Pro-face®

Graphic Operator Interface

GP3000 SERIES

Enhanced Manufacturing Solutions through Advanced HMI Capability

The Advanced Interface Between Operator and Machine

Your team - the most creative "functions" on the factory floor.

Drawing the best out of your team is essential in order to create a strong manufacturing organization.

The GP3000 Series lets your team control every machine in the factory.

Now everyone has access to information about the entire manufacturing process.

They can share this data to come up with new innovatative ideas to increase productivity.

Create an environment, in which human machine interfaces
can assist every operation to optimize performance.

NEW LINEUP

Display on High brightness model

Operation Status of Automation

B 0 2

Operation in Progress

Display on a standard model

High brightness models minimizing reflection to the features from a larger sized model provide high visibility even in well-lit locations

12.1-inch M class	12.1-inch C class (CANopen Type)	5.7-inch S class
GP-3650U	GP-3600U	GP-3300U
Model: AGP3650-U1-D24	Model: AGP3600-U1-D24-CA1M	Model: AGP3300-U1-D24

5.7-inch is 1,000 cd/m²
12.1-inch is 800 cd/m²
(measured onTFT color LCD) ultra high-brightness TFT provides easy-to-read, sharp and clear view in a broad range of environments including well-lit locations.

[High brightness model]   [Standard model]

Screen data capacity of large-sized models expanded

■ With S/C class models 7.5-inch or larger with Rev.4 or later : 8MB ⟫⟫ 16MB
■ With M class models of 7.5-inch or larger : 8MB ⟫⟫ 10MB

*GP-3750T can use up to 16MB when record and playback functions are not in use.
*Supported with GP-Pro EX Ver.2.6 or later.

The GP3000 Series is available in four classes with diverse interfaces to suit your application perfectly

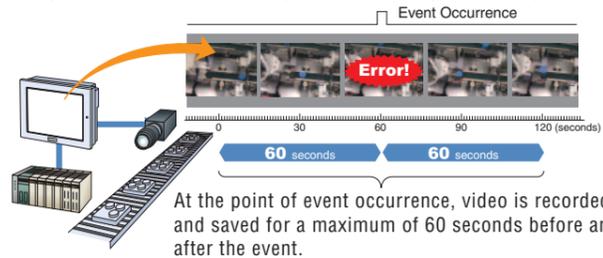Introducing the Pro-face line-up of programmable operator interfaces

For those who need video input

Multi-media class offers real visualization through video recording and playback.

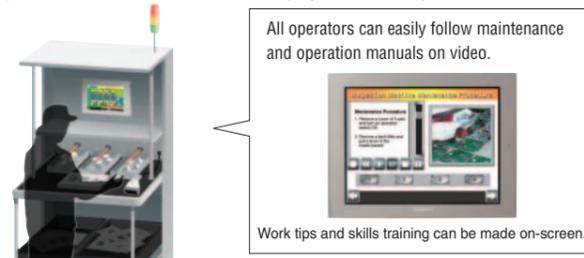| Video-in	Sound-in	I/O
Ethernet	Serial	USB
Communication Unit	Video Unit	CF Card

The Event Recorder allows you to analyze the cause with recorded images

Video recording can capture a situation in image form. This feature is effective for predictive maintenance as well as preservation and analysis of error logs.

Event Occurrence

Error!

0   30   60   90   120 (seconds)

60 seconds   60 seconds

At the point of event occurrence, video is recorded and saved for a maximum of 60 seconds before and after the event.

Video functions make operation instructions easy to understand

You can play back a video file right on the GP3000.
Operation instructions in video can display details clearly.

All operators can easily follow maintenance and operation manuals on video.

Work tips and skills training can be made on-screen.

Input sounds and video + + Mobility

For those who need a handheld HMI

The handheld model features enhanced safety and ease of use.

Video-in	Sound-in	I/O
Ethernet	Serial	USB
Communication Unit	Video Unit	CF Card
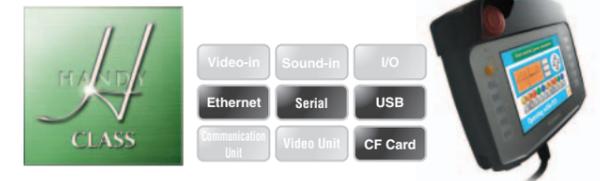
Emergency Switch

The emergency switch securely stops the machine in the event of emergency and circuit failure.

With the switch to operate 3 signal, safety is secure.
Handheld units are available with or without an emergency switch. Switches are available in red, yellow or grey.

3-Position Enable Switch

If a hazardous event occurs, such as an electric shock, releasing or fully pressing the emergency switch will stop machine operation.

Released	OFF
Intermediate	ON
Fully pressed	OFF

A forced contact opening function is also equipped.

The key switch allows you to move the device without triggering the emergency stop.

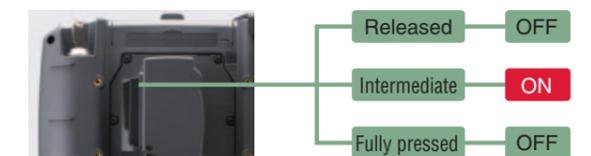## The standard GP3000 SERIES utilizes information from both production site and office.

Standard class comes equipped with an information network connection

Video-in	Sound-in	I/O
Ethernet	Serial	USB
Communication Unit	Video Unit	CF Card

For those who need more flexibility for I/O configurations

Control class offers control functions on HMI units

Video-in	Sound-in	I/O
Ethernet	Serial	USB
Communication Unit	Video Unit	CF Card

Select the I/O type best suited to your needs.

The DIO offers direct extensions.

DIO
6 input points and 2 output points

You can control I/O device to a GP unit without changing the PLC programs.

FLEX NETWORK enables to less-wiring for remote I/O connections.

FLEX NETWORK
Bit variable input/output: 1024 points maximum
Integer variable input/output: 256 points maximum*

CANopen (master)
Bit variable input/output: 1024 points maximum
Integer variable input/output: 256 points maximum*

UP to 63 nodes can be connected. This enables remote control of large equipment.

* To check about connectable I/O terminals, please refer to "Otasuke Pro!" (http://www.pro-face.com/otasuke/).

Note: Our products are available with a variety of types and numbers of interfaces. Please see page 05 for details.

Inputs and Outputs +

Supported Interfaces

Video-in	**Video Input Interface** For video input connection in NTSC/PAL/SECAM formats via a RCA interface	
USB	**USB Interface** For screen data transfer and printer connection via USB 1.1 Type-A host interface	
Sound-in	**Sound Input Interface** For microphone connection via 3.5mm mini jack connector	
Communication Unit	**Communication Unit** For optional communication unit connection, such as a fieldbus unit	
I/O	**I/O Interface** For Input/output device connection, such as sensors and relays	
Video Unit	**Video Unit** For Video-mix, DVI-In and RGB-In unit connection	
Ethernet	**Ethernet Interface** 10BASE-T/100BASE-TX via IEEE802.3u interface	
CF Card	**CF Card Interface** For recipe filing, data sampling, alarm history, etc.	
Serial	**Serial Communication Interface** For RS-232C/422/485 connection	

We offer a wide variety of functions and screen sizes from 15" to 3.8" – simply make the selection that best meets your requirements.

	AC	DC	AC (Except for GP-36*0U)	DC (Except for GP-3650U)	AC	DC	DC	DC	DC

Multi-media class with video Recording and play back.

15" — **GP-3750T**
Color: TFT 65,536
Display resolution: XGA 1024 × 768
• Video unit • Communication unit • CF card • AUX/Sound Out

12.1" — **GP-3650U GP-3650T**
Color: TFT 65,536
Display resolution: SVGA 800 × 600
• Video unit • Communication unit • CF card • AUX/Sound Out

10.4" — **GP-3560T GP-3550T**
Color: TFT 65,536
Display resolution: SVGA 800 × 600 / VGA 640 × 480
• Video unit • Communication unit *1 • CF card • AUX/Sound Out

7.5" — **GP-3450T**
Color: TFT 65,536
Display resolution: VGA 640 × 480
• Communication unit • CF card • AUX/Sound Out

5.7" — **GP-3360T**
Color: TFT 65,536
Display resolution: VGA 640 × 480
• Communication unit • CF card • Sound Out

12.1 ◄

Control class with I/O control and connecting.

12.1" — **GP-3600U GP-3600T**
Color: TFT 65,536
Display resolution: SVGA 800 × 600
• Video unit • Communication unit • CF card • AUX/Sound Out

10.4" — **GP-3500T GP-3500S GP-3500L**
Color: TFT 65,536 / STN 4,096 / MONO 16 Shades
Display resolution: SVGA 800 × 600 / VGA 640 × 480
• Video unit (TFT model only) • Communication unit *1 • CF card • AUX/Sound Out

7.5" — **GP-3400T GP-3400S**
Color: TFT 65,536 / STN 4,096
Display resolution: VGA 640 × 480
• Communication unit • CF card • AUX/Sound Out

5.7" — **GP-3300T GP-3300S GP-3300L**
Color: TFT 65,536 / STN 4,096 / MONO 16 Shades
Display resolution: QVGA 320 × 240
• Communication unit • CF card

10.4 ◄

Standard class with Ethernet connection.

12.1" — **GP-3600T**
Color: TFT 65,536
Display resolution: SVGA 800 × 600
• Video unit • Communication unit • CF card • AUX/Sound Out

10.4" — **GP-3510T GP-3500T GP-3500S GP-3500L**
Color: TFT 65,536 / STN 4,096 / MONO 16 Shades
Display resolution: SVGA 800 × 600 / VGA 640 × 480
• Video unit (TFT model only) • Communication unit *1 • CF card • AUX/Sound Out

7.5" — **GP-3400T GP-3400S**
Color: TFT 65,536 / STN 4,096
Display resolution: VGA 640 × 480
• Communication unit • CF card • AUX/Sound Out

5.7" — **GP-3300U GP-3300S GP-3300L / GP-3310U GP-3300T GP-3301S GP-3301L GP-3302B**
Color: TFT 65,536 / STN 4,096 / MONO 16 Shades / BLUE 16 Shades
Display resolution: VGA 640 × 480 / QVGA 320 × 240
• Communication unit • CF card • AUX/Sound Out (GP-3310T)

3.8" — **GP-3200T GP-3200A**
Color: TFT 256 / MONO 8 Shades
Display resolution: QVGA 320 × 240

*For the GP-3300U specifications, refer to our website.

7.5 ◄

The handheld model features enhanced safety and case of use.

5.7" — **GP-3310HT GP-3300HS GP-3300HL**
Color: TFT 65,536 / STN 4,096 / MONO 16 Shades
Display resolution: VGA 640 × 480 / QVGA 320 × 240
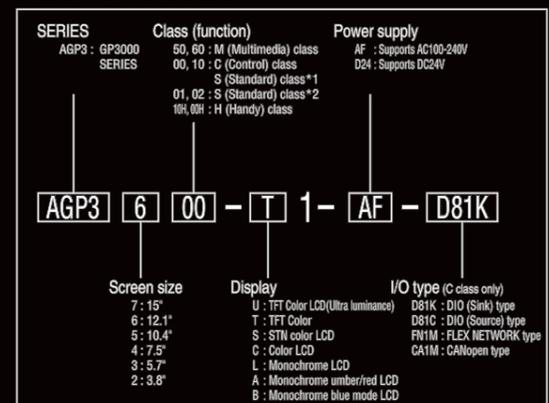• CF card

5.7 ◄

3.8 ◄

Feature Comparison

		15"	12.1"			10.4"			7.5"			5.7"				3.8"
Screen size / Class		M	M	C	S	M	C	S	M	C	S	M	C	S	H	S
Function	Event recorder	○	○	—	—	○	—	—	○	—	—	○	—	—	—	—
	Video playback	○	○	—	—	○	—	—	○	—	—	○	—	—	—	—
	32,767 alarms*5	○	○	○	○	○	○	○	○	○	○	○	○	—	—	—
	Logic program — External I/O program	—	—	○	—	—	○	—	—	○	—	—	○	—	—	—
	Logic program — Internal operation	○	○	○	○	○	○	○	○	○	○	○	○	△*3	—	—
	RPA (Remote PC Access)	○	○	○	○	○	△*2	△*2	○	△*2	△*2	○	○	△*4	—	—
	Web server	○	○	○	○	○	○	○	○	○	○	○	○	△*3	○	○
	Multi driver	4	4	4	4	4	4	4	4	4	4	4	2	4*6	2	2
PLC Program	Ladder Monitor	○	○	○	○	○	○	○	○	○	○	○	○	—	△*4	△*7
	Device Monitor	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Pass-through	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
GP Program	Logic Monitor	○	○	○	○	○	○	○	○	○	○	○	○	△*3	—	—
	Address Monitor	○	○	○	○	○	○	○	○	○	○	○	○	○	—	—
	Online Edit	○	○	○	○	○	○	○	○	○	○	○	○	○	—	—

*1: The communication unit cannot be combined when the video unit is in use. *2: TFT type only. *3: Except model GP-3301/GP-3302B. *4: GP-3310T only. *5: Function expansion memory is required.
6: 2 types in case of GP330 models. *7: GP-3310HT model only.

Model Nomenclature

SERIES
AGP3 : GP3000 SERIES

Class (function)
50, 60 : M (Multimedia) class
00, 10 : C (Control) class
S (Standard) class*1
01, 02 : S (Standard) class*2
10H, 00H : H (Handy) class

Power supply
AF : Supports AC100-240V
D24 : Supports DC24V

AGP3 6 00 – T 1 – AF – D81K

Screen size
7 : 15"
6 : 12.1"
5 : 10.4"
4 : 7.5"
3 : 5.7"
2 : 3.8"

Display
U : TFT Color LCD(Ultra luminance)
T : TFT Color
S : STN color LCD
C : Color LCD
L : Monochrome LCD
A : Monochrome umber/red LCD
B : Monochrome blue mode LCD

I/O type (C class only)
D81K : DIO (Sink) type
D81C : DIO (Source) type
FN1M : FLEX NETWORK type
CA1M : CANopen type

*1: The functions vary according to the subsequent alphanumeric characters.
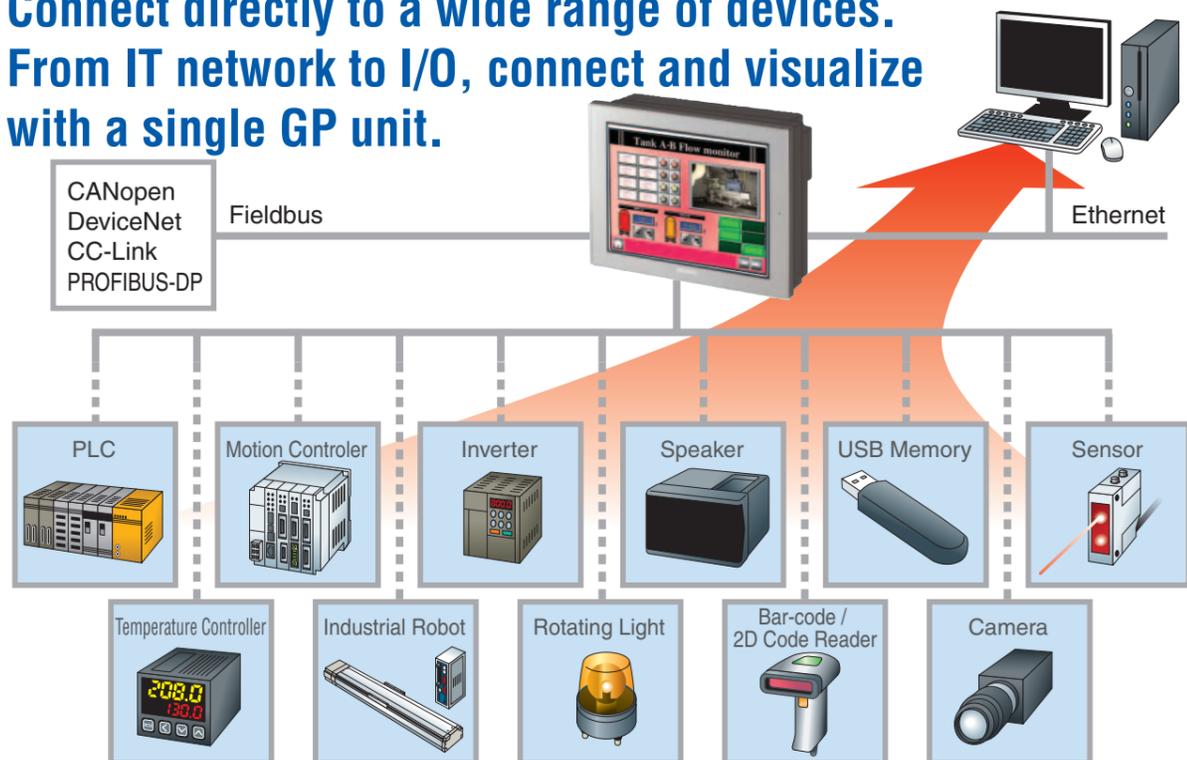*2: Model without Ethernet.

Coating models

M Class

GP-3750T	AGP3750-T1-D24-M
	AGP3750-T1-AF-M
GP-3650T	AGP3650-T1-D24-M
	AGP3650-T1-AF-M
GP-3560T	AGP3560-T1-D24-M
GP-3550T	AGP3550-T1-AF-M
GP-3450T	AGP3450-T1-D24-M

S Class

GP-3600T	AGP3600-T1-D24-M
	AGP3600-T1-AF-M
GP-3500T	AGP3500-T1-D24-M
	AGP3500-T1-AF-M
GP-3500S	AGP3500-S1-D24-M
GP-3400T	AGP3400-T1-D24-M
GP-3300T	AGP3300-T1-D24-M
GP-3300L	AGP3300-L1-D24-M
GP-3301L	AGP3301-L1-D24-M
GP-3200T	AGP3200-T1-D24-M

Please contact your sales agent for details regarding coating models.

As an HMI specialist, Pro-face is committed to innovation.

Committed to a wide range of device connections

Connect directly to a wide range of devices. From IT network to I/O, connect and visualize with a single GP unit.

CANopen
DeviceNet
CC-Link
PROFIBUS-DP

Fieldbus

Ethernet

PLC | Motion Controler | Inverter | Speaker | USB Memory | Sensor

Temperature Controller | Industrial Robot | Rotating Light | Bar-code / 2D Code Reader | Camera
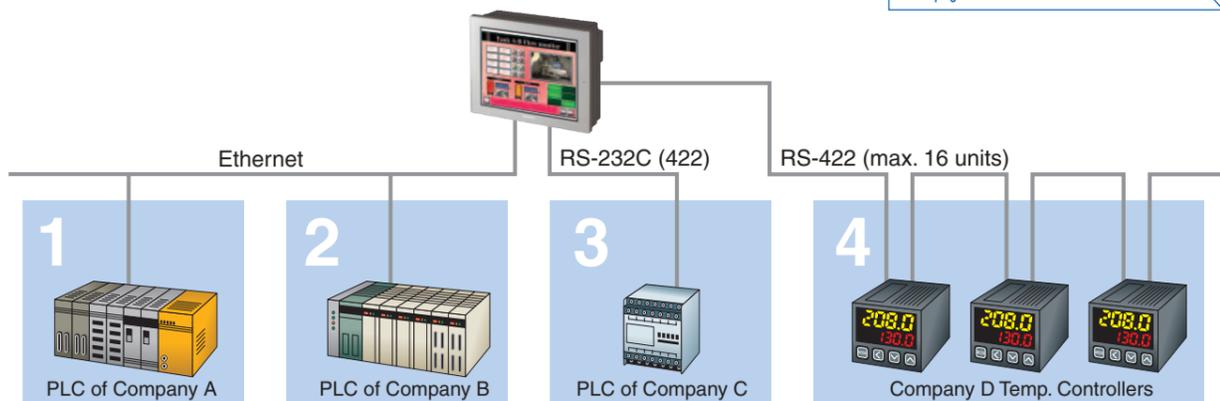
Connect directly to a variety of devices including PLCs made temperature controllers, and inverters by various manufacturers.

Committed to program-less communication

Connect up to four types of controllers made by different manufacturers without programming.

Ethernet | RS-232C (422) | RS-422 (max. 16 units)

1 | 2 | 3 | 4

PLC of Company A | PLC of Company B | PLC of Company C | Company D Temp. Controllers

Using the Serial Interface and Ethernet Interface, you can manage all information from a single GP through simultaneous communication with up to four types of devices.

Committed to display performance

Screen display with high picture quality provides improved status monitoring.

TFT color LCD: 65,536 colors
From a distance and from the side, you'll enjoy excellent visibility with high definition and wide viewing angles.

And Low Light-reflextion and Ultra High-brightness Models have cleary readable display, even in well-lit locations!

Clear, grid-free analog touch panel.

Free layouting

With grid | Without grid
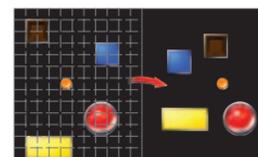
Committed to reliability

The IP65f enclosure rating ensures dependable operation even in severe environments.

Water drops

Oil mist | Dust

Models with environmentally protective covers and coating models which are protected from corrosive gases are available. (See page 06 for information of these models.)

Committed to global standards

Meets International Safety Standards.

Because it is approved under various international standards, the GP3000 Series can be incorporated in equipment destined for international export with full confidence.

UL LISTED <UL> | <CSA> | <CE> | <KCC> | AИ49 <Gost-R> | <ATEX>

Complies with the environmentally focused RoHS directive.

Our products destined for European markets comply with European Restriction of Hazardous Substances Directive.

Pro-face is committed to offering solutions for labor-saving and improved efficiency.

Smooth development and design
P.09 – P.14

Quick, easy, attractive
Introducing GP-Pro EX

Reliable compatibility
Device replacement and software compatibility

Proven results increasing added value and reducing costs
Introducing value-adding functions

Dramatically improved production efficiency
P.15 – P.18

Easy visualization of the production site
Software that connects the production site to the office

Improving production site quality
Data management/Monitoring solutions

Simple steps to improve production site security
Password management and operation logs

Improve debugging and maintenance
P.19 – P.20

Easy maintenance
Various functions that utilize the convenience of eliminating PCs

Reducing downtime when problems occur
Handy features that are useful in a pinch

Work efficiently, Streamline processes. Easy-to-use interface makes advanced functions simple.

Screen Editor

GP-Pro EX

Model: EX-ED-V**

User-friendly menu and icons on the editor provide easy operations, simply through drag and drop and other mouse operations.

The reference manual is now available inHTML format allowing you to quickly search for the information you need.
○Enter a text you want to search
○Jump directly from the settings screen to the relevant page

By registering frequently used headers and footers at the top and bottom of the screen, you can call up them on the required screens in the project at any time.

Parts can be placed from parts list with drag-and-drop operation. Advanced search functionality is also available.

A·B Tank Monitor

Drag-and-drop operation

The thumbnail display allows you to visually select any created screens.
! In addition
The called screen is displayed. When you use the call screen feature, the called screen is displayed one layer below the calling screen in the thumbnail display.

The user interface provides commonly used tabs on the edit screen.

Assign frequently used functions to the function keys to enable touch screen editing.
○Main operations of function keys

F2	Edit Text	Ctrl+F5	Switch
F9	Change Attributes	Ctrl+F7	Data Display
F10	Menu	Shift+F3	New Screen
F11	Full Screen	Ctrl+F1	Previous Screen
F12	Simulation	Ctrl+F2	Next Screen

Easy creation of realistic screens

Chemical Agitator   Operating Panel

Our beautiful new "3D Real Parts" make it easy to create the most appealing screens.

Bitmap fonts make beautiful easy-to-read displays with excellent visibility.
Bright, realistic bitmap fonts can be used on the data display.

12345   12345   12345   12345

! In addition
Windows fonts can even be used for data displays and alarms.
Windows fonts enable stylish screen creation. Font and size can be set individually for each text table when setting a text or a switch/lamp's label.

Animation feature greatly reduces the number of display screens required
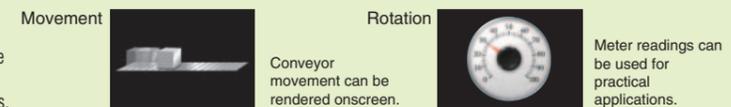
Hide or call up specific parts
You can choose to hide or call up specific parts on the display screen. This is useful when you want to customize display screens for specific devices or operators.

Device A

Both screens are base screen 1.

Device B
Because no other screens are required, production time and labor are reduced.

Move and rotate objects
This animation feature allows you to move and rotate objects such as lines, rectangles and images. This reduces the time and labor required to select screens.

Movement

Conveyor movement can be rendered onscreen.

Rotation

Meter readings can be used for practical applications.

Change colors of objects
You can freely change the colors of objects such as lines, rectangles and images. This eliminates the time and labor required to select screens.

Designate a specific diagram and change it.

Designate the color and change it.
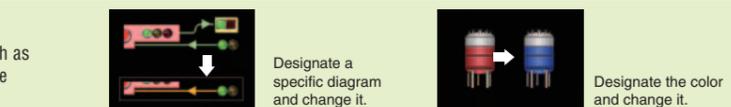
★GP3300 and GP3301 Series units must be Rev. 4 or above in order to use animation and Windows fonts. Contact your sales agent for more details.

Smooth development and design

Dramatically improved production efficiency

Improve debugging and maintenance

Screen Editor
GP-Pro EX

Efficient editing

Easy to find suitable part images in the parts tool Box

Parts are categorized for you to select one quickly and create screens efficiently.

Parts can be selected by model, shape (type), color, or other attributes.

Place parts displayed in a list using drag-and-drop operation.

Change multiple parts and addresses at one time [Address Block conversion]

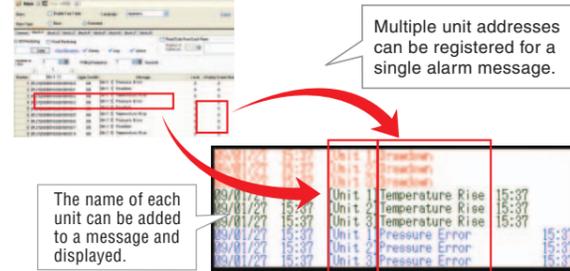It is possible to select parts on the screen and change all their addresses at once.
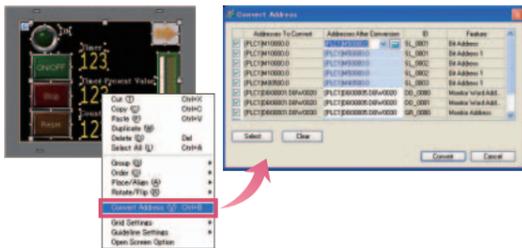
Quick search and replacement [Search Window]

It is easy to search for and edit text, addresses, and other information within a project. Batch replacement is also possible.
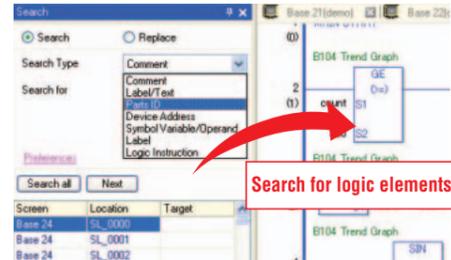
Search for logic elements too!

Share alarm messages between multiple PLCs

Multiple unit addresses can be registered for a single alarm message.

The name of each unit can be added to a message and displayed.

*Requires function expansion memory (sold separately).
Supported on GP3000 Series of 7.5" and above. Mounting method differs according to model.

Program with a familiar ladder language [Logic Program]

As screen assembly and logic programming can be edited with the same software module, editing between parts and logic elements can be performed via drag and drop. To facilitate coordination, a function enables the direct writing of controller addresses.
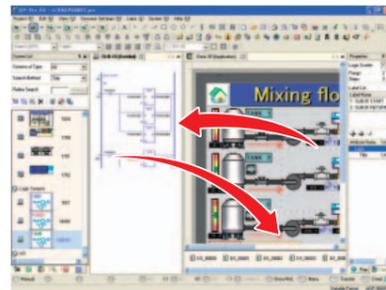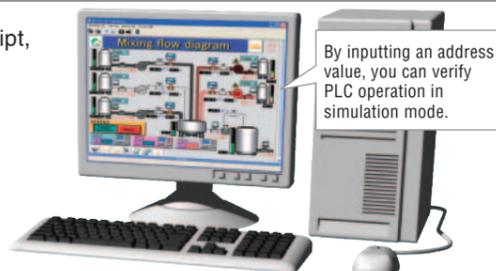
The online editing function allows you to make program changes on a computer during operation.

You can make changes in a program without stopping operation - even while the control function is in operation. This enables work efficiency at startup and during maintenance.

With off-line Simulation, you can easily check programs on a PC on a computer [Simulation]

All GP3000 operations - including screen operation, D-script, and logic programs - can be tested on a PC.

By inputting an address value, you can verify PLC operation in simulation mode.

Screen captures allow you to create documents easily.

The GP3000 Series provides simple conversion from previous models.

The GP3000 Series is still capable of using screen data from the original GP Series. Panel cutout dimensions also remain the same as those of the original unit.

Easy conversion of existing screen data from previous models [Software Compatibility]

Screen data from all GP Series since the original Model 10 Series can be reused. Data from the GP-PRO/PB III for Windows and more recent models can be converted directly using GP-Pro EX Project Converter, making the transfer to the GP3000 Series smooth.

10 Series
GP2000 Series
Project Converter Tool
GP3000 Series

Convert → Convert →

GP-PRO	GP-PROII	GP-PROIII	GP-PRO/ PBIII DOS ver.	GP-PRO/PBIII Win ver.	GP-PRO/PBIII C-Package	GP-Pro EX
10 Series	30/50 Series	70 Series		77R Series	2000 Series	3000 Series
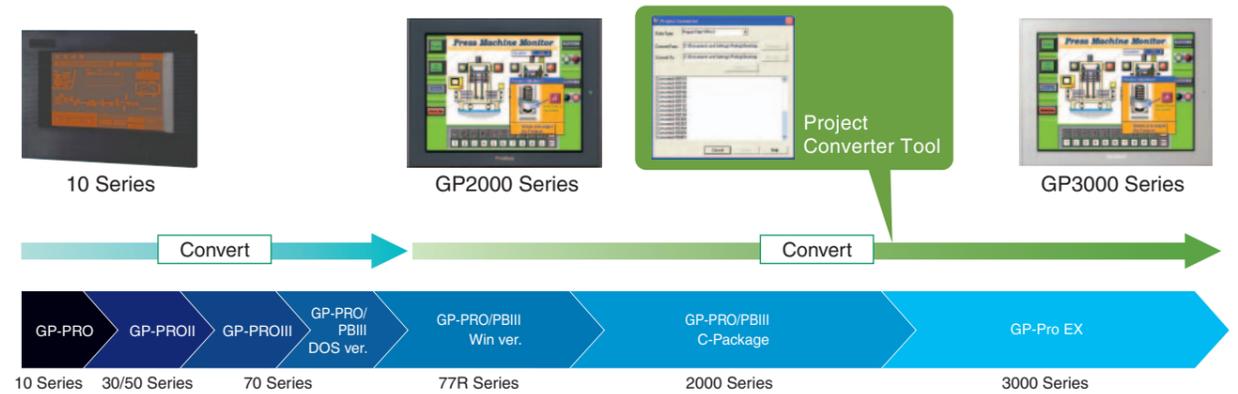
The panel cutouts maintain the same sizes [Hardware compatibility]

You can replace only the display unit in one equipment unit easily.

