

Programmable Display

# TECHNOSHOT

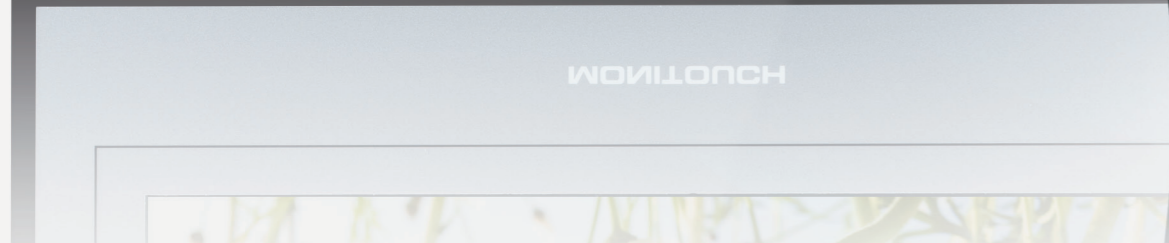


Feel the difference  
in power of expression,  
speed and networking capability.

MONITOUCH



# MONITOUCH TECHNOSHOT



## Communication technology drives innovation in every industry.

Our MONITOUCH programmable displays have been used in various fields - airplane, railway and power plant control systems, electronically controlled order systems for restaurants, factory automation systems, etc. With its sophisticated communication technology, the "TECHNOSHOT" series accelerates development in all industries.

Compact yet highly functional

## TS1070/TS1071 series



TS107\* Model  
 TS107\*□ — Functional specifications: NA: Without built-in LAN port i: With built-in LAN port

### Specifications

Model		TS1070i	TS1070	TS1071i
Display	Display size	7" Wide		
	Resolution	800 × 480 dots		
	Display device	TFT color LCD		
	Colors	65,536 colors		
	Backlight	LED		
	Luminance	450 cd/m <sup>2</sup>		
Touch switch	Analog resistance film			
Memory	FROM	10.5 MB		
	SRAM	128 KB		
External interface	Serial	COM1	RS-422/485, Asynchronous, Data length: 7.8 bits, Parity: even/odd/none, Stop bit: 1.2 bits Baud rate: 4800/9600/19200/38400/57600/76800/115200/187500*1 bps	
		COM2 & COM3	RS-232C, Asynchronous, Data length: 7.8 bits, Parity: even/odd/none, Stop bit: 1.2 bits Baud rate: 4800/9600/19200/38400/57600/76800/115200 bps	
			RS-422/485(two-wire system), Asynchronous, Data length: 7.8 bits, Parity: even/odd/none, Stop bit: 1.2 bits Baud rate: 4800/9600/19200/38400/57600/76800/115200 bps	
	Ethernet		100BASE-TX/10BASE-T	-
Clock	USB (Type A)	1 port (Ver. 2.0, Ver.1.1)		
	USB (Type mini B)	1 port (Ver. 2.0, Ver.1.1)		
	Battery	Coin-type lithium primary battery		
Power supply	Calendar accuracy	Gap±5 sec. per month (Ambient temperature 25 °C)		
	Permissible range of voltage	DC 24 V ± 10 %		
	Demand (maximum rating)	16 W or less		
	Ambient operating temperature	0-50 °C*2		
	Ambient storage temperature	-10-60 °C*2		
Physical environment	Relative humidity	85 % RH or less(without dew condensation, Max. wet bulb temperature: 39 °C or less)		
	Operation altitude	2,000 meters or less		
	Operation atmosphere	Not exposed to corrosive gas or excessive dust (free of conductive dust)		
	Contamination level	Level 2		
Installation conditions	Dimensions W × H × D	215.0 × 155.0 × 42.0 mm		
	Panel cutout W × H	189.0 × 134.0 mm (+0.5/-0)		
	Protect structure	Front panel: Compatible with IP65 (when waterproof gasket*3 is used.), Rear cabinet: Compatible with IP20 Form: Single unit, Installation method: Panel mounting		
Case color	Black			
Compatibility	CE, KC		CE, KC, UL, cUL	

\*1 Available only when connected with SIEMENS MPI. \*2 Keep wet bulb temperature under 39°C to avoid an accident. \*3 Option

Wide screen to display more information

## TS1100/TS1101 series



TS110\* Model  
 TS110\*□ — Functional specifications: NA: Without built-in LAN port i: With built-in LAN port

