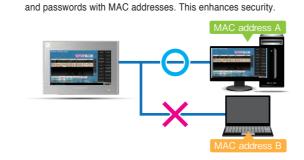


*2 Android, Google Play and the Google Play logo are trademarks of Google LLC.

DHCP Server*3 / DHCP Client

Easy Communication with DHCP

The information required for network connectivity can be acquired from a server as a DHCP client or can assign to a client as a DHCP server.



For PC client connection authentications, it is possible to prevent

connections from unspecified devices by supplementing usernames

Selecting Priority for VNC Connections When using a single MONITOUCH unit to remotely monitor and

connection, the client will not change suddenly.

Authentication by MAC Address for

VNC Connections

control more than one client device, you can choose the priority

First connection

Later connection

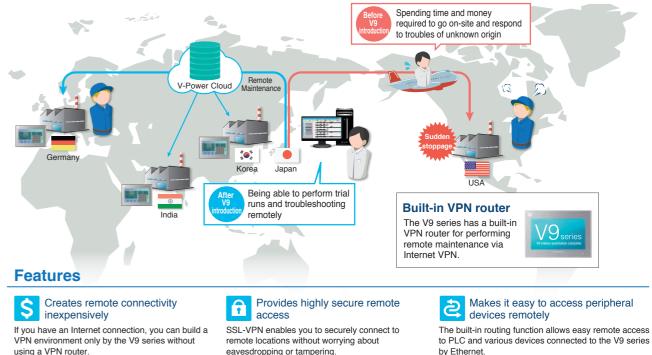
as either priority-first or priority-last. If you have a priority-first



Web Machine Interface

VPN Remote Access / Cloud Data Utilization Solution

The Web Machine Interface is a solution service that makes remote monitoring safe, easy, and inexpensive, It consists of two services: "VPN Remote Access Service" which enables secure remote monitoring by VPN and "Cloud Data Utilization Service" which can receive various types of data via a cloud server. By performing remote maintenance, it is possible to check for signs of abnormality in advance and ensure proper maintenance of the machine. It also helps to reduce the number of sudden stoppages and implements preventive maintenance.



Network Camera Compatible

Real-time Monitoring of Remote Site

By connecting to a network camera, it is possible to display camera images in real time on the V9 series screen. It is especially useful for monitoring and checking the inside of clean rooms.



Remote Desktop

Control the PC Screen from the V9 series

By connecting to Ethernet, you can display the screen of the PC directly on the V9 series. You can view work instructions and manuals located on PCs even at manufacturing sites that do not allow you to carry in PCs. It improves the efficiency of maintenance.



*3 The DHCP server is only available for wireless LAN-compatible products

to PLC and various devices connected to the V9 series by Ethernet

FTP Compatible

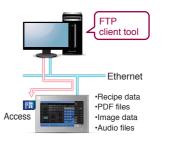
Easily Retrieve Files in Storage from Remote Locations

FTP Server Function

Files in a storage media inserted in a V9 can be read out and written using a PC.

FTP Client Function

Files on an FTP server can be read and written using the V9 series

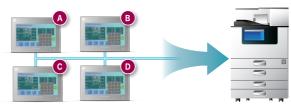




Network Printer Compatible^{*4}

Share Printers with Multiple V9 series

Printing jobs from multiple V9 series can be shared via a single network printer. Network printer connection supports both wired and wireless LAN, and that helps to achieve space and cable savings.

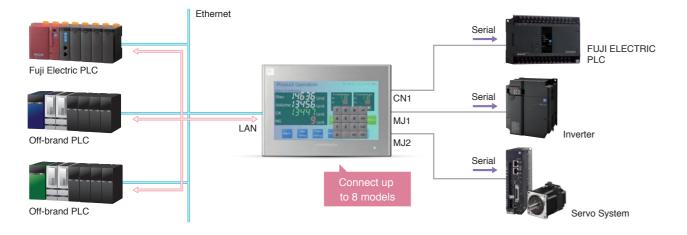


*4 Compatible only with EPSON ESC/P-R. Wireless LAN connection is possible for wireless LAN compatible products.

8-Way Communication

Connection and Data Transmission with Multiple Devices

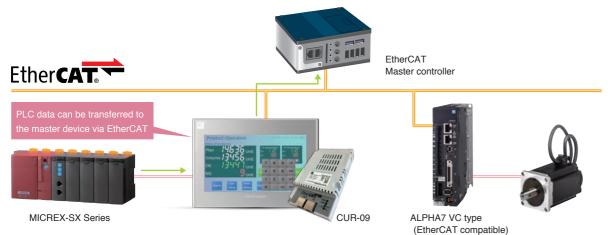
You can connect up to eight different models, off-brand PLC and other peripheral devices at the same time via both Ethernet and serial connection.



Supports EtherCAT^{*1} Connection

EtherCAT (Slave) Connection

The "CUR-09" communication unit for EtherCAT connection allows for general connection to EtherCAT compatible models. It can also serve as a gateway between devices connected to the V9 series and the EtherCAT master equipment.

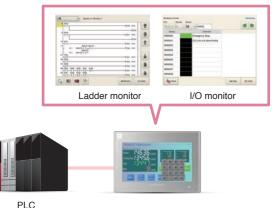


*1 EtherCAT® is a patented technology and registered trademark licensed by Beckhoff Automation GmbH (Germany).

Ladder Monitoring Function

Enable PLC Monitoring

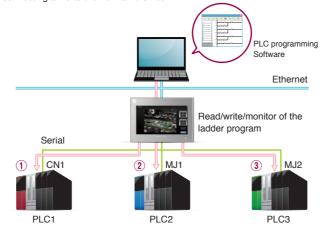
PLC ladder monitoring is available on the V9 series screen. It is possible to search for the target address freely or to switch programs during RUN mode in case there are multiple programs



Path-through Programming

Ladder Program Transmission (3-way)

Up to 3 PLCs are accessible to monitor and revise PLC programs by connecting a PC to the V9 via Ethernet.



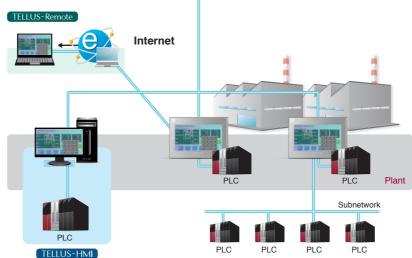
TELLUS and V-Server

Remote Monitoring and Operation Solutions

This application software connects remotely located V9 series to office computers in order to provide on-site information and to monitor and control equipments.

You can allocate jobs based on the operation conditions of the line, respond quickly to trouble, and achieve more efficient and cost-effective production.





MES^{*2} Interface Features

Operation Monitoring and Production Management Solutions

Various types of information such as aggregation of production results, number of defects and stoppage factors are sent to the database using SQL statements from the V9 series through the V-Server. Communication with the database can be accomplished without a gateway PC or cumbersome programming.

Programming not required

By simply specifying the data to be stored in the database on V-SFT, you can communicate with the database without the need for programming.

Prevents data loss

If transmission fails, it will produce an error log, so you do not have to worry about losing important data.

Reduces system load

When various conditions are fulfilled, data can be transmitted from the V9 series. It reduces the load on the system by eliminating the need for constant monitoring on the higher-level side.

*2 MES: Manufacturing Execution System

This "Manufacturing Execution System" has been designed to optimize quality, production volume, delivery time, and cost as a management and production control system for manufacturing sites.



V-Server

Real-time collection of on-site information

- ·Data can be collected in real time by capturing site status and production information.
- ·It can be linked with databases such as SQL Server. Or save data in CSV or Excel format.
- ·It supports operations suited to the site via various operation directives based on event monitoring.

TELLUS-Remote

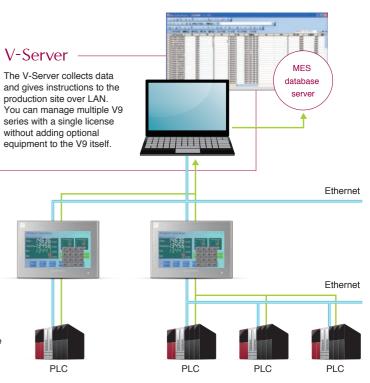
Easy, low-cost monitoring and operation from remote locations

- ·You can use the same screen data as the on-site V9 series, eliminating the need to create a new remote monitoring screen.
- •Multiple startups allow you to monitor and operate more than one V9 series via a single PC.

TELLUS-HMI

Use V9 series features directly on your PC

- ·Display and operation can be performed on your PC instead of on the V9 series.
- •It enables you to easily connect to peripheral devices such as printers. There is no need to worry about selecting peripheral devices.



Usability & Graphics

Render overwhelming beauty and outstanding visibility to the finest detail

Smooth Operation with Your Fingers

Zooming In and Out with Two Fingers

The displayed image can be magnified up to 200% by pinching out the screen¹. It can be reduced to its original size by pinching it in.





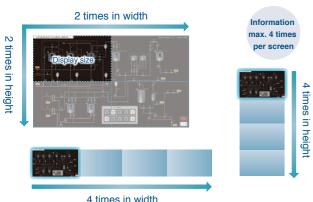
Pinch in

*1 Images can be scaled up and down by double tapping when using V9 Standard/Lite.

Abundant Quantity of Information

Displaying Four Times the Screen Size First in industry

The whole area of a large image can be confirmed easily by scrolling the screen without the need of switching it. The navigation window helps you to recognize the current displayed position instantly.



Widescreen LCD

Scrolling Magnified Images

)

V9 Advanced models are equipped with a high-precision, high-resolution widescreen (16:9). Greater volume and variety of information can be displayed on the screen.

You can view a particular

part of a magnified image

in close-up while scrolling

around the screen.



Expression and Beauty

7-segment Fonts for Realistic Expression



7-segment fonts allow for realistic, highly visible expression of measuring instruments. Non-illuminated segments can be shown in a subtle color.

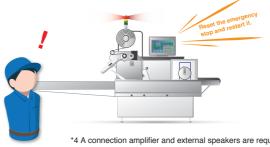
TrueType Font as Standard

TrueType font has been added to the standard fonts. Smoother display is possible via antialiasing. Furthermore, space can be reduced relative to Windows fonts, thus enabling you to work without worrying about screen data memory.



Audio Playback Function^{*}

It comes standard with an output port for audio playback that allows you to play audio files saved to storage without any optional units.



*4 A connection amplifier and external speakers are required. *5 V9101iW/V9 Standard only

Extended Datasheets

It also supports PDF output in addition to standard printer output. By converting various forms such as daily reports to PDF, the printer is no longer needed. It helps to achieve paper and space savings. PDF files saved on storage can be transferred to PC in office using FTP server/client functions, which allows you to check data without having to go to the production site.



Images can be laid out four times the screen size in height or width according to your needs. *2 According to our own research.

Compatible with Vertical Placement

The screen can also be displayed and edited while the panel is placed vertically (by left or right turning).



V9101iW



V9100iS





Video/RGB Input-Output

By attaching an optional unit, videos and RGB images can be displayed on the V9. Also, images displayed on the V9 can be sent to external displays.



*3 For displaying pictures, 3D parts, video, and RGB input (excluding high-speed mode) only. Other parts are displayed in 65,536 colors.

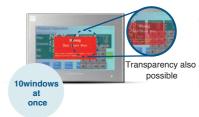
Dimmer Function

Fine-grained adjustment is possible via 128-step setting. Even at night or in dark places, the screen is easy to see and not too dazzling, thus enabling smooth operation.



Overlap Function

Up to 10 pop-up windows can be displayed on the screen at the same time. All of them can be displayed transparently without limiting the overlap size of each window. You can also use overlap screens as subscreens or check them by scrolling without switching to the main screen.





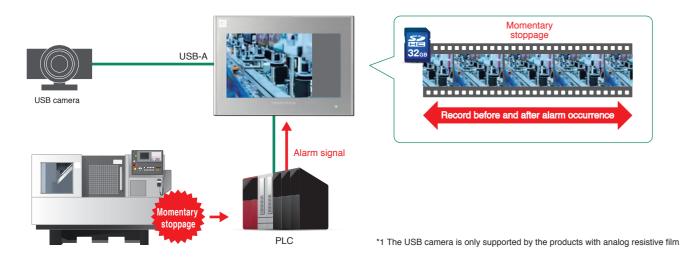
Easily check different screens by scrolling



Compatible with Event Record Functions

Instantaneous Video Recording and Playback

By using a commercially available USB camera⁻¹, you can record video before and after alarm occurrences, such as those due to momentary stoppages, and save it in an SD card to support cause investigation and improve the operating efficiency of equipment.



Equipped with Video Player

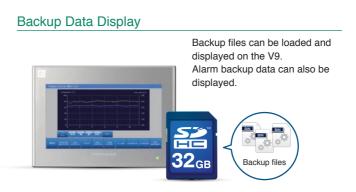
Play Video Data Saved to Storage

By playing videos used for troubleshooting at time of abnormalities, operators can easily learn how to react to the issues quickly. In addition to viewer initiated playback from the system menu, video can also be played via switch and PLC controller commande. It supports MP4 (MPEC 4)

played via switch and PLC controller commands. It supports MP4 (MPEG-4) video files to ensure high compression and high quality.



Trend Data Display



Easy Creation of Backup Files

By using the scheduler, backup files are automatically created at scheduled timings.