Transfer to a new model without changing the mold.

GP3000 Series

Panel cutout dimensions (Dimension error ±½)   Panel cutout unit: mm

Size / SERIES	301.5 / 227.5	259 / 201	204.5 / 159.5	156 / 123.5	118.5 / 92.5
GP77R SERIES	10.4 GP-577R	8.9 GP-477RE	—	5.7 GP-377	—
GP2000 SERIES	12.1 GP-260* 10.4 GP-250*	—	7.5 GP-240*	5.7 GP-230*	—
GP3000 SERIES	12.1 GP-36** 10.4 GP-3500S	10.4 GP-35**T	7.5 GP-34**	5.7 GP-33**	3.8 GP-3200

10.4 :The number in the box shows the screen size of the display unit.

Supports RS-422 multi-link connection [Communication Compatibility]

Conventional models and the GP3000 Series can be used together, allowing new units to be installed in existing systems.

GP2000   GP3000   GP2000

PLC

RS-422
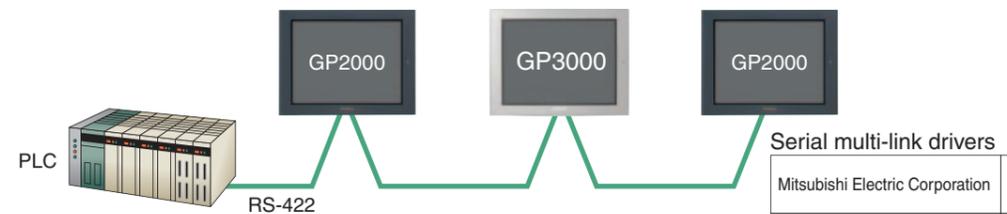
Serial multi-link drivers

Mitsubishi Electric Corporation	Q/QnA Serial Communication FX Series Computer Link A Series Computer Link
OMRON Corporation	CS/CJ Series HOST Link C/CV Series HOST Link
Yokogawa Electric Corporation	Personal Computer Link SIO

* Other drivers are scheduled to be released in quick succession.

Smooth development and design

Dramatically improved production efficiency

Improve debugging and maintenance

The GP3000 Series adds more value to applications, reducing costs and labor-hours.

Record machine status and analyze causes of errors [Event Recorder]

Error logs from video recording can be saved and analyzed.
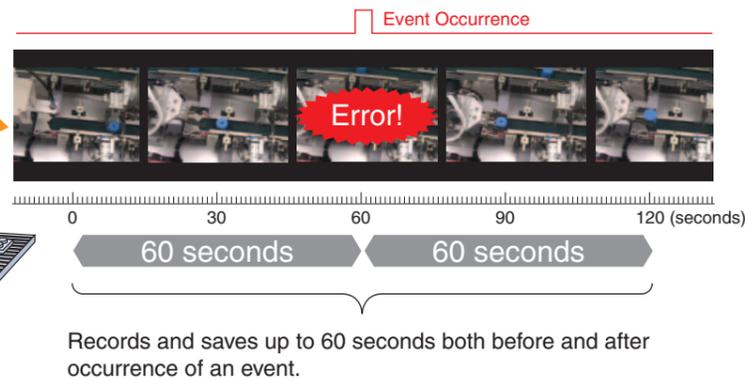
Wide lineup of display sizes from 5.7" to 15"

Event Occurrence

Error!

0   30   60   90   120 (seconds)

60 seconds   60 seconds

Records and saves up to 60 seconds both before and after occurrence of an event.

⚠ In addition

Identify errors by combining with trend graphs and alarm logs.

Trend Graph   Alarm Log

Monitor the entire manufacturing process [Alarm Function]

Support for up to 32,767 alarms! A single display can monitor alarms for the entire factory, even for devices and systems that use multiple PLCs and therefore require huge numbers of alarm messages.

Alarm Monitoring 32,767 alarms
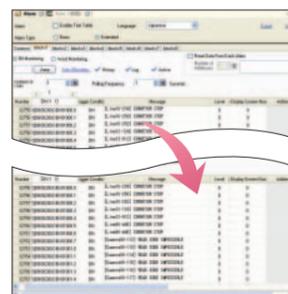
Alarm data for all equipment can be handled in a single GP3000 Series unit
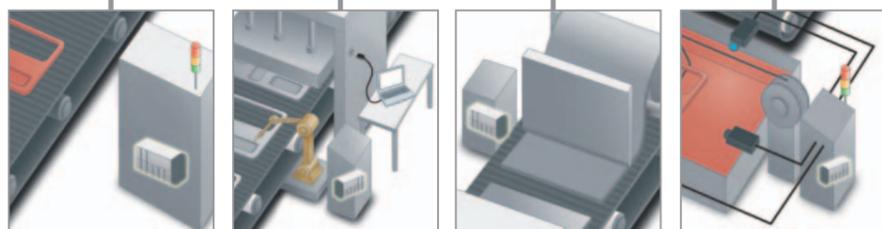
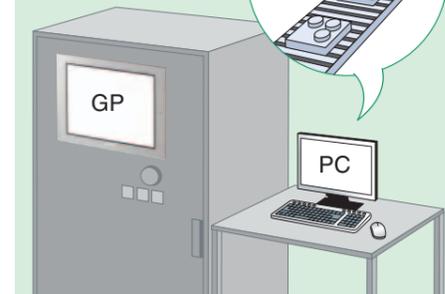* Requires function expansion memory (sold separately).
  Supported on GP3000 Series of 7.5" and above.
  Mounting method differs according to model.

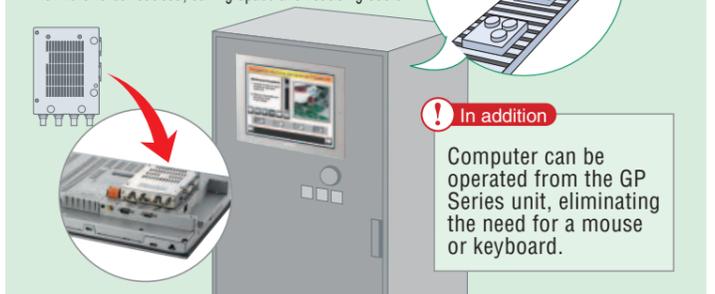## Reduce number of monitors with Video Unit [Video Unit]

Previously...
The display and image processing monitor were separate...

GP

PC

Now...
Combined display and Video Unit can be connected directly to cameras, image processors, computers, and other devices. This enables the number of necessary monitors to be reduced, saving space and reducing costs.

⚠ In addition
Computer can be operated from the GP Series unit, eliminating the need for a mouse or keyboard.

3 types of Video Units to suit different applications

	Application	Input	Output
VM Unit GP3000-VM01	All-in-one model capable of video input and DVI input/output	Video input x 4 ch (NTSC/PAL) DVI input x 1 ch	DVI output x 1 ch
DVI Input Unit GP3000-DVI01	Displays video from a computer via DVI interface	DVI input x 1 ch	—
RGB Input Unit GP3000-RGB201	Displays video from a computer via analog RGB (2 ch)	Analog RGB input x 2 ch	—

Connect to multiple devices to reduce costs and labor-hours [Multi-Driver/Multi-Ethernet]

Connect different devices to the GP3000 Series and save costs

Multiple drivers enable central management of multiple controllers. Link cards are no longer required, and up to four types of communication devices can be connected to one display unit.

Previously...
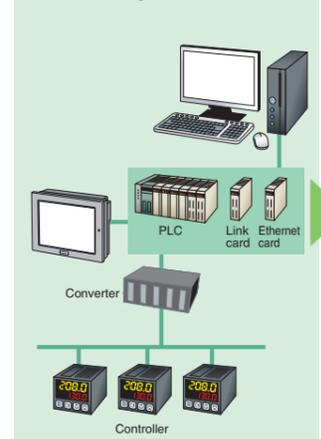
With GP3000
The gateway for a variety of communications devices.
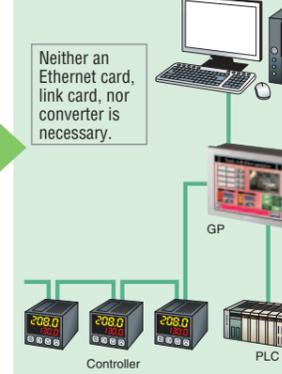
Neither an Ethernet card, link card, nor converter is necessary.

PLC   Link card   Ethernet card

Converter

Controller

GP

Controller   PLC

Simply add GP3000 Series units to an Ethernet network

Multiple GP3000 Series units can be connected to a single PLC over an Ethernet. The GP3000 Series can even be connected directly to a CPU, making it easy to add new terminals and providing significant cost savings.

Ethernet   HUB   Ethernet

Master GP   Slave GP   Slave GP

CPU port

PLC

When multiple units are connected, lockout control enables you to prevent multiple operators from performing operations at the same time.
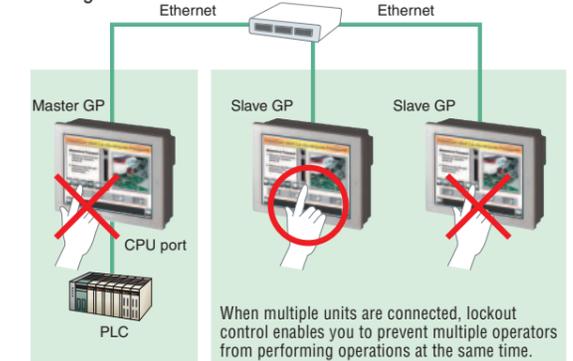
* Available with devices equipped with an Ethernet port.
* GP3300 Series Rev. 4 or higher is required. Please contact your sales agent for details.
* In using the 5.7 inch or smaller size as a master GP, the performance may deteriorate. Please test the response before using.
* It is recommend to connect GP to Multi-Ethernet feature with straight cable via HUB.

Smooth development and design

Dramatically improved production efficiency

Improve debugging and maintenance

Pro-face's unique visualization solutions connect the production site and the office

Data management software
Pro-Server EX

Model: EX-SDV-V**

Definitive visualization software that connects the production site to the office

Production data is provided in familiar Excel format to ensure maximum utilization.

Supports Excel 2007

Office — Data copy (EXCEL) | User application development (VB / VC) | OPC support Software connection (SCADA etc) | Document output Recipe saving Log collection (EXCEL) | Data Management (SQL Server Oracle) | Mail Transmission (Mail server) | CSV saving JPEG capture Application activation | Alarm collection Performance data collection Composite recipes Conversion to industry units Mail transmission (MES action SQL Server)

DDE server | DLL API | OPC DA server | Excel action | Database action | Mail action | Other actions

Action function

Pro-Server EX

PC

Data distribution / Data collection

Ethernet

Factory

Expand data management simply by connecting the site GP3000 to the office.

GP GP GP GP

Standard templates are provided for immediate use.

Production management board

Reduction of man-hour transition graph

First-run rate transition graph

- Daily report, Monthly report
- Work progress control
- Work plan
- Performance control
- Andon signal panel
...etc.

Inter-device Communication

For inter-device communication with devices connected to the GP3000, you can share data without a PC regardless of the type of data or control device.

If only the settings are to be transferred, a permanently installed PC is not required.

Remote line data is referenced from the operation site.

PLC of Company A | PLC of Company B

The GP3000 Series allows up to four units to share data with each other.

Facility A | Facility B | Facility C

Link directly to database with the MES Action tools

You can visualize site information that is frequently requested by management. What's more, production performance and operating conditions can be checked in real time. These advantages make it possible to implement an appropriate plan at a low cost.

MES Action — Action license for Pro-Server EX — Model: EX-MES-LICENSE-V**

Note: Pro-Server EX requires the purchase of a separate software license.

Table | Microsoft SQL Server 2005 Express Edition (Included with Pro-Server EX) | Integrated program
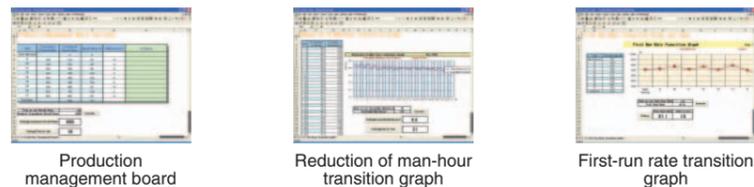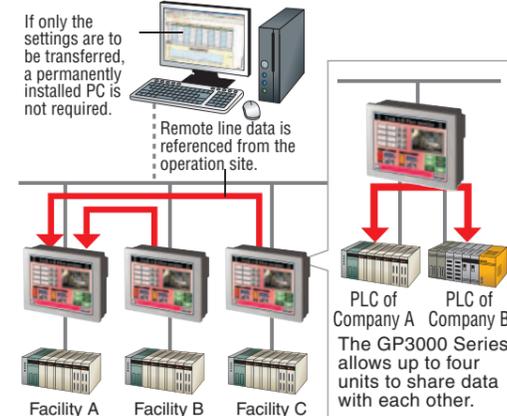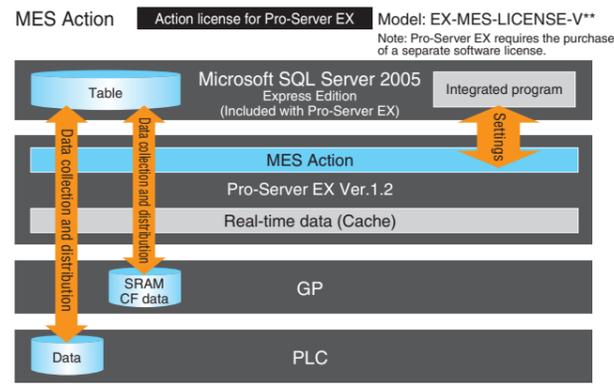
Data collection and distribution

MES Action
Pro-Server EX Ver.1.2
Real-time data (Cache)

SRAM CF data | GP

Data | PLC

Remote Monitoring Software
GP-Viewer EX

Model: EX-VIEWER-LICENSE

See GP Series screen — PC — GP

Site screens can be monitored and operated from an office.

The GP screen at the factory site can be monitored with the remote PC in the office. No new screen or programming is required for real-time management and monitoring. Exclusive access control has been newly supported.

Note: GP-Viewer EX requires the purchase of a separate software license.

Office | Factory | Ethernet

<Synchronous> Check on-site equipment in real time.
Accurate instructions from the office.

<Asynchronous> Change recipes on the PC while performing work on-site.
Make changes without interrupting operation.
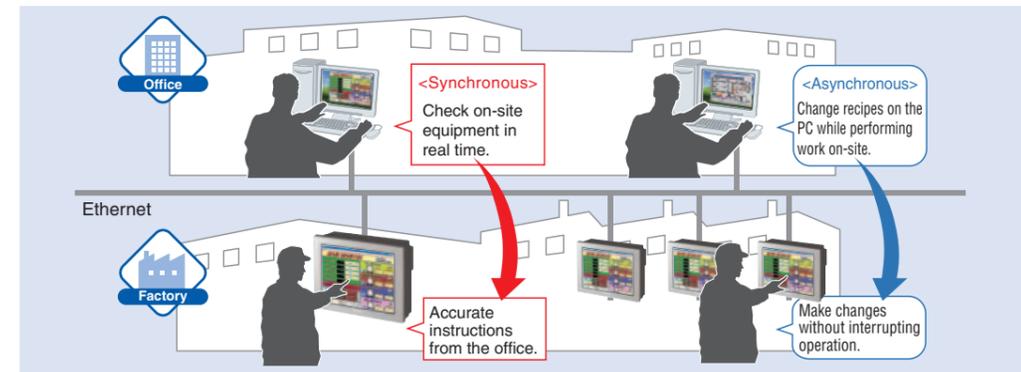
Monitor site conditions and construct a file transfer function [Web Server]

See device status — PC — GP

You can monitor (device monitor and alarm monitor) with a browser using Web Server. For the alarm monitor, alarm information can be checked in real time with an RSS reader.

Ethernet | Log data | Recipe data

RSS reader captures alarm details in real time.
Alarm Monitor
Device Monitor
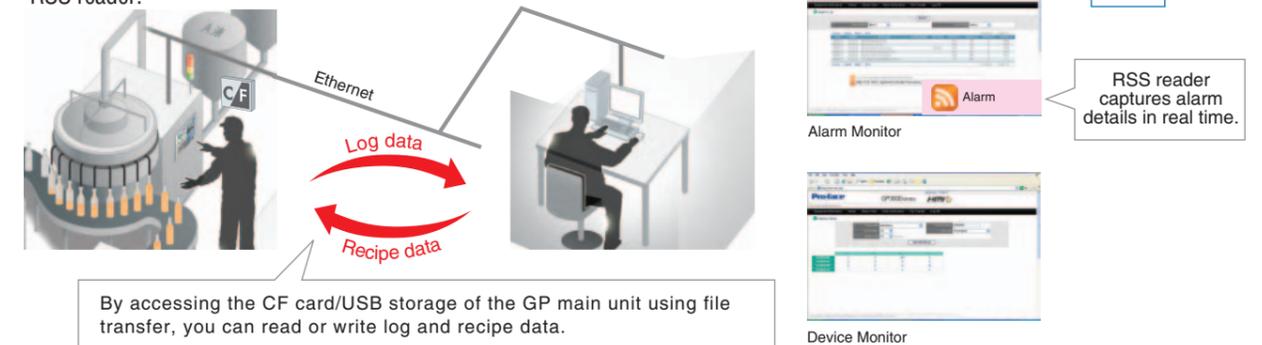
By accessing the CF card/USB storage of the GP main unit using file transfer, you can read or write log and recipe data.

Note: Microsoft® Internet Explore Ver.6 or Ver.7 and CF card/USB storage are required.

Check data on an office computer from GP [RPA (Remote PC Access)]

PC — GP — See computer screen

With the RPA function, an operation manual on the office PC can be displayed on a GP.

Web! | PDF!

RPA | GP-Pro EX add-on software | Model: EX-RPA | Note: RPA requires the purchase of a separate software license.

Manage and monitor production site data with the GP3000 Series

Ensure production site security with the GP3000 Series

Create daily and monthly reports with USB memory or CF card [Logging Function/CSV Data Transfer Function]

The logging function improves the efficiency of preparing daily and monthly reports.
The CSV data transfer function enables you to use the GP to set changes for the PLC.

Process A for Today

Process B for Tomorrow

Process C for the day after tomorrow

PLC

Log PLC data onto the CF card

Set recipes on the touch screen.

Tank A-B Flow monitor

CF

Note: SRAM data can be output through the printing function. CSV data on the CF card can be output through a CSV display unit.
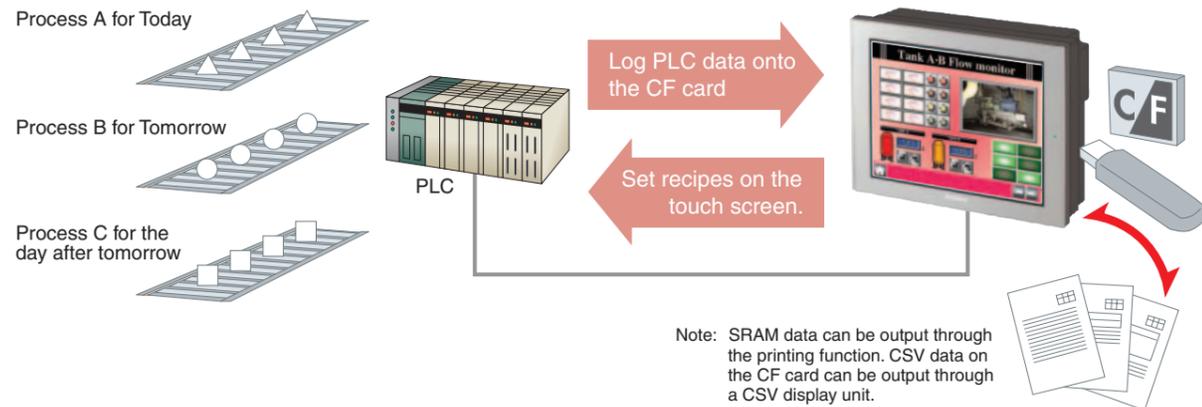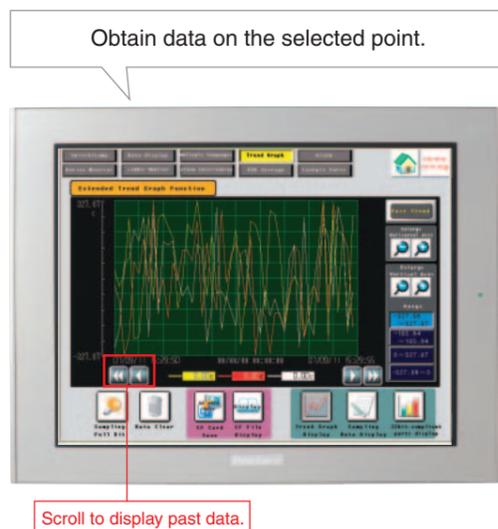
Show current and past detailed data [Historical Trend Graphs]

The historical trend graph function has been enhanced. To display past data, simply specify the time. Zoomed graph display is useful in detailed analyses.

Obtain data on the selected point.

Extended Trend Graph Function

Scroll to display past data.

You can check the time of the data record immediately because the times of both ends of the data record are displayed.

Secure operating screens for administrators and operators [Password Management]

Privileges can be set according to operator responsibilities. Operators are required to log in using a set ID and password, which enhances security.

Machine A List of Operation Management

date/time	who?	what?	value
2007/7/11/ 10:56:23	ID15668	Bton10 on Scr10	OFF->ON
2007/7/11/ 10:30:41	ID23442	Dev D1012	23->45
2007/7/11/ 10:11:50	ID23442	Dev D1111	0->1200
2007/7/11/ 9:56:16	ID23442	Dev D1012	23->45
2007/7/11/ 9:14:14	ID1436	Dev D1012	23->45
2007/7/11/ 9:13:15	ID23442	Dev D1012	23->45
2007/7/11/ 8:30:11	ID23442	Dev D0915	0->1200
2007/7/11/ 10:56:23	ID23442	Dev D1022	OFF->ON

! In addition

You can perform maintenance without an editor.

You can assign preferred names in the CSV files stored on a USB drive or CF memory card. You can input the name on the touch screen simply by entering an ID number and calling up the maintenance screen.

Semiconductor Device
Menu 1
Menu 2

CSV

Semiconductor Device
START
STOP
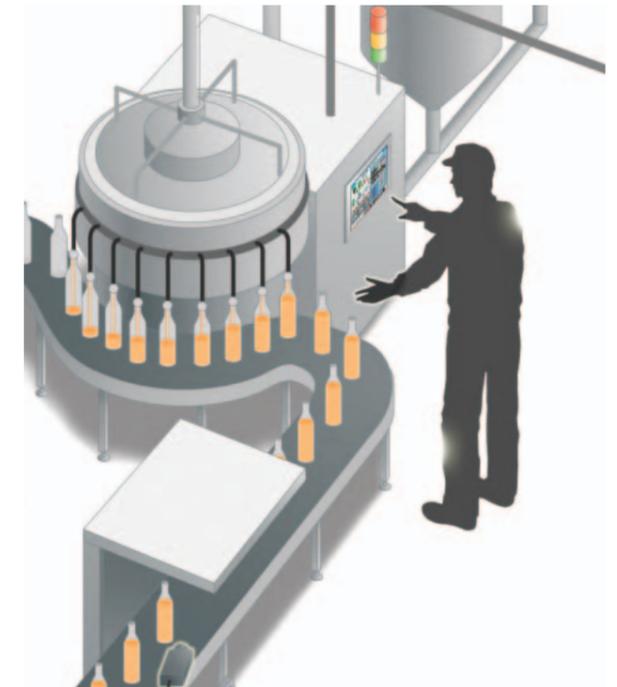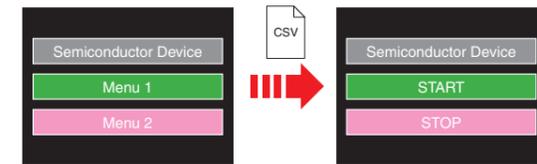
Record operator actions and error causes [Operation Log]

Access to information saved in an operation log – such as the "who", "what", and "when" regarding operations – can greatly reduce the time required to analyze any problems that might arise. Moreover, analysis of trends in operator mistakes and the like can lead to improvements at the worksite.

GP3000 Series identifies and helps to solve on-site problems without a computer

Easy transfer of screen data with USB memory

Modified screen data can be transferred to a GP unit with USB memory.

Iron Plate Press Machine Machine A Processing Recipe	
Pressure	6
Temperature	280
Revolutions	120
Time	2

The front mount USB cable requires no operating of operation cabinet.

USB front-facing cable
CA5-USBEXT-01
<sold separately>

USB memory

⚠ In addition

• You can easily change passwords with a CSV file.

You can even change passwords regularly without Screen-creation software.

PASSWORD

Passwords can be changed online.

• You can easily edit character strings such as alarms and nameplates in a CSV file.

You can change nameplates without Screen-creation software.

Read while off-line or at startup.

Other devices

Printer   Keyboard   Bar-code / 2D Code Reader

*For information on connectable devices, refer to Otasuke Pro! (http://www.pro-face.com/otasuke/).

Monitor ladder programs on GP
Easily identify problem causes [Ladder Monitor/Device Monitor]

To ensure improvements after line startup, sensors make possible a variety of program monitoring screens.

Monitoring of PLC ladder programs

Device Monitor

MENU
Block Monitor(Word)
Block Monitor(Bit)
Random Monitor
Device Select ON OFF
Write To Device
Exit DeviceMonitor
Close Menu

You can change address values by checking the PLC device.

Ladder Monitor
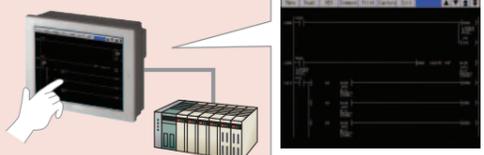
The PLC's ladder programs can be monitored in online mode. The Mitsubishi PLC Q Series (CPU Direct/Ethernet), A Series (CPU Direct/Computer Link), and OMRON PLC CS/CJ Series are supported. Ladder programs require the purchase of a separate software license.

Monitoring GP3000 logic programs

Logic display

Displays the entire logic. Check the operating status and instruction layout.
*All models except for GP3000H and GP3200 series.

Address display

Displays the logic address. Check the variable name and the current value.
*All models except for GP3000H and GP3200 series.

GP3000 Series can help reduce downtime

Debug PLCs connected to GP [Pass-Through]

You can easily adjust debugging ladders and data in the PLC due to line changes through GP.

You can debug even if the control panel is in a remote location.

Using the front-mounted USB, you can debug without opening the panel.

Ethernet

PLCs Ladder Tool

Dedicated USB Transfer Cable or Ethernet Cable

The online editing function allows you to change logic programs without stopping the system.

Note: See page 41 for the compatible PLC driver.
Windows® 2000 Professional (Service Pack 4 or later), Windows® XP Home Edition and Professional (Service Pack 2 or later), and Windows Vista® Home Premium are supported.

*The pass-through feature needs to be installed from the GP-Pro EX CD-ROM to PC.

Video instructions reduce the workload of on-site support [Video Playback]

By providing operation and maintenance instructions on video, you can create an environment that enables any site operators to perform maintenance from clear instructions.

Learn operating tips and technical know-how from videos.

Display error messages and operating instructions of connected controllers [Sample Screens]

The display shows connected device status. What's more, all error details are pre-set, meaning that processes that would ordinarily take over a month can be completed instantly, simply by adding parts.

Details can be checked on the display without the need to look at the connected device itself.

You can do it by yourself, without even touching the actual machine.

Pro-face provides a wide choice of samples for equipment made by a variety of manufacturers

IAI Corporation ROBO Cylinder   Yamatake Corporation Controller

Yokogawa Electric Corporation PLC   Yaskawa Electric Corporation PLC

*Refer to the Otasuke Pro!, the Pro-face support website (http://www.pro-face.com/otasuke/) for details.