### Specifications

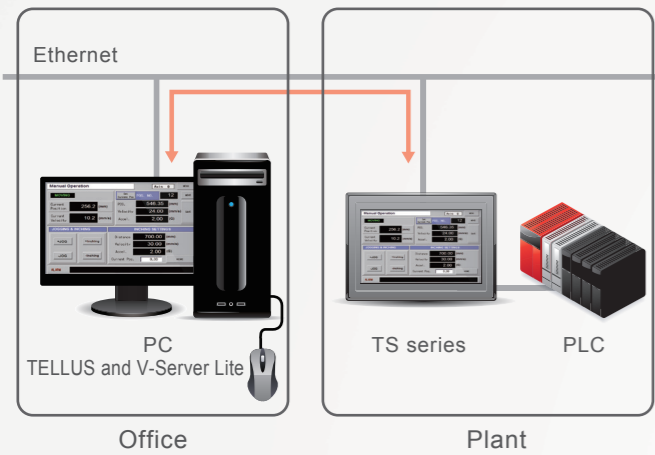
Model		TS1100i	TS1100	TS1101i
Display	Display size	10.2" Wide		
	Resolution	800 × 480 dots		
	Display device	TFT color LCD		
	Colors	65,536 colors		
	Backlight	LED		
	Luminance	350 cd/m <sup>2</sup>		
Touch switch	Analog resistance film			
Memory	FROM	10.5 MB		
	SRAM	128 KB		
External interface	Serial	COM1	RS-422/485, Asynchronous, Data length: 7.8 bits, Parity: even/odd/none, Stop bit: 1.2 bits Baud rate: 4800/9600/19200/38400/57600/76800/115200/187500*1 bps	
		COM2 & COM3	RS-232C, Asynchronous, Data length: 7.8 bits, Parity: even/odd/none, Stop bit: 1.2 bits Baud rate: 4800/9600/19200/38400/57600/76800/115200 bps	
			RS-422/485(two-wire system), Asynchronous, Data length: 7.8 bits, Parity: even/odd/none, Stop bit: 1.2 bits Baud rate: 4800/9600/19200/38400/57600/76800/115200 bps	
	Ethernet		100BASE-TX/10BASE-T	-
Clock	USB (Type A)	1 port (Ver. 2.0, Ver.1.1)		
	USB (Type mini B)	1 port (Ver. 2.0, Ver.1.1)		
	Battery	Coin-type lithium primary battery		
Power supply	Calendar accuracy	Gap±5 sec. per month (Ambient temperature 25 °C)		
	Permissible range of voltage	DC 24 V ± 10 %		
	Demand (maximum rating)	16 W or less		
	Ambient operating temperature	0-50 °C*2		
	Ambient storage temperature	-10-60 °C*2		
Physical environment	Relative humidity	85 % RH or less(without dew condensation, Max. wet bulb temperature: 39 °C or less)		
	Operation altitude	2,000 meters or less		
	Operation atmosphere	Not exposed to corrosive gas or excessive dust (free of conductive dust)		
	Contamination level	Level 2		
Installation conditions	Dimensions W × H × D	283.0 × 220.0 × 42.0 mm		
	Panel cutout W × H	257.0 × 199.0 mm (+0.5/-0)		
	Protect structure	Front panel: Compatible with IP65 (when waterproof gasket*3 is used.), Rear cabinet: Compatible with IP20 Form: Single unit, Installation method: Panel mounting		
Case color	Black			
Compatibility	CE, KC		CE, KC, UL, cUL	

\*1 Available only when connected with SIEMENS MPI. \*2 Keep wet bulb temperature under 39°C to avoid an accident. \*3 Option

High-level functions, user-friendliness and remote control with dedicated software

## 01 Remote Maintenance i series only

Data in a TS panel can be monitored and controlled from a remote office at low cost.



### TELLUS and V-Server Lite

Remote control application "TELLUS and V-Server Lite" is packaged in a configuration software V-SFT-5 free of charge.

\* V-SFT-5 of ver. 5.4.28.0 or later is provided.

With TECHNOSHOT connected to the Ethernet at the production site, you can manage the production site by means of the PC in your office.

\* TS107\* and TS110\* only (models with a built-in LAN port)

Remote control and data monitoring can be carried out by clicking the screen.

The following functions for remote maintenance are available:

Remote monitoring

TECHNOSHOT system updating

Transfer of screen data

Reading of sampling data

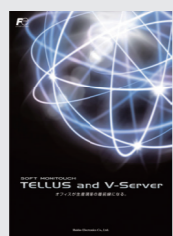
Reading/writing of storage data

"TELLUS and V-Server", an enhanced version of "TELLUS and V-Server Lite", has more functions for data control and collection of information.

