Programmable Display

TECHNOSHOT

Feel the difference

in power of expression,

speed and networking capability.
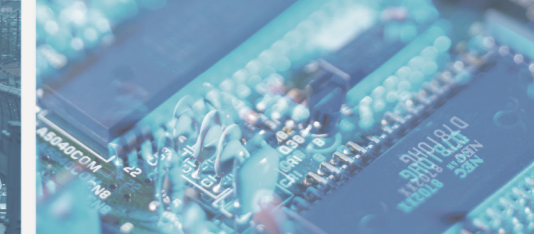
MONITOUCH

Manual Operation

Bulb Operation Screen

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

| 7 inches | WVGA | 64K Colors | TFT | LED Backlight | 3ch Serial (D-sub9×2) | USB Master/Slave | Ethernet |

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*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	–	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

| 10.2 inches | WVGA | 64K Colors | TFT | LED Backlight | 3ch Serial (D-sub9×2) | USB Master/Slave | Ethernet |

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*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	–	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.

Ethernet

PC
TELLUS and V-Server Lite

Office

TS series   PLC

Plant
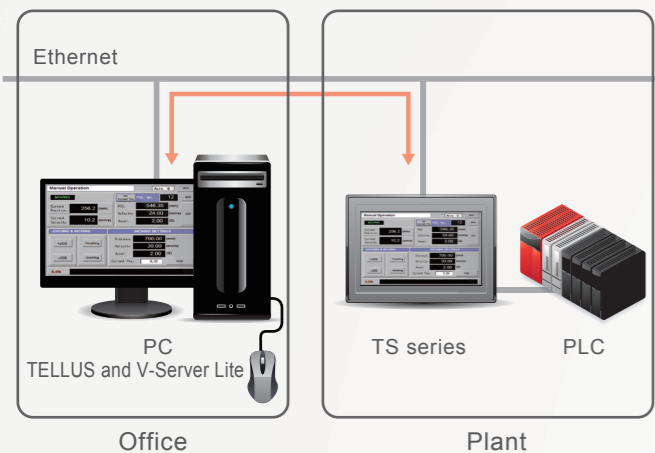
TELLUS and V-Server Lite

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.
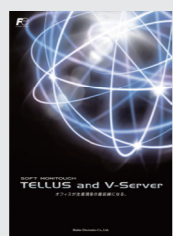
02 Path-through Programming

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

PC   •Ethernet •USB   TS series   PLC
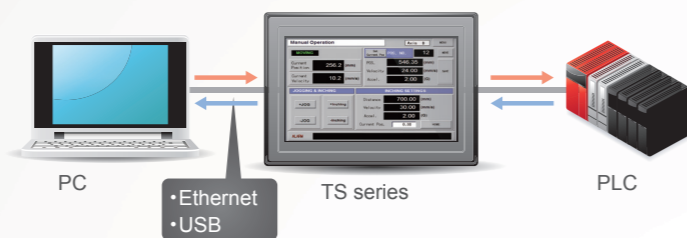
03 Multilanguage

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.
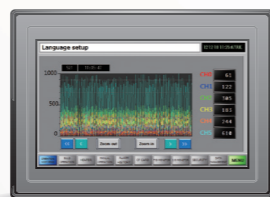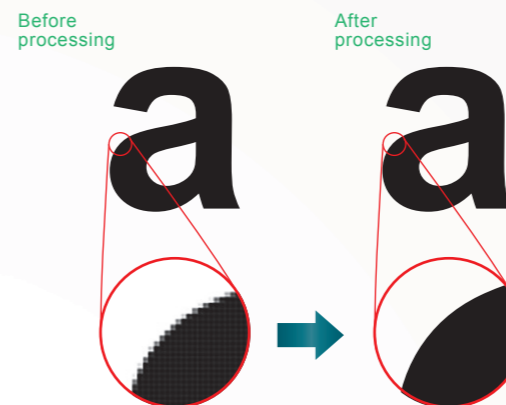
TS series