Smooth development and design

Dramatically improved production efficiency

Improve debugging and maintenance

GP-3750T

TFT 65,536

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
AC AGP3750-T1-AF
AC AGP3750-T1-AF-M [Coating model]
DC AGP3750-T1-D24
DC AGP3750-T1-D24-M [Coating model]

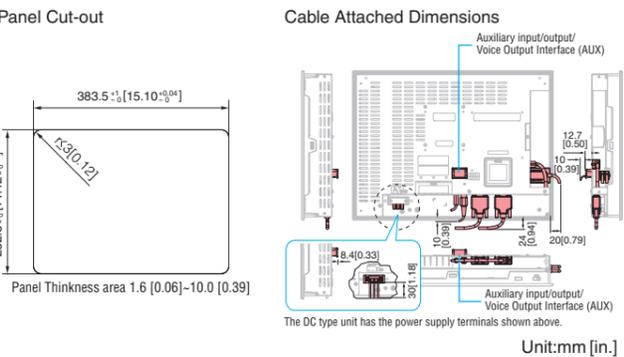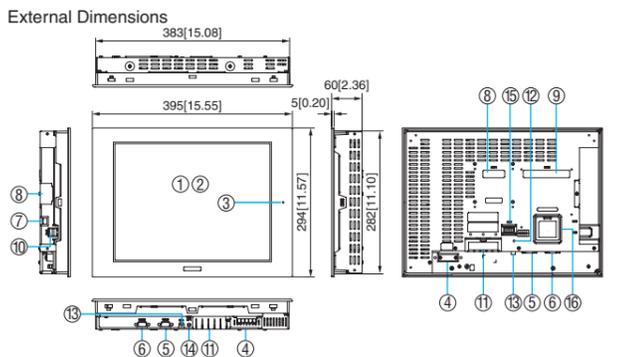| FUNCTIONAL SPECIFICATION		GP-3750T
Display Type		TFT Color LCD
Display Colors		65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1
Dispay Resolution		1024 x 768 pixels (XGA)
Backlight *2		LED (When replacement is required,contact your Pro-face sales.)
Effective Display Area *2		304.1mm[11.97in.] x 228.1mm[8.98in.]
Brightness Control		8 levels of adjustment available via touch panel
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *3
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *4
Text	8 x 8 dots	128 Char. x 96 rows
	8 x 16 dots	128 Char. x 48 rows
	16 x 16 dots	64 Char. x 48 rows
	32 x 32 dots	32 Char. x 24 rows
Application Memory		16MB FLASH EPROM (10MB when the Event Recorder Function is in use) *5
Control Memory	Data Backup Memory	320KB SRAM (uses lithium battery) *6
	Variable Area	64KB SRAM (uses lithium battery) *6
	Program Area	132KB FLASH EPROM
	Number of Steps	15,000 steps*7
Touch Panel Type		Resistive Film (analog)
Touch Panel Resolution		1024 x 1024
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *8 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45) x 1
	Expansion Unit(1)	For Communication Unit x 1
	Expansion Unit(2)	For Video Unit x 1
	USB	USB1.1 (USB Type-A conn.) x 2 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m
	CF Card	CF Card Slot (Type-II) x 1
	Video Input	NTSC: 59.9Hz, PAL: 50Hz, SECAM: 50Hz, Connector: RCA 75Ω x 1
	Sound Input	MIC input/LINE input (Change with S/W), Connector: MINI-JACK Φ3.5 x 1
	Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1
	AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block x 1
	Function Expansion Memory	Installed on function expansion memory interface cover

GENERAL SPECIFICATION	AC	DC
International Safety Standards		
Certifications	UL60950-1, UL1604 *9, ANSI/ISA 12.12.01 *9, CAN/CSAC22.2 No.60950-1, CSA-C22.2 No. 213 *9, EN55011 Class A, EN61000-6-2, EN60950-1, Gost-R, KCC	UL508, UL1604 *9, ANSI/ISA 12.12.01 *9, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *9, EN55011 Class A, EN61000-6-2, Gost-R, KCC
Marine Certifications	—	ABS,BV,DNV,GL,LR,RINA *10
Input Voltage	AC100V to AC240V	DC24V
Rated Voltage	AC85V to AC265V	DC19.2V to DC28.8V
Rated Frequency	50/60Hz	—
Allowable Voltage	Shorter than 1cycle (Voltage drop interval must be 1s or more)	10ms or less
Power Consumption	AC100V 1.1A or less AC240V 0.7A or less	50W or less
Voltage Endurance	AC1500V 20mA for 1 minute (between charging and FG terminals)	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)	
Ambient Temperature	0°C to +50°C *11	
Storage Temperature	−20°C to +60°C	
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C max.)	
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C max.)	
Pollution Degree	Pollution Degree 2	
Atmosphere	Free of corrosive gasses	
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)	
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)	
Noise Immunity (via noise simulator)	Noise Voltage: 1500Vp-p Pulse Duration: 1µs Rise Time: 1ns	Noise Voltage: 1000Vp-p Pulse Duration: 1µs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)	
Grounding	Protection: Type D (Common to SG-FG)	Function: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *12	
External Dimensions	W395mm[15.55in.] x H294mm[11.57in.] x D60mm[2.36in.]	
Weight	5.6kg (12.3lb) max.(Unit Only)	
Cooling Method	Natural air circulation	

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Except for coating models and the units with the revision 4 or earlier. The backlight of the units with revision 4 or earlier is CCFL (Replaceable). For details, please refer to User Manual.
*3: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*4: Font Sizes can be set up by software.
*5: Capacity available for user apprication. With GP-Pro EX Ver.2.5 or earlier versions, 8MB whether or not the Event Recorder Function is in use.
*6: A Lithium battery's lifetime is:
10 years when the battery's ambient temperature is 40°C or less.
4.1 years when the battery's ambient temperature is 50°C or less.
1.5 years when the battery's ambient temperature is 60°C or less.
When used for back up: Approximately 100 days, with a fully charged battery.
Approximately 6 days, with a half-charged battery.
*7: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1MB.
*8: RS-232C and RS-422/485 can be swithed with the editor software.
*9: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*10: The certifications of these maritime classification societies are obtained only for AGP3750-T1-D24.
*11: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*12: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

383[15.08]
395[15.55]
60[2.36]
5[0.20]
294[11.57]
282[11.10]

Panel Cut-out

383.5 ⁺¹·⁵₀[15.10⁺⁰·⁰⁴]
282.5⁺¹·⁵₀[11.12⁺⁰·⁰⁴]

Panel Thickness area 1.6 [0.06]~10.0 [0.39]

Cable Attached Dimensions

Auxiliary input/output/ Voice Output Interface (AUX)

8.4[0.33]
301.1[8.94]
20[0.79]
12.7 [0.50]
10 [0.39]

The DC type unit has the power supply terminals shown above.

Unit:mm [in.]

⚠ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

GP-3650U/T

TFT 65,536

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DC AGP3650-U1-D24 [High luminance model]
AC AGP3650-T1-AF
AC AGP3650-T1-AF-M [Coating model]
DC AGP3650-T1-D24-M [Coating model]

FUNCTIONAL SPECIFICATION		GP-3650U	GP-3650T
Display Type		TFT Color LCD (High luminance model)	TFT Color LCD
Display Colors		65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1	
Dispay Resolution		800 x 600 pixels (SVGA)	
Backlight *2		LED (When replacement is required,contact your Pro-face sales.)	
Effective Display Area		248.0mm[9.76in.] x 186.5mm[7.34in.]	
Brightness Control		8 levels of adjustment available via touch panel	
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *3	
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts	
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *4	
Text	8 x 8 dots	100 Char. x 75 rows	
	8 x 16 dots	100 Char. x 37 rows	
	16 x 16 dots	50 Char. x 37 rows	
	32 x 32 dots	25 Char. x 18 rows	
Application Memory		10MB FLASH EPROM *5	
Control Memory	Data Backup Memory	320KB SRAM (uses lithium battery) *6	
	Variable Area	64KB SRAM (uses lithium battery) *6	
	Program Area	132KB FLASH EPROM	
	Number of Steps	15,000 steps*7	
Touch Panel Type		Resistive Film (analog)	
Touch Panel Resolution		1024 x 1024	
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *8 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug	
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket	
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45) x 1	
	Expansion Unit(1)	For Communication Unit x 1	
	Expansion Unit(2)	For Video Unit x 1	
	USB	USB1.1 (USB Type-A conn.) x 2 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m	
	CF Card	CF Card Slot (Type-II) x 1	
	Video Input	NTSC: 59.9Hz, PAL: 50Hz, SECAM: 50Hz, Connector: RCA 75Ω x 1	
	Sound Input	MIC input/LINE input (Change with S/W), Connector: MINI-JACK Φ3.5 x 1	
	Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1	
	AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block x 1	
	Function Expansion Memory	Installed on function expansion memory interface cover	

GENERAL SPECIFICATION	AC	DC
International Safety Standards	*9	*10
Certifications *11	UL60950-1, UL1604 *11, ANSI/ISA 12.12.01 *11, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *11, EN55011 Class A, EN61000-6-2, EN60950-1, Gost-R, KCC *11	UL508, UL1604 *11, ANSI/ISA 12.12.01 *11, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *11, EN55011 Class A, EN61000-6-2, Gost-R, KCC *10
Marine Certifications	—	
Input Voltage	AC100V to AC240V	DC24V
Rated Voltage	AC85V to AC265V	DC19.2V to DC28.8V
Rated Frequency	50/60Hz	
Allowable Voltage	Shorter than 1cycle (Voltage drop interval must be 1s or more)	10ms or less
Power Consumption	AC100V 0.9A or less AC240V 0.45A or less	50W or less
Voltage Endurance	AC1500V 20mA for 1 minute (between charging and FG terminals)	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)	
Ambient Temperature	0°C to +50°C *11	
Storage Temperature	−20°C to +60°C	
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C max.)	
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C max.)	
Pollution Degree	Pollution Degree 2	
Atmosphere	Free of corrosive gasses	
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)	
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)	
Noise Immunity (via noise simulator)	Noise Voltage: 1500Vp-p Pulse Duration: 1µs Rise Time: 1ns	Noise Voltage: 1000Vp-p Pulse Duration: 1µs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)	
Grounding	Protection: Type D (Common to SG-FG)	
Ratings (For front panel of installed unit)	[GP-3650U] IP65f *13 [Except for GP-3650U] Equivalent to IP65f NEMA #250 TYPE 4X/13 *13	
External Dimensions	W313mm[12.32in.] x H239mm[9.41in.] x D56mm[2.20in.]	
Weight	3.0kg (6.6lb) max.(Unit Only)	
Cooling Method	Natural air circulation	

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Except for coating models and the units with the revision 4 or earlier. The backlight of the units with revision 4 or earlier is CCFL (Replaceable). For details, please refer to User Manual.
*3: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*4: Font Sizes can be set up by software.
*5: Capacity available for user apprication. 8MB available if GP-Pro EX Ver.2.5 or earlier is used.
*6: A Lithium battery's lifetime is:
10 years when the battery's ambient temperature is 40°C or less.
4.1 years when the battery's ambient temperature is 50°C or less.
1.5 years when the battery's ambient temperature is 60°C or less.
When used for back up: Approximately 100 days, with a fully charged battery.
Approximately 6 days, with a half-charged battery.
*7: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1MB.
*8: RS-232C and RS-422/485 can be swithed with the editor software.
*9: The certification of KCC is obtained only for AGP3650-T1-AF.
*10: The certifications of UL, cUL, CSA and KCC are obtained only for AGP3650-T1-D24-M. AGP3650-U1-D24 is certified by only CE, Gost-R and KCC.
*11: AGP3650-U1-D24 is certified by only UL508 and CSA-C22.2 No.14 or 142.
*12: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*13: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*14: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.
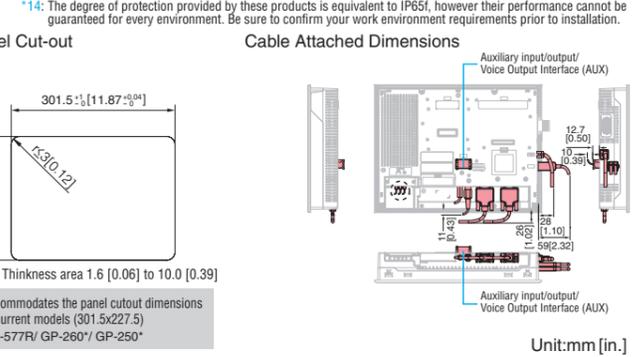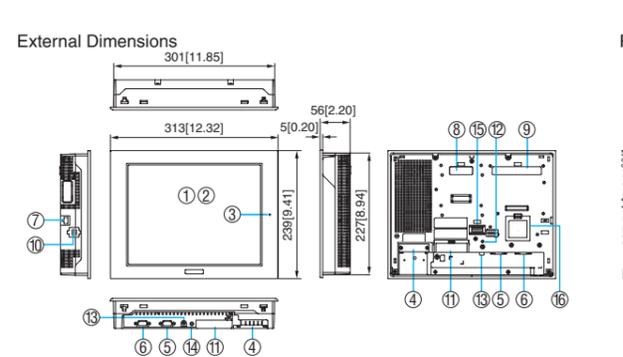
External Dimensions

301[11.85]
313[12.32]
56[2.20]
5[0.20]
239[9.41]
227[8.94]

Panel Cut-out

301.5 ⁺¹·⁵₀[11.87⁺⁰·⁰⁴]
227.5⁺¹·⁵₀[8.96⁺⁰·⁰⁴]

Panel Thickness area 1.6 [0.06] to 10.0 [0.39]

Accommodates the panel cutout dimensions of current models (301.5x227.5)
GP-577R/ GP-260*/ GP-250*

Cable Attached Dimensions

Auxiliary input/output/ Voice Output Interface (AUX)

12.7 [0.50]
10 [0.39]
59[2.32]
28[1.10]

Auxiliary input/output/ Voice Output Interface (AUX)

Unit:mm [in.]

⚠ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

Line-up 15" 12.1" 10.4" 7.5" 5.7" 3.8"

GP-3600U/T

C Class 12.1" SVGA
TFT 65,536

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DIO(Sink)
AC AGP3600-T1-AF-D81K
DC AGP3600-T1-D24-D81K

DIO(Source)
AC AGP3600-T1-AF-D81C
DC AGP3600-T1-D24-D81C

FLEX NETWORK
AC AGP3600-T1-AF-FN1M
DC AGP3600-T1-D24-FN1M

CANopen (master)
AC AGP3600-T1-AF-CA1M
DC AGP3600-T1-D24-CA1M
DC AGP3600-U1-D24-CA1M
[High luminance model]

FUNCTIONAL SPECIFICATION		GP-3600U	GP-3600T
Display Type		TFT Color LCD (High luminance model)	TFT Color LCD
Display Colors		65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1	
Dispay Resolution		800 x 600 pixels (SVGA)	
Backlight *2		LED (When replacement is required,contact your Pro-face sales.)	
Effective Display Area		248.0mm[9.76in.] x 186.5mm[7.34in.]	
Brightness Control		8 levels of adjustment available via touch panel	
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *3	
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts	
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *4	
Text	8 x 8 dots	100 Char. x 75 rows	
	8 x 16 dots	100 Char. x 37 rows	
	16 x 16 dots	50 Char. x 37 rows	
	32 x 32 dots	25 Char. x 18 rows	
Application Memory		16MB FLASH EPROM *5	
Data Backup Memory		320KB SRAM (uses lithium battery) *6	
Control Memory	Variable Area	64 KB SRAM (uses lithium battery) *6	
	Program Area	132KB FLASH EPROM	
	Number of Step	15,000steps*7	
Touch Panel Type		Resistive Film (analog)	
Touch Panel Resolution		1024 x 1024	
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *8 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug	
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket	
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45)	
	Expansion Unit(1)	For Communication Unit x 1	
	Expansion Unit(2)	For Video Unit x 1	
	USB	USB1.1 (USB Type-A conn.) x 2 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m	
	CF Card	CF Card Slot (Type-II) x 1	
	Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1	
	AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block	
	Control	DIO (Sink) type Model: AGP3600-T1-■■■-D81K	Inputs: Sink/ Source type 6 points Outputs: Sink/ Source type 2 points connector:12 pin
		DIO (Source) type Model: AGP3600-T1-■■■-D81C	Inputs: Sink/ Source type 6 points Outputs: Source type 2 points connector:12 pin
		FLEX NETWORK type Model: AGP3600-T1-■■■-FN1M	Bit variable input: 512 points, Bit variable output: 512 points, Integer variable input: 128 points, Integer variable output: 128 points, Connector:8pin *3
		CANopen (master) type Model: AGP3600-T1-■■■-CA1M	Bit variable input: 512 points, Bit variable output: 512 points, Integer variable input: 128 points, Integer variable output: 128 points, Connector:D-Sub 9pin plug
Function Expansion Memory		Installed on function expansion memory interface cover	

GENERAL SPECIFICATION		AC	DC
International Safety Standards		[logos]	[logos] *10
Certifications		UL60950-1, UL1604 *11, ANSI/ISA 12.12.01 *11, CAN/CSAC22.2 No.60950-1, CSA-C22.2 No. 213 *11, EN55011 Class A, EN61000-6-2, EN60950-1, Gost-R	UL508, UL1604 *11, ANSI/ISA 12.12.01 *11, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *11, EN55011 Class A, EN61000-6-2, Gost-R
Marine Certifications		—	
Input Voltage		AC100V to AC240V	DC24V
Rated Voltage		AC85V to AC265V	DC19.2V to 28.8V
Rated Frequency		50/60Hz	—
Allowable Voltage		Shorter than 1cycle (Voltage drop interval must be 1s or more)	10ms or less
Power Consumption		AC100V 0.9A or less AC240V 0.45A or less	50W or less
Voltage Endurance		AC1500V 20mA for 1 minute (between charging and FG terminals)	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance		10MΩ or higher at DC500V (min.)(between charging and FG terminals)	
Ambient Temperature		0 °C to +50 °C *12	
Storage Temperature		−20 °C to +60 °C	
Ambient Humidity		10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)	
Storage Humidity		10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)	
Pollution Degree		Pollution Degree 2	
Atmosphere		Free of corrosive gasses	
Air Pressure Vibration Resistance (Availment altitude)		800hPa to 1114hPa (2000 meters or lower)	
Vibration Resistance		IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)	
Noise Immunity (via noise simulator)		Noise Voltage: 1500Vp-p Pulse Duration: 1 μs Rise Time: 1ns	Noise Voltage: 1000Vp-p Pulse Duration: 1 μs Rise Time: 1ns
Electrostatic Discharge Immunity		6kV (complies with EN 61000-4-2 Level 3)	
Grounding		Protection: Type D (common to SG-FG)	Function: Type D (common to SG-FG)
Ratings (For front panel of installed unit)		[GP-3650U] IP65f *13 [Except for GP-3650U] Equivalent to IP65f NEMA #250 TYPE 4X/13 *13	
External Dimensions		W313mm[12.32in.] x H239mm[9.41in.] x D56mm[2.20in.]	
Weight		3.2kg (7.0lb) max.(Unit Only)	
Cooling Method		Natural air circulation	

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Except for coating models and the units with the revision 4 or earlier. The backlight of the units with revision 4 or earlier is CCFL (Replaceable). For details, please refer to User Manual.
*3: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*4: Font Sizes can be set up by software.
*5: Capacity available for user apprication. 8MB available if the revision of the unit is earlier than Rev.4, or GP-Pro EX Ver.2.5 or earlier is used.
*6: A Lithium battery's lifetime is:
   10 years when the battery's ambient temperature is 40ºC or less.
   4.1 years when the battery's ambient temperature is 50ºC or less.
   1.5 years when the battery's ambient temperature is 60ºC or less.
   When used for back up: Approximately 100 days, with a fully charged battery.
   Approximately 6 days, with a half-charged battery.
*7: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*8: RS-232C and RS-422/485 can be swithed with the editor software.
*9: Depending on the FLEX NETWORK unit, the amount of dedicated channels will change.
*10: AGP3600-U1-D24-CA1M is certified by only CE and Gost-R.
*11: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*12: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*13: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

301[11.85]
313[12.32]
56[2.20]
5[0.20]
239[9.41]
227[8.94]
① ②
③
⑭
⑦
⑩
④ ⑪ ⑤ ⑥ ⑮
⑧ ⑬ ⑫ ⑨
⑥ ⑤ ⑪ ④

Panel Cut-out

301.5⁺¹·⁵ [11.87⁺⁰·⁰⁴]
227.5⁺¹·⁵ [8.96⁺⁰·⁰⁴]
R≤3[0.12]

Panel Thinkness area 1.6 [0.06]~10.0 [0.39]

Accommodates the panel cutout dimensions of current models (301.5x227.5)
GP-577R/ GP-260*/ GP-250*

Cable Attached Dimensions

Auxiliary input/output/ Voice Output Interface (AUX)
20[0.79]*
12.7 [0.50]
10 [0.39]
28 [1.10]
59[2.32]
8.4[0.33]
301[11.8]
AC
DC

The DC type unit has the power supply terminals shown above.
*127mm-space is necessary for the CANopen board type.

Auxiliary input/output/ Voice Output Interface (AUX)

Unit:mm [in.]

Parts Names
①Display ②Touch Panel ③Status LED ④Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤Serial Interface(COM1) ⑥Serial Interface(COM2) ⑦Ethernet Interface (LAN) ⑧Expansion Unit Interface(1) ⑨Expansion Unit Interface(2) ⑩USB Interface (Host) ⑪CF Card Cover (CF Card Interface, Dip Switches) ⑫CF Card Access LED ⑬Auxiliary input/output/Sound Output Interface (AUX) ⑭DIO Interface, FLEX NETWORK Interface ⑮Function expansion memory interface cover

❶ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.
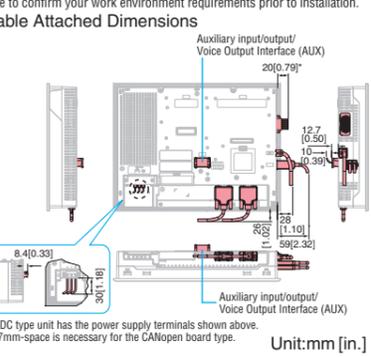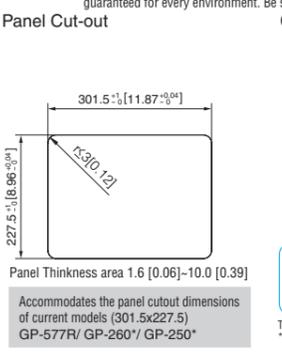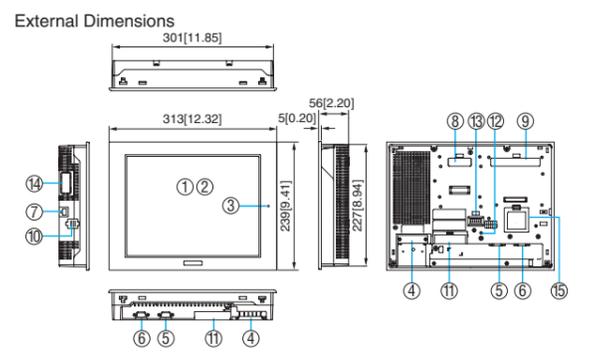

GP-3600T

S Class 12.1" SVGA
TFT 65,536

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
AC AGP3600-T1-AF
AC AGP3600-T1-AF-M [Coating model]
DC AGP3600-T1-D24
DC AGP3600-T1-D24-M [Coating model]

FUNCTIONAL SPECIFICATION		GP-3600T
Display Type		TFT Color LCD
Display Colors		65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1
Dispay Resolution		800 x 600 pixels (SVGA)
Backlight *2		LED (When replacement is required,contact your Pro-face sales.)
Effective Display Area		248.0mm[9.76in.] x 186.5mm[7.34in.]
Brightness Control		8 levels of adjustment available via touch panel
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *3
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *4
Text	8 x 8 dots	100 Char. x 75 rows
	8 x 16 dots	100 Char. x 37 rows
	16 x 16 dots	50 Char. x 37 rows
	32 x 32 dots	25 Char. x 18 rows
Application Memory		16MB FLASH EPROM *5
Data Backup Memory		320KB SRAM (uses lithium battery)*6
Control Memory	Variable Area	64 KB SRAM (uses lithium battery) *6
	Program Area	132 KB FLASH EPROM
	Number of Step	15,000steps*7
Touch Panel Type		Resistive Film (analog)
Touch Panel Resolution		1024 x 1024
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *8 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45) x1
	Expansion Unit(1)	For Communication Unit x 1
	Expansion Unit(2)	For Video Unit x 1
	USB	USB1.1 (USB Type-A conn.) x 2 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m
	CF Card	CF Card Slot (Type-II) x 1
	Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1
	AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block x1
Function Expansion Memory		Installed on function expansion memory interface cover

GENERAL SPECIFICATION		AC	DC
International Safety Standards		[logos] *9	[logos] *10
Certifications		UL60950-1, UL1604 *11, ANSI/ISA 12.12.01 *11, CAN/CSAC22.2 No.60950-1, CSA-C22.2 No. 213 *11, EN55011 Class A, EN61000-6-2, EN60950-1, Gost-R, KCC *9	UL508, UL1604 *11, ANSI/ISA 12.12.01 *11, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *11, EN55011 Class A, EN61000-6-2, Gost-R, KCC *10
Marine Certifications		—	ABS,BV,DNV,GL,LR,RINA *10
Input Voltage		AC100V to AC240V	DC24V
Rated Voltage		AC85V to AC265V	DC19.2V to 28.8V
Rated Frequency		50/60Hz	—
Allowable Voltage		Shorter than 1cycle (Voltage drop interval must be 1s or more)	10ms or less
Power Consumption		AC100V 0.9A or less AC240V 0.45A or less	50W or less
Voltage Endurance		AC1500V 20mA for 1 minute (between charging and FG terminals)	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance		10MΩ or higher at DC500V (min.)(between charging and FG terminals)	
Ambient Temperature		0 °C to +50 °C *12	
Storage Temperature		−20 °C to +60 °C	
Ambient Humidity		10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)	
Storage Humidity		10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)	
Pollution Degree		Pollution Degree 2	
Atmosphere		Free of corrosive gasses	
Air Pressure Vibration Resistance (Availment altitude)		800hPa to 1114hPa (2000 meters or lower)	
Vibration Resistance		IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)	
Noise Immunity (via noise simulator)		Noise Voltage: 1500Vp-p Pulse Duration: 1 μs Rise Time: 1ns	Noise Voltage: 1000Vp-p Pulse Duration: 1 μs Rise Time: 1ns
Electrostatic Discharge Immunity		6kV (complies with EN 61000-4-2 Level 3)	
Grounding		Protection: Type D (common to SG-FG)	Function: Type D (common to SG-FG)
Ratings (For front panel of installed unit)		Equivalent to IP65f NEMA #250 TYPE 4X/13 *13	
External Dimensions		W313mm[12.32in.] x H239mm[9.41in.] x D56mm[2.20in.]	
Weight		3.0kg (6.6lb) max.(Unit Only)	
Cooling Method		Natural air circulation	

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Except for coating models and the units with the revision 4 or earlier. The backlight of the units with revision 4 or earlier is CCFL (Replaceable). For details, please refer to User Manual.
*3: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*4: Font Sizes can be set up by software.
*5: Capacity available for user apprication. 8MB available if the revision of the unit is earlier than Rev.4, or GP-Pro EX Ver.2.5 or earlier is used.
*6: A Lithium battery's lifetime is:
   10 years when the battery's ambient temperature is 40ºC or less.
   4.1 years when the battery's ambient temperature is 50ºC or less.
   1.5 years when the battery's ambient temperature is 60ºC or less.
   When used for back up: Approximately 100 days, with a fully charged battery.
   Approximately 6 days, with a half-charged battery.
*7: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*8: RS-232C and RS-422/485 can be swithed with the editor software.
*9: The certification of KCC is obtained only for AGP3600-T1-AF.
*10: The certifications of KCC and these maritime classification societies are obtained only for AGP3600-T1-D24.
*11: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*12: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*13: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

301[11.85]
313[12.32]
56[2.20]
5[0.20]
239[9.41]
227[8.94]
① ②
③
⑦
⑩
④ ⑪ ⑤ ⑥ ⑭
⑧ ⑬ ⑫ ⑨
⑥ ⑤ ⑪ ④

Panel Cut-out

301.5⁺¹·⁵ [11.87⁺⁰·⁰⁴]
227.5⁺¹·⁵ [8.96⁺⁰·⁰⁴]
R≤3[0.12]

Panel Thinkness area 1.6 [0.06]~10.0 [0.39]

Accommodates the panel cutout dimensions of current models (301.5x227.5)
GP-577R/ GP-260*/ GP-250*

Cable Attached Dimensions

Auxiliary input/output/ Voice Output Interface (AUX)
20[0.79]
12.7 [0.50]
10 [0.39]
28 [1.10]
59[2.32]
8.4[0.33]
301[11.8]

The DC type unit has the power supply terminals shown above.

Auxiliary input/output/ Voice Output Interface (AUX)

Unit:mm [in.]

Parts Names
①Display ②Touch Panel ③Status LED ④Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤Serial Interface(COM1) ⑥Serial Interface(COM2) ⑦Ethernet Interface (LAN) ⑧Expansion Unit Interface(1) ⑨Expansion Unit Interface(2) ⑩USB Interface (Host) ⑪CF Card Cover (CF Card Interface, Dip Switches) ⑫CF Card Access LED ⑬Auxiliary input/output/Sound Output Interface (AUX) ⑭Function expansion memory interface cover

❶ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.
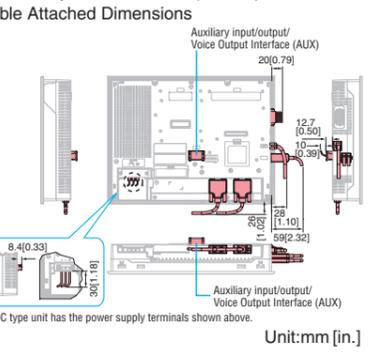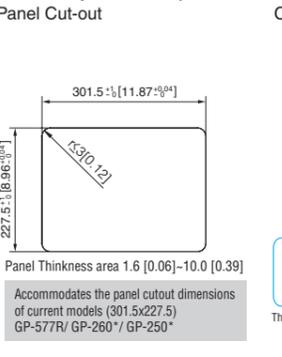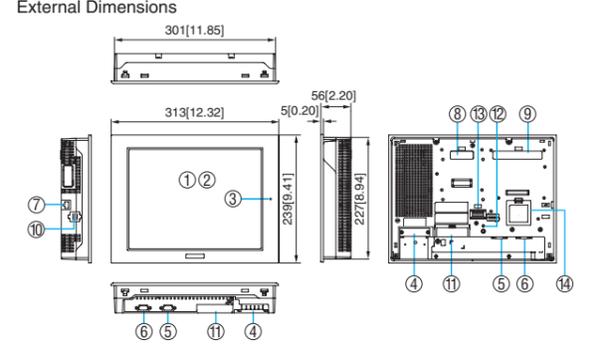
GP-3560T・GP-3550T

M Class
10.4"
SVGA / VGA

TFT 65,536

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
AC AGP3560-T1-AF
AC AGP3560-T1-AF-M [Coating model]
AC AGP3550-T1-AF
AC AGP3550-T1-AF-M [Coating model]

FUNCTIONAL SPECIFICATION	GP-3560T	GP-3550T
Display Type	TFT Color LCD	
Display Colors	65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1	
Dispay Resolution	800 x 600 pixels (SVGA)	640 x 480 pixels (VGA)
Backlight	CCFL (Replaceable)	
Effective Display Area	211.2mm[8.31in.] x 158.4mm[6.24in.]	
Brightness Control	8 levels of adjustment available via touch panel	
Language Fonts	Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2	
Character Sizes	Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts	
Font Sizes	Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3	
Text 8 x 8 dots	100 Char. x 75 rows	80 Char. x 60 rows
Text 8 x 16 dots	100 Char. x 37 rows	80 Char. x 30 rows
Text 16 x 16 dots	50 Char. x 37 rows	40 Char. x 30 rows
Text 32 x 32 dots	25 Char. x 18 rows	20 Char. x 15 rows
Application Memory	10MB FLASH EPROM *4	
Control Memory Data Backup Memory	320KB SRAM (uses lithium battery) *5	
Control Memory Variable Area	64KB SRAM (uses lithium battery) *5	
Control Memory Program Area	132KB FLASH EPROM	
Control Memory Number of Step	15,000steps*6	
Touch Panel Type	Resistive Film (analog)	
Touch Panel Resolution	1024 x 1024	
Interface Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *7 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug	
Interface Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket	
Interface Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45) x 1	
Interface Expansion Unit(1) *8	For Communication Unit x 1	
Interface Expansion Unit(2) *8	For Video Unit x 1	
Interface USB	USB1.1 (USB Type-A conn.) x 2 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m	
Interface CF Card	CF Card Slot (Type-II) x 1	
Interface Video Input	NTSC: 59.9Hz, PAL: 50Hz, SECAM: 50Hz, Connector: RCA 75Ω x 1	
Interface Sound Input	MIC input/LINE input (Change with S/W), Connector: MINI-JACK Φ3.5 x 1	
Interface Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1	
Interface AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector:Two piece type terminal block x 1	
Function Expansion Memory	Attached to the internal PCB (memory can be installed by users) *9	

GENERAL SPECIFICATION	AC
International Safety Standards	*10
Certifications	UL60950-1, UL1604 *11, ANSI/ISA 12.12.01 *11, CAN/CSAC22.2 No.60950-1, CSA-C22.2 No. 213 *11, EN55011 Class A, EN61000-6-2, EN60950-1, Gost-R, KCC *10
Marine Certifications	—
Input Voltage	AC100V to AC240V
Rated Voltage	AC85V to AC265V
Rated Frequency	50/60Hz
Allowable Voltage	Shorter than 1cycle (Voltage drop interval must be 1s or more)
Power Consumption	AC100V 0.9A or less AC240V 0.45A or less
Voltage Endurance	AC1500V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)
Ambient Temperature	0ºC to +50ºC *12
Storage Temperature	−20ºC to +60ºC
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39ºC max.)
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39ºC max.)
Pollution Degree	Pollution Degree 2
Atmosphere	Free of corrosive gasses
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)
Noise Immunity (via noise simulator)	Noise Voltage: 1500Vp-p Pulse Duration: 1µs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)
Grounding	Protection: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *13
External Dimensions	W270.5mm[10.65in.] x H212.5mm[8.37in.] x D57mm[2.24in.]
Weight	2.5kg (5.5lb) max.(Unit Only)
Cooling Method	Natural air circulation

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: Capacity available for user apprication. 8MB available if GP-Pro EX Ver.2.5 or earlier is used.
*5: A Lithium battery's lifetime is:
   10 years when the battery's ambient temperature is 40ºC or less.
   4.1 years when the battery's ambient temperature is 50ºC or less.
   1.5 years when the battery's ambient temperature is 60ºC or less.
   When used for back up: Approximately 100 days, with a fully charged battery.
   Approximately 6 days, with a half-charged battery.
*6: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1MB.
*7: RS-232C and RS-422/485 can be swithed with the editor software.
*8: The Expansion Unit Interface (1) and (2) cannot be used simultaneously.
*9: Refer to the "GP3000 Series Hardware Manual" for installation instructions.
*10: The certification of KCC is obtained only for AGP3560-T1-AF and AGP3550-T1-AF.
*11: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*12: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*13: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

258.5[10.18]
270.5[10.65]
57[2.24]
5[0.20]
212.5[8.37]
200.5[7.89]

Panel Cut-out

259⁺¹₀[10.20⁺⁰·⁰⁴₀]
201.0⁺¹₀[7.91⁺⁰·⁰⁴₀]
R5[0.12]
Panel Thickness area 1.6 [0.06]~10.0 [0.39]
Accommodates the panel cutout dimensions of current models (259x201)
GP-477RE

Cable Attached Dimensions
Auxiliary input/output/ Voice Output Interface (AUX)
28[1.10]
59[2.32]
Auxiliary input/output/ Voice Output Interface (AUX)

Unit:mm [in.]