Alarm Display

Scrolling of the Alarm Messages



The entire alarm message can be displayed by scrolling the screen with touch and drag.

Scrolling the alarm messages

Recipe

Global Control Function

It is possible to read and write to specified files and record data, regardless of the screen displayed, by turning on or off a bit.



Filter Settings

The required data can be easily extracted using the recipe selection list dialog to narrow down file and record searches.

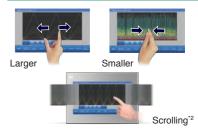


Coordination with the Scheduler

Operations such as bit output and execution of macro programs can be scheduled on a specific date and time. Also, start and stop of logging, and data saving can be conducted by setting the logging conditions.



Zoom In and Out of Graphs



You can zoom in and out on the vertical and horizontal axes of trend graphs. You can also scroll² by touching and dragging zoomed-in graphs.

*2 Supports only horizontal scrolling.

Running Emergency Messages



Alarm messages run automatically at a specified position when alarms are occured.

Convenient tools for scrolling







PDF Viewer Function

PDF Viewer Function

PDF files stored on an SD card can be displayed. PDF instruction manuals can be used for troubleshooting.



Fast navigation to the desired page, using bookmarks.



Security

Various setting functions for improving usability



Operation Log

Improved Operation Log Viewer



Search Function

Operation log can be searched for by specifying an operator or date and time.



Filter and sort can be set for displayed items.

Filter/Sort Settings

-106

Display Item Settings

It is possible to select items to display in the operation log.



Security Features

Security Level Setting

A security level between 0 and 15 can be set for each screen. You can create a high-level security environment by restricting features based on security level.

Switch Interlock

A security level can also be set for a switch. Only users who log in at the authorized level will be able to operate the switch.







Local Screen Settings

Transmission Setting

Transmission settings with connected devices can be modified on the V9.



Communication Setting

Buzzer Setting

Buzzers settings can be modified on the V9.



Buzzer Setting

E-mail Setting

E-mail addresses and SMTP IP addresses can be modified.



E-mail Setting



Backlight Setting

Backlight settings can be modified on the V9.



Backlight Setting

Network Query

Ethernet network status and IP redundancy within the network can be verified.



Network Test

RGB Adjustment

It displays the frequency of the connected device as a real value. Frequencies that cannot be displayed on the screen are displayed in red, so you can check the availability of a connection at a glance.

E-Mail Setting	IO Check			2018-03-14	15.55.3
SRAM	Touch switches and media	Network Test	Duplcate IP Test	RGB Adjustment	SY1
Setting	Setting 1 H	orizontal : 0.000	AHI		
St. Comm	Not Used V	ertical : 0.000	Hz		F1
Sating	Adjustment	Clear Sa			
System	Setting 2 H	orizontal : 48.360	NHE		
57	Used v	ertical : 60.000	Hz		Đ
Date/Time Setting	Adjustment	Clear Sa			194
Storage			100		1000
Transfer					10
000					n
User Settings					E

RGB Adjustment

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

Backward Compatibility with Previous Models

V8 series Compatibility

series

V-SFT Ver. 6 provides intuitive operation, with easy-to-use visual tools and refined displays. In addition to the V9 series, V-SFT Ver. 6 is also compatible with the V8

a x Switch . PC OFF Hakko Electronics Co., Lt GL-002 +123 456 UREA-AZ23 POWER GENERATION LA-Coil 1234 1234 1234 1234 08-115 +123 456 System Setting Select Option Font Setting Hardware Setting Thermet Communication Atarm Server AREA-PP01 CONTROLLER LA-Coil 1234 1234 1234 1234 71-005 +123 456 C DW 08-115 #123.456 д. +123,456 ZL-005 +123 456 GL-002 +123 456 BB-A1 +123,456 08-115 +123,456 Ē c Locking Serve 88-62 +123,456 ZL-005 +123,456 Recipe Recipe Scheduler Add/Deleta A 88-U5 Generated Energy 3 456 88-K7 H123 456 UNIT A #123/456 Select. Key,Bla,BLpns BB-Z2 +123,456 UNIT 8 +123, 456 Registration Ren Select Option Apply to All Patterno. -F Other Settings) lacre Block DA INN GI Add/Delet (800, 40) (5, 20) (0,520)-(000, 00) (0,525) (0,525) (0,525) (0,525) (0,525) (0,525) (0,526)-(0,70,71) (0,525) (0,526)-(0,70,71) (0,526)-(0,526)-(0,70,71) (0,526)-(oous Line Other Settings -Finish Cancel V-SFT Ver.6

Computer	PC/AT compatible computer running Windows
OS*	Windows XP/XP 64Edition/Windows Vista (32bit, 64bit)/ Windows 7 (32bit, 64bit)/Windows 8 (32bit, 64bit)/ Windows 8.1(32bit, 64bit)/Windows 10 (32bit, 64bit)
CPU	Pentium 4 2.0GHz or higher is recommended
Memory	1.0GB or higher (2.0GB or higher is recommended)
Hard disk	When installed: 4.0GB or higher

Disc drive	DVD-ROM drive
Display	1024 × 768 (XGA) resolution or higher
Display colors	High color (16 bits) or higher
Others	Microsoft .NET Framework 4.0 or 4.5 (Microsoft .NET Framework 4.0 is installed automatically on computers that do not have either Microsoft .NET Framework 4.0 or 4.5 installed.)

Configuration of Easy-to-view Screens

Wider Range of Parts

The number of real world icons has been increased, and the icons with simple design have been added. Pick from the wide range of ready-made icons for sophisticated representation.

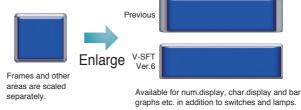


3D parts can be scaled up and down without changing the widths of

frames. Frame size can be modified by batch, or individually according to

the item type.

Improved 3D Parts Scaling Function



* For the V9 series square picture icons and 3D parts with frames (excluding some icons and parts)

Copy/Paste of Microsoft Office Data

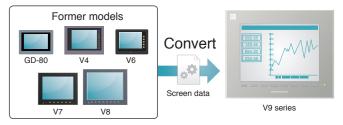
Graphics created in Microsoft Office Word, Excel and PowerPoint can be copied and pasted into V-SFT files by converting them to pictures, patterns or parts.



*Administrator privileges are required for installation

Compatible with Program from Legacy Products

Screen data from previous models created in an older version of V-SFT can be converted as is to data for the current model. This allows anyone to leverage their screen data assets from previous models.



Simple Icons

A wide range of modern icon designs reminiscent of smartphones have been added



Line Width Setting

Real World Icons

V-SFT adds more real world icons.



The line widths of graphic items and trend items (graph lines, reference lines) can now be set in eight steps. Effective screens can be created using a variety of drawing tools and graph representations.



* Excluding thick lines

Pasting of an Image File

It is possible to paste a PNG file directly onto the screen. JPG, BMP and GIF formats are also supported as image files, allowing you to create whatever visually impressive screen you choose.

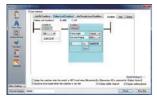
Upgraded Operability

Integration of Search Menu



The search menu, which used to be displayed separately, has now been integrated for easy operation.

Enhanced Interlock Setting

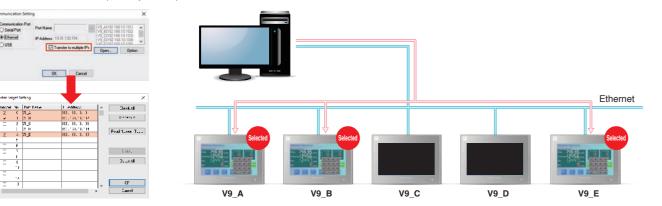


Interlock can be set with a ladder drawing screen. The condition settings are easy to understand and convenient even when setting multiple conditions. It is possible to set interlocking for keypad indication conditions in addition to s witch conditions. Up to five conditions (AND or OR) for a bit device, word device or security level can be set, which is suitable for setting complicated conditions.

Data Batch Transfer Function

Screen Data Batch Transfer (Ethernet)

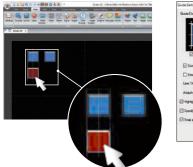
Screen data can be transferred sequentially to multiple V9 series selected from the network.

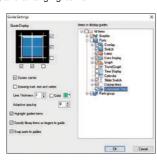


V-SFT Ver.6 New Functionality

Guideline Function

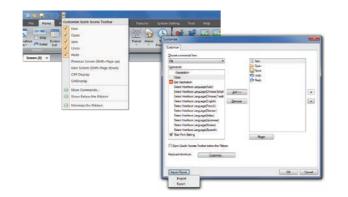
After arranging the items, this function displays guidelines by detecting surrounding items as you move and scale them. It enables user customization, such as whether to show or hide guidelines on an item-by-item basis, in order to increase your efficiency when aligning and arranging items.



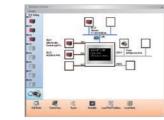


Quick Access Toolbar

Quick Access toolbar is displayed at the top of the toolbar. The display icons can be freely customized by the user, as well as exported and imported. Therefore, they can be edited in the same environment even when switching or replacing computers.



Intuitively Grasp the Connection Device Configuration



The improved hardware setting screen makes it easy to grasp exactly how devices are connected together in the system

Character String Table



Text for switches, lamps and other parts can be managed centrally using the character string table. Frequently used text can be registered in the table for easy reference and batch modification. When a change occurs, you can make bulk changes simply by changing the string table.

* Switches, lamps, text and multi text only.

Optional Accessories

Expansion Units

GUR-00 (Video input 4ch) Displays images from video cameras on V9 directly.

GUR-01 (RGB input 1ch) Displays RGB input on V9.

GUR-02 (RGB output 1ch) Displays images of V9 on a monitor.

GUR-04 (Video input 1ch) Displays images from video cameras on V9 directly.

GUR-10 (Video input 2ch + RGB input 1ch) Displays images from video camera and RGB input on V9 simultaneously.

GUR-11 (RGB input 2ch) Displays RGB images such as PC images through two channels on V9 simultaneously.

Communication Units

CUR-00 OPCN-1	CUR-06 SX Bus
CUR-01 T-Link	CUR-07 DeviceNet
CUR-02 CC-Link	CUR-08 FL-net
CUR-03 Ethernet	CUR-09 EtherCAT

CUR-04 PROFIBUS-DP

Other Accessories



V-I/O (Serial expansion I/O unit) This is an expansion I/O unit that connects to the MONITOUCH modular jack. Maximum 16 points can be used for both input and output.



V9-BT A replacement lithium battery for V9 series. * Excluding the V907xiW and V9060iTD.



V9xxx-GS/V9xxx-GSN10 Protection sheets for panels. N10 is a non-glare type sheet. (5 sheets per set). See P.27 for details.



Panel adapter (PAD-Vxxx) Used when fitting V9 into V4/GD-80/GD-65/GD-64 panel cutout Contact our technical helpdesk for details.

V9080C-PW



This is an AC to DC power converter for the V9080iCD. It can be used to replace existing GD-80E and V609E30M AC power supply models with the V9080iCD without having to change to a DC power supply.

Configuration Software

V-SFT Ver.6

Windows XP/XP 64Edition/Windows Vista (32bit, 64bit)/ Windows 7 (32bit, 64bit)/Windows 8 (32bit, 64bit)/ Windows 8.1 (32bit, 64bit)/Windows 10 (32bit, 64bit)

Editable Models

V9/TS2000/V8/TELLUS Ver.4/TELLUS Ver.3

Cables

Model	Configuration	Configuration
V-CP	RS-232C Modular 8pin D-Sub9pin(鬥) ▶ ₩ Length: 3m	PC
V6-BCD	RS-232C Modular 8pin P ELIDE Length: 3m	Barcode reader
V6-MLT	RS-485 Modular 8pin	MONITOUCH V9/V8/V7/V6 /TS2000
V6-TMP	RS-232C/485 Modular 8pin	Temperature controller, Inverter, etc.
UA-FR	Type A	Card reader/writer, USB memory, etc.

DUR-00 (Dedicated optional unit for V907xiW, V9060iTD, TS2060i)

Used for serial connection with D-Sub9pin.



TC-D9 (Terminal converter) Connects V9 with other units via RS-422/485 terminal.



V7-BT A replacement lithium battery for the V907xiW, V9060iTD and V8 series.



D9-D25 Replacement cable for CN1 cable of V6/V7 series. Length: 0.3m

V9-ANT Antenna for V9 models compatible with wireless LAN. Length: 3m

High-end specifications realize smooth and accurate operation.