●Zoom Display

Magnification of a specified area allows you to check the waveform of the trend graph specifically.
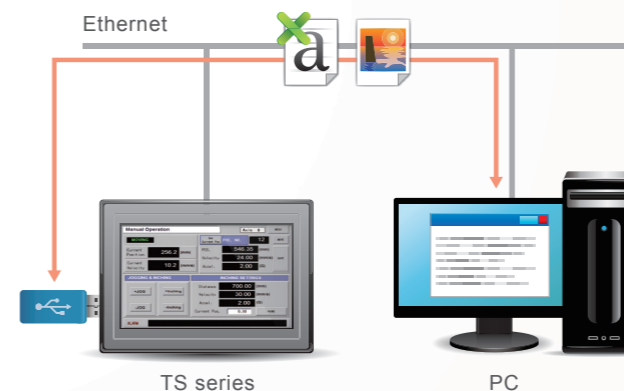
(Same size)   Zoom in   Zoom in
Zoom out   Zoom out

05 Smooth fonts

Windows characters can be displayed through anti-aliasing processing.

Before processing   After processing

a → a

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.

Ethernet

TS series   PC

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.
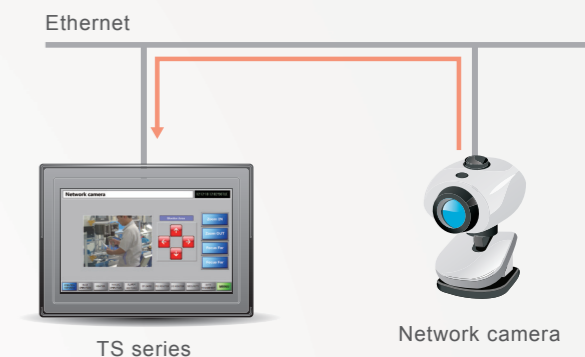
TS series

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.
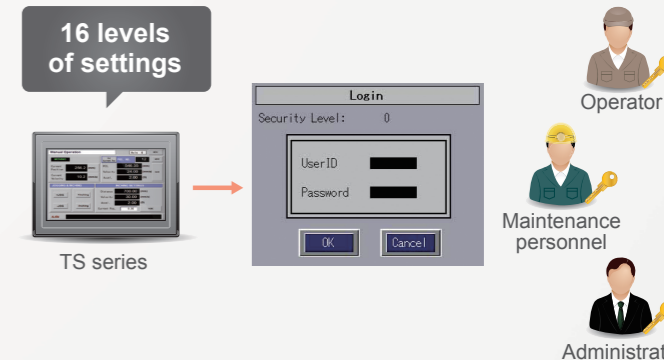
Ethernet

TS series   Network camera

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.