Parts Names
①Display ②Touch Panel ③Status LED ④Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤Serial Interface(COM1) ⑥Serial Interface(COM2) ⑦Ethernet Interface (LAN) ⑧Expansion Unit Interface(1) ⑨Expansion Unit Interface(2) ⑩USB Interface (Host) ⑪CF Card Cover (CF Card Interface, Dip Switches) ⑫CF Card Access LED ⑬Video Input Interface (V-IN) ⑭Sound Input Interface (L-IN/MIC) ⑮Auxiliary input/output/Sound Output Interface (AUX)

❶About 10.4-inch models with TFT color LCD. Replacing the GP2500 Series with the GP-3500T requires an optional Panel Cutout Adapter (CA4-ATM10-01).
❷Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

GP-3500T

C Class
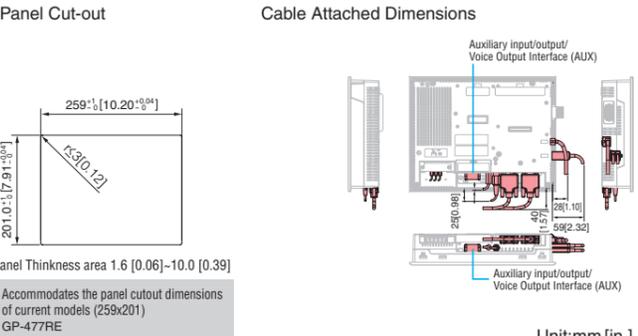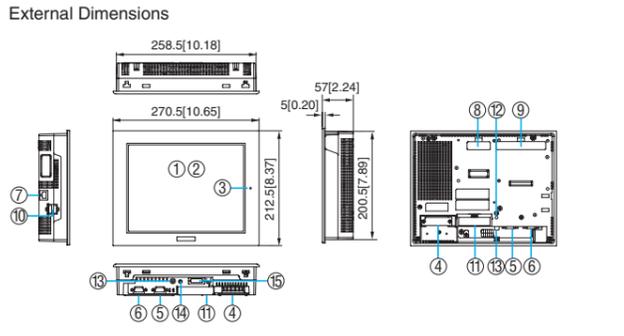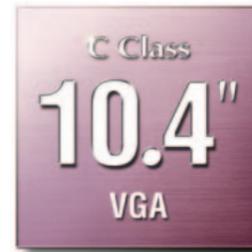**10.4"**
VGA

TFT 65,536

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DIO(Sink)
AC AGP3500-T1-AF-D81K
DC AGP3500-T1-D24-D81K

DIO(Source)
AC AGP3500-T1-AF-D81C
DC AGP3500-T1-D24-D81C

FLEX NETWORK
AC AGP3500-T1-AF-FN1M
DC AGP3500-T1-D24-FN1M

CANopen (master)
AC AGP3500-T1-AF-CA1M
DC AGP3500-T1-D24-CA1M

FUNCTIONAL SPECIFICATION	GP-3500T
Display Type	TFT Color LCD
Display Colors	65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1
Dispay Resolution	640 x 480 pixels (VGA)
Backlight	CCFL (Replaceable)
Effective Display Area	211.2mm[8.31in.] x 158.4mm[6.24in.]
Brightness Control	8 levels of adjustment available via touch panel
Language Fonts	Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2
Character Sizes	Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts
Font Sizes	Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3
Text 8 x 8 dots	80 Char. x 60 rows
Text 8 x 16 dots	80 Char. x 30 rows
Text 16 x 16 dots	40 Char. x 30 rows
Text 32 x 32 dots	20 Char. x 15 rows
Application Memory	16MB FLASH EPROM *4
Control Memory Data Backup Memory	320KB SRAM (uses lithium battery) *5
Control Memory Variable Area	64KB SRAM (uses lithium battery) *5
Control Memory Program Area	132KB FLASH EPROM
Control Memory Number of Step	15,000steps*6
Touch Panel Type	Resistive Film (analog)
Touch Panel Resolution	1024 x 1024
Interface Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *7 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug
Interface Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket
Interface Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX,modular jack connector (RJ-45) x 1
Interface Expansion Unit(1)*8	For Communication Unit x 1
Interface Expansion Unit(2)*8	For Video Unit x 1
Interface USB	USB1.1 (USB Type-A conn.) x 2 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m
Interface CF Card	CF Card Slot (Type-II) x 1
Interface Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1
Interface AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block x 1
Interface Control	DIO (Sink) type Model: AGP3500-T1-■■■-D81K — Inputs: Sink/ Source type 6 points Outputs: Sink type 2 points connector:12 pin
	DIO (Source) type Model: AGP3500-T1-■■■-D81C — Inputs: Sink/ Source type 6 points Outputs: Source type 2 points connector:12 pin
	FLEX NETWORK type Model: AGP3500-T1-■■■-FN1M — Bit variable input:512 points, Bit variable output: 512 points, Integer variable input: 128 points, Integer variable output: 128 points, Connector:6pin *9
	CANopen (master) type Model: AGP3500-T1-■■■-CA1M — Bit variable input:512 points, Bit variable output: 512 points, Integer variable input: 128 points, Integer variable output: 128 points, Connector: D-Sub 9pin plug
Function Expansion Memory	Attached to the internal PCB (memory can be installed by users) *10

GENERAL SPECIFICATION	AC	DC
International Safety Standards		
Certifications	UL60950-1, UL1604 *11, ANSI/ISA 12.12.01 *11, CAN/CSAC22.2 No.60950-1, CSA-C22.2 No. 213 *11, EN55011 Class A, EN61000-6-2, EN60950-1, Gost-R	UL508, UL1604 *11, ANSI/ISA 12.12.01 *11, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *11, EN55011 Class A, EN61000-6-2, Gost-R
Marine Certifications	—	
Input Voltage	AC100V to AC240V	DC24V
Rated Voltage	AC85V to AC265V	DC19.2V to DC28.8V
Rated Frequency	50/60Hz	—
Allowable Voltage	Shorter than 1cycle (Voltage drop interval must be 1s or more)	10ms or less
Power Consumption	AC100V 0.9A or less AC240V 0.45A or less	50Wor less
Voltage Endurance	AC1500V 20mA for 1 minute (between charging and FG terminals)	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)	
Ambient Temperature	0ºC to +50ºC *12	
Storage Temperature	−20ºC to +60ºC	
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39ºC max.)	
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39ºC max.)	
Pollution Degree	Pollution Degree 2	
Atmosphere	Free of corrosive gasses	
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)	
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)	
Noise Immunity (via noise simulator)	Noise Voltage: 1500Vp-p Pulse Duration: 1µs Rise Time: 1ns	Noise Voltage: 1000Vp-p Pulse Duration: 1µs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)	
Grounding	Protection: Type D (Common to SG-FG)	Function: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *13	
External Dimensions	W270.5mm[10.65in.] x H212.5mm[8.37in.] x D57mm[2.24in.]	
Weight	2.7kg (5.9lb) max.(Unit Only)	
Cooling Method	Natural air circulation	

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: Capacity available for user apprication. 8MB available if the revision of the unit is earlier than Rev.4, or GP-Pro EX Ver.2.5 or earlier is used.
*5: A Lithium battery's lifetime is:
   10 years when the battery's ambient temperature is 40ºC or less.
   4.1 years when the battery's ambient temperature is 50ºC or less.
   1.5 years when the battery's ambient temperature is 60ºC or less.
   When used for back up: Approximately 100 days, with a fully charged battery.
   Approximately 6 days, with a half-charged battery.
*6: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*7: RS-232C and RS-422/485 can be swithed with the editor software.
*8: The Expansion Unit (1) and (2) cannot be used simultaneously.
*9: Depending on the FLEX NETWORK unit, the amount of dedicated channels will change.
*10: Refer to the "GP3000 Series Hardware Manual" for installation instructions.
*11: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*12: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*13: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

258.5[10.18]
270.5[10.65]
57[2.24]
5[0.20]
212.5[8.37]
200.5[7.89]

Panel Cut-out

259⁺¹₀[10.20⁺⁰·⁰⁴₀]
201.0⁺¹₀[7.91⁺⁰·⁰⁴₀]
R5[0.12]
Panel Thickness area 1.6 [0.06]~10.0 [0.39]
Accommodates the panel cutout dimensions of current models (259x201)
GP-477RE

Cable Attached Dimensions
Auxiliary input/output/ Voice Output Interface (AUX)
20[0.79]"
8.4[0.33]
30[1.18]
28[1.10]
59[2.32]
Auxiliary input/output/ Voice Output Interface (AUX)
The DC type unit has the power supply terminals shown above.
*127mm-space is necessary for the CANopen board type.

Unit:mm [in.]

Parts Names
①Display ②Touch Panel ③Status LED ④Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤Serial Interface(COM1) ⑥Serial Interface(COM2) ⑦Ethernet Interface (LAN) ⑧Expansion Unit Interface(1) ⑨Expansion Unit Interface(2) ⑩USB Interface (Host) ⑪CF Card Cover (CF Card Interface, Dip Switches) ⑫CF Card Access LED ⑬Auxiliary input/output/Sound Output Interface (AUX) ⑭DIO Interface/FLEX NETWORK Interface/CANopen Interface

❶About 10.4-inch models with TFT color LCD. Replacing the GP2500 Series with the GP-3500T requires an optional Panel Cutout Adapter (CA4-ATM10-01).
❷Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.
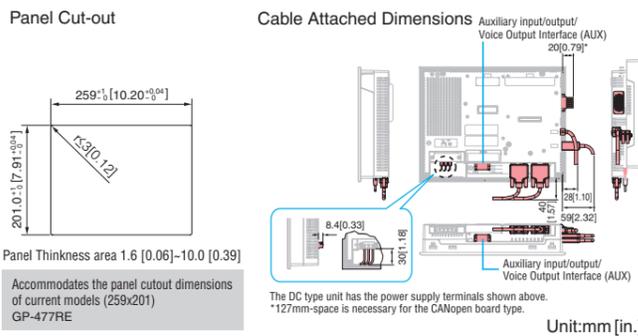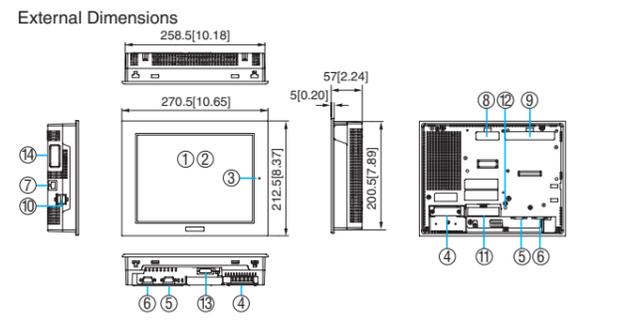
GP-3500S/L

STN 4,096
MONO 16 shades

10.4" VGA
C Class

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DIO(Sink)
[AC] AGP3500-S1-AF-D81K
[DC] AGP3500-S1-D24-D81K

DIO(Source)
[AC] AGP3500-S1-AF-D81C
[DC] AGP3500-S1-D24-D81C
[DC] AGP3500-L1-D24-D81C

FUNCTIONAL SPECIFICATION		GP-3500S	GP-3500L
Display Type		STN Color LCD	Monochrome LCD
Display Colors		4,096 Colors	Black and White (16 Shades)
Dispay Resolution		640 x 480 pixels (VGA)	
Backlight		CCFL (Replaceable)	CCFL (When replacement is required, contact your Pro-face sales.)
Effective Display Area		211.2mm[8.31in.] x 162.3mm[6.39in.]	216.0mm[8.50in.] x 160.8mm[6.33in.]
Brightness Control		8 levels of adjustment available via touch panel	
Contrast Adjustment		8 levels of adjustment available via touch panel	
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *1	
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts	
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *2	
Text	8 x 8 dots	80 Char. x 60 rows	
	8 x 16 dots	80 Char. x 30 rows	
	16 x 16 dots	40 Char. x 30 rows	
	32 x 32 dots	20 Char. x 15 rows	
Application Memory		16MB FLASH EPROM *3	
Data Backup Memory		320KB SRAM (uses lithium battery) *4	
Control Memory	Variable Area	64KB SRAM (uses lithium battery) *4	
	Program Area	132KB FLASH EPROM	
	Number of Step	15,000steps *5	
Touch Panel Type		Resistive Film (analog)	
Touch Panel Resolution		1024 x 1024	
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *6 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug	
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket	
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45) x1	
	Expansion Unit	For Communication Unit x 1	
	USB	USB1.1 (USB Type-A conn.) x 2 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m	
	CF Card	CF Card Slot (Type-II) x 1	
	Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1	
	AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block x 1	
	Control	DIO (Sink) type Model: AGP3500-S1-■■■-D81K	Inputs: Sink/ Source type 6 points Outputs: Sink type 2 points connector:12 pin
		DIO (Source) type Model: AGP3500-S1-■■■-D81C	Inputs: Sink/ Source type 6 points Outputs: Source type 2 points connector:12 pin
Function Expansion Memory		Installed on function expansion memory interface cover	

GENERAL SPECIFICATION	AC	DC
International Safety Standards	[logos]	[logos]
Certifications	UL60950-1, UL1604 *7, ANSI/ISA 12.12.01 *7, CAN/CSAC22.2 No.60950-1, CSA-C22.2 No. 213 *7, EN55011 Class A, EN61000-6-2, EN60950-1, Gost-R	UL508, UL1604 *7, ANSI/ISA 12.12.01 *7, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *7, EN55011 Class A, EN61000-6-2, Gost-R
Marine Certifications	—	
Input Voltage	AC100V to AC240V	DC24V
Rated Voltage	AC85V to AC265V	DC19.2V to DC28.8V
Rated Frequency	50/60Hz	—
Allowable Voltage	Shorter than 1cycle (Voltage drop interval must be 1s or more)	10ms or less
Power Consumption	AC100V 0.9A or less AC240V 0.45A or less	50W or less
Voltage Endurance	AC1500V 20mA for 1 minute (between charging and FG terminals)	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)	
Ambient Temperature	0°C to +50°C *8	
Storage Temperature	−20°C to +60°C	
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C max.)	
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C max.)	
Pollution Degree	Pollution Degree 2	
Atmosphere	Free of corrosive gasses	
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)	
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)	
Noise Immunity (via noise simulator)	Noise Voltage: 1500Vp-p Pulse Duration: 1μs Rise Time: 1ns	Noise Voltage: 1000Vp-p Pulse Duration: 1μs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)	
Grounding	Protection: Type D (Common to SG-FG) Function: Type D (Common to SG-FG)	
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *9	
External Dimensions	W313mm[12.32in.] x H239mm[9.41in.] x D56mm[2.20in.]	
Weight	3.2kg (7.0lb) max.(Unit Only)	
Cooling Method	Natural air circulation	

*1: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*2: Font Sizes can be set up by software.
*3: Capacity available for user application. 8MB available if the revision of the unit is earlier than Rev.4, or GP-Pro EX Ver.2.5 or earlier is used.
*4: A Lithium battery's lifetime is:
   10 years when the battery's ambient temperature is 40°C or less.
   4.1 years when the battery's ambient temperature is 50°C or less.
   1.5 years when the battery's ambient temperature is 60°C or less.
   When used for back up: Approximately 100 days, with a fully charged battery.
   Approximately 6 days, with a half-charged battery.
*5: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*6: RS-232C and RS-422/485 can be swithed with the editor software.
*7: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*8: Operating temperature refers to temperature inside mounting enclosure and on the side of the display. When using STN Color LCD models in an environment where the temperature becomes or exceeds 40 °C for an extended period of time, the screen contrast level may decrease from its original level of brightness.
*9: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

301[11.85]
313[12.32]
56[2.20]
5[0.20]
227[8.94]
239[9.41]
⑬ ⑦ ⑨
① ② ③
⑧ ⑪
④ ⑩ ⑫ ⑤ ⑥ ⑭
⑥ ⑤ ⑩ ④

Panel Cut-out

301.5 +1 0 [11.87 +0.04 0]
227.5 +1 0 [8.96 +0.04 0]

Panel Thickness area 1.6 [0.06]~10.0 [0.39]
Accommodates the panel cutout dimensions of current models (301.5x227.5)
GP-577R/ GP-260*/ GP-250*

Cable Attached Dimensions

Auxiliary input/output/ Voice Output Interface (AUX)
20[0.79]*
12.7 [0.50]
r≤3[0.12]
8.4[0.33]
30[1.18]
28[1.10]
59[2.32]
Auxiliary input/output/ Voice Output Interface (AUX)

The DC type unit has the power supply terminals shown above.
*127mm-space is necessary for the CANopen board type.

Unit:mm [in.]

Parts Names
① Display ② Touch Panel ③ Status LED ④ Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤ Serial Interface(COM1) ⑥ Serial Interface(COM2) ⑦ Ethernet Interface (LAN) ⑧ Expansion Unit Interface ⑨ USB Interface (Host) ⑩ CF Card Cover (CF Card Interface, Dip Switches) ⑪ CF Card Access LED ⑫ Auxiliary input/output/Sound Output Interface (AUX) ⑬ DIO I/F ⑭ Function expansion memory interface cover

❶ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.
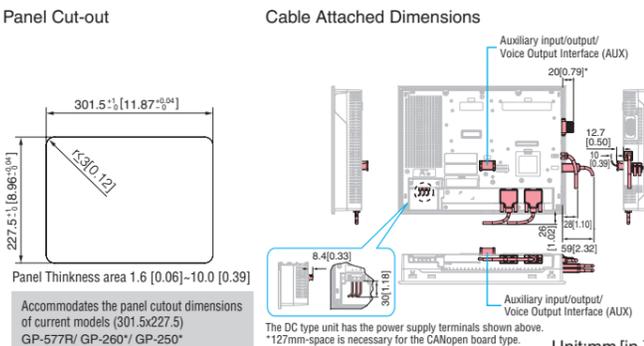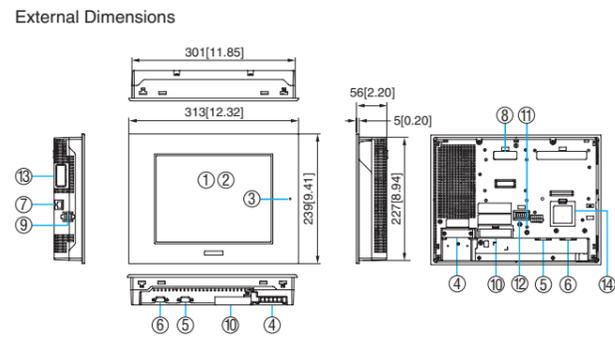

GP-3510T·GP-3500T

TFT 65,536

10.4" SVGA/VGA
S Class

Tank monitor

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
[AC] AGP3510-T1-AF
[AC] AGP3500-T1-AF
[DC] AGP3500-T1-D24

FUNCTIONAL SPECIFICATION		GP-3510T	GP-3500T
Display Type		TFT Color LCD	
Display Colors		65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1	
Dispay Resolution		800 x 600 pixels (SVGA)	640 x 480 pixels (VGA)
Backlight		CCFL (Replaceable)	
Effective Display Area		211.2mm[8.31in.] x 158.4mm[6.24in.]	
Brightness Control		8 levels of adjustment available via touch panel	
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2	
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts	
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3	
Text	8 x 8 dots	100 Char. x 75 rows	80 Char. x 60 rows
	8 x 16 dots	100 Char. x 37 rows	80 Char. x 30 rows
	16 x 16 dots	50 Char. x 37 rows	40 Char. x 30 rows
	32 x 32 dots	25 Char. x 18 rows	20 Char. x 15 rows
Application Memory		16MB FLASH EPROM *4	
Data Backup Memory		320KB SRAM (uses lithium battery) *5	
Control Memory	Variable Area	64KB SRAM (uses lithium battery) *5	
	Program Area	132KB FLASH EPROM	
	Number of Step	15,000steps *6	
Touch Panel Type		Resistive Film (analog)	
Touch Panel Resolution		1024 x 1024	
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *7 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug	
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket	
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45) x 1	
	Expansion Unit(1) *8	For Communication Unit x 1	
	Expansion Unit(2) *8	For Video Unit x 1	
	USB	USB1.1 (USB Type-A conn.) x 2 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m	
	CF Card	CF Card Slot (Type-II) x 1	
	Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1	
	AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block x1	
Function Expansion Memory		Attached to the internal PCB (memory can be installed by users) *9	

GENERAL SPECIFICATION	AC	DC
International Safety Standards	[logos]	[logos]
Certifications	UL60950-1, UL1604 *10, ANSI/ISA 12.12.01 *10, CAN/CSAC22.2 No.60950-1, CSA-C22.2 No. 213 *10, EN55011 Class A, EN61000-6-2, EN60950-1, Gost-R, KCC	UL508, UL1604 *10, ANSI/ISA 12.12.01 *10, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *10, EN55011 Class A, EN61000-6-2, Gost-R, KCC
Marine Certifications	—	ABS,BV,DNV,GL,LR,RINA
Input Voltage	AC100V to AC240V	DC24V
Rated Voltage	AC85V to AC265V	DC19.2V to DC28.8V
Rated Frequency	50/60Hz	—
Allowable Voltage	Shorter than 1cycle (Voltage drop interval must be 1s or more)	10ms or less
Power Consumption	AC100V 0.9A or less AC240V 0.45A or less	50W or less
Voltage Endurance	AC1500V 20mA for 1 minute (between charging and FG terminals)	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)	
Ambient Temperature	0°C to +50°C *11	
Storage Temperature	−20°C to +60°C	
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C max.)	
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C max.)	
Pollution Degree	Pollution Degree 2	
Atmosphere	Free of corrosive gasses	
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)	
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)	
Noise Immunity (via noise simulator)	Noise Voltage: 1500Vp-p Pulse Duration: 1μs Rise Time: 1ns	Noise Voltage: 1000Vp-p Pulse Duration: 1μs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)	
Grounding	Protection: Type D (Common to SG-FG) Function: Type D (Common to SG-FG)	
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *12	
External Dimensions	W270.5mm[10.65in.] x H212.5mm[8.37in.] x D57mm[2.24in.]	
Weight	2.5kg (5.5lb) max.(Unit Only)	
Cooling Method	Natural air circulation	

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: Capacity available for user application. 8MB available if the revision of the unit is earlier than Rev.4, or GP-Pro EX Ver.2.5 or earlier is used.
*5: A Lithium battery's lifetime is:
   10 years when the battery's ambient temperature is 40°C or less.
   4.1 years when the battery's ambient temperature is 50°C or less.
   1.5 years when the battery's ambient temperature is 60°C or less.
   When used for back up: Approximately 100 days, with a fully charged battery.
   Approximately 6 days, with a half-charged battery.
*6: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1MB.
*7: RS-232C and RS-422/485 can be swithed with the editor software.
*8: The Expansion Unit Interface (1) and (2) cannot be used simultaneously.
*9: Refer to the "GP3000 Series Hardware Manual" for installation instructions.
*10: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*11: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*12: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

258.5[10.18]
270.5[10.65]
57[2.24]
5[0.20]
212.5[8.37]
200.5[7.89]
⑦ ⑩
① ② ③
⑧ ⑫ ⑨
④ ⑪ ⑤ ⑥
⑥ ⑤ ⑬ ④

Panel Cut-out

259 +1 0 [10.20 +0.04 0]
201.0 +1 0 [7.91 +0.04 0]

Panel Thickness area 1.6 [0.06]~10.0 [0.39]
Accommodates the panel cutout dimensions of current models (259x201)
GP-477RE

Cable Attached Dimensions

Auxiliary input/output/ Voice Output Interface (AUX)
8.4[0.33]
30[1.18]
28[1.10]
59[2.32]
Auxiliary input/output/ Voice Output Interface (AUX)

The DC type unit has the power supply terminals shown above.

Unit:mm [in.]