	V9 Advanced		vanced	V9 Standard				
	Item	V9101iW	V9071iW	V9150iX	V9150iXD	V9120iS/V9120iSB	V9120iSD/V9120iSBD	
	Rated Voltage	DC2	24V	AC100~240V	DC24V	AC100~240V	DC24V	
	Permissible Range of Voltage	±1(0%	-15%,+10%	±10%	-15%,+10%	±10%	
Power Supply	Permissible Momentary Power Failure	Withir	n 1ms	Within 20ms (100VAC or higher)	Within 1ms	Within 20ms (100VAC or higher)	Within 1ms	
	Power Consumption (Max. Rating)	27W or less	22W or less	90VA or less	40W or less	70VA or less	28W or less	
	Rush Current	17A or less, 6ms	10A or less, 6ms	30A or less, 3ms	19A or less, 7ms	30A or less, 3ms	18A or less, 5ms	
Insulation Resistance				DC500V 10	VΩ or more			
	Ambient Temperature	0~50°C ^{*1} 0~40°C ^{*1}				0~50	0~50°C *1	
	Ambient Humidity	85%RH or less (without dew condensation) ^{*1}						
	Operating Altitude	2,000m or less						
Physical	Operating Atmosphere	No exposure to corrosive gas or conductive dust						
Environment	Storage Temperature	-10~6	0°C *1	-10~50°C *1		-10~60°C *1		
	Storage Humidity	85%RH or less (without dew condensation) *1						
	Pollution Degree	Pollution degree 2						
Mechanical Operating	Resistance to Oscillation	JIS B 3502 (IEC61131-2) compliant, Vibration frequency 5 to 9Hz, Half amplitude: 3.5mm, 9 to 150Hz, Constant acceleration: 9.8m/s ² (1G), X, Y, Z 3 directions 10 times each						
Conditions	Resistance to Shock	JIS B 3502 (IEC61131-2) compliant, Peak acceleration: 147m/s ² (15G), X, Y,Z 3 directions, 3 times each (18 times in total)						
Electric Operating	Resistance to Noise	Noise voltag pulse wi pulse rise	dth:1µs,	Noise voltage: 1,500Vp-p, pulse width: 1µs, pulse rise time: 1ns	Noise voltage:1,000Vp-p, pulse width:1µs, pulse rise time : 1ns		e: 1,500Vp-p, dth: 1μs, time: 1ns	
Conditions	Resistance to Static Discharge			Complies with IEC61000-4	C61000-4-2, contact: 6kV, air: 8kV			
	Grounding	Grounding resistance: Less than 100Ω, FG/SG separation Grounding resistance: Less than 100Ω, FG=SG Grounding resistance: Less than 100Ω, FG/SG					han 100Ω, FG/SG separatio	
	Structure	Protection structure: Fro	nt case: IP66, Type 4X/13	^{*2*3} (when water-proof gask	et is used), Rear case: IP	20, single unit, installation	method: panel mounting	
Installation	Cooling System			Natural ai	Natural air cooling			
Conditions	Dimensions W*H*D (mm)	278.5 × 198.5 × 54.4	201.6 × 147.6 × 60.3	382.8 × 31	2.8 × 80.8	327.8 × 26	01.0 × 54.9	
	Panel Cutout (mm)	257.0 × 183.0 (+0.5/-0) mm	187.2 × 133.4 (+0.5/-0) mm	369.4 × 299.4	(+0.5/-0) mm	313.0 × 246.2	(+0.5/-0) mm	
	Weight	Approx. 1.7 kg	Approx. 1.0kg	Approx	. 4.7kg	Approx	. 2.5kg	
Case Color		Light	gray	Front case: Silver, R	ear case: Light gray	Light gray (black front housing for black mode		
Material		PC r	esin	Front case: Aluminum	, Rear case: PC resin	PC r	esin	

Performance Specifications

	Item	V9 Adv	vanced	V9 Standard	
	nem	V9101iW	V9071iW	V9150iX	V9120iS
Screen Memory (F	ROM)			64MB	
Backup Memory (SRAM)			800KB	
	Display Device			TFT color	
	Resolution W:H (dots)	1024×600	800×480	1024×768	800×600
Display	Display Size	10.1" widescreen	7" widescreen	15 Inch	12.1 inches
Jispiay	Display Colors			16.7 million *4	
	Backlight	LED			
	Backlight Life	50,000 hours		100,000 hours	70,000 hours
Fouch Switch	Туре	Capac	itance	Analog re	sistance film
Function Switch	Quantity	-	-		8
	D-Sub 9-pin (CN1) ^{*5}		Asynchronous Baud rate: 44	RS-232C/RS-422/RS-485 s, Data length: 7, 8 bits Parity: Even, odd, none Si 800, 9600, 19200, 38400. 57600, 76800, 115200, 1	top bit: 1, 2 bits 187500 ^{*6} bps
	Modular 8-pin (MJ1/MJ2)	RS-232C/RS-422/RS-485 (2-wire type) ^{'7} Asynchronous, Data length: 7, 8 bits Parity: Even, odd, none Stop bit: 1, 2 bits Baud rate: 4800, 9600, 19200, 38400, 57600, 76800, 115,200 bps			
External Interface	SD Card	One card slot provided as standard			
	Ethernet	2ch, Baud rate: 1	d rate: 100Mbps, 10Mbps 1ch, Baud rate : 100Mbps, 10Mbps		
	Wireless LAN		Complies with IEEE802.11b/g/n (2.4GHz) *8		
	USB			Type A,Type mini-B (Ver.2.0)	
	Sound Output	1ch provided as standard	-	1ch provide	ed as standard
	Backup Period			5 years (Ambient temperature 25°C)	
Clock	Calendar Accuracy		Gap ±90 sec. pe	r month (Ambient temperature 25°C, When the bat	ttery is backed up)
	CE Marking ⁺²	EN61000-6-2, EN6	1000-6-4, EN50581	EN61000-6-2, EN6	1000-6-4, EN50581 ^{*9}
	UL·cUL *2		UL61010 -1/UL610)10-2-201(E313548) ^{*10}	UL61010 -1/UL61010-2-201(E313548) ^{*10} , ANSI/ISA12.12.01 ^{*11}
Standard	кс	Comp	atible	Compatible "9 "12	
	Radio Act ^{'8}	UŚA: FCC	Japan: TELEC Europe: RE USA: FCC South Korea: KC Japa Canada: IC RSS		: TELEC
	Classification Standard *2 *12		-	Nippon Kaiji Kyokai (NK) Am Lloyd's Register of Shipping (LR) Dei	erican Bureau of Shipping (ABS) *9 t Norske Veritas (DNV) *13

V9100iS/V9100iSB	V9100iSD/V9100iSBD	V9080iSD/V9080iSBD	V9100iC/V9100iCB	
AC100~240V	DC24V	DC24V	AC100~240V	
-15%,+10%	±10%	±10%	-15%,+10%	
Within 20ms (100VAC or higher)	Withir	Within 20ms (100VAC or higher)		
70VA or less	28W 0	50VA or less		
30A or less, 3ms	17A or less, 6ms		30A or less, 3ms	
			DC500V 10MQ or more	
			0~50°C *1	
		85%RH o	r less (without dew conder	ns
			2,000m or less	
		No exposur	e to corrosive gas or cond	lu
			-10~60°C *1	
		85%RH o	r less (without dew conder	ns
			Pollution degree 2	
JIS B 3502 (IEC61131	-2) compliant, Vibration fr	equency 5 to 9Hz, Half an	plitude: 3.5mm, 9 to 150H	lz
	JIS B 3502 (IEC61131	-2) compliant, Peak accel	eration: 147m/s² (15G), X,	Y,
		Noise voltage: 1,50	0Vp-p, pulse width: 1µs, p	bu
		Complies wit	h IEC61000-4-2, contact:	61
		Grounding resis	tance: Less than 100Ω, F0	à/
Protection	structure: Front case: IP66	0	er-proof gasket is used), F	le
Protection	structure: Front case: IP66	0		le
	structure: Front case: IP66 11.0×54.0	0	er-proof gasket is used), F	
303.8×23		3, Type 4X/13 ^{*2*3} (when wa	ter-proof gasket is used), F Natural air cooling	1.
303.8×23 289.0 × 216.2	11.0x54.0	5, Type 4X/13 ^{*2*3} (when wat 235.0×180.0×48.9	er-proof gasket is used), F Natural air cooling 303.8×23	1.
303.8×23 289.0 × 216.2	11.0×54.0 : (+0.5/-0) mm	5, Type 4X/13 ^{+2*3} (when wat 235.0×180.0×48.9 220.5 × 165.5 (+0.5/-0) mm Approx. 1.3kg	er-proof gasket is used), F Natural air cooling 303.8×23 289.0 × 216.2	1.

V9 Standard

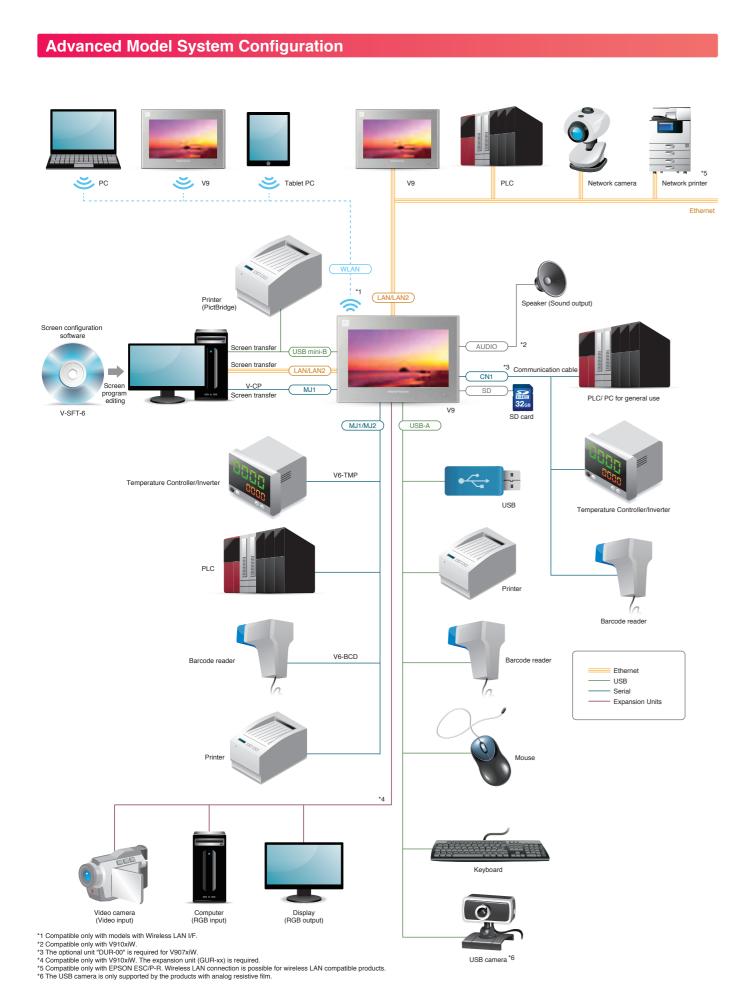
V9 Stan	dard		V9 Lite				
V9100iS	V9080iSD	V9100iC	V9080iCD	V9060iTD			
		64MB					
800KB							
		TFT color					
800×6	600		640×480				
10.4 Inch	8.4 Inch	10.4 Inch	8.4 Inch	5.7 Inch			
16.7 million ^{*4} 260 thousa							
LED							
		70,000 hours		50,000 hours			
Analog resistance film							
8 6							
RS-232C/RS-428 Data length: 7, 8 bits Parity: Even, odd, none Stop bits: 1, 2 bits Baud rate : 4800, 9600, 19200, 38400, 57600, 76800, 115200, 187500 ^{*6} bps							
	Asynchronous, Data length	C/RS-422/RS-485 (2-wire type) *7 :: 7, 8 bits Parity: Even, odd, none 00, 19200, 38400, 57600, 76800, 1	Stop bit: 1, 2 bits 15,200 bps				
	One	card slot provided as standard					
	1ch,	Baud rate : 100Mbps, 10Mbps					
Complies with IEEE802	.11b/g/n (2.4GHz) *8		_				
	Ty	ype A,Type mini-B (Ver.2.0)					
1ch provided a	as standard		-				
	5 yea	ars (Ambient temperature 25°C)					
	Gap ±90 sec. per month (Amb	pient temperature 25°C, When the	battery is backed up)				
EN61000-6-2, EN610	00-6-4, EN50581 ^{*9}	13	1000-6-2, EN61000-6-4, EN50	581			
UL61010 -1/UL61010-2-201(E31	3548)*10, ANSI/ISA12.12.01 *11	UL61010 -1/UL610	10-2-201(E313548) ^{*10}	UL61010 -1/UL61010-2-201(E313548)* ANSI/ISA12.12.01* ¹¹			
Compatib	le *9 *12		Compatible *12				
Japan: T	ELEC		-				
opon Kaiji Kyokai (NK) Ame oyd's Register of Shipping (LR) Det	erican Bureau of Shipping (ABS) '9	-	-	Nippon Kaiji Kyokai (NK) American Bureau Lloyd's Register of Shipping (ABS)			

*7 187,500 bps (four-wire system) for the V9071iW and V9060iTD MJ2 only. *8 Wireless LAN-compatible products only. *9 Wireless LAN compatible products are not supported. *10 Only for Hardware Ver. for later. Applicable standard for Hardware Ver. a to e is UL 508. *11 V9120iSD/V9080iSD: Hardware of Ver.b or later V9060iTD: All versions *12 Black model not certified *13 V9150iXD/V9060iTD: All V9120iSD: Hardware Ver.b or higher, V9100iSD/V9080iSD: Hardware Ver.c or higher.