Application software for connecting your office to your production sites at low cost

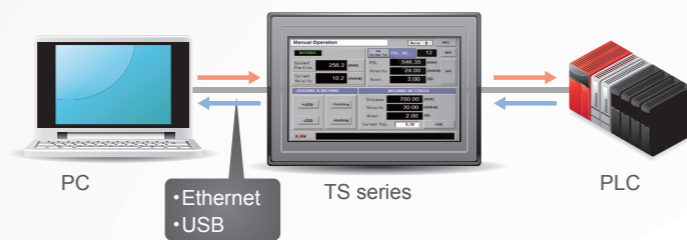
### TELLUS and V-Server

This remote control software enables real-time data collection and production site management via the Internet from your office in Japan or overseas.



## 02 Path-through Programming

TECHNOSHOT allows you to write/read PLC ladder programs to/from your PC through Ethernet or USB connection.



## 03 Multilanguage

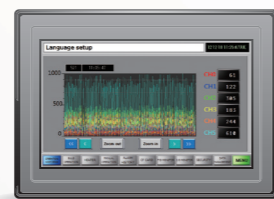
You can change the language displayed on the screen to one of 16 languages. You do not need to manage files for each language.



Compatible language fonts:  
Japanese, English/ Western European,  
Chinese (traditional and simplified), Korean,  
Central European, Cyrillic, Greek, Turkish and Baltic.

## 04 Trend Sampling

Various kinds of data, which change from moment to moment, are recorded chronologically and shown in a trend graph.



TS series

### ● Zoom Display

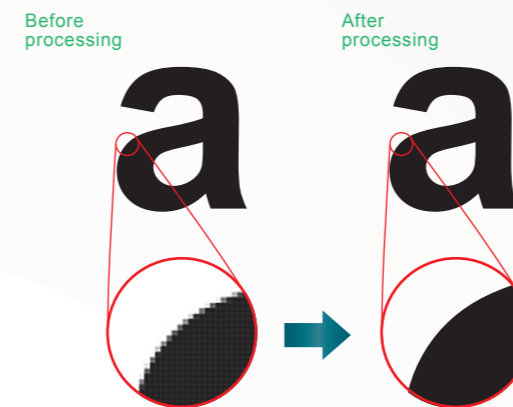
Magnification of a specified area allows you to check the waveform of the trend graph specifically.



(Same size)

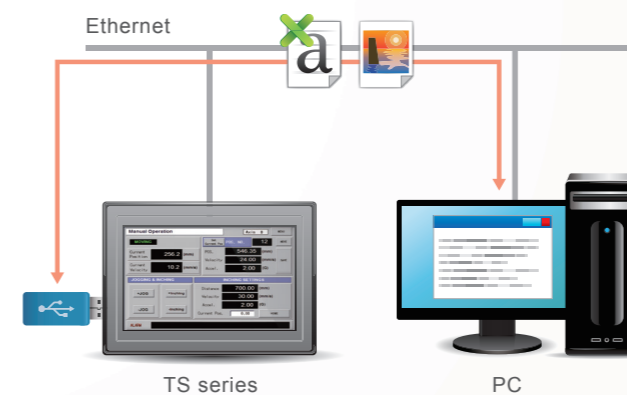
## 05 Smooth fonts

Windows characters can be displayed through anti-aliasing processing.



## 06 FTP Server i series only

Data in the USB thumb drive fitted to the TS panel can be read or written from/to the PC via FTP client tool.



## 07 Operation Log

You can view log data for operations such as pushing of buttons and entering of values to check the "who/when/what/how" history and analyze the causes of failure.

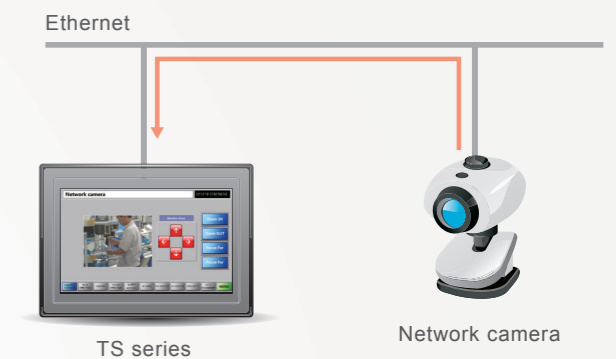


Operation history is saved as a binary file.  
No need to worry about falsification of data.

\* English, simplified Chinese and Japanese display is supported.