Parts Names
① Display ② Touch Panel ③ Status LED ④ Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤ Serial Interface(COM1) ⑥ Serial Interface(COM2) ⑦ Ethernet Interface (LAN) ⑧ Expansion Unit Interface (1) ⑨ Expansion Unit Interface (2) ⑩ USB Interface (Host) ⑪ CF Card Cover (CF Card Interface, Dip Switches) ⑫ CF Card Access LED ⑬ Auxiliary input/output/Sound Output Interface (AUX)

❶ About 10.4-inch models with TFT color LCD. Replacing the GP2500 Series with the GP-3500T requires an optional Panel Cutout Adapter (CA4-ATM10-01).
❶ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

GP-3500S/L

STN 4,096
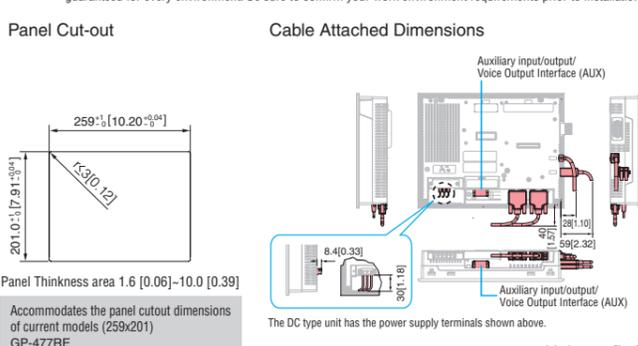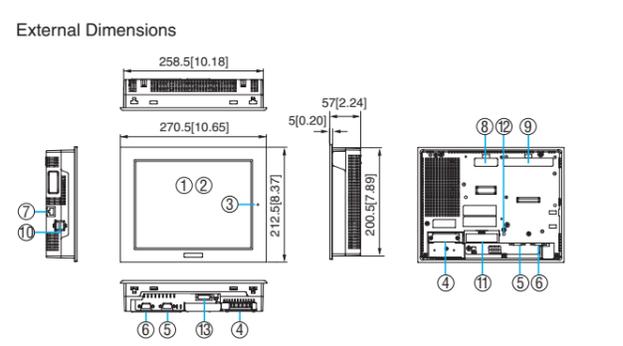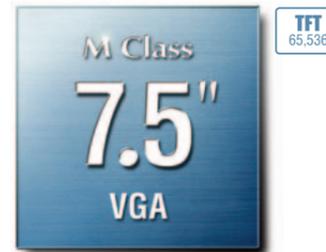MONO 16 shades

S Class
10.4"
VGA

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
AC AGP3500-S1-AF
DC AGP3500-S1-D24
DC AGP3500-S1-D24-M [Coating model]
DC AGP3500-L1-D24

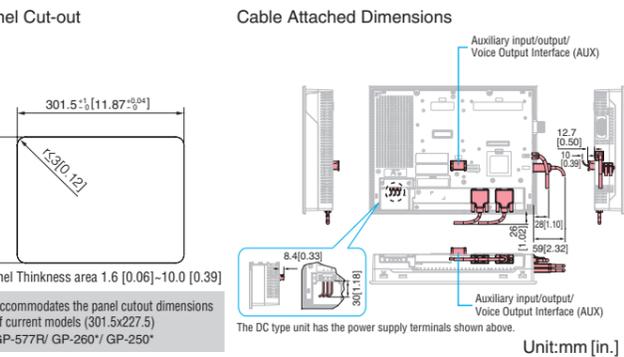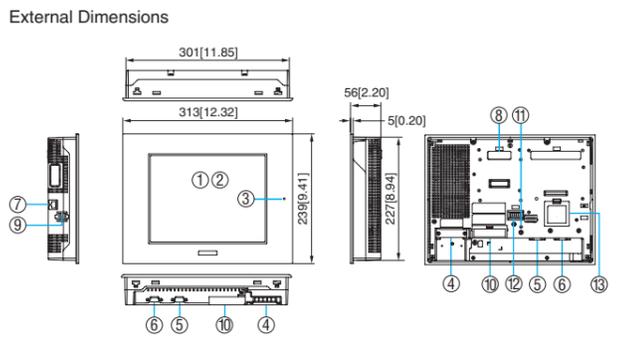| FUNCTIONAL SPECIFICATION	GP-3500S	GP-3500L
Display Type	STN Color LCD	Monochrome LCD
Display Colors	4,096 Colors	Black and White (16 Shades)
Dispay Resolution	640 x 480 pixels (VGA)	
Backlight	CCFL (Replaceable)	CCFL (When replacement is required, contact your Pro-face sales.)
Effective Display Area	215.2mm[8.43in.] x 162.3mm[6.39in.]	216.0mm[8.50in.] x 160.8mm[6.33in.]
Brightness Control	8 levels of adjustment available via touch panel	
Contrast Adjustment	8 levels of adjustment available via touch panel	
Language Fonts	Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *1	
Character Sizes	Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts	
Font Sizes	Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *2	
Text 8 x 8 dots	80 Char. x 60 rows	
Text 8 x 16 dots	80 Char. x 30 rows	
Text 16 x 16 dots	40 Char. x 30 rows	
Text 32 x 32 dots	20 Char. x 15 rows	
Application Memory	16MB FLASH EPROM *3	
Data Backup Memory	320KB SRAM (uses lithium battery) *4	
Control Memory Variable Area	64 KB SRAM (uses lithium battery) *4	
Control Memory Program Area	132 KB FLASH EPROM	
Control Memory Number of Step	15,000steps *5	
Touch Panel Type	Resistive Film (analog)	
Touch Panel Resolution	1024 x 1024	
Interface Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *6 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug	
Interface Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket	
Interface Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45)	
Interface Expansion Unit	For Communication Unit x 1	
Interface USB	USB1.1 (USB Type-A conn.) x 2 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m	
Interface CF Card	CF Card Slot (Type-II) x 1	
Interface Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1	
Interface AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block	
Function Expansion Memory	Installed on function expansion memory interface cover	

GENERAL SPECIFICATION	AC	DC
International Safety Standards	UL ... CE ...	UL ... CE ... *7
Certifications	UL60950-1, UL1604 *8, ANSI/ISA 12.12.01 *8, CAN/CSAC22.2 No.60950-1, CSA-C22.2 No. 213 *8, EN55011 Class A, EN61000-6-2, EN60950-1, Gost-R, KCC	UL508, UL1604 *8, ANSI/ISA 12.12.01 *8, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *8, EN55011 Class A, EN61000-6-2, Gost-R, KCC *7
Marine Certifications	—	
Input Voltage	AC100V to AC240V	DC24V
Rated Voltage	AC85V to AC265V	DC19.2V to DC28.8V
Rated Frequency	50/60Hz	—
Allowable Voltage	Shorter than 1cycle (Voltage drop interval must be 1s or more)	10ms or less
Power Consumption	AC100V 0.9A or less AC240V 0.45A or less	50W or less
Voltage Endurance	AC1500V 20mA for 1 minute (between charging and FG terminals)	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)	
Ambient Temperature	0 °C to +50 °C *9	
Storage Temperature	−20 °C to +60 °C	
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)	
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)	
Pollution Degree	Pollution Degree 2	
Atmosphere	Free of corrosive gasses	
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)	
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)	
Noise Immunity (via noise simulator)	Noise Voltage: 1500Vp-p Pulse Duration: 1µs Rise Time: 1ns	Noise Voltage: 1000Vp-p Pulse Duration: 1µs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)	
Grounding	Protection: Type D (Common to SG-FG)	Function: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *10	
External Dimensions	W313mm[12.31in.] x H239mm[9.41in.] x D56mm[2.20in.]	
Weight	3.0kg (6.6lb) max.(Unit Only)	
Cooling Method	Natural air circulation	

*1: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*2: Font Sizes can be set up by software.
*3: Capacity available for user apprication. 8MB available if the revision of the unit is earlier than Rev.4, or GP-Pro EX Ver.2.5 or earlier is used.
*4: A Lithium battery's lifetime is:
   10 years when the battery's ambient temperature is 40 °C or less.
   4.1 years when the battery's ambient temperature is 50 °C or less.
   1.5 years when the battery's ambient temperature is 60 °C or less.
   When used for back up: Approximately 100 days, with a fully charged battery.
   Approximately 6 days, with a half-charged battery.
*5: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*6: RS-232C and RS-422/485 can be switched with the editor software.
*7: The certification of KCC is obtained only for AGP3500-S1-D24.
*8: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*9: Operating temperature refers to temperature inside mounting enclosure and on the side of the display. When using STN Color LCD models in an environment where the temperature becomes or exceeds 40 °C for an extended period of time, the screen contrast level may decrease from its original level of brightness.
*10: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

301[11.85]
313[12.32]
56[2.20]
5[0.20]
239[9.41]
227[8.94]

Panel Cut-out

301.5 +1 [11.87 +0.04]
227.5 +1 [8.96 +0.04]
R3[0.12]

Panel Thickness area 1.6 [0.06]–10.0 [0.39]

Accommodates the panel cutout dimensions of current models (301.5x227.5)
GP-577R/ GP-260*/ GP-250*

Cable Attached Dimensions

Auxiliary input/output/ Voice Output Interface (AUX)
12.7 [0.50]
10 [0.39]
28[1.10]
59[2.32]
8.4[0.33]
30[1.18]
Auxiliary input/output/ Voice Output Interface (AUX)

The DC type unit has the power supply terminals shown above.

Unit:mm [in.]

Parts Names
① Display ② Touch Panel ③ Status LED ④ Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤ Serial Interface(COM1) ⑥ Serial Interface(COM2)
⑦ Ethernet Interface (LAN) ⑧ Expansion Unit Interface ⑨ USB Interface (Host) ⑩ CF Card Cover (CF Card Interface, Dip Switches) ⑪ CF Card Access LED
⑫ Auxiliary input/output/Sound Output Interface (AUX) ⑬ Function expansion memory interface cover

⚠ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

GP-3450T

TFT 65,536

M Class
7.5"
VGA

SIO2ch	Ethernet	CommunicationUnit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DC AGP3450-T1-D24
DC AGP3450-T1-D24-M [Coating model]

FUNCTIONAL SPECIFICATION	GP-3450T
Display Type	TFT Color LCD
Display Colors	65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1
Dispay Resolution	640 x 480 pixels (VGA)
Backlight	CCFL (When replacement is required, contact your Pro-face sales.)
Effective Display Area	153.7mm[6.05in.] x 115.8mm[4.56in.]
Brightness Control	8 levels of adjustment available via touch panel
Language Fonts	Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2
Character Sizes	Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts
Font Sizes	Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3
Text 8 x 8 dots	80 Char. x 60 rows
Text 8 x 16 dots	80 Char. x 30 rows
Text 16 x 16 dots	40 Char. x 30 rows
Text 32 x 32 dots	20 Char. x 15 rows
Application Memory	10MB FLASH EPROM *4
Data Backup Memory	320KB SRAM (uses lithium battery) *5
Control Memory Variable Area	64 KB SRAM (uses lithium battery) *5
Control Memory Program Area	132 KB FLASH EPROM
Control Memory Number of Step	15,000steps *6
Touch Panel Type	Resistive Film (analog)
Touch Panel Resolution	1024 x 1024
Interface Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *7 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug
Interface Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket
Interface Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45)
Interface Expansion Unit	For Communication Unit x 1
Interface USB	USB1.1 (USB Type-A conn.) x 1 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m
Interface CF Card	CF Card Slot (Type-II) x 1
Interface Video Input	NTSC: 59.9Hz, PAL: 50Hz, SECAM: 50Hz, Connector: RCA 75Ω x 1
Interface Sound Input	MIC input/LINE input (Change with S/W), Connector: MINI-JACK Φ3.5 x 1
Interface Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1
Interface AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block
Function Expansion Memory	Attached to the internal PCB (memory can be installed by users)*8

GENERAL SPECIFICATION	DC
International Safety Standards	UL ... CE ...
Certifications	UL508, UL1604 *9, ANSI/ISA 12.12.01 *9, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *9, EN55011 Class A, EN61000-6-2, Gost-R
Marine Certifications	ABS,BV,DNV,GL,LR,RINA *10
Input Voltage	DC24V
Rated Voltage	DC19.2V to DC28.8V
Rated Frequency	—
Allowable Voltage	10ms or less
Power Consumption	28W or less
Voltage Endurance	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)
Ambient Temperature	0 °C to +50 °C *11
Storage Temperature	−20 °C to +60 °C
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)
Pollution Degree	Pollution Degree 2
Atmosphere	Free of corrosive gasses
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)
Noise Immunity (via noise simulator)	Noise Voltage: 1000Vp-p Pulse Duration: 1µs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)
Grounding	Protection: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *12
External Dimensions	W215mm[8.46in.] x H170mm[6.69in.] x D60mm[2.36in.]
Weight	1.8kg (4.0lb) max.(Unit Only)
Cooling Method	Natural air circulation

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: Capacity available for user apprication. 8MB available if GP-Pro EX Ver.2.5 or earlier is used.
*5: A Lithium battery's lifetime is:
   10 years when the battery's ambient temperature is 40 °C or less.
   4.1 years when the battery's ambient temperature is 50 °C or less.
   1.5 years when the battery's ambient temperature is 60 °C or less.
   When used for back up: Approximately 100 days, with a fully charged battery.
   Approximately 6 days, with a half-charged battery.
*6: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*7: RS-232C and RS-422/485 can be swithed with the editor software.
*8: Refer to the "GP3000 Series Hardware Manual" for installation instructions.
*9: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*10: The certifications of these maritime classification societies are obtained only for AGP3450-T1-D24.
*11: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*12: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

204[8.03]
215[8.46]
60[2.36]
5[0.20]
170[6.69]
159[6.26]

Panel Cut-out

204.5 +1 [8.05 +0.04]
159.5 +1 [6.28 +0.04]
R3[0.12]

Panel Thickness area 1.6 [0.06]–10.0 [0.39]

Accommodates the panel cutout dimensions of current models (204.5x159.5)
GP-240*

Cable Attached Dimensions

Auxiliary input/output/ Voice Output Interface (AUX)
40[1.57]
29[1.14]
20[0.79]
44[1.73]
28[1.10]
59[2.32]
Power Connector
36[1.42]

Unit:mm [in.]

Parts Names
① Display ② Touch Panel ③ Status LED ④ Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤ Serial Interface(COM1) ⑥ Serial Interface(COM2)
⑦ Ethernet Interface (LAN) ⑧ Expansion Unit Interface ⑨ USB Interface (Host) ⑩ CF Card Cover (CF Card Interface, Dip Switches) ⑪ CF Card Access LED
⑫ Video Input Interface (V-IN) ⑬ Sound Input Interface (L-IN/MIC) ⑭ Auxiliary input/output/Sound Output Interface (AUX)

⚠ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

GP-3400T/S

C Class
7.5" VGA
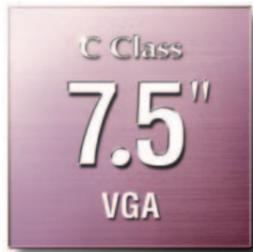
TFT 65,536
STN 4,096

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DIO(Sink)
DC AGP3400-T1-D24-D81K
DC AGP3400-S1-D24-D81K

DIO(Source)
DC AGP3400-T1-D24-D81C
DC AGP3400-S1-D24-D81C

FLEX NETWORK
DC AGP3400-T1-D24-FN1M

CANopen (master)
DC AGP3400-T1-D24-CA1M

FUNCTIONAL SPECIFICATION		GP-3400T	GP-3400S
Display Type		TFT Color LCD	STN Color LCD
Display Colors		65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1	4,096 Colors (Enables blink feature)
Dispay Resolution		640 x 480 pixels (VGA)	
Backlight		CCFL (When replacement is required, contact your Pro-face sales.)	
Effective Display Area		153.7mm[6.05in.] x 115.8mm[4.56in.]	
Brightness Control		8 levels of adjustment available via touch panel	
Contrast Adjustment		—	8 levels of adjustment available via touch panel
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2	
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts	
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3	
Text	8 x 8 dots	80 Char. x 60 rows	
	8 x 16 dots	80 Char. x 30 rows	
	16 x 16 dots	40 Char. x 30 rows	
	32 x 32 dots	20 Char. x 15 rows	
Application Memory		16MB FLASH EPROM *4	
Control Memory	Data Backup Memory	320KB SRAM (uses lithium battery) *5	
	Variable Area	64 KB SRAM (uses lithium battery) *5	
	Program Area	132 KB FLASH EPROM	
	Number of Step	15,000steps *6	
Touch Panel Type		Resistive Film (analog)	
Touch Panel Resolution		1024 x 1024	
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *7 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug	
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket	
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45)	
	Expansion Unit	For Communication Unit x 1	
	USB	USB1.1 (USB Type-A conn.) x 1 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m	
	CF Card	CF Card Slot (Type-II) x 1	
	Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1	
	AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block x 1	
	Control	DIO (Sink) type Model: AGP3400-T1-■■■-D81K	Inputs: Sink/ Source type 6 points, Outputs: Sink type 2 points, connector:12 pin
		DIO (Source) type Model: AGP3400-T1-■■■-D81C	Inputs: Sink/ Source type 6 points, Outputs: Source type 2 points, connector:12 pin
		FLEX NETWORK type Model: AGP3400-T1-■■■-FN1M	Bit variable input: 512 points, Bit variable output: 512 points, Integer variable input: 128 points, Integer variable output: 128 points, Connector:6pin *8
		CANopen (master) type Model: AGP3400-T1-■■■-CA1M	Bit variable input: 512 points, Bit variable output: 512 points, Integer variable input: 128 points, Integer variable output: 128 points, Connector:D-Sub 9pin plug
Function Expansion Memory		Attached to the internal PCB (memory can be installed by users) *9	

GENERAL SPECIFICATION	DC
International Safety Standards	UL UL LIMITED ᴄ CE CE
Certifications	UL508, UL1604 *10, ANSI/ISA 12.12.01 *10, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *10, EN55011 Class A, EN61000-6-2, Gost-R
Marine Certifications	—
Input Voltage	DC24V
Rated Voltage	DC19.2V to DC28.8V
Rated Frequency	—
Allowable Voltage	10ms or less
Power Consumption	28W or less
Voltage Endurance	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)
Ambient Temperature	0 °C to +50 °C *11
Storage Temperature	−20 °C to +60 °C
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39℃ max.)
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39℃ or max.)
Pollution Degree	Pollution Degree 2
Atmosphere	Free of corrosive gasses
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)
Noise Immunity (via noise simulator)	Noise Voltage: 1000Vp-p Pulse Duration: 1µs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)
Grounding	Protection: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *12
External Dimensions	W215mm[8.46in.] x H170mm[6.69in.] x D60mm[2.36in.]
Weight	2.0kg (4.4lb) max.(Unit Only)
Cooling Method	Natural air circulation

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: Capacity available for user appriciation. 8MB available if the revision of the unit is earlier than Rev.4, or GP-Pro EX Ver.2.5 or earlier is used.
*5: A Lithium battery's lifetime is:
  10 years when the battery's ambient temperature is 40℃ or less.
  4.1 years when the battery's ambient temperature is 50℃ or less.
  1.5 years when the battery's ambient temperature is 60℃ or less.
  When used for back up: Approximately 100 days, with a fully charged battery.Approximately 6 days, with a half-charged battery.
*6: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*7: RS-232C and RS-422/485 can be swithed with the editor software.
*8: Depending on the FLEX NETWORK unit, the amount of dedicated channels will change.
*9: Refer to the "GP3000 Series Hardware Manual" for installation instructions.
*10: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*11: Operating temperature refers to temperature inside mounting enclosure and on the side of the display. When using STN Color LCD models in an environment where the temperature becomes or exceeds 40 ℃ for an extended period of time, the screen contrast level may decrease from its original level of brightness.
*12: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

204[8.03]
215[8.46]
5[0.20]
60[2.36]
170[6.69]
159[6.26]
⑫ ⑬ ① ② ③ ④ ⑧ ⑪ ⑩
⑩ ⑨ ⑦

Panel Cut-out

204.5⁺¹⁄₀ [8.05⁺⁰·⁰⁴⁄₀]
159.5⁺¹⁄₀ [6.28⁺⁰·⁰⁴⁄₀]
r=3[0.12]

Panel Thickness area 1.6 [0.06]~10.0 [0.39]

Accommodates the panel cutout dimensions of current models (204.5x159.5) GP-240*

Cable Attached Dimensions

Auxiliary input/output/ Voice Output Interface (AUX)
40[1.57]
20[0.79]*
28[1.10]
59[2.32]
20[0.79]
36[1.42]

Power Connector

*127mm-space is necessary for the CANopen board type.

Unit:mm [in.]

⚠ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

GP-3400T/S

S Class
7.5" VGA
No.1 line monitor

TFT 65,536
STN 4,096

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DC AGP3400-T1-D24
DC AGP3400-T1-D24-M [Coating model]
DC AGP3400-S1-D24

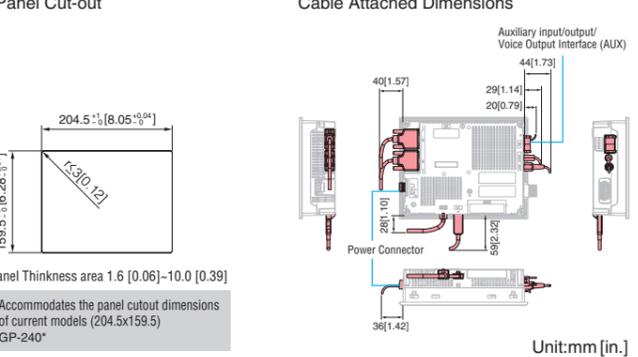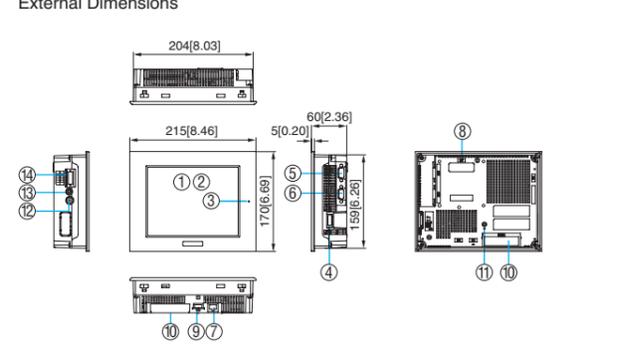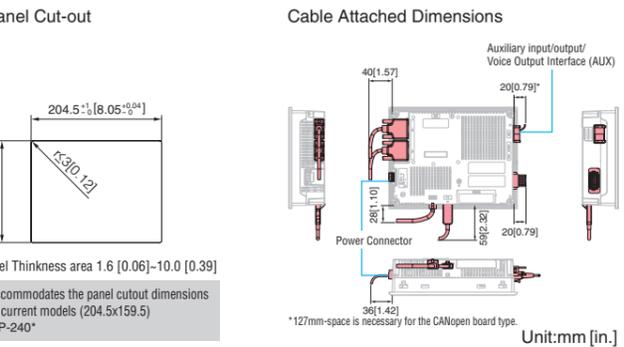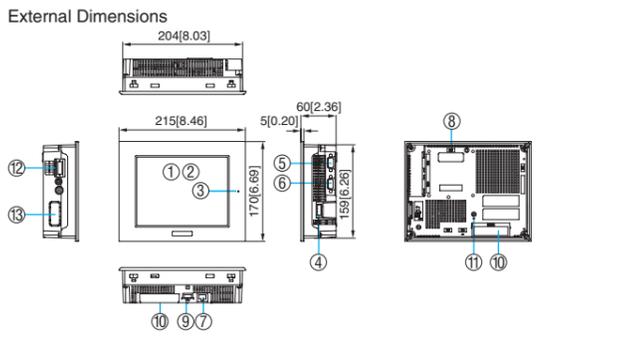| FUNCTIONAL SPECIFICATION		GP-3400T	GP-3400S
Display Type		TFT Color LCD	STN Color LCD
Display Colors		65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1	4,096 Colors (Enables blink feature)
Dispay Resolution		640 x 480 pixels (VGA)	
Backlight		CCFL (When replacement is required, contact your Pro-face sales.)	
Effective Display Area		153.7mm[6.05in.] x 115.8mm[4.56in.]	
Brightness Control		8 levels of adjustment available via touch panel	
Contrast Adjustment		—	8 levels of adjustment available via touch panel
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2	
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts	
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3	
Text	8 x 8 dots	80 Char. x 60 rows	
	8 x 16 dots	80 Char. x 30 rows	
	16 x 16 dots	40 Char. x 30 rows	
	32 x 32 dots	20 Char. x 15 rows	
Application Memory		16MB FLASH EPROM *4	
Control Memory	Data Backup Memory	320KB SRAM (uses lithium battery) *5	
	Variable Area	64 KB SRAM (uses lithium battery) *5	
	Program Area	132 KB FLASH EPROM	
	Number of Step	15,000steps *6	
Touch Panel Type		Resistive Film (analog)	
Touch Panel Resolution		1024 x 1024	
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *7 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug	
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket	
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45)	
	Expansion Unit	For Communication Unit x 1	
	USB	USB1.1 (USB Type-A conn.) x 1 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m	
	CF Card	CF Card Slot (Type-II) x 1	
	Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: Two piece type terminal block (also used for AUX) x 1	
	AUX Input/Output	[AUX Output] Alarm Output, RUN Output, Buzzer Output, Rated Voltage: DC24V, Max. Rated Current: 50mA, [AUX Input] Remote Reset Input, Input Voltage: DC24V, Input Current: 6mA, Operating Voltage: (When ON) Min:DC9V, (When OFF) Max:DC2.5V Connector: Two piece type terminal block x 1	
Function Expansion Memory		Attached to the internal PCB (memory can be installed by users) *8	

GENERAL SPECIFICATION	DC
International Safety Standards	UL UL LIMITED ᴄ CE CE *9
Certifications	UL508, UL1604 *10, ANSI/ISA 12.12.01 *10, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *10, EN55011 Class A, EN61000-6-2, Gost-R, KCC *9
Marine Certifications *11	ABS,BV,DNV,GL,LR,RINA *9
Input Voltage	DC24V
Rated Voltage	DC19.2V to DC28.8V
Rated Frequency	—
Allowable Voltage	10ms or less
Power Consumption	28W or less
Voltage Endurance	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)
Ambient Temperature	0 °C to +50 °C *12
Storage Temperature	−20 °C to +60 °C
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39℃ max.)
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39℃ max.)
Pollution Degree	Pollution Degree 2
Atmosphere	Free of corrosive gasses
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)
Noise Immunity (via noise simulator)	Noise Voltage: 1000Vp-p Pulse Duration: 1µs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)
Grounding	Protection: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *13
External Dimensions	W215mm[8.46in.] x H170mm[6.69in.] x D60mm[2.36in.]
Weight	1.8kg (4.0lb) max.(Unit Only)
Cooling Method	Natural air circulation

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: Capacity available for user appriciation. 8MB available if the revision of the unit is earlier than Rev.4, or GP-Pro EX Ver.2.5 or earlier is used.
*5: A Lithium battery's lifetime is:
  10 years when the battery's ambient temperature is 40 ℃ or less.
  4.1 years when the battery's ambient temperature is 50 ℃ or less.
  1.5 years when the battery's ambient temperature is 60 ℃ or less.
  When used for back up: Approximately 100 days, with a fully charged battery. Approximately 6 days, with a half-charged battery.
*6: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*7: RS-232C and RS-422/485 can be swithed with the editor software.
*8: Refer to the "GP3000 Series Hardware Manual" for installation instructions.
*9: The certifications of KCC and these maritime classification societies are obtained only for AGP3400-T1-D24. The certification of KCC is obtained only for AGP3400-S1-D24.
*10: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*11: For GP-3400T only
*12: Operating temperature refers to temperature inside mounting enclosure and on the side of the display. When using STN Color LCD models in an environment where the temperature becomes or exceeds 40 ℃ for an extended period of time, the screen contrast level may decrease from its original level of brightness.
*13: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

204[8.03]
215[8.46]
5[0.20]
60[2.36]
170[6.69]
159[6.26]
⑫ ① ② ③ ⑤ ⑥ ④ ⑧ ⑪ ⑩
⑩ ⑨ ⑦

Panel Cut-out

204.5⁺¹⁄₀ [8.05⁺⁰·⁰⁴⁄₀]
159.5⁺¹⁄₀ [6.28⁺⁰·⁰⁴⁄₀]
r=3[0.12]

Panel Thickness area 1.6 [0.06]~10.0 [0.39]

Accommodates the panel cutout dimensions of current models (204.5x159.5) GP-240*

Cable Attached Dimensions

Auxiliary input/output/ Voice Output Interface (AUX)
40[1.57]
20[0.79]
28[1.10]
59[2.32]
36[1.42]

Power Connector

Unit:mm [in.]

⚠ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.
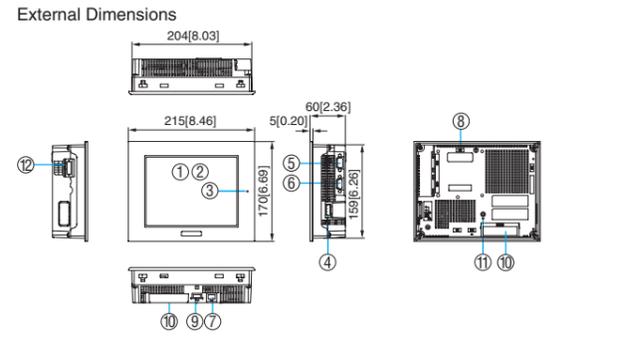
GP-3360T

M Class
5.7" VGA

TFT 65,536

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DC AGP3360-T1-D24

FUNCTIONAL SPECIFICATION — GP-3360T

FUNCTIONAL SPECIFICATION		GP-3360T
Display Type		TFT Color LCD
Display Colors		65,536 Colors (no blink) / 16,384 Colors (Enables blink feature) *1
Dispay Resolution		640 x 480 pixels (VGA)
Backlight		White LED (When replacement is required, contact your Pro-face sales.)
Effective Display Area		115.2mm[4.54in.] x 86.4mm[3.40in.]
Brightness Control		8 levels of adjustment available via touch panel
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3
Text	8 x 8 dots	80 Char. x 60 rows
	8 x 16 dots	80 Char. x 30 rows
	16 x 16 dots	40 Char. x 30 rows
	32 x 32 dots	20 Char. x 15 rows
Application Memory		8MB FLASH EPROM *4
Data Backup Memory		320KB SRAM (uses lithium battery) *5
Control Memory	Variable Area	64 KB SRAM (uses lithium battery) *5
	Program Area	132 KB FLASH EPROM
	Number of Steps	15,000 steps*6
Touch Panel Type		Resistive Film (analog)
Touch Panel Resolution		1024 x 1024
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *7 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45)
	Expansion Unit	For Communication Unit x 1
	USB	USB1.1 (USB Type-A conn.) x 2 Output current: 500mA (max.), Max. Communication distance: 5m
	CF Card	CF Card Slot (Type-II) x 1
	Video Input	NTSC: 59.9Hz, PAL: 50Hz, SECAM: 50Hz, Connector: RCA 75Ωx1
	Sound Input	MIC input/LINE input (Change with S/W), Connector: MINI-JACK Φ3.5x1
	Sound Output	Speaker Output 70mW (Rated Load: 8Ω, Frequency: 1kHz) Connector: MINI-JACK Φ3.5 x 1

GENERAL SPECIFICATION — DC

GENERAL SPECIFICATION	DC
International Safety Standards	(logos)
Certifications	UL508, UL1604 *8, ANSI/ISA 12.12.01 *8, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *8, EN55011 Class A, EN61000-6-2, Gost-R, KCC
Marine Certifications	—
Input Voltage	DC24V
Rated Voltage	DC19.2V to DC28.8V
Rated Frequency	—
Allowable Voltage	5ms or less
Power Consumption	26W or less
Voltage Endurance	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)
Ambient Temperature	0 °C to +50 °C *9
Storage Temperature	−20 °C to +60 °C
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)
Pollution Degree	Pollution Degree 2
Atmosphere	Free of corrosive gasses
Air Pressure Vibration Resistance (Avaiment altitude)	800hPa to 1114hPa (2000 meters or lower)
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)
Noise Immunity (via noise simulator)	Noise Voltage: 1000Vp-p Pulse Duration: 1μs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)
Grounding	Protection: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *10
External Dimensions	W167.5mm[6.59in.] x H135mm[5.31in.] x D59.5mm[2.34in.]
Weight	1.0kg (2.2lb) max.(Unit Only)
Cooling Method	Natural air circulation

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: User area
*5: A Lithium battery's lifetime is:
 10 years when the battery's ambient temperature is 40 °C or less.
 4.1 years when the battery's ambient temperature is 50 °C or less.
 1.5 years when the battery's ambient temperature is 60 °C or less.
 When used for back up: Approximately 100 days, with a fully charged battery.
 Approximately 6 days, with a half-charged battery.
*6: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*7: RS-232C and RS-422/485 can be swithed with the editor software.
*8: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*9: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*10: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions *Same for GP-3360T and 3310T

155.5[6.12]
167.5[6.59]
59.5[2.34]
5[0.20]
135[5.31]
123[4.84]

Panel Cut-out

156.0 +1 [6.14 +0.04]
123.5 +1 [4.86 +0.04]

Panel Thinkness area 1.6 [0.06]~5.0 [0.20]

Accommodates the panel cutout dimensions of current models (156x123.5)
GP-377R/ GP-230*

Cable Attached Dimensions

11[0.43]
72[0.00]
230[0.00]
40[1.57]
1000[0.00]
74[0.00]

Unit:mm [in.]

*GP-3310T does not have ⑫ or ⑬.