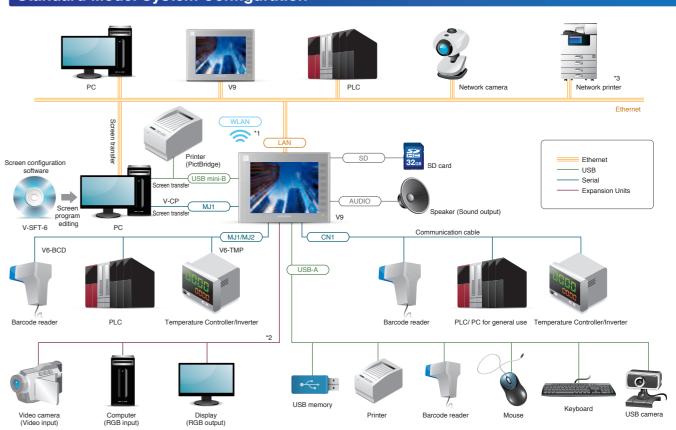
*2 DC products only. *3 V9101iW: Hardware of Ver.c or later V9120iSD/V9100iSD/V9100iSD/V9080iCD: Hardware of Ver.b or later V9071iW/V9150iXD/V9060iTD: All versions *4 For displaying pictures, 3D parts, video, and RGB input (excluding high-speed mode) only. Other parts are displayed in 65,536 colors. *5 Optional unit (DUR-00) is required for the V9071iW and V9060iTD. *6 Only for Siemens MPI (Incompatible with DUR-00).

	V9	Lite						
	V9100iCD/V9100iCBD	V9080iCD/V9080iCBD	V9060iTD/V9060iTBD					
	DC24V	DC24V	DC24V					
	±10%	±10%	±10%					
	Within 1ms							
17W or less 13W or less								
	17A or le	ess, 6ms	8A or less, 7ms					
91	nsation) *1							
c	ductive dust							
91	nsation) *1							
ŀ	Iz, Constant acceleration:	9.8m/s² (1G), X, Y, Z 3 di	rections 10 times each					
.,	Y,Z 3 directions, 3 times e	each (18 times in total)						
	oulse rise time: 1ns		Noise voltage:1,000Vp-p, pulse width:1µs, pulse rise time : 1ns					
	6kV, air: 8kV							
(G/SG separation							
F	Rear case: IP20, single uni	t, installation method: pane	el mounting					
3	31.0×54.0	235.0×180.0×48.9	182.5×138.8×53.0					
2	(+0.5/-0) mm	220.5 × 165.5 (+0.5/-0) mm	174.0 × 131.0 (+0.5/-0) mm					
x	. 2.0kg	Approx. 1.3kg	Approx. 740g					
b	ack model)							

Flexible system configuration meets diversified requirements.

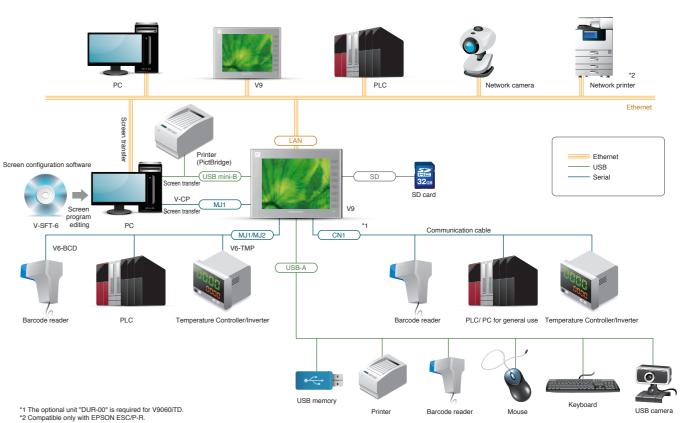


Standard Model System Configuration

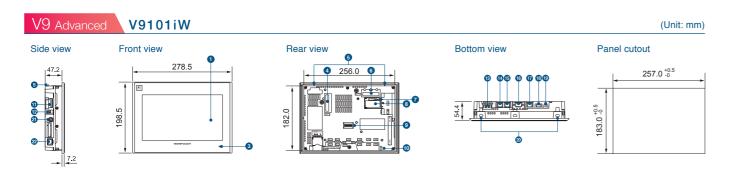


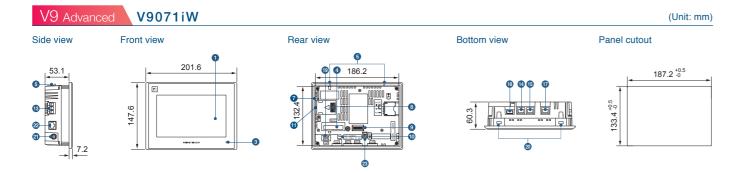
*1 Compatible only with models with Wireless LAN I/F. *2 The expansion unit "GUR-xx" is required. *3 Compatible only with EPSON ESC/P-R. Wireless LAN connection is possible for wireless LAN compatible products.

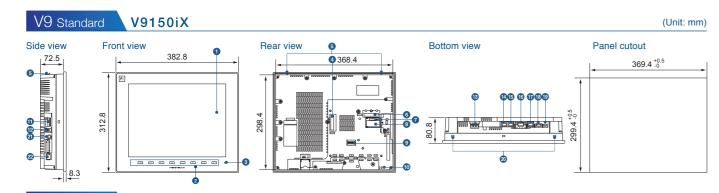
Lite Model System Configuration

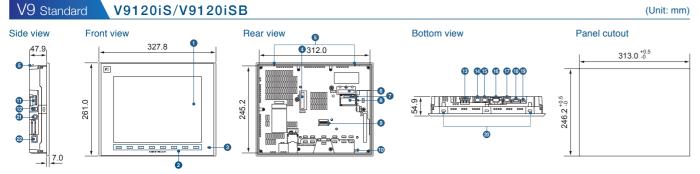


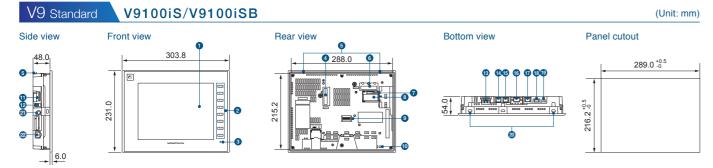
Dimensions & Part Names

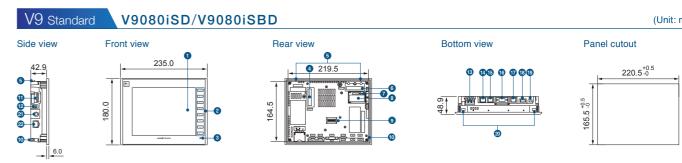


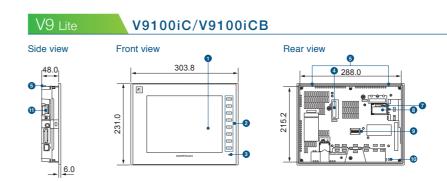




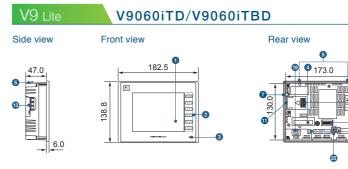








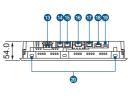
V9080iCD/V9080iCBD Side view Front view Rear view 6 235.0 4 219.5 64 **0**-6.0



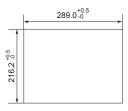
1 Display	SD card access LED	13	P
2 Function switch	8 Battery compartment	14	N
Over lamp	9 DIP switch	15	N
Communication unit connector (EXT1)	USB cable retention	16	F
Fall prevention hook	SD card connector	1	1
Expansion unit connector (EXT2)	Sound output connector (AUDIO)	18	ι

(Unit: mm)

(Unit: mm)

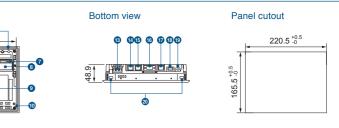


Bottom view



Panel cutout

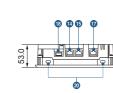
(Unit: mm)



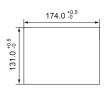
(Unit: mm)

Panel cutout





Bottom view



- Power input terminal block
- Modular jack 1 (MJ1)
- Modular jack 2 (MJ2)
- PLC connector (CN1)
- 100BASE-TX/10BASE-T connector (LAN) Ø Slide switch
- USB-A(U-A)
- USB mini-B(U-B)
- Mounting point
- Wireless LAN external antenna connector (WLAN)
- 100BASE-TX/10BASE-T connector (LAN2)

Remarkable cost effectiveness enabled by our product lineup and optional units.

Product Details

Advanced

				Specifications								Delivery
Model	Model Display Size	Resolution	Touch screen	Video/ RGB ⁻¹	AUDIO Output	Wireless LAN	Extended Cable LAN	UL	CE	кс	Power supply	Standard: ✓ Made to order:△
V9101iWRLD		n 1024×600	Capacitance	\checkmark	~	~	~	\checkmark	~	~		~
V9100iWRLD			Analog resistance film	\checkmark	~	\checkmark	~	\checkmark	~	~	50	\bigtriangleup
V9101iWLD	10.1" widescreen		Capacitance	\checkmark	~	-	~	\checkmark	~	~	DC	~
V9100iWLD			Analog resistance film	\checkmark	~	-	~	\checkmark	~	~		\bigtriangleup
V9071iWRLD			Capacitance	-	-	~	~	\checkmark	~	~		~
V9070iWRLD			Analog resistance film	-	-	\checkmark	~	\checkmark	~	~		\bigtriangleup
V9071iWLD	7" widescreen	800×480	Capacitance	-	-	-	~	\checkmark	~	~	DC	~
V9070iWLD			Analog resistance film	-	-	-	~	~	~	~		\bigtriangleup

Standard

						Spec	ifications					Delivery
Model	Display Size	Resolution	Touch screen	Video/ RGB ⁻¹	AUDIO Output	Wireless LAN	Extended Cable LAN	UL	CE	кс	Power supply	Standard: ✓ Made to order:△
V9150iX				~	~	-	-	-	-	~	AC	√
V9150iXD	15"	1024×768		~	~	-	-	\checkmark	~	~		~
V9150iXLD	15	1024×768	Analog resistance film	~	~	-	1	\checkmark	~	~	DC	
V9150iXRD				~	~	√*2	-	\checkmark	-	-		
V9120iS			Analog resistance film	~	~	-	-	-	-	~	AC	~
V9120iSB	-			~	~	-	-	-	-	-	AC	
V9120iSD				~	~	-	-	\checkmark	~	~	DC	~
V9120iSBD	12.1"	" 800×600		~	~	-	-	\checkmark	~	-		
V9120iSLD	12.1			~	~	-	~	\checkmark	~	~		
V9120iSLBD				~	~	-	1	\checkmark	~	-		
V9120iSRD				~	~	√*2	-	\checkmark	-	-		
V9120iSRBD	-			~	~	√*2	-	\checkmark	-	-		
V9100iS				~	~	-	-	-	-	~	AC	~
V9100iSB	-			~	~	-	-	-	-	-		
V9100iSD	-			~	~	-	-	\checkmark	~	~		~
V9100iSBD	10.4"	000 000		~	~	-	-	\checkmark	~	-		\bigtriangleup
V9100iSLD	10.4"	800×600	Analog resistance film	~	~	-	~	\checkmark	~	~		
V9100iSLBD				~	~	-	~	\checkmark	~	-	DC	\bigtriangleup
V9100iSRD	-			~	~	√*2	-	\checkmark	-	-		\bigtriangleup
V9100iSRBD				~	~	√*2	-	\checkmark	-	-		\bigtriangleup
V9080iSD				~	~	-	-	~	~	~		√
V9080iSBD				~	~	-	-	\checkmark	~	-	1	
V9080iSLD	0.4"	000 000		~	~	-	~	\checkmark	~	~		
V9080iSLBD	8.4"	800×600	Analog resistance film	~	~	-	~	\checkmark	~	-	DC	
V9080iSRD				~	~	√*2	-	\checkmark	-	-	1	
V9080iSRBD				~	~	√*2	-	~	-	-	1	

Lite

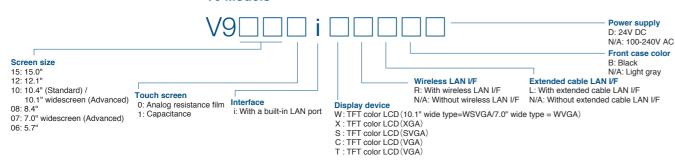
Screen size

15: 15.0" 12: 12.1"

			Specifications								Delivery	
Model	Model Display Size	Resolution	Touch screen	Video/ RGB ⁻¹	AUDIO Output	Wireless LAN	Extended Cable LAN	UL	CE	кс	Power supply	Standard: ✓ Made to order:△
V9100iC				-	-	-	-	-	-	~		~
V9100iCB	(0 , (1)	10.4" 640×480	Analog resistance film	-	-	-	-	-	-	-	AC	\bigtriangleup
V9100iCD	10.4			-	-	-	-	\checkmark	~	~		1
V9100iCBD				-	-	-	-	\checkmark	~	-		\bigtriangleup
V9080iCD	0.4"	0.40, 400	Analysis and the set film	-	-	-	-	\checkmark	~	~	DC	1
V9080iCBD	8.4" 6403	640×480 Analog resistance fi	Analog resistance film	-	-	-	-	\checkmark	~	-		
V9060iTD				-	-	-	-	\checkmark	~	~	1	1
VO060ITBD	5.7"	640×480	Analog resistance film	-	-	-		1	1	_	1	~

*1 Supported via the expansion unit GUR-xx. *2 Only for use in Japan.

