

Programmable Display

TECHNOSHOT



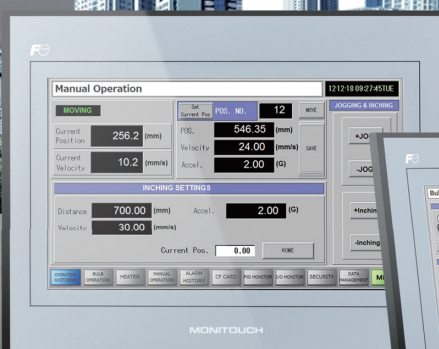
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MONITOUCH



Hakko Electronics Co., Ltd.

9027NE1

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/m² | | |
| 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*11 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 | — |
| | USB (Type A) | | 1 port (Ver. 2.0,Ver.1.1) | | |
| | USB (Type mini B) | | 1 port (Ver. 2.0,Ver.1.1) | | |
| Clock | Battery | | Coin-type lithium primary battery | | |
| | Calendar accuracy | | Gap±5 sec. per month (Ambient temperature 25 °C) | | |
| Power supply | Permissible range of voltage | | DC 24 V ± 10 % | | |
| | Demand (maximum rating) | | 16 W or less | | |
| Physical environment | Ambient operating temperature | | 0-50 °C*2 | | |
| | Ambient storage temperature | | -10-60 °C*2 | | |
| | 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/m² | | |
| 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*11 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 | — | 100BASE-TX/10BASE-T |
| | USB (Type A) | | 1 port (Ver. 2.0,Ver.1.1) | | |
| | USB (Type mini B) | | 1 port (Ver. 2.0,Ver.1.1) | | |
| Clock | Battery | | Coin-type lithium primary battery | | |
| | Calendar accuracy | | Gap±5 sec. per month (Ambient temperature 25 °C) | | |
| Power supply | Permissible range of voltage | | DC 24 V ± 10 % | | |
| | Demand (maximum rating) | | 16 W or less | | |
| Physical environment | Ambient operating temperature | | 0-50 °C*2 | | |
| | Ambient storage temperature | | -10-60 °C*2 | | |
| | 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 |

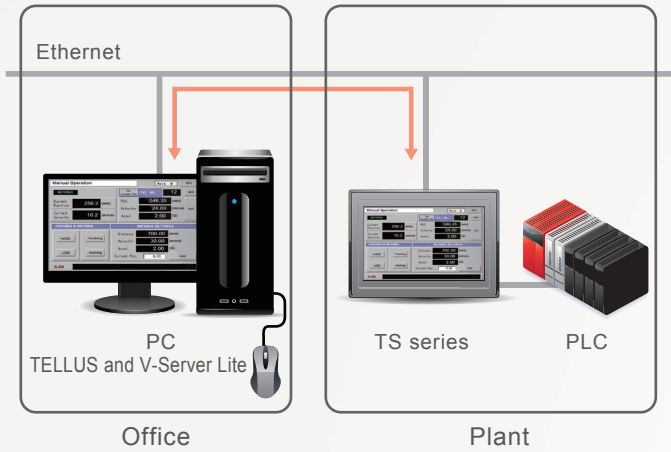
*1 Available only when connected with SIEMENS MPI. *2 Keep wet bulb temperature under 39°C to avoid an accident. *3 Option

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*ⁱ and TS110*ⁱ 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.

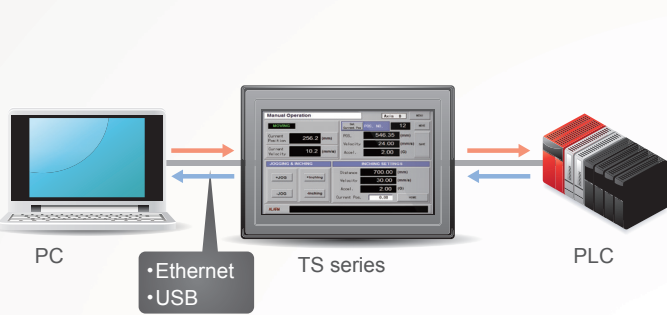
Application software for connecting your office to your production sites at low cost

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.