Parts Names: ①Display ②Touch Panel ③Status LED ④Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤Serial Interface(COM1) ⑥Serial Interface(COM2) ⑦Ethernet Interface (LAN) ⑧Expansion Unit Interface ⑨USB Interface (Host) ⑩CF Card Cover (CF Card Interface, Dip Switches) ⑪CF Card Access LED ⑫Video Input Interface (V-IN) ⑬Sound Input Interface (L-IN/MIC) ⑭Sound Output Interface

❗Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

GP-3300T/S/L

C Class
5.7" QVGA

TFT 65,536
STN 4,096
MONO 16 shades

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DIO(Sink)
DC AGP3300-T1-D24-D81K
DC AGP3300-S1-D24-D81K
DC AGP3300-L1-D24-D81K

DIO(Source)
DC AGP3300-T1-D24-D81C
DC AGP3300-S1-D24-D81C
DC AGP3300-L1-D24-D81C

FLEX NETWORK
DC AGP3300-T1-D24-FN1M
DC AGP3300-L1-D24-FN1M

CANopen(master)
DC AGP3300-T1-D24-CA1M
DC AGP3300-L1-D24-CA1M

FUNCTIONAL SPECIFICATION

FUNCTIONAL SPECIFICATION		GP-3300T	GP-3300S	GP-3300L
Display Type		TFT Color LCD	STN Color LCD	Monochrome LCD
Display Colors		65,536 Colors (no blink) / 16,384 Colors (Enables blink feature)*1	4,096 Colors (Enables blink feature)	Black and White (16 Shades) (Enables blink feature)
Dispay Resolution		320 x 240 pixels (QVGA)		
Backlight		CCFL (When replacement is required, contact your Pro-face sales.)		
Effective Display Area		115.2mm[4.54in.] x 86.4mm[3.40in.]		
Brightness Control		8 levels of adjustment available via touch panel		
Contrast Adjustment		—	8 levels of adjustment available via touch panel	
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2		
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts		
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3		
Text	8 x 8 dots	40 Char. x 30 rows		
	8 x 16 dots	40 Char. x 15 rows		
	16 x 16 dots	20 Char. x 15 rows		
	32 x 32 dots	10 Char. x 7 rows		
Application Memory		6MB FLASH EPROM *4		
Data Backup Memory		320KB SRAM (uses lithium battery) *5		
Control Memory	Variable Area	64 KB SRAM (uses lithium battery) *5		
	Program Area	132 KB FLASH EPROM		
	Number of Step	15,000steps*6		
Touch Panel Type		Resistive Film (analog)		
Touch Panel Resolution		1024 x 1024		
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *7 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug		
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket		
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45)		
	Expansion Unit	For Communication Unit x 1		
	USB	USB1.1 (USB Type-A conn.) x 1 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m		
	CF Card	CF Card Slot (Type-II) x 1		
Control	DIO (Sink) type Model: AGP3300-T1-■■■-D81K	Inputs: Sink/ Source type 6 points Outputs: Sink type 2 points connector:12 pin		
	DIO (Source) type Model: AGP3300-T1-■■■-D81C	Inputs: Sink/ Source type 6 points Outputs: Source type 2 points connector:12 pin		
	FLEX NETWORK type Model: AGP3300-T1-■■■-FN1M	Bit variable input: 512 points, Bit variable output: 512 points, Integer variable input: 128 points, Integer variable output: 128 points, Connector:8pin *8		
	CANopen (master) type Model: AGP3300-T1-■■■-CA1M	Bit variable input: 512 points, Bit variable output: 512 points, Integer variable input: 128 points, Integer variable output: 128 points, Connector: D-Sub 9pin plug		

GENERAL SPECIFICATION — DC

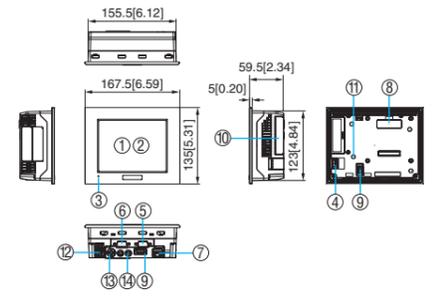| GENERAL SPECIFICATION	DC
International Safety Standards	(logos)
Certifications	UL508, UL1604 *9, ANSI/ISA 12.12.01 *9, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *9,EN55011 Class A, EN61000-6-2, Gost-R
Marine Certifications	—
Input Voltage	DC24V
Rated Voltage	DC19.2V to DC28.8V
Rated Frequency	—
Allowable Voltage	5ms or less
Power Consumption	26W or less
Voltage Endurance	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)
Ambient Temperature	0 °C to +50 °C *10
Storage Temperature	−20 °C to +60 °C
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 °C max.)
Pollution Degree	Pollution Degree 2
Atmosphere	Free of corrosive gasses
Air Pressure Vibration Resistance (Avaiment altitude)	800hPa to 1114hPa (2000 meters or lower)
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)
Noise Immunity (via noise simulator)	Noise Voltage: 1000Vp-p Pulse Duration: 1μs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)
Grounding	Protection: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *11
External Dimensions	W167.5mm[6.59in.] x H135mm[5.31in.] x D59.5mm[2.34in.]
Weight	1.2kg (2.6lb) max.(Unit Only)
Cooling Method	Natural air circulation

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: User area
*5: A Lithium battery's lifetime is:
 10 years when the battery's ambient temperature is 40 °C or less.
 4.1 years when the battery's ambient temperature is 50 °C or less.
 1.5 years when the battery's ambient temperature is 60 °C or less.
 When used for back up: Approximately 100 days, with a fully charged battery.
 Approximately 6 days, with a half-charged battery.
*6: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*7: RS-232C and RS-422/485 can be swithed with the editor software.
*8: Depending on the FLEX NETWORK unit, the amount of dedicated channels will change.
*9: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*10: Operating temperature refers to temperature inside mounting enclosure and on the side of the display. When using STN Color LCD models in an environment where the temperature becomes or exceeds 40 °C for an extended period of time, the screen contrast level may decrease from its original level of brightness.
*11: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

155.5[6.12]
167.5[6.59]
59.5[2.34]
5[0.20]
135[5.31]
123[4.84]

Panel Cut-out

156.0 +1 [6.14 +0.04]
123.5 +1 [4.86 +0.04]

Panel Thinkness area 1.6 [0.06]~5.0 [0.20]

Accommodates the panel cutout dimensions of current models (156x123.5)
GP-377R/ GP-230*

Cable Attached Dimensions

13[0.51]
29[1.14]
24[0.94]
20[0.79]*

*127mm-space is necessary for the CANopen board type.

Unit:mm [in.]

Parts Names: ①Display ②Touch Panel ③Status LED ④Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤Serial Interface(COM1) ⑥Serial Interface(COM2) ⑦Ethernet Interface (LAN) ⑧Expansion Unit Interface ⑨USB Interface (Host) ⑩CF Card Cover (CF Card Interface, Dip Switches) ⑪CF Card Access LED ⑫DIO Interface/FLEX NETWORK Interface/CANopen Interface

❗Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

Line-up
15" 12.1" 10.4" 7.5" 5.7" 3.8"

GP-3310T·GP-3300U/T/S/L

S Class 5.7" VGA/QVGA

TFT 65,536 | STN 4,096 | MONO 16 shades

Climate management panel

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	Sound out*	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DC AGP3310-T1-D24
DC AGP3300-U1-D24 [High luminance model]
DC AGP3300-T1-D24
DC AGP3300-T1-D24-M [Coating model]
DC AGP3300-S1-D24
DC AGP3300-L1-D24
DC AGP3300-L1-D24-M [Coating model]

*GP-3310T Only

FUNCTIONAL SPECIFICATION		GP-3310T	GP-3300U	GP-3300T	GP-3300S	GP-3300L
Display Type		TFT Color LCD	TFT Color LCD (High luminance model)	TFT Color LCD	STN Color LCD	Monochrome LCD
Display Colors		65,536 Colors(no blink) / 16,384 Colors (Enables blink feature)*1			4,096 Colors (Enables blink feature)	Black and White (16 Shades) (Enables blink feature)
Dispay Resolution		640 x 480 pixels (VGA)	320 x 240 pixels (QVGA)			
Backlight		White LED (When replacement is required, contact your Pro-face sales.)	CCFL (When replacement is required, contact your Pro-face sales.)			
Effective Display Area		115.2mm[4.54in.] x 86.4mm[3.40in.]				
Brightness Control		8 levels of adjustment available via touch panel				
Contrast Adjustment		—			8 levels of adjustment available via touch panel	
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2				
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts				
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3				
Text	8 x 8 dots	80 Char. x 60 rows	40 Char. x 30 rows			
	8 x 16 dots	80 Char. x 30 rows	40 Char. x 15 rows			
	16 x 16 dots	40 Char. x 30 rows	20 Char. x 15 rows			
	32 x 32 dots	20 Char. x 15 rows	10 Char. x 7 rows			
Application Memory		8MB FLASH EPROM *4	6MB FLASH EPROM *4			
Data Backup Memory		320KB SRAM (uses lithium battery) *5				
Control Memory	Variable Area	64 KB SRAM (uses lithium battery) *5				
	Program Area	132 KB FLASH EPROM				
	Number of Step	15,000steps*6				
Touch Panel Type		Resistive Film (analog)				
Touch Panel Resolution		1024 x 1024				
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *7 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug				
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin socket				
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45)				
	Expansion Unit	For Communication Unit x 1				
	USB	USB1.1 (USB Type-A conn.) x 1 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m				
	CF Card	CF Card Slot (Type -II) x 1				
	Sound Output	Speaker Output 70mA (Rated Load: 8Ω, Frequency: 1kHz) Connector: MINI-JACK Φ3.5 x 1	—			

GENERAL SPECIFICATION	DC
International Safety Standards	[logos] *8
Certifications	UL508, UL1604 *9, ANSI/ISA 12.12.01 *9, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *9, EN55011 Class A, EN61000-6-2, Gost-R, KCC *8
Marine Certifications	ABS,BV,DNV,GL,LR,RINA *11
Input Voltage	DC24V
Rated Voltage	DC19.2V to DC28.8V
Rated Frequency	—
Allowable Voltage	5ms or less
Power Consumption	26W or less
Voltage Endurance	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)
Ambient Temperature	0 ℃ to +50 ℃ *12
Storage Temperature	−20 ℃ to +60 ℃
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39℃ max.)
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39℃ max.)
Pollution Degree	Pollution Degree 2
Atmosphere	Free of corrosive gasses
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)
Noise Immunity (via noise simulator)	Noise Voltage: 1000Vp-p Pulse Duration: 1μs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)
Grounding	Protection: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *13
External Dimensions	W167.5mm[6.59in.] x H135mm[5.31in.] x D59.5mm[2.34in.]
Weight	1.0kg (2.2lb) max.(Unit Only)
Cooling Method	Natural air circulation

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: User area.
*5: A Lithium battery's lifetime is: 10 years when the battery's ambient temperature is 40 ℃ or less. 4.1 years when the battery's ambient temperature is 50 ℃ or less. 1.5 years when the battery's ambient temperature is 60 ℃ or less. When used for back up: Approximately 100 days, with a fully charged battery.Approximately 6 days, with a half-charged battery.
*6: Up to 60,000 steps can be converted in software. However, this reduces internal memory capacity (for screen data) by 1 MB.
*7: RS-232C and RS-422/485 can be swithed with the editor software.
*8: The certification of KCC is obtained only for AGP3300-U1-D24, AGP3310-T1-D24, AGP3300-T1-D24, AGP3300-S1-D24 and AGP3300-L1-D24.
*9: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*10: AGP3300-U1-D24 is certified by only UL508 and CSA-C22.2 No.14 or 142.
*11: The certifications of ABS, BV, GL, and RHA are obtained only for AGP3300-T1-D24. The certification of LR is ontained only for AGP3300-T1-D24 and AGP3300-L1-D24. The certificatoin of DNV is obtained only for AGP3300-L1-D24 and AGP3300-S1-D24.
*12: Operating temperature refers to temperature inside mounting enclosure and on the side of the display. When using STN Color LCD models in an environment where the temperature becomes or exceeds 40 ℃ for an extended period of time, the screen contrast level may decrease from its original level of brightness.
*13: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.
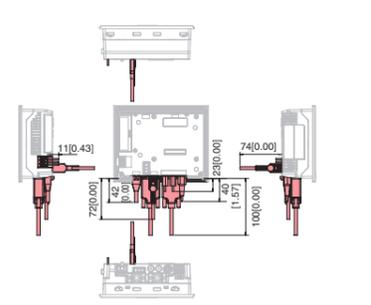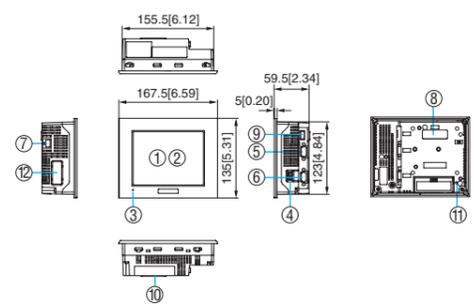
External Dimensions *For GP-3300T/S/L

155.5[6.12] / 167.5[6.59] / 59.5[2.34] / 5[0.20] / 135[5.31] / 123[4.84]

Panel Cut-out

156.0₀⁺¹ [6.14₋₀⁺·⁰⁴]
123.5₋₀⁺¹·⁵ [4.86₋₀⁺·⁰⁶]

Panel Thickness area 1.6 [0.06]~5.0 [0.20]

Accommodates the panel cutout dimensions of current models (156x123.5) GP-377R/ GP-230*

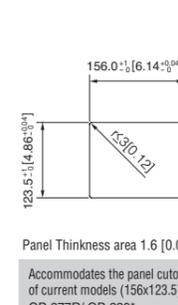## Cable Attached Dimensions

13[0.51] / 29[1.14] / 24[0.94]

Unit:mm [in.]

Parts Names
① Display ② Touch Panel ③ Status LED ④ Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤ Serial Interface(COM1) ⑥ Serial Interface(COM2) ⑦ Ethernet Interface (LAN) ⑧ Expansion Unit Interface ⑨ USB Interface (Host) ⑩ CF Card Cover (CF Card Interface, Dip Switches) ⑪ CF Card Access LED

❗ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.
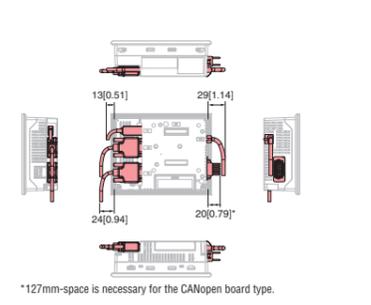

GP-3301S/L·GP-3302B

S Class 5.7" QVGA

STN 4,096 | MONO 16 shades

Conveyor speed

SIO2ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card*	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DC AGP3301-S1-D24
DC AGP3301-L1-D24
DC AGP3301-L1-D24-M [Coating model]
DC AGP3302-B1-D24

*GP-3301S/L Only

FUNCTIONAL SPECIFICATION		GP-3301S	GP-3301L	GP-3302B
Display Type		STN Color LCD	Monochrome LCD	Blue-mode Monochrome LCD
Display Colors		4,096 Colors (Enables blink feature)	Black and White (Enables blink feature) (16 Shades)	Blue and White (16 Shades)
Dispay Resolution		320 x 240 pixels (QVGA)		
Backlight		CCFL (When replacement is required, contact your Pro-face sales.)		
Effective Display Area		115.2mm[4.54in.] x 86.4mm[3.40in.]		
Brightness Control		8 levels of adjustment available via touch panel		
Contrast Adjustment		8 levels of adjustment available via touch panel		
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *1		
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts		
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *2		
Text	8 x 8 dots	40 Char. x 30 rows		
	8 x 16 dots	40 Char. x 15 rows		
	16 x 16 dots	20 Char. x 15 rows		
	32 x 32 dots	10 Char. x 7 rows		
Application Memory		6MB FLASH EPROM *3		
Data Backup Memory		320KB SRAM (uses lithium battery) *4		128KB SRAM *4
Control Memory	Variable Area	64 KB SRAM (uses lithium battery)		
	Program Area	— *5		
	Number of Step	—		
Touch Panel Type		Resistive Film (analog)		
Touch Panel Resolution		1024 x 1024		
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *6 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug		Asynchronous Transmission: RS-232C *6 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, Connector: D-Sub 9pin plug
	Serial (COM2)	Asynchronous Transmission: RS-422/485 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin plug		Asynchronous Transmission: RS-422 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps, 187.5kbps(MPI), Connector: D-Sub 9pin plug
	Expansion Unit	For Communication Unit x 1		
	USB	USB1.1 (USB Type-A conn.) x 1 Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m		
	CF Card	CF Card Slot (Type-II) x 1		—

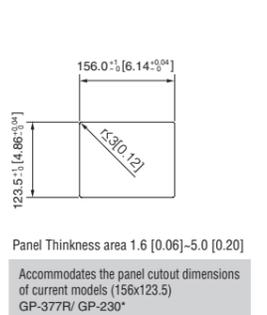| GENERAL SPECIFICATION	DC
International Safety Standards	[logos] *7
Certifications	UL508, UL1604 *8, ANSI/ISA 12.12.01 *8, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *8, EN55011 Class A, EN61000-6-2, Gost-R, KCC *7
Marine Certifications	DNV,LR *9
Input Voltage	DC24V
Rated Voltage	DC19.2V to DC28.8V
Rated Frequency	—
Allowable Voltage	5ms or less (for GP-3301S/L) 10ms or less (for GP-3302B)
Power Consumption	26W or less (for GP-3301S/L) 18W or less (for GP-3302B)
Voltage Endurance	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)
Ambient Temperature	0 ℃ to +50 ℃ *10
Storage Temperature	−20 ℃ to +60 ℃
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39℃ max.)
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39℃ max.)
Pollution Degree	Pollution Degree 2
Atmosphere	Free of corrosive gasses
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)
Noise Immunity (via noise simulator)	Noise Voltage: 1000Vp-p Pulse Duration: 1μs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)
Grounding	Protection: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *11
External Dimensions	W167.5mm[6.59in.] x H135mm[5.31in.] x D59.5mm[2.34in.]
Weight	1.0kg (2.2lb)max.(Unit Only)
Cooling Method	Natural air circulation

*1: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*2: Font Sizes can be set up by software.
*3: User area.
*4: A Lithium battery's lifetime is: 10 years when the battery's ambient temperature is 40 ℃ or less. 4.1 years when the battery's ambient temperature is 50 ℃ or less. 1.5 years when the battery's ambient temperature is 60 ℃ or less. When used for back up: Approximately 100 days, with a fully charged battery. Approximately 6 days, with a half-charged battery.
*5: Logic Programming is not available.
*6: RS-232C and RS-422/485 can be swithed with the editor software.
*7: The certification of KCC is obtained only for AGP3301-S1-D24 and AGP3301-L1-D24.
*8: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*9: The certification of DNV is obtained only for AGP3301-L1-D24 and AGP3301-S1-D24-M. The certification of LR is obtained only for AGP3301-L1-D24 and AGP3301-L1-D24-M.
*10: Operating temperature refers to temperature inside mounting enclosure and on the side of the display. When using STN Color LCD models in an environment where the temperature becomes or exceeds 40 ℃ for an extended period of time, the screen contrast level may decrease from its original level of brightness.
*11: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

External Dimensions

155.5[6.12] / 167.5[6.59] / 59.5[2.34] / 5[0.20] / 135[5.31] / 123[4.84]

Panel Cut-out

156.0₀⁺¹ [6.14₋₀⁺·⁰⁴]
123.5₋₀⁺¹·⁵ [4.86₋₀⁺·⁰⁶]

Panel Thickness area 1.6 [0.06]~5.0 [0.20]

Accommodates the panel cutout dimensions of current models (156x123.5) GP-377R/ GP-230*

Cable Attached Dimensions

13[0.51] / 24[0.94]

Unit:mm [in.]

Parts Names
① Display ② Touch Panel ③ Status LED ④ Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤ Serial Interface(COM1) ⑥ Serial Interface(COM2) ⑦ Expansion Unit Interface ⑧ USB Interface (Host) ⑨ CF Card Cover (CF Card Interface, Dip Switches) ⑩ CF Card Access LED

❗ Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

GP-3200T/A

S Class
3.8"
QVGA

TFT 256
MONO 8 shades

SIO1ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model:
DC AGP3200-T1-D24
DC AGP3200-T1-D24-M [Coating model]
DC AGP3200-A1-D24

FUNCTIONAL SPECIFICATION

FUNCTIONAL SPECIFICATION		GP-3200T	GP-3200A
Display Type		TFT Color LCD	Monochrome LCD
Display Colors		256 Colors (no blink) / 64 Colors (Enables blink feature) *1	Black and Amber/Red (8 Shades)
Dispay Resolution		320 x 240 pixels (QVGA)	
Backlight		LED (When replacement is required,contact your Pro-face sales.)	
Effective Display Area		78.8mm[3.10in.] x 59.6mm[2.35in.]	
Brightness Control		16 levels of adjustment available via touch panel	
Contrast Adjustment		—	8 levels of adjustment available via touch panel
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2	
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts	
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3	
Text	8 x 8 dots	40 Char. x 30 rows	
	8 x 16 dots	40 Char. x 15 rows	
	16 x 16 dots	20 Char. x 15 rows	
	32 x 32 dots	10 Char. x 7 rows	
Application Memory *4		6MB FLASH EPROM *4	
Data Backup Memory		320KB SRAM (uses lithium battery) *5	
Control Memory	Variable Area	64 KB SRAM	
	Program Area	—	
	Number of Step	—	
Touch Panel Type		Resistive Film (analog)	
Touch Panel Resolution		1024 x 1024	
Interface	Serial (COM1)	Asynchronous Transmission: RS-232C/422/485 *6 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI), Connector: D-Sub 9pin plug	
	Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX, modular jack connector (RJ-45)	
	USB	USB1.1 (USB Type-A conn.) x 1 Output current: 500mA (max.), Max. Communication distance: 5m	

GENERAL SPECIFICATION

GENERAL SPECIFICATION	DC
International Safety Standards	
Certifications	UL508, UL1604 *7, ANSI/ISA 12.12.01 *7, CSA-C22.2 No.14 or 142, CSA-C22.2 No. 213 *7, EN55011 Class A, EN61131-2, Gost-R, KCC
Marine Certifications	—
Input Voltage	DC24V
Rated Voltage	DC19.2V to DC28.8V
Rated Frequency	—
Allowable Voltage	2ms or less
Power Consumption	13W or less
Voltage Endurance	AC1000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)
Ambient Temperature	0 ℃ to +50 ℃ *8
Storage Temperature	−20 ℃ to +60 ℃
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 ℃ max.)
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 ℃ max.)
Pollution Degree	Pollution Degree 2
Atmosphere	Free of corrosive gasses
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)
Noise Immunity (via noise simulator)	Noise Voltage: 1000Vp-p Pulse Duration: 1 μs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)
Grounding	Protection: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f NEMA #250 TYPE 4X/13 *9
External Dimensions	W130mm[5.12in.] x H104mm[4.09in.] x D40mm[1.57in.]
Weight	0.4kg (0.9lb) max.(Unit Only)
Cooling Method	Natural air circulation

*1: Changing the Colors setting to "256 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "256 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: User area
*5: A Lithium battery's lifetime is:
10 years when the battery's ambient temperature is 40 ℃ or less.
4.1 years when the battery's ambient temperature is 50 ℃ or less.
1.5 years when the battery's ambient temperature is 60 ℃ or less.
When used for back up: Approximately 100 days, with a fully charged battery.
Approximately 6 days, with a half-charged battery.
*6: RS-232C and RS-422/485 can be swithed with the editor software.
*7: Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations, or Non-Hazardous Locations.
*8: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*9: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.
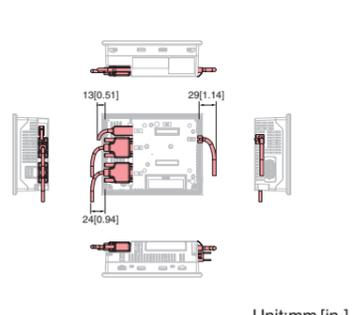
External Dimensions / Panel Cut-out / Cable Attached Dimensions
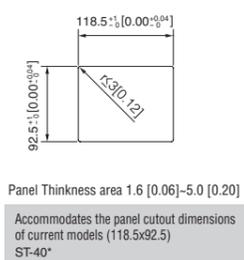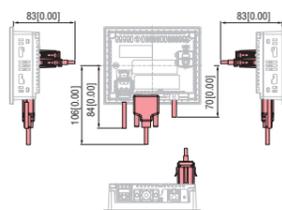
Panel Thinkness area 1.6 [0.06]~5.0 [0.20]

Accommodates the panel cutout dimensions of current models (118.5x92.5)
ST-40*

Unit:mm [in.]

Parts Names	①Display ②Touch Panel ③Status LED ④Power Input Terminal Block (AC model) Power Plug Connector (DC model) ⑤USB Interface (Host) ⑥Ethernet Interface (LAN) ⑦Serial Interface(COM1)

! Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

37

GP-3310HT・GP-3300HS/L

H Class
5.7"
VGA/QVGA

TFT 65,536
STN 4,096
MONO 16 shades

SIO1ch	Ethernet	Communication Unit	Video Unit
USB(Host)	CF Card	AUX Sound out	Video in
Sound in	DIO(Sink/Source)	FLEX NETWORK	CANopen

Model no.

AGP 33 ☐ 0H — ☐ 1 — D24 — RED — KEY

[Resolution] [Display] [Emergency S/W] [KeyS/W]
1: VGA T: TFT BLANK: None BLANK: None
0: QVGA S: STN RED: Red KEY: Set
L: Mono YEL : Yellow KEY: Set
GRY: Gray KEY: Set

FUNCTIONAL SPECIFICATION

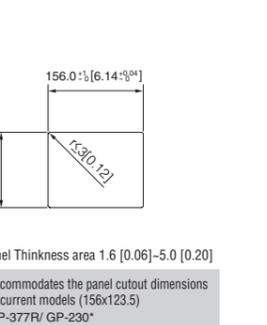| FUNCTIONAL SPECIFICATION		GP-3310HT	GP-3300HS	GP-3300HL
Display Type		TFT Color LCD	STN Color LCD	Monochrome LCD
Display Colors		65,536 Colors(no blink) / 16,384 Colors (Enables blink feature)*1	4,096 Colors (Enables blink feature)	Black and White (16 Shades) (Enables blink feature)
Dispay Resolution		640 x 480 pixels (VGA)	320 x 240 pixels (QVGA)	
Backlight		White LED (When replacement is required, contact your Pro-face sales.)		
Effective Display Area		115.2mm[4.54in.] x 86.4mm[3.40in.]	117.2mm[4.61in.] x 88.4mm[3.48in.]	
Brightness Control		16 levels of adjustment available via touch panel		
Contrast Adjustment		—	8 levels of adjustment available via touch panel	
Language Fonts		Japanese: 6962 (JIS Standards 1&2) (including 607 non-kanji characters), ANK: 158 *2		
Character Sizes		Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 dot fonts, Stroke font: 6 to 127 dot fonts		
Font Sizes		Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times *3		
Text	8 x 8 dots	80 Char. x 60 rows	40 Char. x 30 rows	
	8 x 16 dots	80 Char. x 30 rows	40 Char. x 15 rows	
	16 x 16 dots	40 Char. x 30 rows	20 Char. x 15 rows	
	32 x 32 dots	20 Char. x 15 rows	10 Char. x 7 rows	
Application Memory *4		8MB FLASH EPROM	6MB FLASH EPROM	
Data Backup Memory		320KB SRAM (uses lithium battery) *5		
Control Memory	Variable Area	64 KB SRAM		
	Program Area	—		
	Number of Step	—		
Touch Panel Type		Resistive Film (analog)		
Touch Panel Resolution		1024 x 1024		
Function Switch		12 switches (Right: 6 switches, left: 6 switches)(DOUT:2 Open collector output [F1,F2], Operation switch:1 open collector output [O.P] *6		
Emergency Switch Output Interface		Push-lock switch 3 contacts (a-contact: 1 contact, b-contact: 2 contacts) Rated voltage: DC30V Maximum rated current: 1 A (Minimum allowable load: DC5V, 1 mA) Applicable standards *7: IEC60947-5-1, EN60947-5-1, IEC60947-5-5, EN60947-5-5,UL508, CSA C22.2 No.14		
3-Position Enable Switch Output Interface		GP Rear panel switch 2 contacts (ab-contact) Rated voltage: DC30V Maximum rated current: 0.7A (Minimum allowable load: DC3V, 5 mA) Applicable standards *7: IEC/EN60947-5-1, IEC/EN60947-5-8, UL508 (UL approval), CSA C22.2 No.14 (UL approval), ISO12100-1/EN12100-1, -2, IEC60204-1/EN60204-1, ISO11161/prEN11161, ISO102118/EN775, ANSI/RIA R15.06, ANSI B11.19		
Key Switch Output Interface		1c-contact Rated voltage: DC24V, Maximum rated current: 300 mA		
Interface	Serial (COM1) *8	Asynchronous Transmission: RS-232C/422/485 *9 Data Length: 7/8 bits, Stop Bit: 1/2 bits, Parity: none, Odd or Even, Data transmission speed: 2400bps to 115.2kbps 187.5kbps(MPI) Connector: Connector for the dedicated cable		
	Ethernet *8	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX Connector type: Connector for the dedicated cable, Max. Communication: 100 m When using the conversion adapter, the connection cable between the unit and the conversion adapter is included in the length.		
	USB	USB1.1 (USB Type-A conn.) x 1, Power voltage: DC5V±5%, Output current: 500mA (max.), Max. Communication distance: 5m		
	CF Card	CF Card Slot (Type-II) x 1		
External Output I/F	DOUT Output	Open Collector Output: 2 points (F1, F2) Rated Voltage: DC24V Rated Current: 300 mA/point max.*6		
	Operation Output	Open Collector Output: 1 point Rated Voltage: DC24V Rated Current: 300 mA max.*6		
	External Buzzer Output	Open Collector Output 1 point Rated Voltage: DC24V Rated Current: 300 mA max.*6		

GENERAL SPECIFICATION

GENERAL SPECIFICATION	DC
International Safety Standards	
Certifications	UL508, CSA-C22.2 No.14, EN55011 Class A, EN61000-6-2, Gost-R, KCC *10
Marine Certifications	—
Input Voltage	DC24V
Rated Voltage	DC19.2V to DC28.8V
Rated Frequency	—
Allowable Voltage	10ms or less
Power Consumption	16.7W or less
Voltage Endurance	AC500V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	10MΩ or higher at DC500V (min.)(between charging and FG terminals)
Ambient Temperature	0 ℃ to +40 ℃ *11
Storage Temperature	−20 ℃ to +60 ℃
Ambient Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 ℃ max.)
Storage Humidity	10%RH to 90%RH (Non-condensing, wet bulb temperature: 39 ℃ max.)
Pollution Degree	Pollution Degree 2
Atmosphere	Free of corrosive gasses
Air Pressure Vibration Resistance (Availment altitude)	800hPa to 1114hPa (2000 meters or lower)
Vibration Resistance	IEC61131-2 compliant 5Hz to 9Hz Single-amplitude 3.5mm 9Hz to 150Hz Fixed acceleration 9.8m/s² X,Y,Z directions for 10 cycle (100min.)
Noise Immunity (via noise simulator)	Noise Voltage: 1000Vp-p Pulse Duration: 1μs Rise Time: 1ns
Electrostatic Discharge Immunity	6kV (complies with EN 61000-4-2 Level 3)
Grounding	Function: Type D (Common to SG-FG)
Ratings (For front panel of installed unit)	Equivalent to IP65f *12
External Dimensions	W224mm[8.82in.] x H174mm[6.85in.] x D87.1mm[3.43in.] (Emergency stopswich and projection are not included.)
Weight	1.0kg (2.2lb) max.(Unit Only)
Cooling Method	Natural air circulation

*1: Changing the Colors setting to "65,536 colors" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, do not select "65,536 colors".
*2: Korean, Simplified and traditional Chinese, Cyrillic, and Thai fonts are downloadable. For details, refer to the GP-Pro EX Operation Environment.
*3: Font Sizes can be set up by software.
*4: User area
*5: A Lithium battery's lifetime is:
10 years when the battery's ambient temperature is 40 ℃ or less.
4.1 years when the battery's ambient temperature is 50 ℃ or less.
1.5 years when the battery's ambient temperature is 60 ℃ or less.
When used for back up: Approximately 100 days, with a fully charged battery.
Approximately 6 days, with a half-charged battery.
*6: In using DOUT, Operation Switch and Eternal Output I/F, the exclusive cable and conversion adapter are necessary.
*7: The specification of whole system may not be fulfilled by usage environment. Please design with understanding the specification correctly.
*8: GP3000H cable (without connector) or GP3000H cable (with connector) with conversion adapter is necessary.
*9: RS-232C and RS-422/485 can be swithed with the editor software.
*10: Regarding the certification of KCC, contact your Pro-face sales representative for details.
*11: Operating temperature refers to temperature inside mounting enclosure and on the side of the display.
*12: The degree of protection provided by these products is equivalent to IP65f, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.
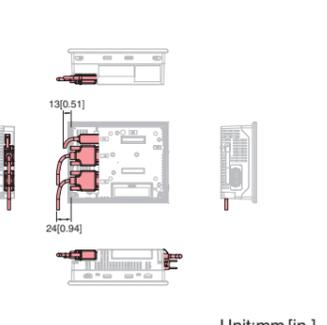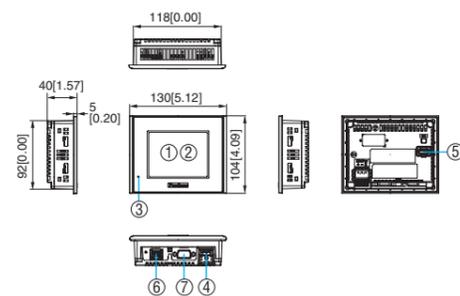
External Dimensions

Adapter
(Model:AGP3000H-ADPCOM-01)

Unit:mm [in.]
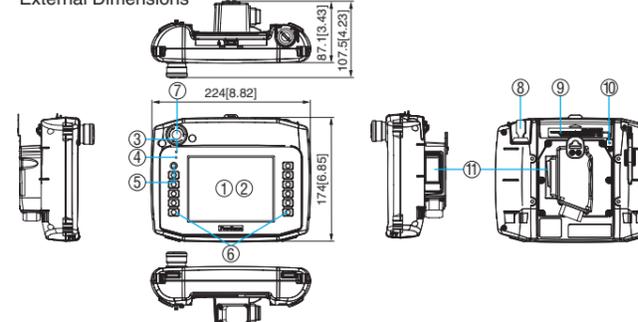
Parts Names	①Display ②Touch Panel ③Status LED ④Operation LED ⑤Operation Switch ⑥Function Switch ⑦Emergency Switch ⑧Key Switch ⑨CF Card Cover (CF Card Interface, Dip Switches) ⑩CF Card Access LED ⑪3-position Enable Switch ⑫GP3000H cable I/F ⑬Ethernet I/F(LAN) ⑭Serial I/F(COM1)

! Depending on the type of connection cable used the dimensions shown above will change. The dimensions given here are representative values and are intended for reference only.