TS series

Storage unit   PC
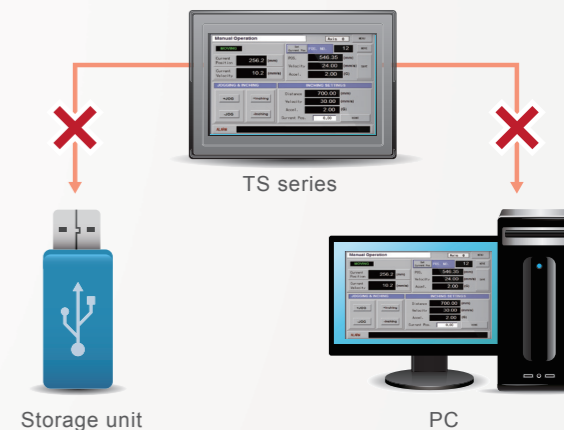
10 Security Function

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

16 levels of settings

Login

TS series

Operator

Maintenance personnel

Administrator

Configuration Software[V-SFT] Easy screen configuration

Facilitates screen configuration and maintenance with various functions

MONITOUCH
V-SFT Ver. 5
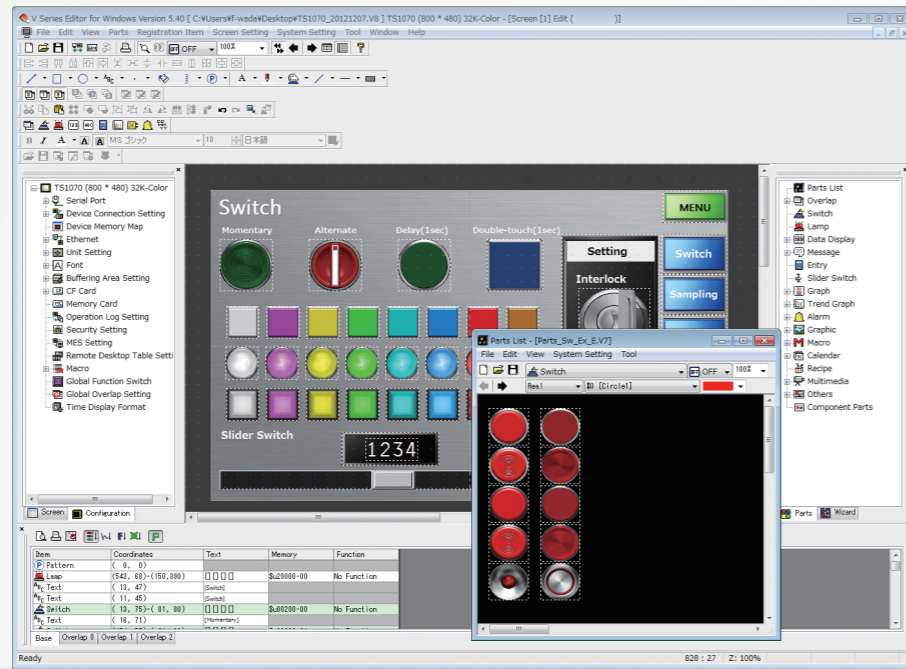
PC	PC/AT compatible computer for Windows
OS	Windows XP / XP 64 Edition / Vista(32bit, 64bit) / 7(32bit, 64bit) / 8(32bit, 64bit) / 8.1(32bit, 64bit)
CPU	Pentium III 800MHz or higher (Pentium4 2.0GHz or higher is recommended.)
Memory	512MB or more
Hard disk	For installation: 1GB or more space required
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.

Emulator   Simulator

02 Auto Resizing

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

QVGA(320×240)

Automatic resizing

WVGA(800×480)
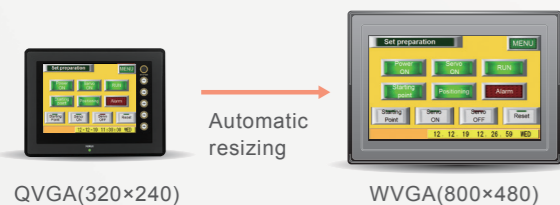
03 Function Switches Display*

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.

Automatic arrangement of function switches

*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.

Arrangement of parts
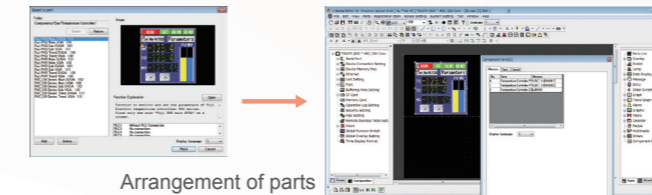
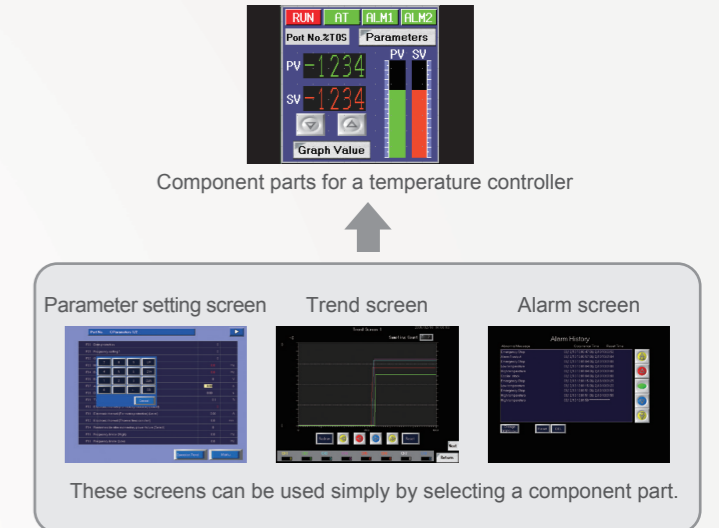## 02 Addition to the Existing Program