Up to 16 languages

TS series

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

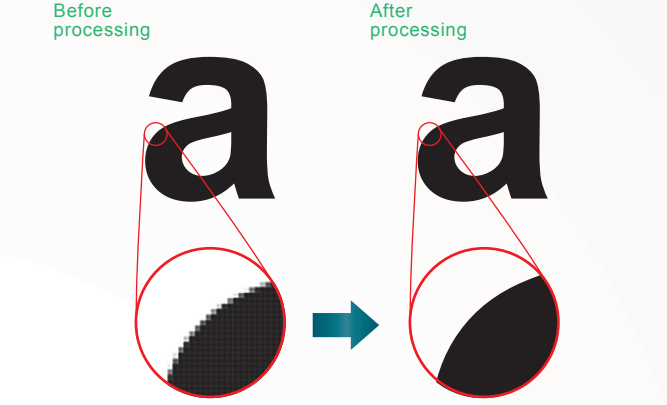
●Zoom Display

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

(Same size)

05 Smooth fonts

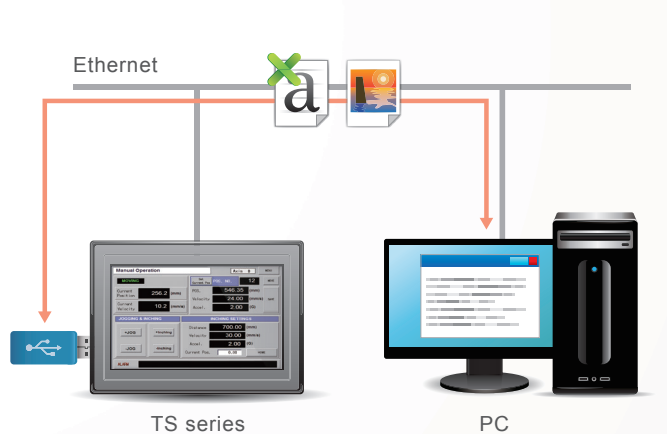
Windows characters can be displayed through anti-aliasing processing.



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.

TS series

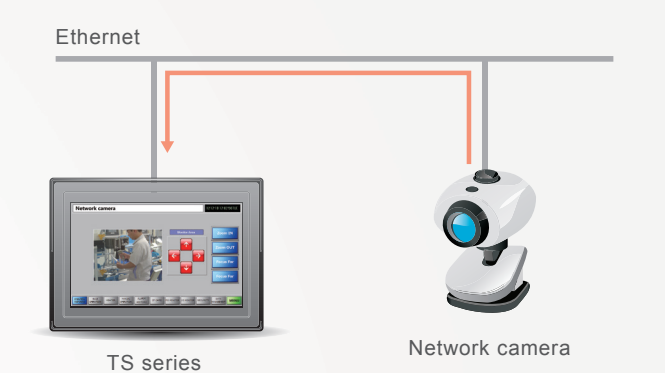
Operation history is saved as a binary file.
No need to worry about falsification of data.

* English, simplified Chinese and Japanese display is supported.

08 Network Camera

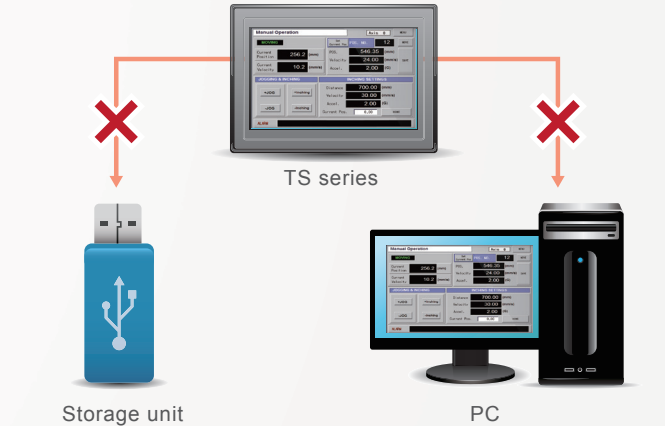
i series only

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.