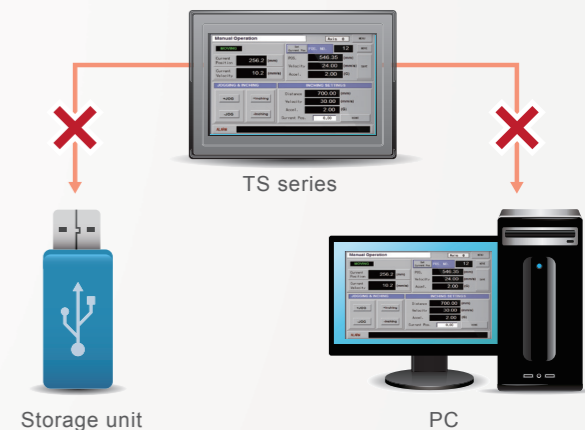
## 08 Network Camera i series only

Images shot by network cameras can be displayed on a TS panel via Ethernet, which enables monitoring of production lines.



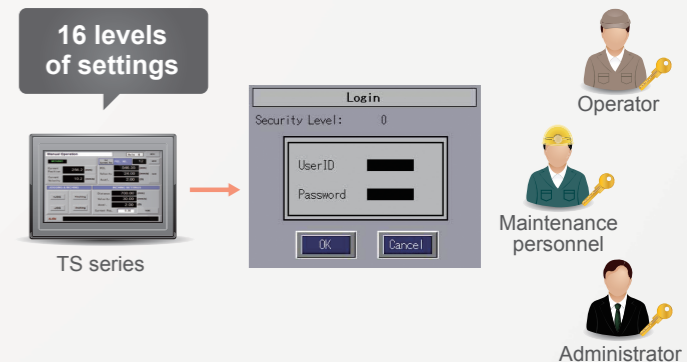
## 09 Inhibition of uploading

Uploading of screen data from TECHNOSHOT can be inhibited. This function protects your important screen data from flowing out. Uploading onto storage units as well as PCs can be inhibited.



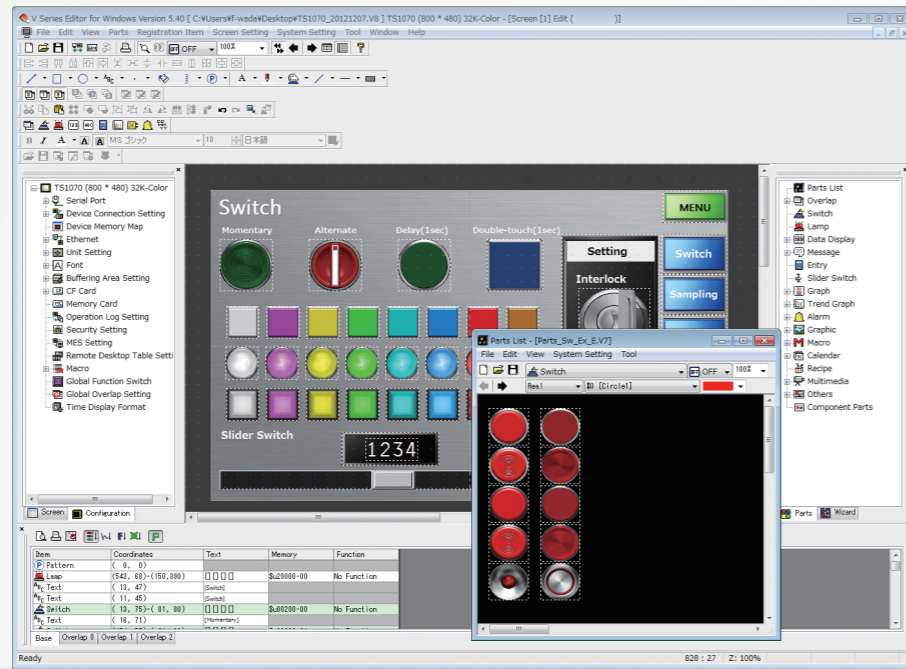
## 10 Security Function

By setting a function limit according to the user level, a high-security environment can be established.



Facilitates screen configuration and maintenance with various functions

**MONITOUCH**  
**V-SFT** Ver. 5



PC	PC/AT compatible computer for Windows
OS	Windows XP / XP 64 Edition / Vista(32bit, 64bit) / 7(32bit, 64bit) / 8(32bit, 64bit) / 8.1(32bit, 64bit)
CPU	Pentium III 800MHz or higher (Pentium4 2.0GHz or higher is recommended.)
Memory	512MB or more
Hard disk	For installation: 1GB or more space required
CD-ROM disk drive	24 times or faster
Display	Resolution of 1,024 × 768 (XGA) or higher
Color indication	High color (16 bit) or higher
Note	Microsoft .NET Framework 4.0 or 4.5 (If a PC does not have .NET Framework 4.0 or 4.5, Framework 4.0 will automatically be installed on the PC.)