38
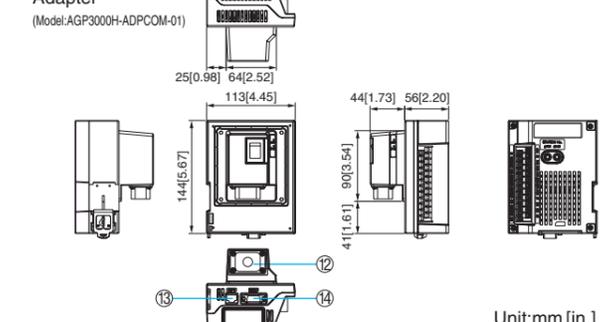
Control Functions: Communication Interface Specifications

DIO Type

DIO Input Specifications

Rated Voltage		DC24V
Maximum Allowable Voltage		DC28.8V
Input Method		Sink/Source Input
Rated Current		5.7mA (DC24V)
Input Resistance		4.2kΩ
Operation Range	ON Voltage	DC15V or more
	OFF Voltage	DC5V or less
Input Delay Time	OFF to ON	1.5ms or less
	ON to OFF	1.5ms or less
Common Lines		1
Common Design		6 points/ 1 common line
External Connection		12-pin connector (used with Output section)
Input Points		6
Input Signal Display		No LED indicators
Status Display		None
Isolation Method		Photo coupler Isolation
External Power Supply		For Signal: DC 24V

DIO Output Specifications

Rated Voltage		DC24V	
Allowable Voltage		DC20.4V to DC28.8V	
Output Method		Sink Output	Source Output
Maximum Load Voltage		0.2A /point, 0.4A/ common	
Output Voltage Drop		DC1.5V or less	
Output Delay Time	OFF to ON	1ms or less	
	ON to OFF	1ms or less	
Voltage Leakage (when OFF)		0.1mA or less	
Clamp Voltage		39V ±1V	
Type of Output		Transistor Output	
Common Lines		1	
Common Design		2 points/1 common line	
External Connection		12-pin connector (also used for Input)	
Output Protection Type		Output is unprotected	
Internal Fuse		1.5A, 125V DIP fuse (not replaceable)	
Surge Control Circuit		Zener diode	
Output Points		2	
Output Signal Display		No LED indicators	
Status Display Element		None	
Isolation Method		Photo coupler Isolation	
External Power Supply		For Signal:DC24V	

Pin Connection

Pin Arrangement	Pin No.	Signal Name	Pin No.	Signal Name
	A1	0V	B1	+24V
	A2	OUT1	B2	OUT0
	A3	NC	B3	COM
	A4	IN5	B4	IN4
	A5	IN3	B5	IN2
(Cable connection side)	A6	IN1	B6	IN0

FLEX NETWORK Type

FLEX NETWORK Data Transfer Settings

Communication Type	1:N
Connection Method	Multi Drop
Transfer Distance	At 6Mbps 200m per CH, at 12Mbps 100m per CH
Transfer Method	During cyclic period, distributed transmission, Half-duplex
Transfer Speed	6Mbps, 12Mbps
Transfer I/F	Differential method, Plules transfer resistance
Error Check	Format check, bit check, CRC-12 check
No. of Stations	63 stations max., [1] Bit variable input: 512 points, Bit variable output: 512 points, Integer variable input: 128 points, Integer variable output: 128 points

[1]: Depending on type of units used.

Pin Connection

Pin Arrangement	Pin No.	Signal Name	Description
	1	TR+	CH1 communication data
	2	TR-	CH1 communication data
	3	SLD	CH1 cable, shielded wire
	4	TR+	CH2 communication data
	5	TR-	CH2 communication data
(Cable connection side)	6	SLD	CH2 cable, shielded wire

CANopen (master) Type

●CANopen Data Transfer Settings

Communication Type	1:N
Connection Method	Bus type
Transfer Method	CSMA/NBA. Half-duplex serial transmission.
Simultaneous Method	Asynchronous + phase correction
Data Length	Max. 8byte
Error control	CRC
No. of Stations	63 models Bit variable input/output:512 points Integer variable input/ output:128 points

Transfer distance speed/Transmission length		
(1Mbps max.):ISO11898-compliant		
Baud rate*		Bus length
50kbps		1000m
125kbps		500m
250kbps		250m
500kbps		100m
800kbps		40m
1000kbps		20m

Pin Connection

Pin Arrangement	Pin No.	Signal Name	Description
	1	—	
	2	CAN_L	CAN-L Bus line
	3	CAN_GND	CAN ground
	4	—	
	5	—	
	6	—	
	7	CAN_H	CAN-H Bus line
	8	—	
(GP unit side)	9	—	
	Shell	FG	Frame ground (Common with SG)

CANopen

CANopen creates an open network compatible with European standards based on CAN. The specifications of CANopen conform to the DS301 standard of the CiA (CAN in automation) standards organization.

●CANopen Remote I/O Unit

Common Specifications

No. of EX Module Connections	A max. of 7 devices can be connected to the HTB1
Rated Voltage	DC24V
Allowable Voltage	DC20.4V to 26.4V (Includes ripple)
Power Consumption	19W (When the max. of 7 EX modules are connected)
Mounting Method	35 mm DIN rail mounting
Weight	185g (0.4lb) max.(HTB Only)

Input Specifications

Input Points		12 (Common wiring)
Input Method		Sink/Source Input
Rated Current		5mA/1 point (DC24V)(I0, I1, I6, I7) 7mA/1 point(DC24V)(I2-I5, I8-I11)
Input Resistance		5.0kΩ (I0, I1, I6, I7) 3.4kΩ (I2-I5, I8-I11)
Operation Range	ON Voltage	35μs + Filter position (I0, I1, I6, I7)
	OFF Voltage	40μs + Filter position (I2-I5, I8-I11)
Input Delay Time	OFF→ON	45μs + Filter position (I0, I1, I6, I7)
	ON→OFF	150μs + Filter position (I2-I5, I8-I11)
Isolation Method		Between input terminal and internal circuits: Photocoupler insulation (Up to AC 500Vrms insulation protection) Input terminal: No insulation

Output Specifications (Q0, Q1)

Output Points		2
Output Method		Transistor source output
Common Design		2 points/1 common line
Maximum Load Voltage		1A/1 common
Allowable Voltage Drop		Less than DC 1V (The voltage of the COM and output terminal when output is ON)
Output Delay Time	OFF→ON	5μs or less
	ON→OFF	5μs or less
Isolation Method		Between output terminal and internal circuits: Photocoupler insulation (Up to AC 500Vrms insulation protection) Output terminal: No insulation

Output Specifications (Q2~Q7)

Output Points		6
Output Method		Relay Output
Common Design		COM1: 3 points/1 common, No contact, COM2: 2 points/1 common, No contact, COM3: 1 point/1 common, No contact,
Maximum Load Voltage		2A/1 point, 8A/1 common
Isolation Method		Between output terminal and internal circuits: AC 1500Vrms, 1 minute; Output terminal: AC 750Vrms, 1 minute
Output Delay Time	OFF→ON	10ms or less (Not including bounds time)
	ON→OFF	5ms or less (Not including bounds time)

GP3000SERIES System Design

●Serial Communication*

* For the cable diagram of User-created cable, refer to "Device/PLC Connection Manual".

◎COM1:RS-232C

GP3000H Connect Cable (with connector)

GP3000H Conversion Adaptor AGP3000H-ADPCOM-01

GP3000H Connect Cable (without connector)

- RS-232C Cable (5m) CA3-CBL232/5M-01 or Prepared by the user — Host Controller PLC etc.
- Mitsubishi PLC Q-Series Link Cable (5m) CA3-CBLLNKMQ-01 — Mitsubishi PLC Q/QnA Serial Communication Unit
- Omron PLC SYSMAC Link Cable (5m) CA3-CBLSYS-01 — Omron PLC SYSMAC Host Link
- Mitsubishi PLC Q-Series Connection Cable (5m) CA3-CBLQ-01 — Mitsubishi PLC Q Series CPU Unit
- Siemens TTY Converter Cable CA6-CBLTTL/5M-01 — Host Controller PLC etc.
- Host Controller PLC etc.

◎COM1:RS-422/485

GP3000H Connect Cable (with connector)

GP3000H Conversion Adaptor AGP3000H-ADPCOM-01

GP3000H Connect Cable (without connector)

COM Port Conversion Adapter CA3-ADPCOM-01
*Pin adapter is required to connect COM2 options to COM1.

- MPI Cable* ST03-A2B-MPI21-PFE *BTO. Please contact to our sales staff for availability. — Host Controller PLC etc.
- Mitsubishi PLC A-Series Connection Cable (5m) CA3-CBLA-01 — Mitsubishi PLC A,QnA Series CPU Unit
- Mitsubishi PLC FX-Series Connection Cable (5m) CA3-CBLFX/5M-01(5m) CA3-CBLFX/1M-01(1m) — Mitsubishi PLC FX Series CPU Unit
- RS-422 Cable (5m) CA3-CBL422/5M-01 or Prepared by the user *Only connector device with 100 terminal resistence is accepted. — Host Controller PLC etc.
- RS-422 Cable (5m) CA3-CBL422-01 or Prepared by the user — Host Controller PLC etc.
- 2 Port Adapter Cable (5m) CA3-MDCB11 — Mitsubishi PLC A, QnA, FX Series 2 Port Adapter II GP070-MD11
- Multi-Link Cable CA3-CBLMLT-01 — Host Controller PLC etc.
- Terminal Block Conversion Adapter CA3-ADPTRM-01 — RS-422 Cable Prepared by the user — Host Controller PLC etc.

◎COM2:RS-422/485

Socket

*Not available with GP-3200T/A, GP3310H, GP-3300H and GP3302B

Siemens COM Port Conversion Adapter CA3-ADPSEI-01

On-line Adapter CA4-ADPONL-01
*One Online adaptor (CA4-ADPONL-01) is required at least for communication with RS-422.

- PROFIBUS Cable Prepared by the user — Siemens PLC SIMATIC S7
- RS-422 Cable (5m) CA3-CBL422-01 or Prepared by the user — Host Controller PLC etc.
- 2 Port Adapter Cable (5m) CA3-MDCB11 — Mitsubishi PLC A, QnA, FX Series 2 Port Adapter II GP070-MD11 — Mitsubishi PLC A/QnA/FX Series
- Multi-Link Cable CA3-CBLMLT-01 — Host Controller PLC etc.
- Terminal Block Conversion Adapter CA3-ADPTRM-01 — RS-422 Cable Prepared by the user — Host Controller PLC etc.
- MPI Cable* GP3000-MPI21-PFE *BTO. Please contact to our sales staff for availability. — Host Controller PLC etc.

⚠ For the system design for use of Isolation Unit, please refer to the GP3000 Series Hardware Manual.

⚠ For the system design for use of GP3000H with a GP2000H RS-232C Conversion Adapter, please refer to the GP3000H Series Hardware Manual.

Serial Communication COM2:RS-422 <GP-3302B>

Plug

MPI Cable*
ST03-A2B-MPI21-PFE
*BTO. Please contact to our sales staff for availability.
→ Siemens PLC SIMATIC S7

Mitsubishi PLC A-Series Connection Cable (5m)
CA3-CBLA-01
→ Mitsubishi PLC A,QnA Series CPU Unit

Mitsubishi PLC FX-Series Connection Cable (5m)
CA3-CBLFX/5M-01(5m)
CA3-CBLFX/1M-01(1m)
→ Mitsubishi PLC FX Series CPU Unit

RS-422 Cable (5m)
CA3-CBL422/5M-01 or Prepared by the user
*Only connector device with 100Ω terminal resistence is accepted.
→ Host Controller PLC etc.

COM Port Conversion Adapter
CA3-ADPCOM-01
*Pin adapter is required to connect COM2 options to COM1.

RS-422 Cable (5m)
CA3-CBL422/5M-01 or Prepared by the user
*Only connector device with 100Ω terminal resistence is accepted.
→ Mitsubishi PLC A/QnA/FX Series

2 Port Adapter Cable (5m)
CA3-MDCB11
→ Mitsubishi PLC A, QnA, FX Series 2 Port Adapter II GP070-MD11

Multi-Link Cable
CA3-CBLMLT-01
→ Host Controller PLC etc.

Terminal Block Conversion Adapter
CA3-ADPTRM-01

RS-422 Cable
Prepared by the user
→ Host Controller PLC etc.

⚠ For the system design for use of Isolation Unit, please refer to the GP3000 Series Hardware Manual.

Connectable Communication Devices

as of February, 2011

PLCs

Maker Name	Driver Name	GP3000	Device Monitor	Ladder Monitor	Pass Through
Mitsubishi Electric Corporation	A Series CPU Direct	●	■	■*1	■
	A Series Ethernet	●	■		
	A Series Computer Link	●	■	■*1	
	FX Series CPU Direct	●	■		■
	FX Series Computer Link	●	■		
	FX Series Ethernet	●	■		
	Q Series CPU Direct	●	■	■	■
	Q Series QnU CPU Ethernet	●	■		
	Q/QnA Serial Communication	●	■		
	Q/QnA Series Ethernet	●	■	■*2	
	QnA Series CPU Direct	●	■		■
	QUTE Series CPU Direct	●	■		■
OMRON Corporation	C/CV Series HOST Link	●	■		
	CS/CJ Series EtherNet/IP	●	■*3		
	CS/CJ Series Ethernet	●	■	■	■
	CS/CJ Series HOST Link	●	■	■	■
YASKAWA Electric Corporation	MEMOBUS SIO	●	■		
	MEMOBUS Ethernet	●	■		
	MP Series SIO (Extension)	●	■		■
	MP/SERVO Ethernet	●	■		■
Hitachi Industrial Equipment Systems Co., Ltd.	H Series Ethernet	●	■		
	H Series SIO	●	■		
Panasonic Electric Works Co., Ltd.	FP Series Computer Link SIO	●	■		■
Yokogawa Electric Corporation	Personal Computer Link SIO	●	■		■
	Personal Computer Link Ethernet	●	■		■
JTEKT Corporation	TOYOPUC CMPLINK SIO	●	■		
	TOYOPUC CMPLINK Ethernet	●	■		
Fuji Electric Systems Co.,Ltd.	MICREXF Series SIO	●	■		
	MICREXSX Series SIO	●	■*3		
	MICREXSX Series Ethernet	●	■*3		
GE Intelligent Platforms	Series90 Ethernet	●	■		
	Series 9030/70 SNP	●	■		
	Series 9030/70 SNPX	●	■		
Siemens AG	SIMATIC S7 3964(R)/RK512	●	■		
	SIMATIC S7 MPI Direct	●	■		■
	SIMATIC S7 Ethernet	●	■		
	SIMATIC S5 CPU Direct	●	■		
	SIMATIC S5 3964 (R)	●			
Siemens Building Technologies	SAPHIR SIO	●			
Rockwell Automation, Inc.	DF1	●	■		■
	EtherNet/IP	●	■*3		
	DH485	●	■		
KEYENCE Corporation	KV700/1000/3000/5000 CPU Direct	●	■		■
	KV700/1000/3000/5000 Ethernet	●	■		
	Visual KV Series CPU Direct	●	■		
	KV-10_80RW/TW CPU Direct	●	■		
Schneider Electric SA	MODBUS SIO Master	●	■		
	MODBUS TCP Master	●	■		
	UniTelway	●	■		
	MODBUS Slave	●			
Sharp Manufacturing Systems Corporation	JW Series Computer Link SIO	●	■		
	JW Series Computer Link Ethernet	●	■		
LS Industrial Systems Co., Ltd.	MASTERK Series Cnet	●	■		
	XGT Series FENet	●	■		
	XGT Series Cnet	●	■		
Mitsubishi Heavy Industries, Ltd.	DIASYS Netmation MODBUS TCP	●	■		
	MHI STEP3 Ethernet	●	■		
SaiaBurgess Controls Ltd.	SAIA SBus SIO	●	■		
MEIDENSHA CORPORATION	UNISEQUE SERIES Ethernet	●	■		

PLCs

Maker Name	Driver Name	GP3000	Device Monitor	Ladder Monitor	Pass Through
FANUC LTD.	Power mate	●	■		
Hitachi, Ltd.	S10V Series Ethernet	●	■		
	S10 Series SIO	●	■		
TOSHIBA MACHINE CO., LTD.	TC series (TC mini/TC200)	●	■		
TOSHIBA Corporation	Computer Link SIO	●	■		
	Computer Link Ethernet	●	■		
KOYO ELECTRONICS INDUSTRIES CO., LTD.	KOSTAC/DL Series CCM SIO	●	■		
	KOSTAC/DL Series MODBUS TCP	●	■		
Fatek Automation Corporation	FB Series SIO	●	■		
Control Technology Corporation	CTC Binary Protocol	●	■		

Temperature and Process Controllers

Maker Name	Driver Name	GP3000	Device Monitor	Ladder Monitor	Pass Through
Fuji Electric Systems Co., Ltd.	Temp. Controller MODBUS SIO	●	■		
Yamatake Corporation	Digital Controller SIO	●	■		
	MODBUS SIO Master	●	■		
	MODBUS TCP Master	●	■		
RKC INSTRUMENT INC.	Temp. Controller MODBUS SIO	●	■		
	Temperature Controller	●	■		
OMRON Corporation	Temp. Controller CompoWay/F	●	■		
Shinko Technos Co., Ltd.	Controller SIO	●	■		
Yokogawa Electric Corporation	Personal Computer Link SIO	●	■		
CHINO Corporation	Temp. Controller MODBUS SIO	●	■		

Inverter / Servo

Maker Name	Driver Name	GP3000	Device Monitor	Ladder Monitor	Pass Through
Hitachi IES Co., Ltd.	Inverter MODBUS RTU	●	■		
	Inverter ASCII SIO	●	■		
Mitsubishi Electric Corporation	FREQROL Inverter	●	■		
YASKAWA Electric Corporation	INVERTER/SERVO SIO	●	■		
Fuji Electric Systems Co., Ltd.	Inverter SIO	●	■		
Sanmei Electronics Co., LTD.	Si/CutyAxis Series SIO	●	■		

Fieldbus

Maker Name	Driver Name	GP3000	Device Monitor	Ladder Monitor	Pass Through
PROFIBUS International	PROFIBUS DP Slave	●*4	■		
ODVA(Open DeviceNet Vendor Association, Inc.)	DeviceNet Slave	●*4	■		
CCLink Partner Association	CC-Link Intelligent Device	●*4	■		
CAN in Automation	CANopen Slave	●*4	■		

Industrial Robot

Maker Name	Driver Name	GP3000	Device Monitor	Ladder Monitor	Pass Through
Hyundai Heavy Industries	Hi4 Robot	●	■		
IAI Corporation	ROBO CYLINDER MODBUS SIO	●	■		
	XSEL Controller	●	■		

Other Devices

Maker Name	Driver Name	GP3000	Device Monitor	Ladder Monitor	Pass Through
Digital Electronics Corporation	Memory Link *5	●	■		
	General Ethernet *6	●	■		
	General SIO *6	●	■		
ModbusIDA	General MODBUS RTU SIO Master	●	■		
	General MODBUS TCP Master	●	■		
ODVA(Open DeviceNet Vendor Association, Inc.)	EtherNet/IP Explicit Messaging	●			

*1: AnA Series and Q Series(mode A) supports monitoring ladder programs
*2: Only the Q Series supports monitoring ladder programs.
*3: Variables are not supported for monitoring devices.
*4: Not for GP3000H.
*5: These products don't need to choose a host controller like PC or Microcomputer board etc. They communicate via the storage space built into the main unit.
*6: A program driver for the send/receive command processing by D script.

Connectable drivers will be added one after another. For the latest information, please refer to "Otasuke Pro!" (http://www.pro-face.com/otasuke/)
● ■ To download it from "OtasukePro!" is needed.

●System Interfaces

* Data may also be transferred by CF card or USB memory.

Edit Mode peripherals
Ethernet Interface (10BASE-T/ 100BASE-TX) *Not available with 01 model.
Ethernet Port

USB Interface (Host)
USB Port
USB Transfer Cable (2m) CA3-USBCB-01
→ PC (Commercial type)
Screen Editor GP-Pro EX

CF Card Interface (TYPE-II SLOT)
•Not available with 3.8inch/ GP-3302B.
CF Card
CA3-CFCALL/128MB-01 CA6-CFCALL/1GB-01
CA3-CFCALL/256MB-01 CA8-CFCALL/2GB-01
CA3-CFCALL/512MB-01
CF Card Adapter GP077-CFAD10
PCMCIA Slot
→ PC (Commercial type)

USB Interface (Host)
→ Bar-code / 2D Code Reader* (Commercial type)

USB-to-IEEE1284 Conversion Cable (Commercial type)
→ Printer* (Commercial type)

USB Cable (5m) or Commercial type FP-US00
→ Printer* (Commercial type)

USB Front Cable (1m) CA5-USBEXT-01

USB-Serial (RS-232C) Conversion Cable (50cm) CA6-USB232-01
→ Modem* (Commercial type)
*For connectable devices, please refer to Otasuke Pro! ((http://www.pro-face.com/otasuke/).

USB Hub (Commercial type)

Ethernet Interface (10BASE-T/100BASE-TX)
*Not available with 01 model.
Twisted-pair cable (Commercial type)
HUB (8 Port) (Commercial type)
Main Network
→ PL Series or other PC, or PLC.

Expansion Unit Interface (Communication Unit)
*Available for GP3000 Series 5.7 inch models and above.
PROFIBUS-DP Slave Unit CA5-PFSALL/EX-01
DeviceNet Slave Unit CA6-DNSALL/EX-01
CC-Link Unit CA7-CCLALL/EX-01
CANopen Slave Unit CA9-CANALL/EX-01

Expansion Unit Interface (Video Unit)
*Available for GP3000 Series 10.4 inch TFT models and above.
VM Unit GP3000-VM01 GP2000-VM41*
DVI Unit GP3000-DVI01
RGB Input Unit GP3000-RGB201
*Only available for 12.1 and 10.4 inch TFT models.

Sound Out Interface (Terminal Connector)
*Available for GP3000 Series 5.7 inch models and above, excluding general specification models.
Speaker (Commercial type)

Video Input Interface (V-IN)
Video Camera (Commercial type)
Interface for M Class

Audio Input Interface (L-IN/MIC)
MIC (Commercial type)

DIO
DIO Connector CA6-DIOCNALL-01
DIO Cable (Prepared by the user)
Interface for C Class
Various parts including I/O Unit, Indicator, LED, Sensor, Switch, etc.

FLEX NETWORK
FLEX NETWORK Connector CA6-FNCNALL-01
Communication Cable
FN-CABLE2010-31-MS (10m)*
FN-CABLE2050-31-MS (50m)
FN-CABLE2200-31-MS (200m)
Please contact our sales staff for purchasing.
→ FLEX NETWORK I/O Unit.

CANopen (master)
D-Sub 9 Pin (CANopen-compatible)
Communication Cable (CANopen-Compatible) (Commercial type)
Slave Unit for CANopen
*For supported device, visit Otasuke Pro! (http://www.pro-face.com/otasuke/)
HTB (Hybrid Terminal Block) + EX Module

System Design Diagram Key
e.g. ④ RS-232C Cable (5m) — Product Name
CA3-CBL232/5M-01 — Model No.
P43-45 Number of the Opinion List

This page provides the instruction of the connectable divices to GP3000 series. For more details, please refer to Homepage or users manual.

* Interface configuration differs according to model. Refer to product specifications for details.

Options

■ Software

* ** * is changed with the version of software.

Product Name	Model No.	Description	
GP-Pro EX	EX-ED-V**	Screen-creation software	
GP-Pro EX Editor License	EX-ED-LICENSE-V**	GP-Pro EX editor license *1	
Pro-Server EX Developer	EX-SDV-V**	Software that connects a PC to a GP3000 via Ethernet and collects and transmits data	GP models with Ethernet.
Pro-Server EX Developer Licenseα	EX-SED-LICENSE	Pro-Server EX developer license *2	GP models with Ethernet.
Pro-Server EX Runtime License	EX-SRT-LICENSE	Pro-Server EX Runtime license *3	GP models with Ethernet.
MES Action License	EX-MES-LICENSE-V**	License key permitting Pro-Server EX to access a database	GP models with Ethernet.
GP-Viewer EX	EX-VIEWER-LICENSE	Single license	GP models with Ethernet.
	EX-VIEWER-LICENSE-10	10 licenses — License allowing a PC to access a GP3000 in remote mode *4	GP models with Ethernet.
	EX-VIEWER-LICENSE-30	30 licenses	GP models with Ethernet.
Camera-Viewer EX License	EXCAVELS	License that allows a PC to record and play the video on GP3000 in remote mode	M Class
RPA Client License	EX-RPA	Single license	TFT models with VGA or above
	EX-RPA-10	10 licenses — License to access a PC on the network in remote mode *5	TFT models with VGA or above
	EX-RPA-30	30 licenses	TFT models with VGA or above
Ladder Monitor License	EX-LADM-MIT-Q02	License for add-on software that can be monitored by the Ladder Program of Mitsubishi's PLC A Series through the GP3000 in online mode	Models with VGA or above
	EX-LADM-MIT-A01	License for add-on software that can be monitored by the Ladder Program of Mitsubishi's PLC Q Series through the GP3000 in online mode	Models with VGA or above
	EX-LADM-OMR-CJ01	License for add-on software that can be monitored by the Ladder Program of OMRON's PLC CS/CJ Series through the GP3000 in online mode	Models with VGA or above
Video Converter License	EX-MOVCON-LICENSE	License for the file conversion tool required to display video on the GP3000 and PC *6	M Class
WinGP for IPC	EX-WINGP-IPC	Licence for using GP-Pro EX on WinGP-compatible IPC.	-
WinGP for PC/AT	EX-WINGP-PCAT	Licence for using GP-Pro EX on PC/AT-compatible PC.	-

*1: Purchase this product when installing GP-Pro EX in a second or subsequent PC. One license is required for each PC.
*2: Includes the settings editor and Run time.
*3: Purchase this product when installing the settings editor and Run time in subsequent PCs.
*4: Purchase this license when installing only Run time in subsequent PCs. One license is required for each PC.
*5: Except for GP3300T/S/L, 3301S/L, 3302B and 3200T/A.
*6: Because the movie converter is included in GP-Pro EX Ver.**, only the license needs to be purchased.

■ USB

* Please purchase when the product is damaged or lost.