16 levels of settings

TS series

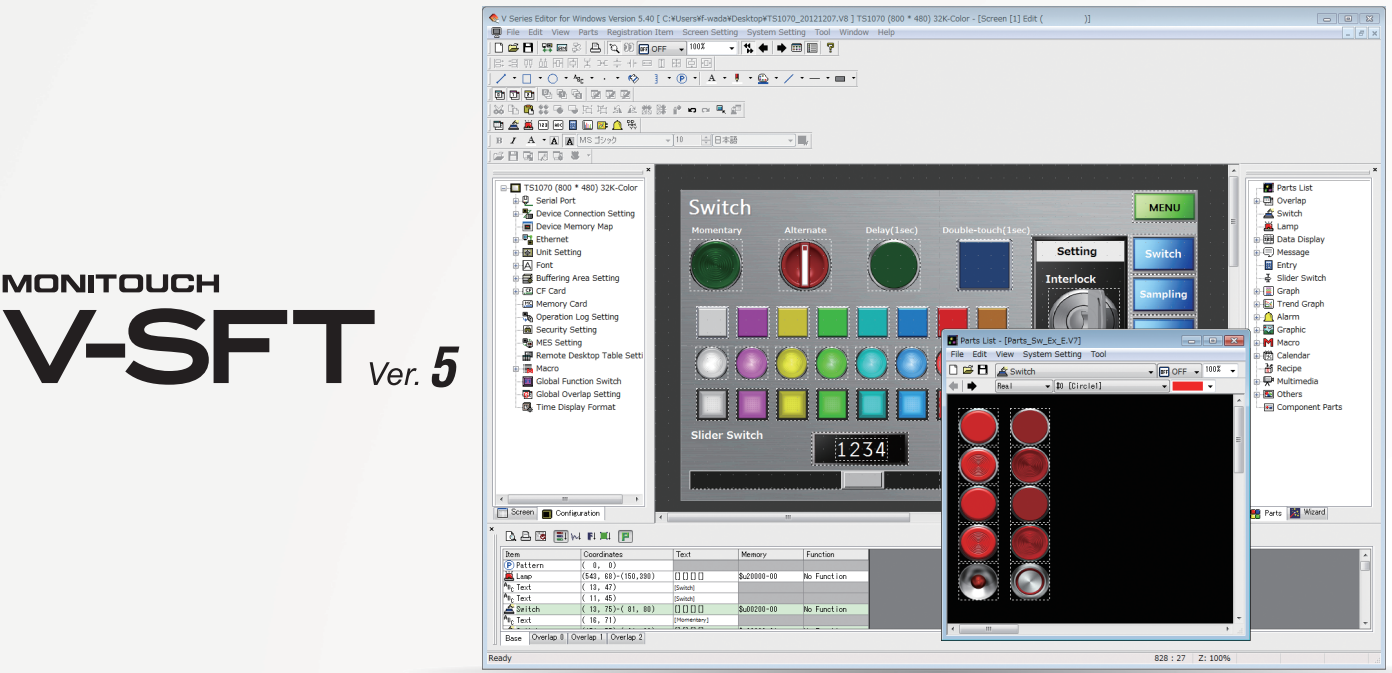
Security Level: 0
UserID
Password
OK Cancel

Operator
Maintenance personnel
Administrator

Configuration Software(V-SFT)

Easy screen configuration

Facilitates screen configuration and maintenance with various functions



| | |
|-------------------|---|
| 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 (Pentium 4 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.

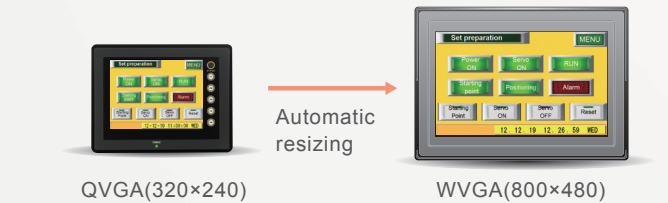
01 Emulator

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.