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

Component parts

Arrangement of parts

Existing screen program

0-999 Used
1000-1099 Not used
1100-1999 Used
2000-9999 Not used
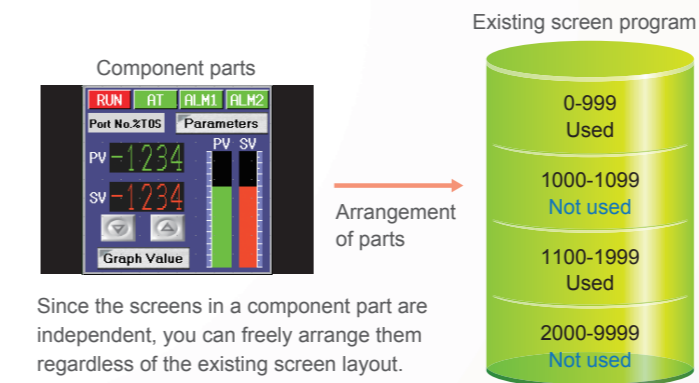
Since the screens in a component part are independent, you can freely arrange them regardless of the existing screen layout.

## 03 Screens Integrated in a Part

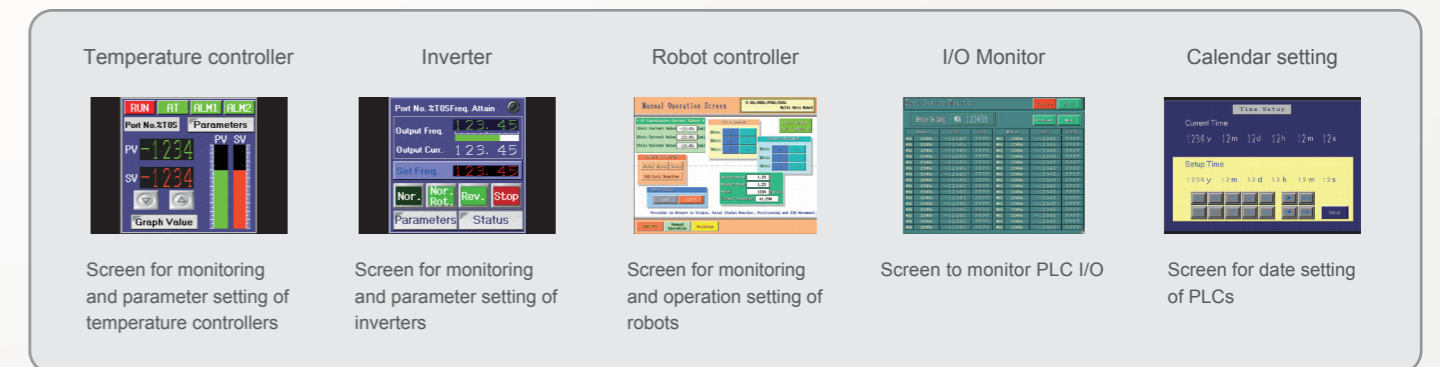A component part consisting of some screens facilitates quick screen configuration.

Component parts for a temperature controller

Parameter setting screen   Trend screen   Alarm screen

These screens can be used simply by selecting a component part.