V9 Models



Optional Accessories List

Madal	Draduat	Compatible Model Advanced Standard Lite								
Model	Product	V910xiW	1	V9150iX	1	V9100iS	V9080iS	V9100iC	Lite V9080iC	V9060i
Configuration Software		VSTONIV	0007200	V31301X	1 12010	1 0010010	1 1 2 0 0 0 0	10010	100000	V30001
-SFT-6	MONITOUCH screen configuration software Ver.6	~	~	~	~	~	\checkmark	~	\checkmark	~
xpansion Units		~		\checkmark	~	~	\checkmark		1	:
UR-00 UR-01	Video 4ch input RGB 1ch input	~		× √	~	~	√ √			
UR-02	RGB 1ch output	1		1	1	~	~			
UR-04	Video 1ch input	~		√	~	~	~			
UR-10	Video 2ch input/ RGB 1ch input	~		√	√	~	~			
UR-11	RGB 2ch input	~		√	\checkmark	~	\checkmark			
JR-00	Optional unit for V907xiW/V9060iTD/TS2060i		~							~
ommunication Units										
JR-00 JR-01	OPCN-1 (V9/TS2060i) T-Link (V9/TS2060i)	√ √	√ √	~	√ √	√ √	√ √	~	√ √	√ √
JR-02	CC-Link (V9/TS2060i)	~	~	~	~	~	~	~	~	~
JR-03	Ethernet (V9/TS2060i)	~	~	~	~	~	~	~	~	~
JR-04	PROFIBUS-DP (V9/TS2060i)	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	~
JR-06	SX Bus (V9/TS2060i)	√	~	√	~	~	~	~	~	~
JR-07	DeviceNet (V9/TS2060i)	√	√	√	√	~	√	√	√	√
JR-08	FL-net (V9/TS2060i)	~	1	1	1	4	~	1	1	4
JR-09	EtherCAT (V9)	~	~	~	~	~	1	~	1	~
ables ^{*1} CP	Screen transfer cable (3m)	√	~	\checkmark	√	~	\checkmark	~	\checkmark	~
A-FR	USB-A extension cable (1m)	~	√ √	√ √	~	~	√ √	~	√ √	~
G-MLT	Multi-link 2 master cable (3m)	1	√	1	1	~	~	~	~	1
6-TMP	Temperature controller cable (3m)	~	~	~	√	~	~	~	~	~
6-TMP-5M	Temperature controller cable (5m)	~	~	~	~	~	~	~	~	~
6-TMP-10M	Temperature controller cable (10m)	√	~	~	√	1	~	~	1	~
S-BCD	Barcode reader cable (3m)	1	√ ∧*2	1	~	~	~	1	1	√ ^*2
9-FU-SPBCPU-2M 9-FU-SPBCPU-3M	Fuji Electric	√ √	*3 *3	~	~	√ √	√ √	√ √	√ √	*3 *3
-FU-SPBCPU-5M	SPH ^{*2} , SPB CPU (MJ) RS-485 (4-cable type)	~	3	~	~	~	√ √	× √	√ √	3
9-FU-SPFCPU-2M		1	*3	1	1	1	~	1	1	
-FU-SPFCPU-3M		~	*3	~	~	~	~	~	~	*3
-FU-SPFCPU-5M	SPF CPU (Mini DIN4) RS-232C	~	∆*3	~	~	~	~	~	~	∆*3
9-MB-CPUQ-2M		~	∆*3	~	~	~	~	~	~	_*3
P-MB-CPUQ-3M	MITSUBISHI ELECTRIC	√	*3	1	~	1	~	1	√ ,	*3
-MB-CPUQ-5M	A series / QnA series CPU (Dsub25) RS-422	√ √	△*3 △*3	√ √	~	√ √	√ √	√ √	√ √	*3 *3
9-MB-CPUQ-10M 9-MB-CPUQ-15M		~	∆ 3	~	~	~	~	~	~	∆ 3 ∆*3
P-QCPU2-2M		~	*3	~	~	~	~	~	1	3
-QCPU2-3M		~	*3	~	~	~	~	~	~	*3
9-QCPU2-5M	MITSUBISHI ELECTRIC Q series CPU (Mini DIN6) RS-232C	\checkmark	∆*3	√	~	~	~	~	√	∆*3
9-QCPU2-10M		~	∆*3	√	~	~	\checkmark	√	√	∆*3
9-QCPU2-15M		~	*3	√	1	1	~	1	√	*3
9-MI2-09-2M 9-MI2-09-3M		~	*3 *3	~	~	√ √	√ √	√ √	√ √	*3 *3
9-MI2-09-5M	MITSUBISHI ELECTRIC	 √	℃	× √	~	~	√ √	√ √	√ √	∆*3
9-MI2-09-10M	link unit (Dsub9) RS-232C	1	*3	1	1	~	~	1	1	*3
9-MI2-09-15M		\checkmark	*3	~	~	~	~	~	~	
9-MI4-FX-2M		\checkmark	∆*3	~	\checkmark	\checkmark	\checkmark	~	\checkmark	∆*3
9-MI4-FX-3M	MITSUBISHI ELECTRIC	~	∆*3	~	~	\checkmark	~	~	~	∆*3
9-MI4-FX-5M	FX series CPU (Mini DIN8) RS-422	~	*3	~	~	1	~	1	√	*3
9-MI4-FX-10M 9-MI4-FX-15M		~	△*3 △*3	√ √	√ √	√ √	√ √	√ √	√ √	*3 *3
9-1014-17X-15101 9-D25	Dsub9-Dsub25 conversion cable (0.3m)	~	∆*3	× √	~	√ √	√ √	√ √	~	3
J2-PLC	MJ2-Dsub25 conversion cable		~							√
erial Expansion I/O Unit										
-I/O	Serial expansion I/O unit	\checkmark	\checkmark	~	~	~	\checkmark	~	~	~
ommunication Terminal										
C-D9	V9/TS2000/V8 series terminal converter	~	∆*3	~	~	~	~	~	~	∆*3
attery 9-BT	Replacement battery for V9	~		~	~	~	~	1	~	
9-вт 7-ВТ	Replacement battery for V907xiW/V9060iTD/V8	~	~	~	~	~	V	V	~	~
ireless LAN Antenna				:				:		
9-ANT	V9 external antenna with cable (3m)	~	~	~	~	~	\checkmark			
ower Supply Unit										
9080C-PW	V9080iCD AC power supply unit								~	
rotection Sheets	VIOLED VIOLED THE C									1
715-GS	V9150iX/V815/V715 Surface protection sheet			√ √	√	~	~			
715-GSN10 912S-GS	V9150iX/V815/V715 Surface protection sheet (Non-glare) V9120iS protection sheets			~	~	~	~			
912S-GS 912S-GSN10	V9120IS protection sheets (Non-glare)				~					
10S-GS	V9100iS/V9100iC protection sheets					~		~		
910S-GSN10	V9100iS/V9100iC protection sheets (Non-glare)					~		~		
910W-GS	V9100iW protection sheets	~								
010W-GSN10	V9100iW protection sheets (Non-glare)	\checkmark								
008S-GS	V9080iS/V9080iC protection sheets						~		~	
	V9080iS/V9080iC protection sheets (Non-glare)						~		~	
			~	1	1	1	1.00	1.00	1	1
907W-GS	V9070iW protection sheets		-		-	-	-	-	1	-
908S-GSN10 907W-GS 907W-GSN10 906T-GS	V9070iW protection sheets V9070iW protection sheets (Non-glare) V9060iTD/TS2000 protection sheets		~							~

*1 PLC connection cables other than those listed above are also available. For details, please contact our technical helpdesk *2 It may not be available depending on the hardware version of your CPU. A separately available D9-FU-SPHCPU- M cable is required. Please contact us for more details. *3 Optional unit DUR-00 is required.

MONITOUCH wide-variety product lineup

TECHNOSHOT

5.7 QVGA 64K TFT LED 2ch USB DC Backlight Serial USB Power supply

TS2000 series

V8 Handy Type



With Ethernet port 12.5M 512K Ether No Ethernet port 4.5_M 128_K V808CH

ernet	V808

Spe	ecificati	ons							
			V808iCHx	V808CHx					
	Display Si	ze	7.5 inch						
	Display De	evice	TFT cold	r LCD					
	Resolution	n W:H (dots)	640 × 48	0 dots					
B	Display Co	olors	65,536 colors (no blink) / 32,768 colors (with blink)						
Isic	Screen Me	emory(FROM)	FROM (12.5M byte)	FROM (4.5M byte)					
Basic Specs	Backup M	emory(SRAM)	SRAM (512K byte)	SRAM (128K byte)					
ec	Clock		Equip	ped					
S	Ethernet		100BASE-TX/10BASE-T provided as standard	N/A					
	CF Card I/	F	Equip	ped					
	USB I/F		Туре В (\	/er 1.1)					
S	Quantity		12 (4 : exter	nal output)					
Function Switch	Туре		Membrane	e switch					
Ξg	Mechanical	Life Expectancy	1,000,000 tim	ies or more					
	Туре		Push lock system (b-	contact, 2 circuits)					
Touch Switch	Mechanical	Life Expectancy	100,000 time	es or more					
tch	Rated Volt	tage	DC2	4V					
	Rated Cur	rent	1A (load re	sistance)					
Key Switch Specs	Contact		a-contact, 1 circuit						
Swi		Life Expectancy	250,000 times or more						
tch	Electrical L	ife Expectancy	100,000 times or more (operating cycles: 1200 times/hour)						
D		Туре	3-position output (a-c	contact, 2 circuits ^{*1})					
adr	3-position	Mechanical Life Expectancy	OFF→ON 1,000,000 times or more OFF→ON	→OFF (direct circuit): 100,000 times or mo					
nan	3-position	Rated Voltage	DC24	4V					
Deadman Switch Specs		Rated Current	1A (load re	sistance)					
tch	Momentary	Туре	Momer	,					
	moniteritary	Mechanical Life Expectancy	1,000,000 tim	les or more					
_			RS232C, Data lei	• • •					
Exte	TB2		Parity: Even, odd, non Baud rate: 4800, 9600, 19200,						
ern			Daud Tale. 4000, 5000, 19200,	30400, 70000, 113,200 bps					
External VF	твз		RS-422/485, Asynchronous type; Data length: 7, 8 bits						
ΤÌ	103		Parity: Even, odd, none Stop bit: 1, 2 bits Baud rate: 4800, 9600, 19200, 38400, 76800, 115200, 187500 ⁻² bps						
St-P				,,					
plicabl	CE Markin	Ig	EN61000-6-2, EN61	000-6-4, EN50581					
- B									

*1 Only V808(i)CH4 comes with a-contact and 2 circuits. V808(i)CH2,3 only have 1 circuit. *2 187500 bps only applies to Siemens MPI/PPI connections.

FO MO





TS2060



2.5M 128K *1 "DUR-00" or "CUR-xx" is mountable.

Specifications								
		TS2060	TS2060i					
Screen Memory (FROM)		2.5Mbyte	10.5Mbyte					
Backup Memory (SRAM)		128Kbyte	512Kbyte					
Stroke Font		- Compatible						
Display	Display Device	TFT color						
	Resolution W:H (dots)	320 :	× 240					
	Display Size	5.7 inch	(QVGA)					
	Display Colors	65,536 colors(The software is compatible with displays	in 32K colors, 256 colors, 128 colors and monochrome.)					
	Backlight	LED						
	Backlight Life	50,000 hours						
Touch Switch	Туре	Analog res	sistance film					
Function Switch	Quantity	6						
External Interface	D-Sub 9-pin ^{*2}	RS-232C/RS-422/RS-485, asynchronov Data length: 7, 8 bits, Parity : odd, ever Stop bit: 1, 2 bits, Baud rate: 4800, 960 19200, 38400, 57600, 76800, 115200 b						
	Modular 8-pin(MJ1/2)		synchronous type, Data length: 7,8 bits, Parity: even, odd, none 0, 38400, 57600, 76800, 115200, 187500' ⁴ bps					
	SD Card	-	One card slot provided as standard (SD/SDHC card)					
	Ethernet	-	1ch, Baud rate: 100Mbps, 10Mbps					
	USB	Type mini-B(Ver. 2.0)	Type A, Type mini-B (Ver. 2.0)					
	Communication Units	-	CUR-xx compatible					
Power Supply	Permissible Range of Voltage	24V D0	C ± 10%					
	Power Consumption (max. rating)	13W (or less					
Physical Environment	Ambient Temperature	0°C to	+50°C'5					
	Ambient Storage Temperature	-10°C to	0 +60°C⁺⁵					
	Ambient Humidity	85% RH or less (witho	out dew condensation)*5					
	Ambient Storage Humidity	85% RH or less (witho	out dew condensation)*5					
	Operating Altitude	2,000m	n or less					
	Operating Atmosphere	Not exposed to corrosive gas or exc	cessive dust (free of conductive dust)					
	Contamination Level	Contamina	ation level2					
Installation Conditions	Grounding	Grounding resistance: Less t	han 100Ω, FG/SG separation					
	Protective Structure	Front panel : Compatible with IP65 (when gas	ket is used), Rear cover : Compatible with IP20					
	Cooling System		air cooling					
	Dimensions W×H×D		.8 × 45.8mm					
	Panel Cutout		nt to V806/V606e/S806/V706/V606)					
Standard		CE (EN61000-6-2, EN61000-6-4, EN50581), KC, UL61010-1, UL61010-2-201 (E313548)						
Case Color		Black						
Battery		Built-in button battery / Battery life :	5 years (ambient temperature 25°C)					

*2 Only when mounting the optional unit (DUR-00) to the TS2060i. *3 Only MJ2 is compatible with 4-wire system. *4 187500 bps only applies to Siemens MPI/PPI connections. MPI/PPI supports only MJ2. *5 Use at a wet-bulb temperature of 39°C or less because higher temperatures may cause failure.