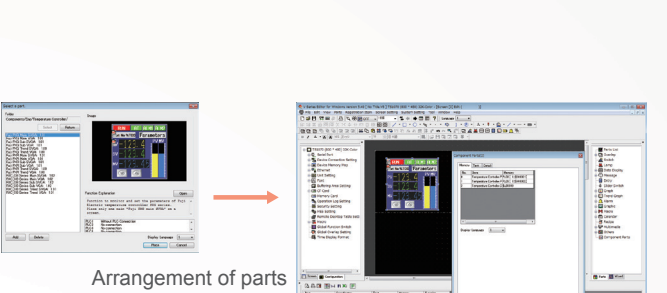
Component Parts

Integrated parts to facilitate screen configuration

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

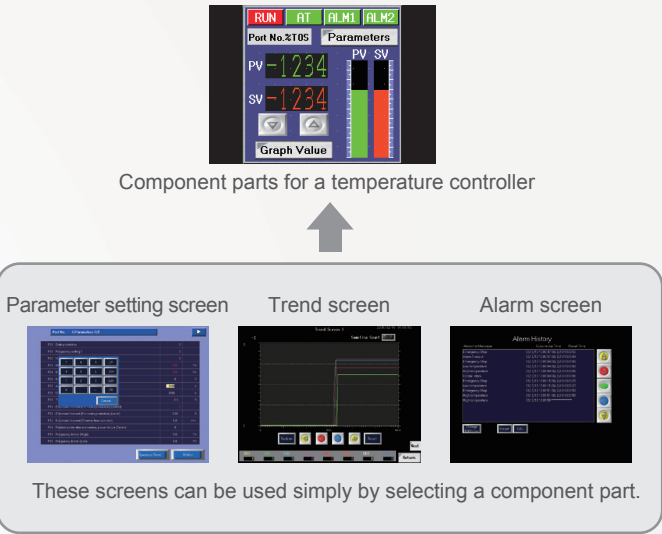
01 Selection from Parts Library

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



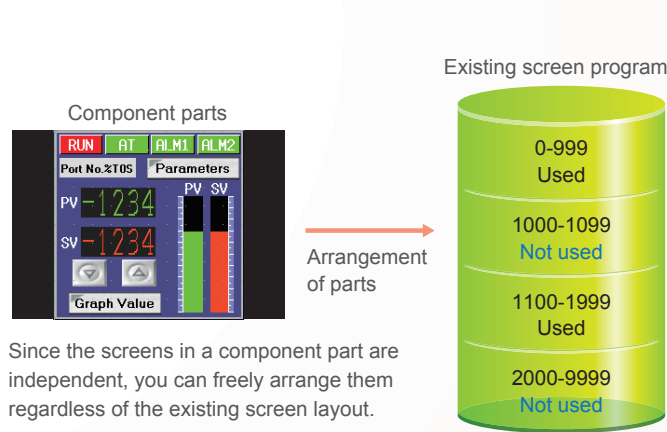
03 Screens Integrated in a Part

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



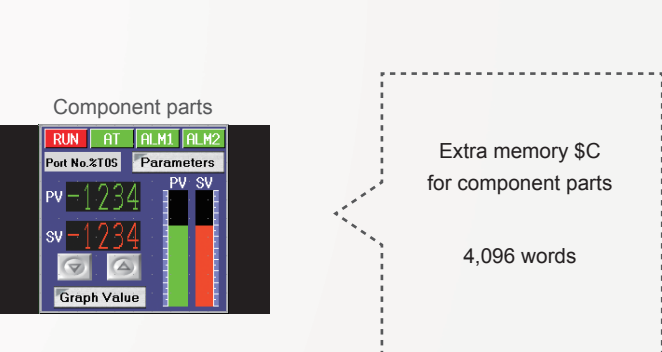