\*Install the V-SFT editor with authorization of administrator.  
\*TS series is compatible with Ver.5.4.28.0 or later.

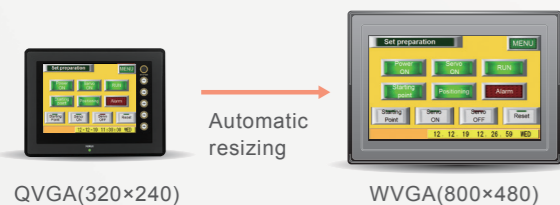
## 01 Emulator

V-SFT Ver.5 allows debugging of the screen program on your PC.



## 02 Auto Resizing

Automatic resizing from QVGA (320×240) to WVGA (800×480). Previous screen program can be used without change.



## 03 Function Switches Display\*

Function switches on the previous models can be added to the screen, and the screen program for the function switches can be used as well.

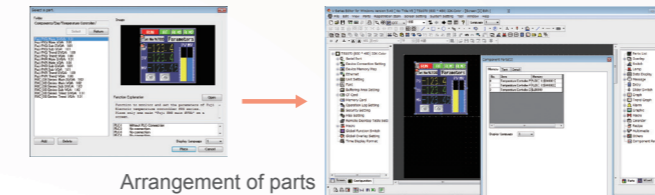


\*Two-step switch operation is not available.

Creating sophisticated screens by selecting parts with desired functions and macros.

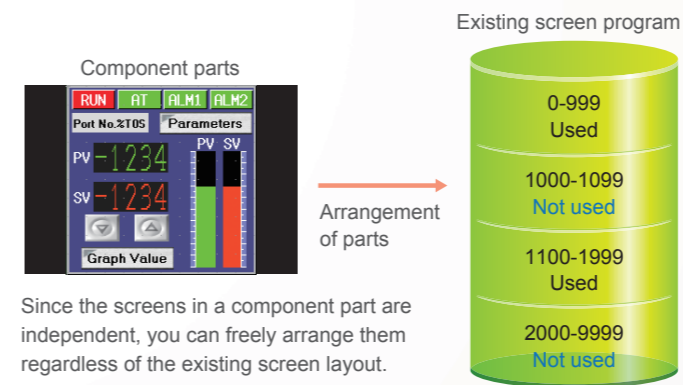
## 01 Selection from Parts Library

You can easily create screens by selecting component parts from the parts library and arranging them.



## 02 Addition to the Existing Program

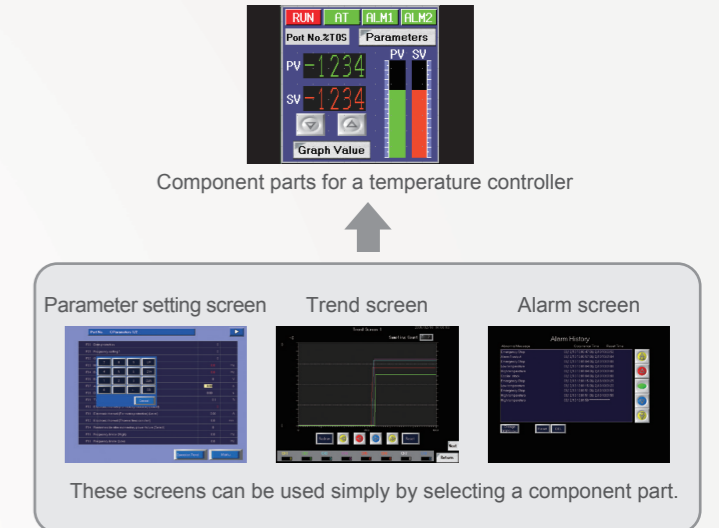
Component parts can be easily added to the unused area in the existing screen program.



Since the screens in a component part are independent, you can freely arrange them regardless of the existing screen layout.

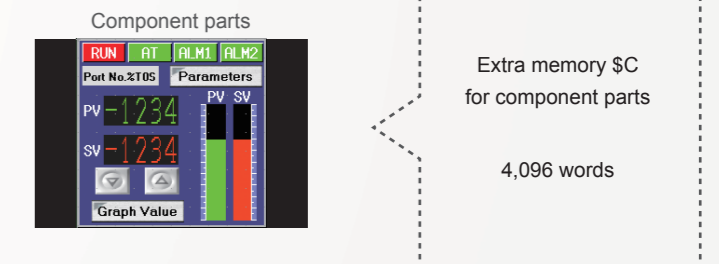
## 03 Screens Integrated in a Part

A component part consisting of some screens facilitates quick screen configuration.