V808CH



V808CH Models

	Kev switch	Boudinarioniton		
	Rey Switch	Туре	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

Optional Accessories List						
Model	Product					
V8H-C	V808CH external connection cable (=3, 5,15, 20m)					
V7-BT	V8, V7, V606e battery					
V8H-SWG	V808CH switch guard					
V6H-WF	V808CH wall mounting bracket set					
V6H-WF1	V808CH wall mounting bracket (wall side)					
V8H-WFV	V808CH fixing bracket (VESA compliant)					
V8H-ST	V808CH stand					
V608CH-GSN10	V808CH/V608CH protection sheets (Non-glare)					

Doodmon switch



Power supply (24 V)

PLC Connection - Summary

			Connec	tion form		Compatible models						
Manufacturer	Models		1:n Multi-drop	n : 1 Multi-link2	n : 1 Multi-link		TS2060i	TS2060	V8i			
	MICREX-F series MICREX-F series V4-compatible	↓ ↓		- J - J	1	↓ ↓	↓ ↓	- J - J	۲ ۲	J J		
	MICREX-F T-Link	~	~	~		√ *1	√ "1	~	√ "1	√ "		
	MICREX-F T-Link V4-compatible SPB (N mode) & FLEX-PC series		1	1		√ "I √	√ "1 √	1	√ " √	√ " √		
Fuji Electric	SPB (N mode) & FLEX-PC CPU	~		1		~	√	~	√	~		
	MICREX-SX (T-Link) MICREX-SX (OPCN-1)					√ ¹ √ 1	√ " √ "		√ " √ "	√ " √ "		
	MICREX-SX (SX bus)					√ "I	√ "1		√ "	√ "		
	MICREX-SX SPH/SPB/SPM/SPE/SPF series MICREX-SX SPH/SPB/SPM/SPE/SPF CPU	√ √		1		1	1	1	1	1		
	MICREX-SX (Ethernet)	~	1			1	1		1			
	PLC-5 PLC-5 (Ethernet)	√ √	√ √	~	~	√ √	1	1	√ √	1		
	SLC500 SLC500 (Ethernet TCP/IP)	√ √	1	~		1	1	~	1	~		
Allen-Bradley	NET-ENI (SLC500 Ethernet TCP/IP)	~	~			~	~		1			
	NET-ENI (MicroLogix Ethernet TCP/IP) MicroLogix	√ √	√ √	1		1	1	~	√ √	~		
	MicroLogix (Ethernet TCP/IP)	√	1			1	1		1			
	ControlLogix / CompactLogix ControlLogix (Ethernet)	√ √	~	~		√ √	1	~	1	1		
	Micro800 Controllers Micro800 Controllers (Ethernet TCP/IP)	√ √	1	~		1	1	~	1	~		
	Direct LOGIC (K-Sequence)	~		~		~	~	~	1	~		
Automationdirect	Direct LOGIC (Ethernet UDP/IP) Direct LOGIC (MODBUS RTU)	√ √	1	1		1	1	1	1	√ 2		
Azbil	MX series	1	1	1		1	1	1	1	1		
Baumuller	BMx-x-PLC ADS protocol (Ethernet)	√ √	~	~		1	1	~	1	√ √ [™] 2		
BECKHOFF	Tag ADS Protocol (Ethernet TCP/IP)	~	~			1	1		~			
	BP series CP series	√ √		1		1	1	1	1	4		
CIMON	XP series S series	4	4	1		1	1	1	1	4		
	S series (Ethernet)	1	~			1	~		1	√ "2		
DELTA	DVP series DVP series (MODBUS ASCII)	√ √	1	1		1	1	1	1	√ √		
EATON Cutler-Hammer	DVP series (MODBUS TCP/IP)						4	4	√	1		
EMERSON	ELC EC10/20/20H (MODBUS RTU)	~	√ √	1		~	~	~	~	1		
ANUC atek Automation	Power Mate FACON FB series	√ √	~	1		1	1	1	1	1		
ESTO	FEC	1		~		1	~	~	√ √			
FUFENG	APC series Controller 90 series	√ √	√ √	1		1	1	1	1	1		
	90 series (SNP-X)	~		1		~			~	1		
GE Fanuc	90 series (SNP) 90 series (Ethernet TCP/IP)	√ √	~	~		1	1	~	√ √	~		
	RX3i (Ethernet TCP/IP) HIDIC-S10/2a,S10mini	↓ ↓	1	1		1	1		1	1		
	HIDIC-S10/2a,S10mini HIDIC-S10/2a,S10mini (Ethernet)	√ √	1	~		√ √	√ √	~				
Hitachi	HIDIC-S10/4a HIDIC-S10 (OPCN-1)	~		~		√ √ "I	√ √ "1	~				
	HIDIC-S10V	~		~		1	~	~	√	1		
	HIDIC-S10V (Ethernet) HIDIC-H	✓ ✓	1	1	1	√ √ "5	√ √ "5	7 %	I I I I I <td></td>			
itachi Industrial quipment Systems	HIDIC-H (Ethernet)	1	1			1	1		-			
Equipment Systems	HIDIC-EHV HIDIC-EHV (Ethernet)	√ √	1	1	~	1	1	~				
HYUNDAI	Hi5 Robot (MODBUS RTU)	√ √	1	1		1	1	1				
	Hi4 Robot (MODBUS RTU) MICRO 3	√ √	√ √	√ √		√ √	√ √					
IDEC	MICRO Smart MICRO Smart pentra	√ √	1	1		1	1	1				
	MICRO Smart (Ethernet TCP/IP)	1	~			~	1		1			
Jetter	JetControl series2/3 (Ethernet UDP/IP) TOYOPUC	√ √	1	1	1	1	1	1				
	TOYOPUC (Ethernet)	1	1			1	1					
JTEKT	TOYOPUC (Ethernet PC10 mode) TOYOPUC-Plus	√ √	√ √	~		1	1	~	√ √	1		
	TOYOPUC-Plus (Ethernet) TOYOPUC-Nano (Ethernet)	↓ ↓	4			1	1					
	KZ series Link	1	1	~	1	1	~	~	1	1		
	KZ-A500 CPU KZ/KV series CPU	√ √		1		1	1	1				
	KZ24/300 CPU	√		1		1	1	1				
	KV10/24 CPU KV-700	√ √		√ √		√ √	1	√ √	√ √			
KEYENCE	KV-700 (Ethernet TCP/IP) KV-1000	√ √	~	~		1	1	1	1	4		
	KV-1000 (Ethernet TCP/IP)	~	~			1	1		1			
	KV-3000/5000 KV-3000/5000 (Ethernet TCP/IP)	√ √	~	~		√ √	√ √	~	√ √	1		
	KV-7000/8000 (Ethernet TCP/IP)	√ √	~			1	1		↓ ↓	4		
	KV Nano KV Nano (Ethernet TCP/IP)	~	1			1	1		1			
	SU/SG SR-T (K protocol)	√ √	~	1		1	1	1	1	4		
KOYO ELECTRONICS	SU/SG (K-Sequence)	~		1		1	1	~	1	1		
	SU/SG (MODBUS RTU) MASTER-KxxxS	√ √	~	√ √		√ √	1	√ √	1	4		
	MASTER-KxxxS CNET	~	1	~		1	1	~	1	1		
	MASTER-K series (Ethernet) GLOFA CNET	√ √	√ √	1		1	1	~	1	12		
	GLOFA GM7 CNET GLOFA GM series CPU	√ √	~	1		1	1	1	1	4		
.S	GLOFA GM series (Ethernet UDP/IP)	~	1			~	1		1	√ "2		
	XGT/XGK series CNET XGT/XGK series CPU	4	~	1		1	1	1	1	4		
	XGT/XGK series (Ethernet)	~	1			~	~		√	√ 2		
	XGT/XGI series CNET XGT/XGI series CPU	√ √	~	1		1	1	4	4	4		
	XGT/XGI series (Ethernet) A series link	√ √	↓ ↓			1	1	4	1	√ "2 √		
	A series CPU	4	~	4	~	~	~	4	1	~		
	A series (OPCN-1) QnA series link	√	√	1		√ " √	√ "1 √	1	√ "1 √	√ " √		
	QnA series CPU	1		~		~	~	~	~	1		
	QnA series (Ethernet) QnH (Q) series link	√ √	√ √	1		1	1	~	1	√ 2		
MITSUBISHI ELECTRIC	QnH (A) series CPU	1		1		√ 3	√ "3		√ "4	1 "4		
	QnH (Q) series CPU QnU series CPU	√ √		1		1	1	4	√ √			
MITSUBISHI ELECTRIC	Q00J/00/01 CPU	1	1	~		1	1	~	1	√ √ "2		
MITSUBISHI ELECTRIC			×				-		-	17		
MITSUBISHI ELECTRIC	QnH (Q) series (Ethernet) QnH (Q) series link (multi CPU)	√ √	~	~		~	~	1	~			
MITSUBISHI ELECTRIC	QnH (Q) series (Ethernet) QnH (Q) series link (multi CPU) QnH (Q) series (multi CPU) (Ethernet)		√ √	√ 		1	√ √ √	~		√ "2 √ "2		
MITSUBISHI ELECTRIC	QnH (Q) series (Ethernet) QnH (Q) series link (multi CPU)	√ √		-			1		1	√ 2		