02 Addition to the Existing Program

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



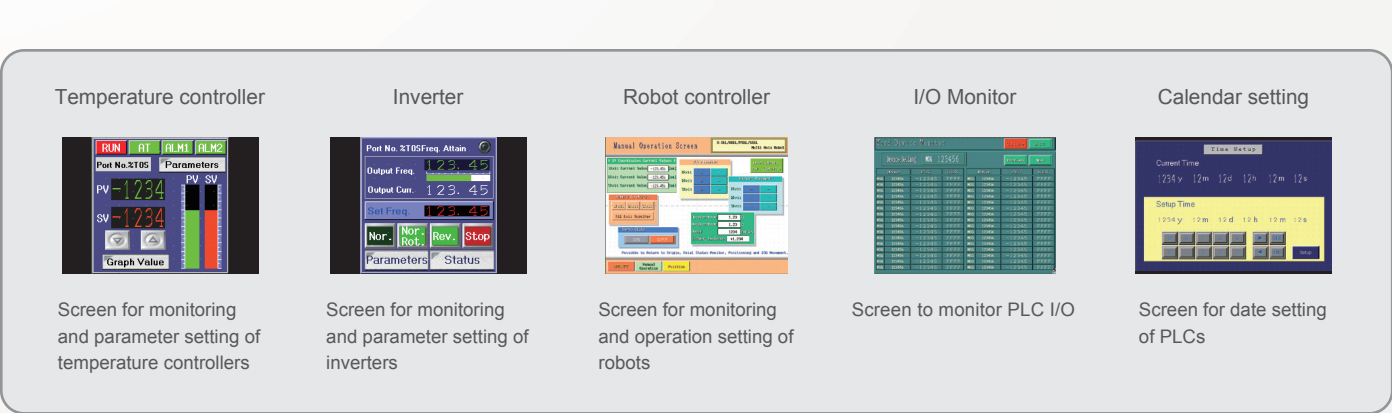
04 No Worry about Memory Shortage

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



05 A variety of Component Parts

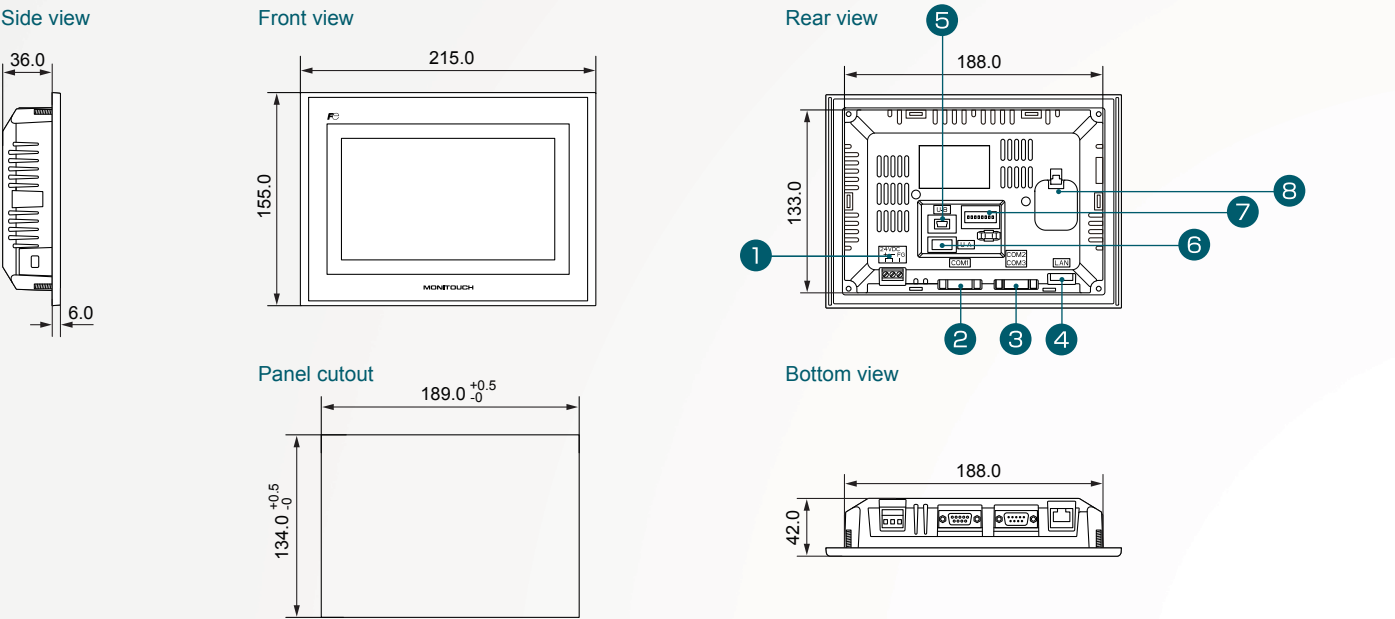
Component parts with various functions can be selected from the parts list to create screens according to your purpose easily.