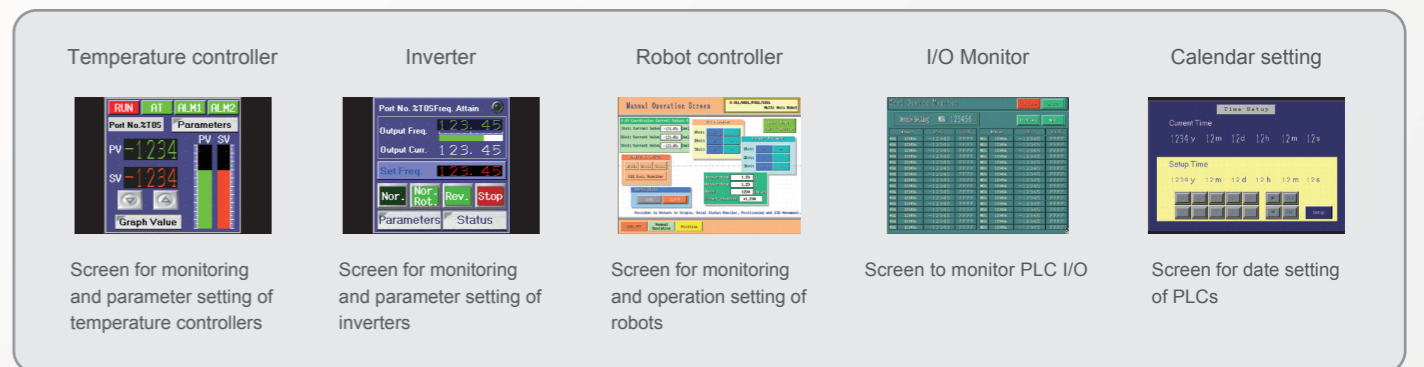
## 04 No Worry about Memory Shortage

Extra memory is provided for component parts separately from the memory for existing screens.



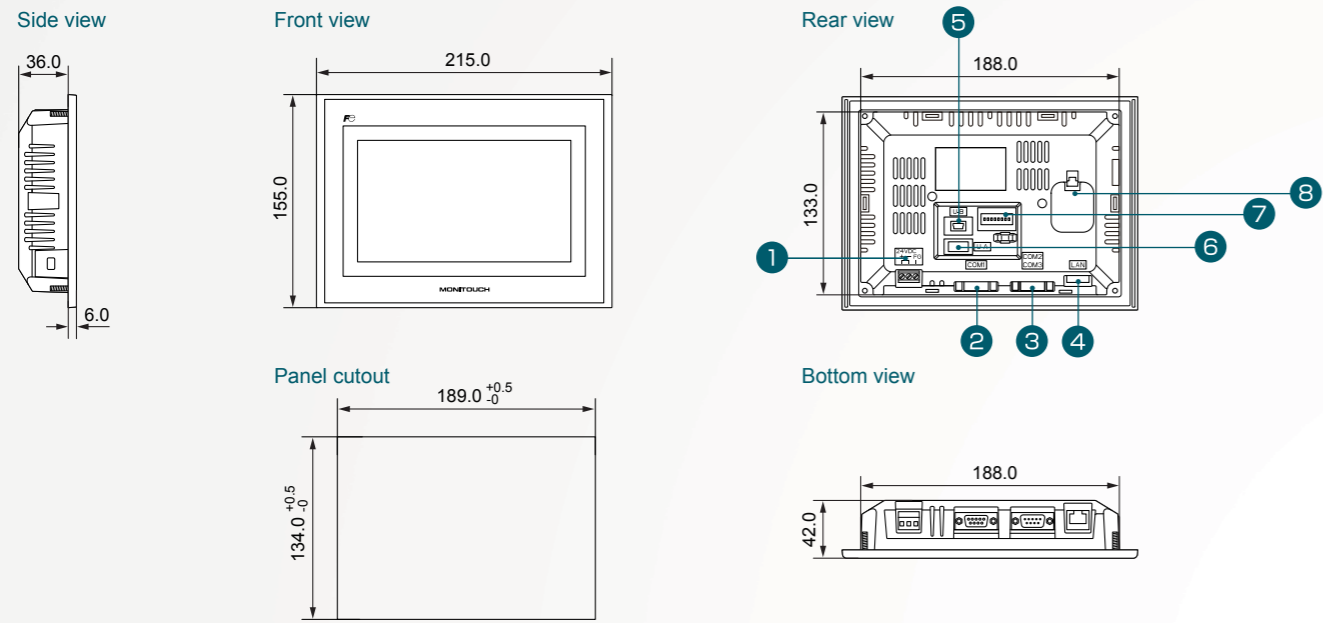
## 05 A variety of Component Parts

Component parts with various functions can be selected from the parts list to create screens according to your purpose easily.