		1	Connoc	tion form		Compatible models					
Manufacturer	Models		1:n Multi-drop	tion form n : 1 Multi-link2	n : 1 Multi-link	V9	TS2060i	TS2060	V8i		
	QnU series (multi CPU) (built-in Ethernet)	√	wuiti-arop √	Multi-IINK2	wulti-link	√					
	L series link L series (built-in Ethernet)	√ √	√ √	1		√ √	√ √	~	√ √		
	L series CPU A series (CC-LINK)	~		1		√ √ "	√ √ "1	~	√ √ "1		
	QnA series (CC-LINK)					√ "1	√ °1		√ "1		
	QnH (Q) series (CC-LINK) FX series CPU	√		1		√ "1 √ "3	√ "1 √ "3		√ "1 √ "4		
	FX2N/1N series CPU FX1S series CPU	√ 		1		1	~	1	1		
MITSUBISHI ELECTRIC	FX series link (A protocol)	↓ ↓	1	√ √	~	√ √	√ √	√ √	1		
MITSUBISHI ELECTRIC	FX-3U/3UC/3G series CPU FX-3U/3GE series (Ethernet)	↓ ↓		~		√ √	√ √	~	1		
	FX-3U/3UC/3UG series link (A protocol)	1	1	~	~	1	1	~	1		
	FX-5U/5UC series FX-5U/5UC series (Ethernet)	√ √	1	~		1	√ √	~	1		
	A-link + Net10 Q170MCPU (multi CPU)		~	1		√ √	√ √		1		
	Q170 series (multi CPU) (Ethernet)	1	√	~		~	~	~	1		
	iQ-R series (Built-in Ethernet) iQ-R series link	√ √	√ √	√		1	√ √	√	1		
1001001	iQ-R series (Ethernet)	1	1			~	1		1		
MODICON MOELLER	MODBUS RTU PS4	4		1		1	√ √	√ √	√ √		
	SYSMAC C SYSMAC C (OPCN-1)	1	~	~	1	√ √ "I	√ √ "1	~	√ √ *1		
	SYSMAC CV	1	1	1	1	~	1	1	1		
OMRON	SYSMAC CS1/CJ1/CJ2 SYSMAC CS1/CJ1/CJ2 DNA	✓ ✓	√ √	~		1	✓ ✓	↓ ↓	1		
	SYSMAC CS1/CJ1/CJ2 (Ethernet)	1	1			1	1		1		
	SYSMAC CS1/CJ1/CJ2 (Ethernet Auto) SYSMAC CS1/CJ1/CJ2 DNA (Ethernet)	√ √	√ √			√ √	√ √		1		
	NJ Series (EtherNet/IP) FP series (RS232C/422)	1	1	4	4	√ √	1	4	1		
	FP series (TCP/IP)	~	~	, v	v	1	1	· ·	1		
Panasonic	FP series (UDP/IP) FP-X (TCP/IP)	4	√ √			√ √	√ √		√ √		
	FP7 series (RS232C/422)	4		~		4		~	1		
	FP7 series (Ethernet) NX7/NX Plus series (70P/700P/CCU+)	1	1	~	~	1	1	~	1		
RS Automation	N7/NX series (70/700/750/CCU) NX700 series (Ethernet)	√ √	√ √	~	~	√ √	√ √	~	1		
. lo hatomation	X8 series	~	~	~	~	1	~	~	1		
CAIA	X8 series (Ethernet) PCD	4	√ √	~		√ √	√ √	√	√ √		
SAIA	PCD S-BUS (Ethernet)	1	1		1	1	√ √		1		
SAMSUNG	SPC series N_plus	~	√ √	~	1	~	√ √	~	√ √		
	SECNET JW series	√ √	√ √	1	1	1	√ √	√ √	1		
	JW100/70H COM port	1	~	1	~	~	~	~	~		
SHARP	JW20 COM port JW series (Ethernet)	↓ ↓	1	1	~	1	√ √	1	1		
	JW300 series	1	1	1	1	1	√ √	~	1		
	JW311/312/321/322 series (Ethernet) JW331/332/341/342/352/362 series (Ethernet)	~	√ √			~	√ √		√ √		
	S5 PG port S7	4	1	1		1	√ √	4	1		
	S7-200 PPI	~	1	· ·	~	~	~	 ✓	1		
	S7-200 (Ethernet ISOTCP) S7-300/400 MPI		1			1	1	√	1		
Siemens	S7-300/400 (Ethernet ISOTCP) S7-300/400 (Ethernet TCP/IP PG Protocol)	4				4					
	S7-1200/1500 (Ethernet ISOTCP)	1	1			1	1		1		
	S7 PROFIBUS-DP TI500/505	√	√	~		√ " √	√ " √	√	√ "1 √		
SINFONIA TECHNOLOGY	TI500/505 V4 Compatible SELMART	1	√ √		1		√ √	√ √	√ √		
TECO	TP-03 (MODBUS RTU)		√ √	~	~	~	√ √	↓ ↓	√ √		
Telemecanique	TSX Micro T series /V series (T compatible)				1	1	√ √	↓ ↓	1		
TOSHIBA	T series /V series (T compatible) (Ethernet UDP/IP)	~	√			~	~		1		
	EX series nv series (Ethernet UDP/IP)	√ √	1	~		1	1	~	1		
TOSHIBA MACHINE	TC200	√	1	~		~	√ (*1	~	~		
	µGPCsx (OPCN-1) µGPCsx (SX bus)					√ " √ "	√ " √ "		√ "1 √ "1		
TOYO DENKI	µGPCsx series µGPCsx CPU	↓ ↓		√ √		√ √	1	√ √	1		
	µGPCsx series (Ethernet)	1	1			1	1	•	1		
Turck Ultra Instruments	BL series Distributed I/O (MODBUS TCP/IP) UIC CPU (MODBUS ASCII)	1	~	~		1	√ √	~	1		
UNITRONICS	M90/M91/Vision series (ASCII)			~				~	1		
VIGOR	Vision series (ASCII Ethernet TCP/IP) M series	- -	1	~		~	1	√	1		
WAGO	750 series (MODBUS RTU) 750 series (MODBUS Ethernet)	↓ ↓	1	1			1	~	1		
XINJE	XC series (MODBUS RTU)	1	1	~		1	1	~	1		
	Memobus CP9200SH/MP900	1	√ √	√ √		√ √	√ √	√ √	1		
	MP2300 (MODBUS TCP/IP)	~	~			~	~		~		
Yaskawa Electric	CP MP expansion memobus (UDP/IP) MP2000 series	√ √	1	√		√ √	√ √	√	1		
	MP2000 series (UDP/IP) MP3000 series	4	√ √	1		4	1	√	1		
	MP3000 series (Ethernet UDP/IP)	1	1	× ·		1	1	-	1		
	MP3000 series expansion memobus (Ethernet) FA-M3	√ √	√ √	√	~	√ √	√ √	√	1		
	FA-M3R	~	~	~	~	~	1	~	1		
	FA-M3/FA-M3R (Ethernet UDP/IP) FA-M3/FA-M3R (Ethernet UDP/IP ASCII)	√ √	√ √			1	√ √		1		
Yokogawa Electric	FA-M3/FA-M3R (Ethernet TCP/IP)	1	~			1	~		1		
	FA-M3/FA-M3R (Ethernet TCP/IP ASCII) FA-M3V	√ √	√ √	√	√	√ √	√ √	~	1		
	FA-M3V (Ethernet)	~	√ √			~	~		1		
3S-Smart Software Solutions	FA-M3V (Ethernet ASCII) CODESYS V3 (Ethernet)	√ √	√ √			✓ ✓	~		1		
	Universal serial FL-Net	1	√			√ √ "1	√ √ "1	~	√ √ *1		
	PROFIBUS-DP					√ "1	√ "1		√ "1		
	DeviceNet EtherCAT					√ " √ "	√ "1		√ "1		
thers	Without PLC Connection					~	1	~	1		
	MODBUS RTU	~	~	1		1	1	1	1		
Others		1 1	1	✓		✓	1	1	1		
Others	MODBUS RTU EXT Format MODBUS TCP/IP (Ethernet) MODBUS TCP/IP (Ethernet) Sub Station			~				~			

¹¹ For V9 and TS2060i, a communication unit *CUR-xx* is required. For V8, a communication unit *CU (N)-xx* is required. *2 A communication unit *CU (N)-03-x* is required. It does not support TCP/IP connection. *3 For V907xW, V906 and TS2060i, an optional unit *DUR-00* is required. *4 For V806, an optional unit *DU (N)-10* is required. *5 An optional unit *DUR-00* is required when connecting V907xW, V906, or TS2060i using RS-232C. *6 RS-232C connection is not supported. *7 An optional unit *DU (N)-10* is required when connecting V806 using RS-232C.

Temperature Controller / Servo / Inverter Connection - Summary

			Connec	tion form		Compatible models					
Manufacturer	Models	1:1	1:n Multi-drop	n : 1 Multi-link2	n : 1 Multi-link	V9	TS2060i	TS2060	V8i	V8	
	PYX (MODBUS RTU)	√	wuu-urop √	wuiti-iirik∠	WUIU-IIIIK	√	~				
	PXR (MODBUS RTU)	1	√ 	~		~	~		1	1	
	PXF (MODBUS RTU)	~	~	~		~	~	~	~	~	
	PXG (MODBUS RTU)	~	~	~		~	~	~	~	~	
	PXH (MODBUS RTU)	~	~	~		~	~	~	~	~	
	PUM (MODBUS RTU)	~	~	1		~	~	~	1	~	
	F-MPC04P (loader)	~	~	~		~	~	~	~	~	
	F-MPC series/FePSU	~	~	~		~	~	~	~	~	
	FVR-E11S	~	~	~		~	~	~	~	~	
	FVR-E11S (MODBUS RTU)	~	√	~		~	~	√	~	~	
	FVR-C11S (MODBUS RTU)	√	√ 	√ 		√	√	√ 	~	~	
	FRENIC5000 G11S/P11S	1	√ 	√ 		1	1	√ 	~	1	
	FRENIC5000 G11S/P11S (MODBUS RTU) FRENIC5000 VG7S (MODBUS RTU)	√ √	√ √	√ √		1	√ √	√ √	√ √	1	
	FRENIC-Ace (MODBUS RTU)	√ √	√ √	✓ ✓		~	√ √	√ √	✓ ✓		
	FRENIC-Eco (MODBUS RTU)	√ √	√ √	v √		√ √	√ √	v √	√ √	~	
	FRENIC-HVAC/AQUA (MODBUS RTU)	~	· ·	↓ ↓		~	~	▼ ✓	· ·	×	
	FRENIC-MEGA (MODBUS RTU)	1	√ 			1	1	√	~	~	
Fuji Electric	FRENIC-MEGA SERVO (MODBUS RTU)	~	~	~		~	~	~	~	~	
	FRENIC-Mini (MODBUS RTU)	1	~	~		~	1	1	~	1	
	FRENIC-Multi (MODBUS RTU)	~	~	~		~	~	~	~	~	
	FRENIC-VG1 (MODBUS RTU)	~	1	~		~	~	~	~	~	
	FRENIC series (loader)	~	~	~		~	~	~	~	~	
	HFR-C9K	~	~	~		~	~	~	~	~	
	HFR-C11K	~	~	~		~	~	~	~	~	
	HFR-K1K	~	~	~		~	~	~	~	~	
	PPMC (MODBUS RTU)	~	~	~		~	~	~	~	~	
	FALDIC-a series	~	~	√		1	1	~	~	~	
	FALDIC-W series	~	~	√ 		~	~	√ 	~	~	
	PH series	1	1	√ √		1	1	√ √	√ √	1	
	PHR (MODBUS RTU)	√ √	√ √	√ √		√ √	1	√ √	√ √		
	WA5000 APR-N (MODBUS RTU)	√ √	√ √	√ √		1	1		√ √		
	APR-N (MODBUS RTU) ALPHA5 (MODBUS RTU)	√ √	√ √	√ √		1	1	√ √	√ √		
	ALPHAS (MODBUS RTU) ALPHAS Smart (MODBUS RTU)	✓ ✓	√ √	✓ ✓		√ √	~		✓ ✓	√ √	
	ALPHA7 (MODBUS RTU)	~	1			 √	~		· ·	1	
	WE1MA (Ver. A)(MODBUS RTU)		- -	· ·		~	~	- -	· ·	- -	
	WE1MA (Ver. B)(MODBUS RTU)	1	~	~		~	~	1	~	~	
	WSZ series	~	~	~		~	~	~	~	~	
	WSZ series (Ethernet)	~	~			~	~		~		
Agilent	4263 series	~		~		~	~	~	~	~	
ASAHI ENGINEERING	Stepping Motor	~		~			~	~	~	~	
	SDC10	~	~	~		~	~	~	~	~	
	SDC15	~	~	~		~	~	~	~	~	
	SDC20	~	~	~		~	~	~	~	~	
	SDC21	~	~	~		~	~	~	~	~	
	SDC25/26	~	~	~		~	~	~	~	~	
	SDC30/31	√	√	√		√	√	√	√	~	
	SDC35/36	√ √	√ √	√ √		√ √	√ √	√ √	√ √	1	
	SDC45/46 SDC40A	✓ ✓	√ √	√ √		√ √	√ √	√ √	√ √		
Azbil	SDC40A SDC40G	√ √	√ √	v √		√ √	1	v √	√ √		
	DMC10		v √	v √		~	~	v √			
	DMC50 (COM)	1	~	~		~	1	1	~	~	
	AHC2001	~	~	~		~	~	~	~	~	
	AHC2001+DCP31/32	1	~	~		1	1	~	1	~	
	DCP31/32	~	~	~		~	~	~	~	~	
	NX (CPL)	~	~	~		~	~	~	~	~	
	NX (MODBUS RTU)	~	~	~		~	~	~	~	~	
	NX (MODBUS TCP/IP)	~	~			~	~		~		
A&D	AD4402 (MODBUS RTU)	~	~	~		~	~	~	~	~	
	AD4404 (MODBUS RTU)	~	~	~		~	~	~	~	~	
Banner	Presence PLUS (Ethernet/IP (TCP/IP))	~	~			1	~		~		
Bosh Rexroth	Indra Drive		√ 			1	1	~	~	~	
	LT400 series (MODBUS RTU)	√ 	√ √	√ /		1	1	√ 	√ 	√ (
	DP1000 DB1000B (MODBUS RTU)	1 1	√ √	√ √		√ √	√ √	√ √	√ √	√ √	
CHINO	KR2000 (MODBUS RTU)	~	~	√ √		~	~	√ √	~	~	
	LT230 (MODBUS RTU)	√ √	√ √	~		√ √	√ √	√ √	~	√ √	
		√ √	√ √	√ √		~	1	√ √	√ √		
	LI300 (MODBUS RIU)		√ √	v √		v √	v √	√ √	v √	√ √	
ji Electric	LT300 (MODBUS RTU) LT830 (MODBUS RTU)	✓	1					√ 	√	~	
		√ √		✓		~	~				
DELTA TAU DATA SYSTEMS	LT830 (MODBUS RTU)			~		√ √	~		~		
	LT830 (MODBUS RTU) PMAC	~	✓ ✓ ✓	√ 				~	√ √	~	
	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP)	√ √				~	~	√		√ 	
Gammaflux Hitachi Industrial	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100		√ √ √	√ √		\ \ \ \ \	ノ ノ ノ ノ	√	~	√ √	
Gammaflux Hitachi Industrial	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP)			√ √ √		1 1 1 1 1 1		√ √		√ √ √	
Gammaflux Hitachi Industrial	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓		4 4 4 4 4					イ イ イ イ イ	√ √ √	
Sammaflux Iitachi Industrial iquipment Systems	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCP2/ERC)	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓		۲ ۲ ۲ ۲ ۲				√ √ √ √		\ \ \ \ \ \	
Sammaflux Iitachi Industrial iquipment Systems	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCP2/ERC) ROBO CYLINDER (RCS/E-CON)							√ √ √ √ √		\ \ \ \ \ \ \ \ \ \ \ \	
Sammaflux litachi Industrial quipment Systems	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCP2/ERC) ROBO CYLINDER (RCS/E-CON) PCON/ACON/SCON (MODBUS RTU)	J J				J J J J J J J J J J J J		1 1 1 1 1 1 1 1 1			
Jammaflux Iltachi Industrial quipment Systems Al	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCP2/ERC) ROBO CYLINDER (RCS/E-CON) PCON/ACON/SCON (MODBUS RTU) DL-RS1A (SK-1000)			J J J J J J J J J		J J J J J J J J J J J J J J J J J J					
Sammaflux Itlachi Industrial quipment Systems AI KEYENCE Koatsu Gas Kogyo	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCS/E-CON) PCON/ACON/SCON (MODBUS RTU) DL-RS14 (SK-1000) R-BLT								J J J J J J J J J J J J		
Sammaflux ilitachi Industrial quipment Systems Al KEYENCE Koatsu Gas Kogyo KOGANEI	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series SJ700 series ROBO CYLINDER (RCP2/ERC) ROBO CYLINDER (RCS/E-CON) PCON/ACON/SCON (MODBUS RTU) DL-RS1A (SK-1000) R-BLT IBFL-TC										
Sammaflux ilitachi Industrial quipment Systems Al KEYENCE Koatsu Gas Kogyo KOGANEI	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCP/ERC) ROBO CYLINDER (RCS/E-CON) PCON/ACON/SCON (MODBUS RTU) DL-RS1A (SK-1000) R-BLT IBFL-TC Servo Drive 9400 (Ethernet TCP/IP)										
Sammaflux litachi Industrial quipment Systems Al KEYENCE Koatsu Gas Kogyo KOGANEI	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCP2/ERC) ROBO CYLINDER (RCS/E-CON) PCON/ACON/SCON (MODBUS RTU) DL-RS1A (SK-1000) R-BLT IBFL-TC Servo Drive 9400 (Ethernet TCP/IP) FR-*500										
Sammaflux litachi Industrial quipment Systems Al KEYENCE Koatsu Gas Kogyo KOGANEI	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCS/E-CON) PCON/ACON/SCON (MODBUS RTU) DL-RS14 (SK-1000) R-BLT IBFL-TC Servo Drive 9400 (Ethernet TCP/IP) FR-500 FR-V500										
Sammaflux litachi Industrial quipment Systems Al KEYENCE Koatsu Gas Kogyo KOGANEI	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCP2/ERC) ROBO CYLINDER (RCS/E-CON) PCON/ACON/SCON (MODBUS RTU) DL-RS1A (SK-1000) R-BLT IBFL-TC Servo Drive 9400 (Ethernet TCP/IP) FR-*500 MR-J2S-*A										
Jammaflux 	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCP2/ERC) ROBO CYLINDER (RCS/E-CON) PCON/ACON/SCON (MODBUS RTU) DL-RS1A (SK-1000) R-BLT IBFL-TC Servo Drive 9400 (Ethernet TCP/IP) FR-V500 MR-J2S-'A MR-J2S-'CL										
Jammaflux 	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RC9/ERC) ROBO CYLINDER (RC9/ERC) POOVACON/SCON (MODBUS RTU) DL-RS1A (SK-1000) R-BLT IBFL-TC Servo Drive 9400 (Ethernet TCP/IP) FR-*500 FR-V500 MR-J2S-*A MR-J3-*A										
Sammaflux -litachi Industrial -quipment Systems Al KEYENCE Koatsu Gas Kogyo KOGANEI -enze	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RCS/E-CON) PCON/ACON/SCON (MODBUS RTU) DL-RS14 (SK-1000) R-BLT IBFL-TC Servo Drive 9400 (Ethernet TCP/IP) FR-'500 FR-'500 MR-J2S-'A MR-J2S-'A MR-J3-'T										
DELTA TAU DATA SYSTEMS Gammaflux Hitachi Industrial Equipment Systems Al KEYENCE Koatsu Gas Kogyo KOGANEI Lenze MITSUBISHI ELECTRIC	LT830 (MODBUS RTU) PMAC PMAC (Ethernet TCP/IP) TTC2100 G24 (Ethernet TCP/IP) SJ300 series SJ700 series X-SEL controller ROBO CYLINDER (RC9/ERC) ROBO CYLINDER (RC9/ERC) POOVACON/SCON (MODBUS RTU) DL-RS1A (SK-1000) R-BLT IBFL-TC Servo Drive 9400 (Ethernet TCP/IP) FR-*500 FR-V500 MR-J2S-*A MR-J3-*A										