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

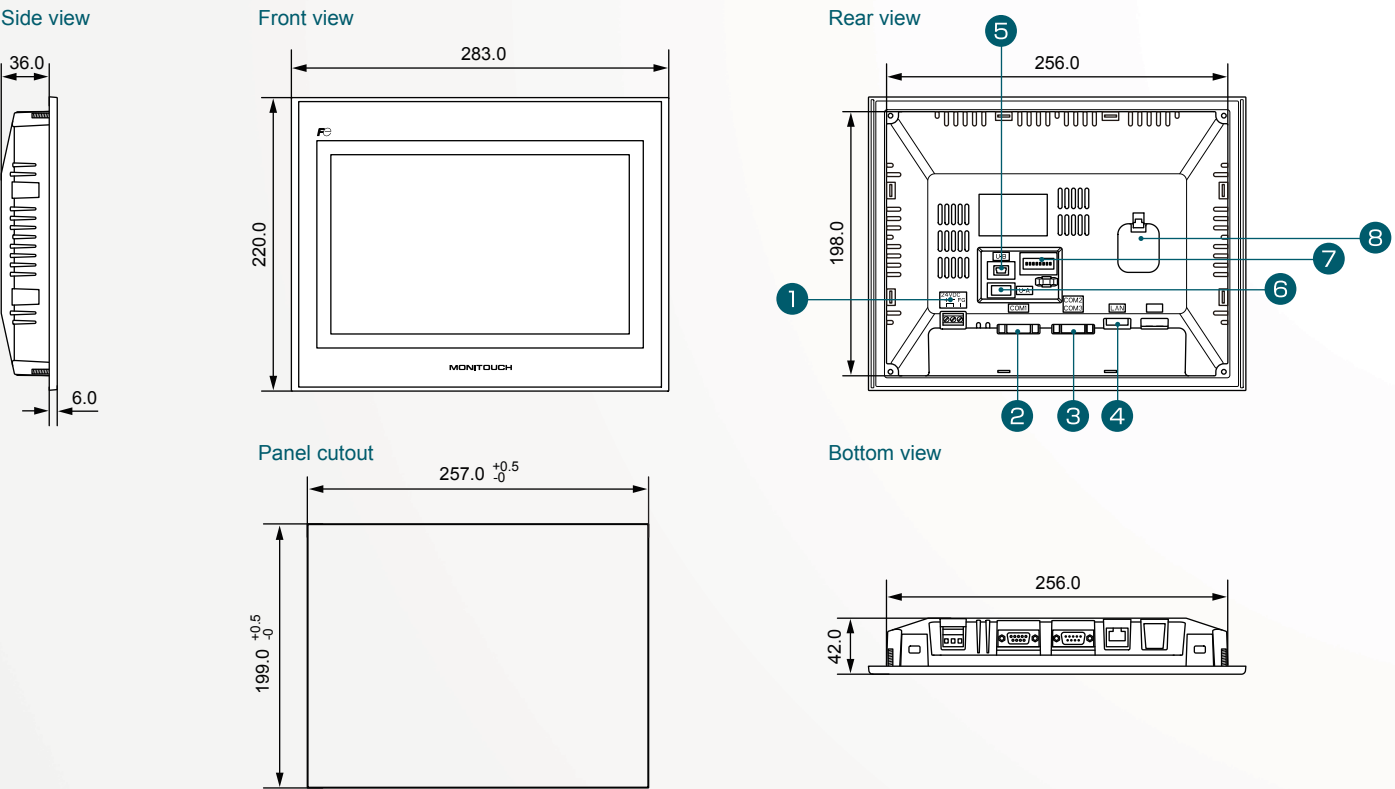
TS1070/TS1071 series

(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.