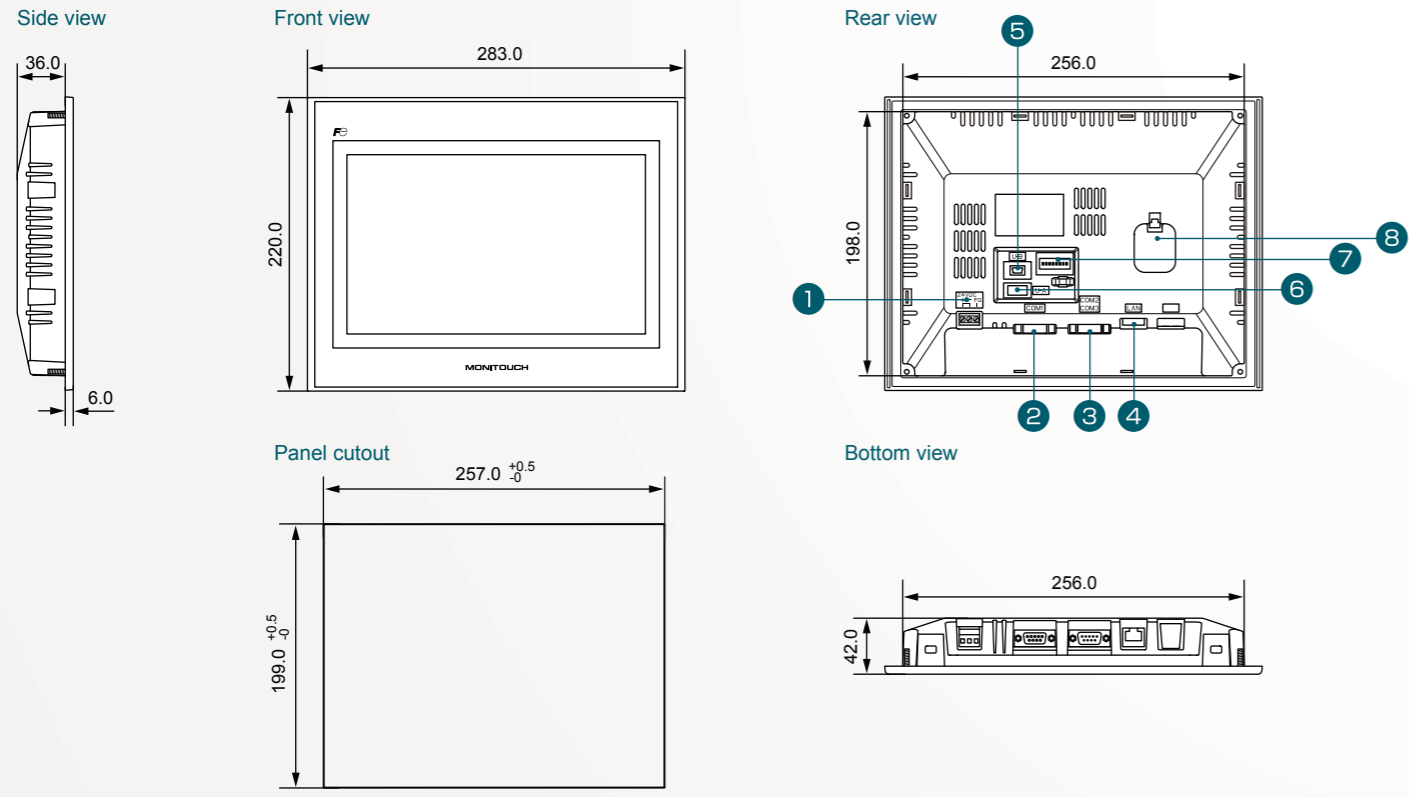


Optimum system configuration is available in accordance with type of business, site needs, environment, etc.

## TS1070/TS1071 series (Unit: mm)



## TS1100/TS1101 series (Unit: mm)



### Part Names

- ① Power supply terminal
- ② Serial D-sub 9-pin (COM1)
- ③ Serial D-sub 9-pin (COM2/COM3)
- ④ 100BASE-TX/10BASE-T connector (LAN)
- ⑤ USB slave (Type mini B)
- ⑥ USB master (Type A)
- ⑦ DIP switch
- ⑧ Battery

## Option

### V-SFT-5 (Configuration software)\*

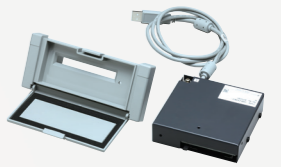
Compatible OS:  
 Windows XP/XP 64 Edition/  
 Vista 32bit/Vista 64bit/  
 Win 7 32bit/Win 7 64bit/  
 Win 8 32bit/Win 8 64bit/  
 Win 8.1 32bit/Win 8.1 64bit



\*TS series is compatible with Ver.5.4.28.0 or later.