04 No Worry about Memory Shortage

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

Component parts

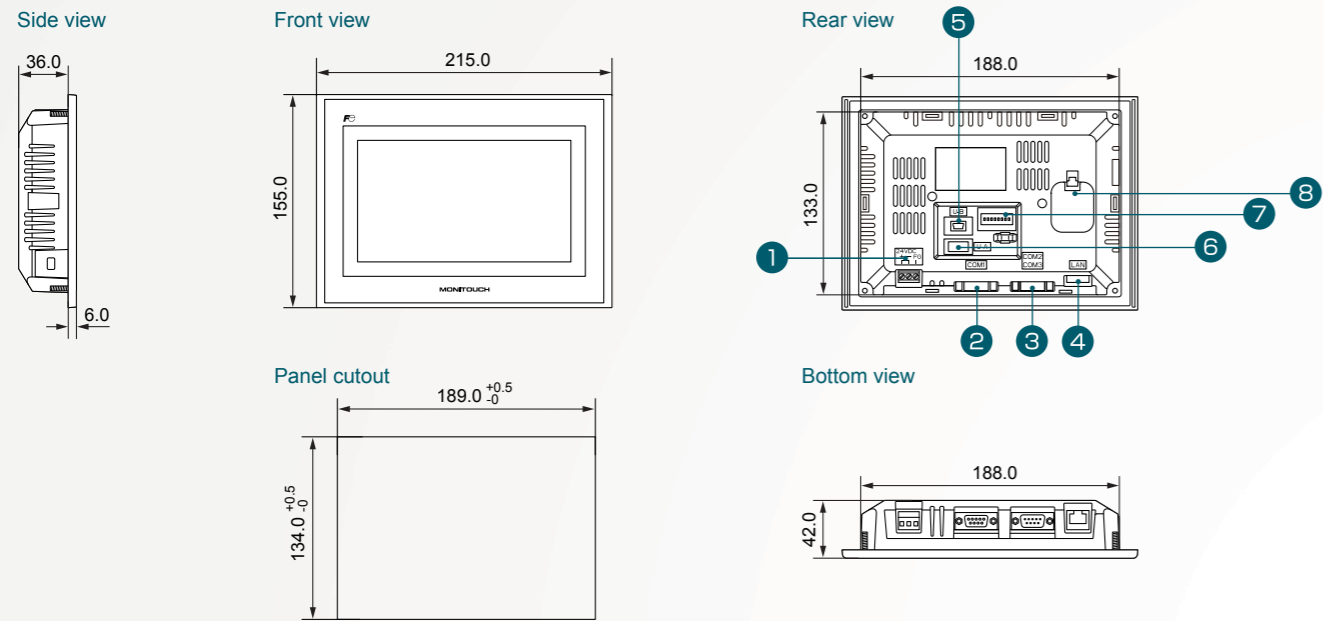Extra memory $C for component parts

4,096 words
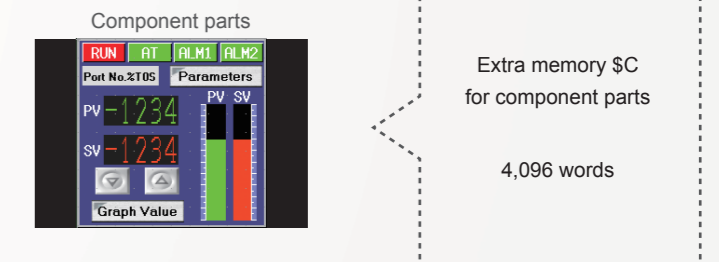
05 A variety of Component Parts

Component parts with various functions can be selected from the parts list to create screens according to your purpose easily.
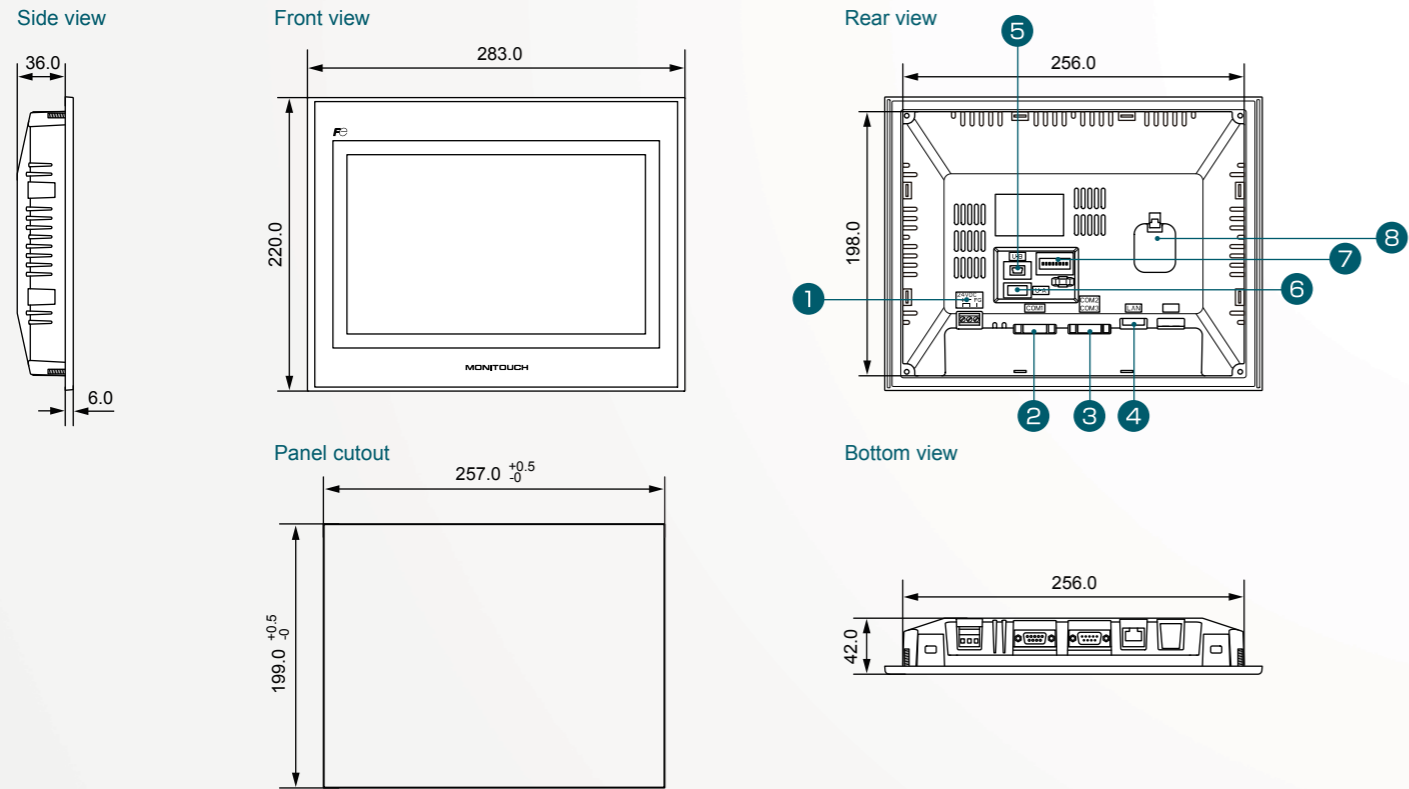
Temperature controller   Inverter   Robot controller   I/O Monitor   Calendar setting