			Connect			Compatible models					
Manufacturer	Models		1:n Multi-drop	n : 1 Multi-link2	n : 1 Multi-link	V9	TS2060i	TS2060	V8i		
M-SYSTEM	R1M series (MODBUS RTU)	√	1	√ 		√	1	1	~		
NITTOKU	ITS-HRW110 E5AK	۲ ۲	√ √	√ √		√ √	1	1	√ √		
	E5AK-T	~	~	√		~	1	1	~		
	E5AN/E5EN/E5CN/E5GN	~	~	√		~	~	~	~	-	
	E5AR/E5ER	~	~	~		~	~	~	~		
	E5CC/E5EC/E5AC/E5DC/E5GC	\checkmark	~	~		~	~	~	~		
	E5CK	~	~	~		~	~	~	~		
	E5CK-T	~	~	~		~	~	~	~		
	E5CN-HT	~	~	~		~	~	~	~		
OMRON	E5EK E5ZD	۰ ۱	1	۰ ۱		~	√ √	1	✓ ✓		
	E5ZE	√ √	~	√ √		~	~	~	~		
	ESZN	~	~	√ √		~	~	~	~		
	V600/620/680	√	1			~	~	~	- -		
	KM20	~	~	~		~	~	~	~		
	KM100	~	~	~		~	~	~	~		
	V680S (Ethernet TCP/IP)	~	~			~	~		~		
	EJ1	~	1	√		√	~	√	~		
Oriental Motor	High-efficiency AR series (MODBUS RTU) CRK series (MODBUS RTU)	√ /	1	√ √		1	1	1	1		
	LP-400	1	~	~		√ √	√ √	1	√ √		
Panasonic	LP-400 KW series	√ √	1	√ √		~	~	√ √	~		
	MINAS A4 series	√ √	~	√ √		~	~	~	~		
	SR-Mini (MODBUS RTU)	~	~	~		~	~	~	~		
	CB100/CB400/CB500/CB700/CB900 (MODBUS RTU)	\checkmark	~	~		~	~	~	~		
	SR-Mini (Standard Protocol)	\checkmark	~	~		~	~	~	~		
	REX-F400/F700/F900 (Standard Protocol)	\checkmark	~	~		~	~	~	~		
RKC	REX-F9000 (Standard Protocol)	~	1	√		~	~	~	~	-	
	SRV (MODBUS RTU)	√ √	1	1		1	1	1	1		
	MA900/MA901 (MODBUS RTU) SRZ (MODBUS RTU)	1	1	۲ ۲		√ √	~	1	√ √		
	FB100/FB400/FB900 (MODBUS RTU)	√ √	~	√ √		~	~	~	~		
	CSD5 (MODBUS RTU)	√	~	√ 		~	~	~	~		
RS Automation	Moscon-F50 (MODBUS RTU)	~	~	~		~	~	~	~		
SANMEI	Cuty Axis	\checkmark	~	~		~	~	~	~		
SanRex	DC AUTO (HKD type)	~	~	~		~	~	~	~		
SHARP	DS-30D	\checkmark	~	√		~	~	~	~		
	DS-32D	~	~	~		~	~	~	~	-	
SHIMADEN	SHIMADEN standard protocol	√ /	1	√ /		1	1	1	~		
	C series	√ /	1	√ /		1	√ 	1	√ (-	
	FC series GC series	√ √	1	√ √		√ √	1	1	1		
	DCL-33A	√ √	√ √	√ √		~	√ √	√ √	~		
	JCx-300 series	√ √	√ √	√ √		√ √	~	 √	~		
SHINKO TECHNOS	PC-900	~	1	√		~	~	1	~		
	PCD-33A	~	~	~		~	~	~	~		
	ACS-13A	\checkmark	~	~		~	~	~	~		
	ACD/ACR series	~	~	~		~	~	~	~		
<u>.</u>	WCL-13A	√	√	√		√	~	~	~	-	
Siemens SUS	S120 (Ethernet ISOTCP) XA-A*	√ √	~	1		1	1		√ √		
	XA-A' TTM-000	√ √	1	√ √		1	√ √	1	~		
ТОНО	TTM-00BT	√ 	√ √	√ √		~	~	~	~		
	TTM-200 (MODBUS RTU)	 √	~	v √		~	~	~	~		
Tokyo Chokoku Marking	MB3315/1010	~				1	~	~	~		
Products											
	VF-S7	√ √	√ √	√ √		1	1	√ √	√ √	-	
	VF-S9 VF-S11	√ √	√ √	√ √		1	√ √	√ √	~		
	VF-S11 VF-S15	√ √	√ √	√ √		~	~	1	~		
	VF-A7	~	~	√ √		~	~	~	~		
TOCUERA	VF-AS1	√	1	√		1	1	1	~		
TOSHIBA	VF-P7	~	~	~		~	~	~	~		
	VF-PS1	\checkmark	~	~		~	~	~	~		
	VF-FS1	~	~	~		~	~	~	~		
	VF-MB1	1	1	1		1	1	1	~		
	VF-nC1	۲ ۲	√ √	√ √		1	√ √	1	√ √	· ·	
TOSHIBA MACHINE	VF-nC3 VELCONIC series	~	1	~		1	1	1	✓ ✓		
ULVAC	G-TRAN series	~	√ √	1		~	~	~	~		
02/10	F340A	√ √	√ √	√ √		√ √	✓ ✓	√ √	~		
	F371	~	~	~		~	~	~	~		
UNIPULSE	F800	~	~	~		~	~	~	~		
	F720A	\checkmark	~	~		~	~	~	~		
	F805A	~	~	~		~	~	~	~	-	
YAMAHA	RCX142	√		√		~	~	1	~		
Yaskawa Electric	DX200 (High-Speed Ethernet)	~	~			~	~		~		
	UT100	~	~	√		~	~	~	~		
	UT750	√ /	1	√		1	~	1	1	-	
	UT550 UT520	1	1	√ √		√ √	√ √	1	√ √		
	U1520 UT350	<u>۲</u>	1	√ √		1	1	√ √	~		
	UT320	√ √	1	√ √		1	~	√ √	~		
Yokogawa Electric	UT2400/2800	√ √	√ √	√ √		~	~	~	~		
	UT450		~	√ √		~	~	~	~		
	UT32A/35A (MODBUS RTU)	~	1	√		~	~	~	~		
	UT52A/55A (MODBUS RTU)	√	1	√		√	√	1	~		
	UT75A (MODBUS RTU)	~	1	~		~	~	~	~		
	UT75A (MODBUS RTU)										
	μR10000/20000 (Ethernet TCP/IP)	~	~			~	~		~		

*1 A communication unit "CU (N)-03-x" is required. It does not support TCP/IP connection.

Worldwide service network for trouble-free

FAX

TEL

TEL. +81-76-274-2144 FAX. +81-76-274-5136

E-mail

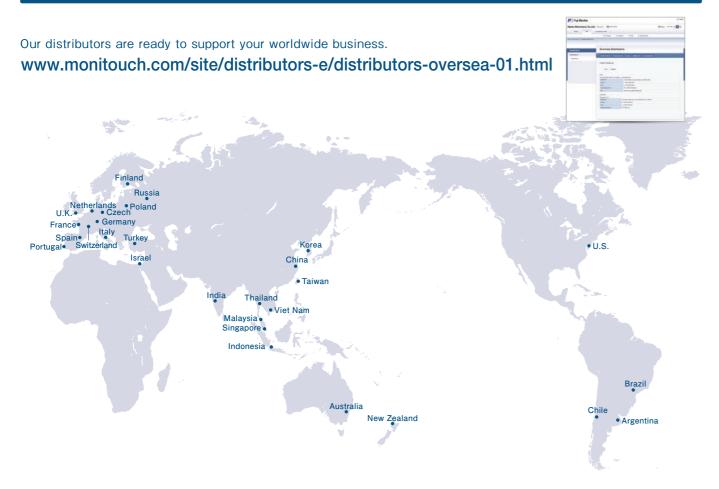
sales@hakko-elec.co.jp

WEB

www.monitouch.com







Operations

To the purchasers:

The warranty of this product is as follows, unless there are special instructions that state otherwise in the quote, contract, catalog, or specifications at the time of the quote or order.

distributor from which you purchased the product, or Fuji Electric / Hakko Electronics for further information. management and maintenance of the product prior to accepting it.

1 Period and Coverage of the Warranty

1-1 Period

1-2 Coverage

- the warranty does not apply to the following cases:
- 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.
- the time of purchase or delivery.
- 7) The malfunction occurs because the product is used for a purpose other than that for which it is intended. 8) The malfunction occurs due to a disaster or natural disaster that Fuji Electric / Hakko Electronics are not responsible for.
- (2) The warranty is only applicable to the single purchased and delivered product.
- (3) The warranty is only valid for the conditions stated in (1) above. Any damage induced by the malfunction of the purchased or delivered product, including damage or loss to a device or machine and passive damage, is not covered by the warranty.

1-3 Malfunction Diagnosis

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

2 Liability for Opportunity Loss

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

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

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

4 Deliverv

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.

- The purpose or area of use may be limited, and a routine checkup may be required depending on the product. Please contact the
- Please conduct inspection of the product promptly upon purchase or delivery. Also, please give sufficient consideration to

(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) 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,

1) The malfunction occurs due to inappropriate conditions, environment, handling or usage that is not specified in the catalog,

6) The malfunction occurs due to factors that were not foreseeable by the practical application of science and technology at

▲ Safety Considerations

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

Notes to consider before purchasing

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

www.monitouch.com

Distributor

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Manufacturer : Hakko Electronics Co., Ltd.

URL : www.monitouch.com 890-1 Kamikashiwano-machi. Hakusan, Ishikawa 924-0035, Japan Phone: +81-76-274-2144 Fax:+81-76-274-5136 E-mail : sales@hakko-elec.co.jp



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 Combined images are used for the screen images.
 Product colors may differ from colors in brochure photos due to printing.

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