### USB-CFREC (CF card recorder (USB))

Used for recording or reading data onto/from a CF card. Fitted on the control panel.



### TS1070-WP / TS1100-WP (Waterproof gasket)

Waterproof gasket for operation panels (used when waterproof level IP65 is required).

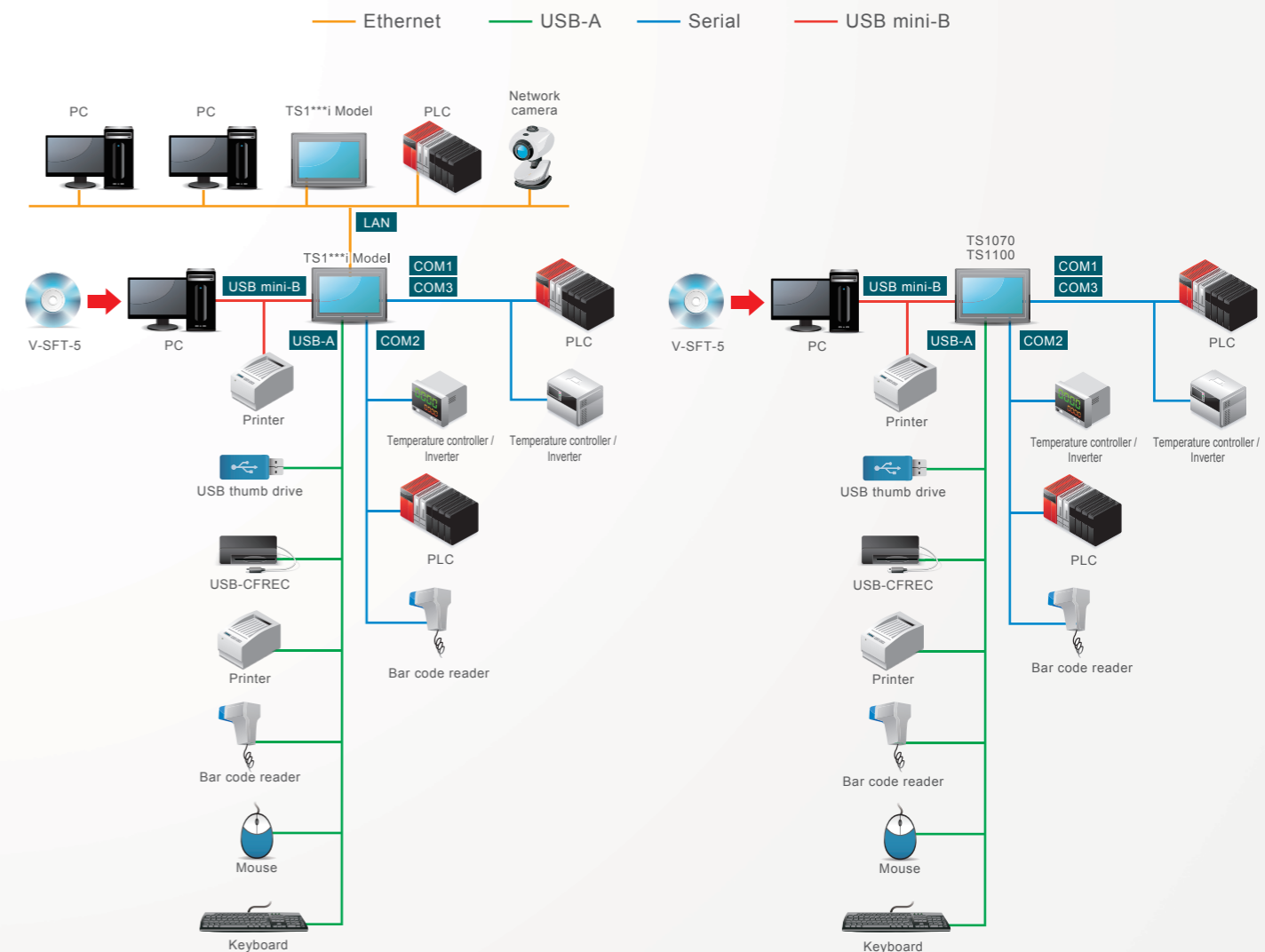


### UA-FR (USB-A port cable)

Cable to connect to the USB-A (slave) port.



## System Configuration



## **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.

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