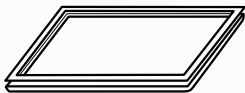
USB-CFREC (CF card recorder (USB))

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).

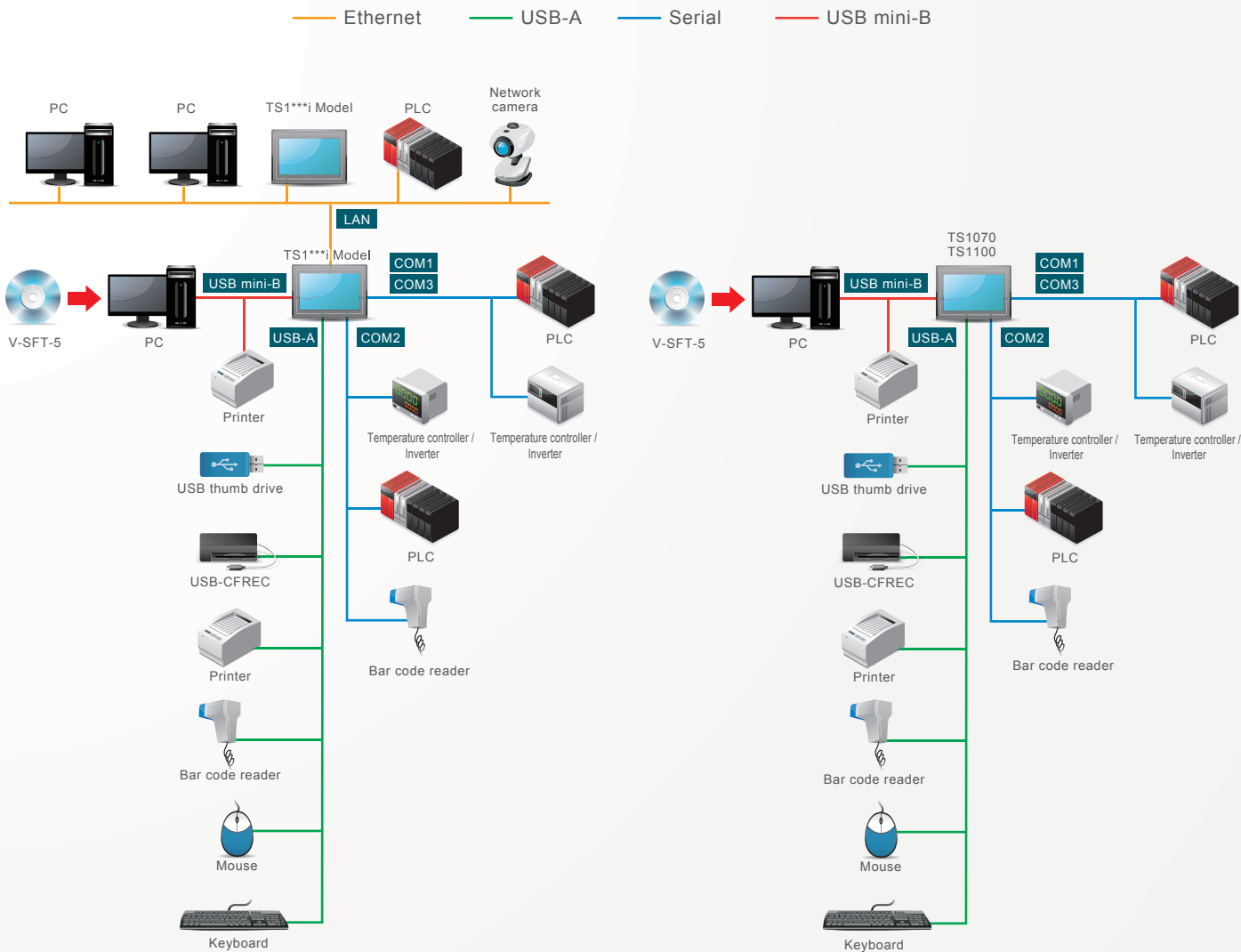


UA-FR (USB-A port cable)

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.
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