Screen for monitoring and parameter setting of temperature controllers

Screen for monitoring and parameter setting of inverters

Screen for monitoring and operation setting of robots

Screen to monitor PLC I/O

Screen for date setting of PLCs

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

TS1070/TS1071 series

(Unit: mm)

Side view
36.0
6.0

Front view
215.0
155.0
MONITOUCH

Rear view
188.0
133.0

⑤ ⑧ ⑦ ⑥ ① ② ③ ④

Panel cutout
189.0 +0.5 -0
134.0 +0.5 -0

Bottom view
188.0
42.0

TS1100/TS1101 series

(Unit: mm)

Side view
36.0
6.0

Front view
283.0
220.0
MONITOUCH

Rear view
256.0
198.0

⑤ ⑧ ⑦ ⑥ ① ② ③ ④

Panel cutout
257.0 +0.5 -0
199.0 +0.5 -0

Bottom view
256.0
42.0

Part Names

- ❶ Power supply terminal
- ❷ Serial D-sub 9-pin (COM1)
- ❸ Serial D-sub 9-pin (COM2/COM3)
- ❹ 100BASE-TX/10BASE-T connector (LAN)
- ❺ USB slave (Type mini B)
- ❻ USB master (Type A)
- ❼ DIP switch
- ❽ 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.

MONITOUCH V-SFT

USB-CFREC (CF card recorder (USB))

Used for recording or reading data onto/from a CF card. Fitted on the control panel.
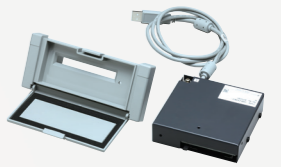
TS1070-WP / TS1100-WP (Waterproof gasket)

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

— Ethernet — USB-A — Serial — USB mini-B

PC PC TS1***i Model PLC Network camera

LAN

V-SFT-5 PC TS1***i Model

USB mini-B COM1 COM3
USB-A COM2 PLC

Printer
Temperature controller / Inverter
Temperature controller / Inverter

USB thumb drive

PLC

USB-CFREC

Bar code reader

Printer

Bar code reader

Mouse

Keyboard

V-SFT-5 PC

TS1070 TS1100 COM1 COM3

USB mini-B
USB-A COM2 PLC

Printer
Temperature controller / Inverter
Temperature controller / Inverter

USB thumb drive

PLC

USB-CFREC

Bar code reader

Printer

Bar code reader

Mouse

Keyboard

www.monitouch.com

Distributor

VEGETABLE OIL INK