	Product Name	Model No.	Description	
1	USB Transfer Cable (2m)	CA3-USBCB-01	USB cable for transferring data such as screen data (host to host)	
2	USB Cable (5m)	FP-US00	Connects a USB peripheral unit. (host to slave)	
3	USB Front Cable (1m)	CA5-USBEXT-01	Extension cable for attaching to USB port on front panel	
	USB-Serial (RS-232C) Conversion Cable (50cm)	CA6-USB232-01	For connecting a modem (RS-232C) to the GP3000 (USB host)	
	USB Cable Clamp (1 port) *Maintenance Items	CA8-USBATALL-01	USB cable clamp to prevent disconnection (5 pcs/set) *7	GP3360, GP3310
		CA5-USBATM-01		GP3300, GP3301
	USB Cable Clamp (2 ports) *Maintenance Items	CA5-USBATL-01		All models except for 5.7 inch

*7: Only 3.8-inch and 7.5-inch models require the dual-point USB Cable Clamp (CA5-USBATL-01).

■ Serial(Cables, Adapters)

* Please purchase when the product is damaged or lost.

	Product Name	Model No.	Description	
4	RS-232C Cable (5m)	CA3-CBL232/5M-01	For COM 1 Cable for RS-232C connection between various hosts and the GP3000	COM1
5	RS-422 Cable (5m)	CA3-CBL422-01	For COM 2 Cable for RS-422 connection between various hosts and the GP3000 *8,9,10	COM 1, 2
6	RS-422 Cable (5m)	CA3-CBL422/5M-01	For COM 1 Cable for RS-422 connection between various hosts and the GP3000 (Only for connecting devices with a terminal resistance value of 100 ohms)	COM1
7	Mitsubishi PLC A-Series Connection Cable (5m)	CA3-CBLA-01	For COM 1 Cable for directly connecting an A Series CPU	COM1
8	Mitsubishi PLC Q-Series Connection Cable (5m)	CA3-CBLQ-01	For COM 1 Cable for directly connecting a Q Series CPU	COM1
9	Mitsubishi PLC Q-Series Link Cable (5m)	CA3-CBLLNKMQ-01	For COM 1 Cable for directly connecting a Q Series Link Unit	COM1
10	Mitsubishi PLC FX-Series Connection Cable (5m)	CA3-CBLFX/5M-01	For COM 1 Cable for directly connecting an FX Series CPU	COM1
	Mitsubishi PLC FX-Series Connection Cable (1m)	CA3-CBLFX/1M-01		COM1
11	Omron PLC SYSMAC Link Cable (5m)	CA3-CBLSYS-01	For COM 1 Cable for directly connecting a SYSMAC Link Unit	COM1
	Siemens TTY Converter Cable (5m)	CA6-CBLTTY/5M-01	For COM 1 Cable for connecting a PLC S5 series to the GP3000	COM1
	MPI Cable (3.5m)	ST03-A2B-MPI21-PFE	Connects a host controller to the GP for MPI communication	
		GP3000-MPI21-PFE		
		CA3-MPIPGx-PFE *13		
	Multi-Link Cable (5m)	CA3-CBLMLT-01	Connects a host controller to the GP for multi-link (n:1) communication *8,9,10	COM1, 2
12	2-port Adapter Cable (5m)	CA3-MDCB11	For COM 2 Cable for connecting a 2-port adapter to the GP3000 *8,9,10	COM1, 2
13	Mitsubishi PLC A/QnA/FX Series 2-port Adapter	GP070-MD11	Interface unit required for simultaneous use of A/QnA/FX Series peripheral devices *11	
14	RS-232C 9-pin/25-pin Conversion Cable (20cm)	CA3-CBLCBT232-01	For COM 1 Cable for converting a D-Sub 9-pin plug to a D-Sub 25-pin socket	COM1
15	RS-422C 9-pin/25-pin Conversion Cable (20cm)	CA3-CBLCBT422-01	For COM 2 Cable for converting a D-Sub 9-pin socket to a D-Sub 25-pin socket *8,9,10	COM1, 2
16	COM Port Conversion Adapter	CA3-ADPCOM-01	For COM 1 Pin conversion adapter for connecting the COM 2-dedicated communication option to the COM 1 port on the GP3000	COM1
17	Online Adapter	CA4-ADPONL-01	For COM 2 Termination adapter required for communication through the RS-422/485 connection	COM2
18	Terminal Block Conversion Adapter	CA3-ADPTRM-01	For COM 2 Adapter for converting the COM2 port to the RS-422 terminal block *8,9,10	COM1, 2
19	Siemens COM Port Conversion Adapter	CA3-ADPSEI-01	Adapter required to connect commercial type Siemens PROFIBUS connector COM2 when connecting Siemens PLCs or MPIs *12	COM2
	RS-232C Isolation Unit	CA3-ISO232-01	For COM1 Unit for connecting various hosts and the GP3000 by insulating COM1 <Switching between RS-232c and RS-422 using SW>	COM1
	RS-485 Isolation Unit	CA3-ISO485-01	For COM2 Unit for connecting various hosts and the GP3000 by insulating COM2 <Switching between RS-422 and RS-485 using SW>	COM2

*8: A COM conversion adapter (CA3 ADPCOM-01) is required for connection of COM1.
*9: At least one online adapter (CA4-ADPONL-01) is required when connecting to COM2. The isolation unit for COM2 cannot be used.
*10: Use a COM port conversion adapter (CA3-ADPCOM-01) to connect to COM1 on the GP3200T/A. Use a COM port conversion adapter (CA3-ADPCOM-01) to connect to COM2 on the GP-3302B.
*11: 2port Adapter Cable (CA3-MDCB11) is required.
*12: Excludes GP3200T/A. For instructions on how to connect, refer to the "GP-Pro EX Device/PLC Connection Manual".
*13: Except for GP-3400/3500/3600 series.

1 USB Transfer Cable (2m) 2 USB Cable (5m) 3 USB Front Cable (1m) 4 RS-232C Cable (5m) 5 RS-422 Cable (5m) 6 RS-422 Cable (5m) 7 Mitsubishi PLC A-Series Connection Cable (5 m)

8 Mitsubishi PLC Q-Series Connection Cable (5 m) 9 Mitsubishi PLC Q-Series Link Cable (5m) 10 Mitsubishi PLC FX-Series Connection Cable 11 Omron PLC SYSMAC Link Cable (5 m) 12 2-port Adapter Cable (5 m) 13 Mitsubishi PLC A/QnA/FX Series 2-port Adapter 14 RS-232C 9-pin/25-pin Conversion Cable (20cm)

15 RS-422C 9-pin/25-pin Conversion Cable (20cm) 16 COM Port Conversion Adapter 17 Online Adapter 18 Terminal Block Conversion Adapter 19 Siemens COM Port Conversion Adapter

■ Expansion unit

* Please purchase when the product is damaged or lost.

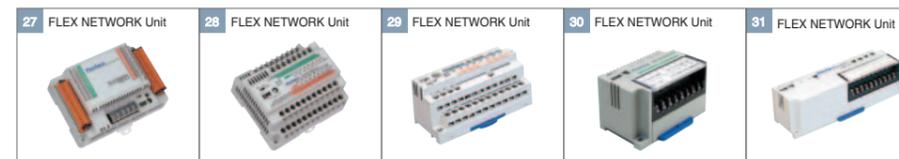|	Product Name	Model No.	Description	
20	PROFIBUS-DP Slave Unit	CA5-PFSALL/EX-01	Expansion unit that enables participation of the GP3000 in the PROFIBUS network and communication with the PROFIBUS DP master	5.7 inch or larger
21	DeviceNet Slave Unit	CA6-DNSALL/EX-01	Expansion unit that enables participation of the GP3000 in the DeviceNet network and communication with the DeviceNet master	5.7 inch or larger
22	CANopen Slave Unit	CA9-CANALL/EX-01	Expansion unit that enables participation of the GP3000 in the CANopen network and communication with the CANopen master	5.7 inch or larger
23	CC-Link Unit	CA7-CCLALL/EX-01	Expansion unit that enables participation of the GP3000 in the CC-Link network and communication with the CC-Link master (supports intelligent devices)	5.7 inch or larger
24	VM Unit	GP3000-VM01	Video-Mix Unit (262,000 colors, Video Input x 4ch, DVI Input x 1ch, DVI Output x 1ch, VGA/SVGA/XGA) *14	10.4 inch/12.1 inch/15 inch (TFT)
		GP2000-VM41	Video-Mix Unit (32,000 colors, Video Input x 4ch, Analog RGB Input x 1ch, Analog RGB Output x 1ch, VGA/SVGA) *14	10.4 inch/12.1 inch (TFT)
25	DVI Input Unit	GP3000-DVI01	For inputting DVI to the GP3000	10.4 inch/12.1 inch/15 inch (TFT)
26	RGB Input Unit	GP3000-RGB201	For displaying analog RGB (2 CH) on the GP3000	10.4 inch/12.1 inch/15 inch (TFT)
	DVI Cable (5m)	FP-DV01-50	For outputing image signal from host to GP (5m/10m) When using VM/DVI Unit	When using VM/DVI Unit
	DVI Cable (10m)	FP-DV01-100	DVI 1-0 standard (DVI-D 24-pin plug)	
	DVI-RGB Cable	CA7-CBLCVRGB-01	For converting DVI-A to RGB	When using VM/DVI Unit
	USB Cable for RGB Input Unit (5m)	CA9-USBAMB/5M-01	USB cable for RGB Input Unit touch panel operation (Host-Slave: Mini-B)	When using RGB Input Unit
	RGB Cable (4.5m)	FP-CV02-45	For outputing image signal from host to GP	When using RGB Input Unit
	USB Cable anti-disconnect holder (RGB Input Unit Side-miniB) *Maintenance Items	CA9-USBATRGB/MB-01	Disconnection prevention clamp for the RGB Input USB cable (2 pcs/set)	When using RGB Input Unit

*14: Video images through VM Unit cannot be recorded.

20 PROFIBUS-DP Slave Unit 21 DeviceNet Slave Unit 22 CANopen Slave Unit 23 CC-Link Unit 24 VM Unit 25 DVI Input Unit 26 RGB Input Unit

■ FLEX NETWORK(FLEX NETWORK type only)

* Please purchase when the product is damaged or lost.

	Product Name	Model No.	Description	
27	32-point input Sink/Source and 32-point transistor output Sink type	FN-XY32SKS41	Input/output combination I/O unit of 32-point input sink/source and 32-point transistor output Sink type <Connects input signals of 24 VDC, 24 VDC for output, and connects devices up to load current 200mA/1 point (1.6A/1 common)>	C Class
	32-point input Sink/Source type	FN-X32TS41	I/O unit of 32-point input sink/source sharing type <connects input signals of 24 VDC>	C Class
28	16-point input Sink/Source and 16-point transistor output Sink type	FN-XY16SK41	Input/output combination I/O unit of 16-point input sink/source and 16-point transistor output Sink type <Connects input signals of 24 VDC, 24 VDC for output, and connects devices up to load current 200mA/1 point (1.6A/1 common)>	C Class
	16-point input Sink/Source and 16-point transistor output Source type	FN-XY16SC41	Input/output combination I/O unit of 16-point input sink/source and 16-point transistor output Source type <Connects input signals of 24 VDC, 24 VDC for output, and connects devices up to load current 200mA/1 point (1.6A/1 common)>	C Class
29	8-point Relay output and 1 common type	FN-Y08RL41	I/O unit of 8-point relay output/1 common type <Connects load up to 240 VAC (1A)>	C Class
30	2-channel Analog/Digital Conversion Unit	FN-AD02AH41	Converts 2-channel analog signals to digital signals <Resolution: 12 bits>	C Class
	2-channel Digital/Analog Conversion Unit	FN-DA02AH41	Converts 2-channel 12-bit digital signals to analog signals and outputs the result	C Class
31	4-channel Analog/Digital Conversion Unit	FN-AD04AH11	Converts 4-channel analog signals to digital signals <Resolution: 12 bits>	C Class
	4-channel Digital/Analog Conversion Unit	FN-DA04AH11	Converts 4-channel 12-bit digital signals to analog signals and outputs the result	C Class
	Communication Cable (10m) *To purchase this product, please contact our sales staff.	FN-CABLE2010-31-MS	Cables for connecting the GP3000 to the various units	C Class
	Communication Cable (50m)	FN-CABLE2050-31-MS		C Class
	Communication Cable (200m)	FN-CABLE2200-31-MS		C Class
	FLEX NETWORK Connector *Maintenance Items	CA6-FNCNALL-01	Connector attached to the FLEX NETWORK interface. Connects a FLEX NETWORK communication cable. (5 pcs/set)	C Class
	64-point DIO Connector for FLEX NETWORK *Maintenance Items	GLC-DIOCN03	FN-XY32SK41 Connectors (2 pcs/set)	C Class

27 FLEX NETWORK Unit 28 FLEX NETWORK Unit 29 FLEX NETWORK Unit 30 FLEX NETWORK Unit 31 FLEX NETWORK Unit

■ CANopen (CANopen type only)

* Please purchase when the product is damaged or lost.

	Product Name	Model No.	Description	
32	CANopen Slave HTB Unit	HTB1C0DM9LP	Slave unit supporting CANopen with 12 digital inputs, 6 relay outputs and 2 transistor source outputs. Up to 7 units of EX modules can be connected.	C Class
33	8-Point Input Module	EXM-DDI8DT	8-point sink-source shared expansion unit	C Class
	16-Point Input Module	EXM-DDI16DT	16-point sink-source shared expansion unit	C Class
	8-Point Relay Output Module	EXM-DRA8RT	8-point relay output / 2-point common type expansion unit	C Class
	16-Point Relay Output Module	EXM-DRA16RT	16-point relay output / 2-point common type expansion unit	C Class
34	8-Point Sink Output Module	EXM-DDO8UT	8-point transistor output sink type expansion unit	C Class
	16-Point Sink Output Module	EXM-DDO16UK	16-point transistor output sink type expansion unit	C Class
35	8-Point Source Output Module	EXM-DDO8TT	8-point transistor output source type expansion unit	C Class
	16-Point Source Output Module	EXM-DDO16TK	16-point transistor output source type expansion unit	C Class
	4-Point Input / 4-Point Relay Output Module	EXM-DMM8DRT	4-point input sink-source / 4-point relay output / 1 common mixed I/O unit	C Class
	2-ch Analog Input Module	EXM-AMI2HT	2-ch analog input type expansion unit	C Class
33	Thermocouple (Pt100 Input) / 1-ch Analog Output Module	EXM-ALM3LT	2-ch temperature input / 1-ch analog output type expansion unit	C Class
	2-ch Analog Input / 1-ch Analog Output Module	EXM-AMM3HT	2-ch analog input / 1-ch analog output expansion unit	C Class
	1-ch Analog Output Module	EXM-AMO1HT	1-ch analog output type expansion unit	C Class
	DIO Connector for HTB *Maintenance Items	CA7-HTBCNSET-01	13-pin input connector and 16-pin output connector for HTB (each in one set)	C Class
	MIL Connector (20-pins) for EX module *Maintenance Items	CA6-EXMCNHE20P-01	Connector for EX module (5 pcs/set)	C Class
	Terminal Connector (11-pins) for EX module *Maintenance Items	CA6-EXMCNRS11P-01		C Class
	Terminal Connector (10-pins) for EX module *Maintenance Items	CA6-EXMCNRS10P-01		C Class

32 CANopen Slave HTB Unit 33 EX Module 34 EX Module 35 EX Module

CANopen slave units with confirmation of system operation
- WAGO 750-337
- SANYO DENKI SANMOTION R Series
For EDS files and configurations, refer to "Otasuke Pro!".

■ Handheld model(GP3000H Only)

	Product Name	Model No.	Description	
36	GP3000H Conversion Adapter	AGP3000H-ADPCOM-01	Conversion Adapter for interfacing with a GP3000H Cable Connector and External Output I/F output the following connectors; serial: D-Sub 9 pin (plug), Ethernet:modular jack (RJ-45), others:terminal block.	GP3000H
37	GP3000H Soft-type Direct-connect Cable(3m/5m/10m)	GP3000H-CBLS- *M	Standard type interface cable for communication between the GP and external equipment (e.g. host controller),equipped with common mode filter. *** is changed with length 3m:3, 5m:5, 10m:10 GP3000H-CBLS-3M	GP3000H
	GP3000H Hard-type 10m Direct-connect Cable(10m)	GP3000H-CBLH-10M	Heavy-duty type interface cable for communication between the GP and external equipment (e.g. host controller),equipped with common mode filter.	GP3000H
38	GP3000H Soft-type Direct-connect Cable(3m/5m/10m) (with connector)	GP3000H-CBLSD-*M	Standard type cable between the GP3000H Conversion Adapter and the GP3000H. *** is changed with length 3m:3, 5m:5, 10m:10 GP3000H-CBLSD-3M	GP3000H
	GP3000H Hard-type 10 m Direct-connect Cable (with connector)	GP3000H-CBLHD-10M	Heavy-duty type cable between the GP3000H Conversion Adapter and the GP3000H.	GP3000H
39	GP2000H Series RS-232C Conversion Adapter	GP2000H-AP232	Conversion adapter to connect GP operation data to RS-232C D-Sub and power/DIO terminals. *15	GP3000H
	GP2000H Series RS-422 Conversion Adapter	GP2000H-AP422	Conversion adapter to connect GP operation data to RS-422 and power/DIO terminals. *15	GP3000H
40	GP3000H Soft-type Cable for GP2000H Conversion Adapter (3m/10m) <RS-232C> (with connector)	GP3000H-CBLSD232-*M	The cable between the GP2000H Series RS-232C Conversion Adapter and the GP3000H, equipped with D-Sub connector. *** is changed with length 3m:3, 10m:10 GP3000H-CBLSD232-3M *15	GP3000H
	GP3000H Soft-type Cable for GP2000H Conversion Adapter(3m/10m) <RS-422> (with connector)	GP3000H-CBLSD422-*M	The cable between the GP2000H Series RS-422 Conversion Adapter and the GP3000H, equipped with D-Sub connector. *** is changed with length 3m:3, 10m:10 GP3000H-CBLSD422-3M *15	GP3000H
	Wall Hanging Adapter	GP3000H-WMA-01	Bracket for mounting the GP3000H Series unit to a commercially available arm or panel.	GP3000H
	Neck Strap	GP2000H-STRAP11	Strap for wearing over the neck.	GP3000H
	Function Switch Sheet *Maintenance Items	GP3000H-DUPS-01	For changing image of the function switches. (5 sheets/set (x 5))	GP3000H
	Hand Strap *Maintenance Items	GP3000H-HS-01	Strap for handheld operation.	GP3000H
	Emergency Switch Guard *Maintenance Items	GP3000H-EMGD-01	Emergency Switch Guard for preventing accidental operation. Includes 3 mounting screws.	GP3000H
	Screen Protection Sheet	GP3000H-DFS6-01	Disposable, dirt-resistant sheet for the GP unit's screen (5 sheets/set)	GP3000H
	Installation Gasket *Maintenance Items	GP3000H-WPGADP-01	Provides dust and moisture resistance when GP3000H Conversion Adapter is installed into a solid panel.	GP3000H

*15: For instructions on how to connect, refer to the "GP3000H Series Hardware Manual".

| 36 GP3000H Conversion Adapter | 37 GP3000H Direct-connect Cable | 38 GP3000H Direct-connect Cable (with connector) | 39 GP2000H Series RS-232C Conversion Adapter | 40 GP3000H Soft-type Cable for GP2000H Conversion Adapter (3m/10m) <RS-232C> (with connector) |

■ Other

	Product Name	Model No.	Description	
41	CF Card	CA3-CFCALL/128MB-01	128MB	5.7 inch or larger
		CA3-CFCALL/256MB-01	256MB	5.7 inch or larger
		CA3-CFCALL/512MB-01	512MB	5.7 inch or larger
		CA6-CFCALL/1GB-01	1GB	5.7 inch or larger
		CA8-CFCALL/2GB-01	2GB	5.7 inch or larger
	CF Card Adapter	GP077-CFAD10	Adapter required for reading the CF card using the PCMCIA slot of a personal computer	
42	Function Expansion Memory	GP3000-EXDM01	Memory used for expanding GP-Pro EX alarm and character table functions *16	7.5 inch or larger
	Screen Protection Sheet	CA3-DFS15-01		15 inch
		CA3-DFS12-01		12.1 inch/10.4 inch (STN/Mono LCD)
		CA5-DFS10-01	Disposable, dirt-resistant sheet for the GP unit's screen (5 sheets/set)	10.4 inch (TFT/Color LCD)
		PS400-DF00		7.5 inch
		CA3-DFS6-01		5.7 inch
		CA6-DFS4-01		3.8 inch
	Environmentally-resistant Cover	CA8-ODP10-01	Regarding grease and chemical application, do not remove the unit, simply replace the environmental protection cover (5 pcs/set)	10.4 inch (TFT/Color LCD)
		CA4 -DCMDL-01		5.7 inch
	Pin Jack Adapter	GP077-SDAD10	Adapter for converting the audio output section to the AUX connector to a pin jack	7.5 inch or larger
	Panel Cutout Adapter	CA4-ATM10-01	10.4-inch TFTscreens Attachment required for installing a 10.4-inch display unit (TFT) in the mounting hole of GP2500 for a 10.4-inch display unit (TFT)	10.4 inch (TFT/Color LCD)
		CA4-ATM5-01	Attached required for installing a 5.7-inch display unit in the mounting hole of GP37W2	5.7 inch
43	Touch Pen *Maintenance Items	CA7-TPPEN/ALL-01	Touch pens for operating screen(5 pcs/set)(Attached to GP3000H)	
	Replacement Backlight *Maintenance Items	CA3-BLU15-01 *17	Replacement backlight for main unit (1 pc.)	15 inch
		CA3-BLU12-01 *17		12.1 inch
		CA5-BLU10T-01		10.4 inch (TFT) *18
		CA6-BLU10T-02		
		PS501S-BU00	Replacement backlight for main unit (2 pcs/set)	10.4 inch (STN)
	Installation Gasket *Maintenance Items	CA3-WPG15-01		15 inch
		CA3-WPG12-01		12.1 inch/10.4 inch (STN/Mono LCD)
		CA5-WPG10-01	Provides dust and moisture resistance when GP is installed into a solid panel.	10.4 inch (TFT/Color LCD)
		CA5-WPG8-01		7.5 inch
		CA3-WPG6-01		5.7 inch
		ST400-WP01		3.8 inch
	Installation Fastener *Maintenance Items	CA3-ATFALL-01	Installation fasteners for (4 pcs/set)	
	Bus Connector Cover *Maintenance Items	CA3-BUSCVR-01	Protects the GP unit's rear face connector. (Large size and small size each in one set)	All models except for 3.8 inch
	DC Power Supply Connector *Maintenance Items	CA5-DCCNM-01	Connector to connect power supply cables (5 pcs/set)	7.5 inch, 5.7 inch, 3.8 inch
		CA5-DCCNL-01		15 inch, 12.1 inch, 10.4 inch
	AUX Connector *Maintenance Items	CA5-AUXCNALL-01	AUX connector for GP3000 series required in case an external output is used. (5 pcs/set)	15 inch, 12.1 inch, 10.4 inch, 7.5 inch
	DIO Connector *Maintenance Items	CA6-DIOCNALL-01	Connector attached to the DIO interface. Connects an external I/O device. (5 pcs/set)	C Class

*16: Screen capacity cannot be expanded.
17: It is available for AGP3750-T1- and AGP36*0-T1-* with the revision 4 or earlier.
*18: Backlight specifications vary depending the revision of the GP3000 in use. Refer to the manual for that particular GP3000 revision.

| 41 CF Card | 42 Function Expansion Memory | 43 Touch Pen |

For your better use of GP3000!
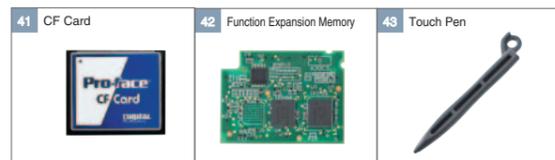
"Otasuke Pro!" supports you with full of services!

Web support site

Full of information about Pro-face products!

FAQs, consultations, and other support information
Various useful information such as "Sample Data"
out-of-the-box samples

http://www.proface.co.jp/otasuke/

Download of development, design, and specification data!

● Manual download
● Latest update module
● DXF data of unit dimension diagram
● BMP data of product image

■ Support Service
■ Download
■ World Wide Support

Service & Support Information

With the Pro-face global brand, get the support you need anytime, anywhere!
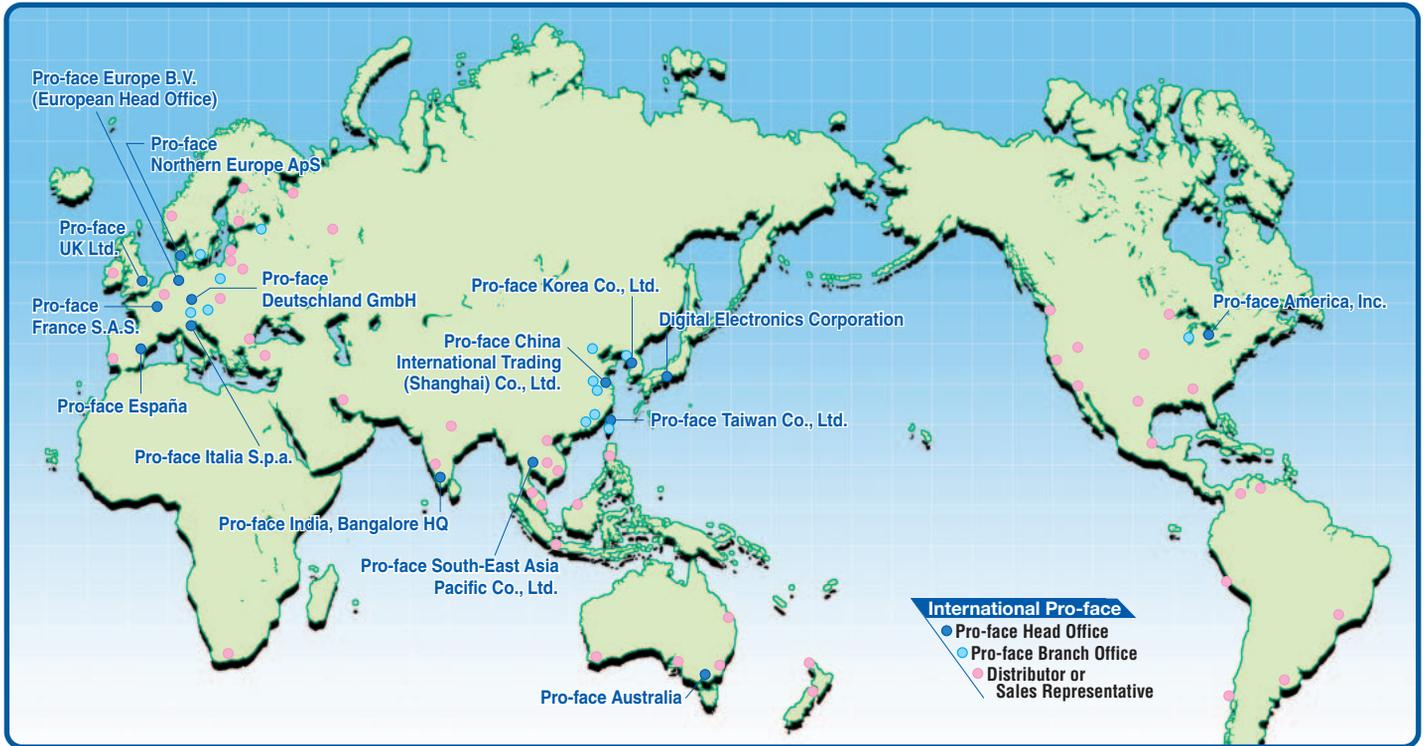We have a reliable service and support system.

Worldwide Locations
● Pro-face Head Office
○ Pro-face Branch Office
■ Distributor or Sales Representative

Please visit our website for the latest information and details.

http://www.pro-face.com/company_e/proface/worldwide2.htm

*For details on available support content, please contact the relevant Pro-face office.

Telephone Support — In an effort to gain greater customer satisfaction, Pro-face's telephone support services are based on the key words of availability, quick response and friendliness.

Web Support — The content of our "Otasuke Pro!" support site has been upgraded with services aimed at reducing development man-hours for the customer with contents such as FAQ and manual downloads.

Repair Services — Pro-face has eliminated loss throughout the entire repair process. We are constantly re-evaluating our systems to ensure satisfaction all of our customers.

Seminars — A variety of technical seminars are offered to help customers in order to get the most out of our Pro-face products. Easy-to-understand textbooks are prepared for what the customer wants to learn.

Manuals — So that even beginners can use products immediately, we aim to make manuals easy-to-understand. We have already received high reviews from many customers.

Worldwide Locations

Pro-face Europe B.V. (European Head Office)

Pro-face Northern Europe ApS

Pro-face UK Ltd.

Pro-face Deutschland GmbH

Pro-face France S.A.S.

Pro-face Korea Co., Ltd.

Digital Electronics Corporation

Pro-face America, Inc.

Pro-face China International Trading (Shanghai) Co., Ltd.

Pro-face España

Pro-face Italia S.p.a.

Pro-face Taiwan Co., Ltd.

Pro-face India, Bangalore HQ

Pro-face South-East Asia Pacific Co., Ltd.

Pro-face Australia

International Pro-face
- Pro-face Head Office
- Pro-face Branch Office
- Distributor or Sales Representative

Our Environmental Policy and Compliance with the RoHS Directive

Pro-face has taken significant steps to meet increasingly stringent requirements for environmental preservation and has sought to comply with the RoHS Directive by adopting measures to eliminate specified harmful substances from existing products and products to be manufactured and sold beginning in 2006. For details, please refer to our web site or contact our sales office in your country.

ACCESS!!

www.pro-face.com

Global Network and Global Support

Conformance with International Safety Standards

Pro-face products and component parts bearing the CE Mark and the UL or c-UL Listing and Recognized Component Marks are your guarantees of compliance with safety standards accepted in countries and regions worldwide.

⚠ **Caution: Before operating any of these products, be sure to read all related manuals thoroughly.**

- For printing purposes, the colors in this catalog may differ from those of the actual unit.
- LCD screens may exhibit minute grid-points (light and dark) on the Display Panel surface. "Contouring" - where some parts of the screen are brighter than others, producing a wavelike pattern - may occasionally occur. Both are normal for an LCD display and are not defects.
- Actual user screens may differ from the screens shown here.
- All product names used in this catalog are the registered trademarks or trademarks of their respective companies.
- All information contained in this catalog is subject to change without notice.

Pro-face
Human Machine Interface

Pro-face is a registered trademark of Digital Electronics Corporation in Japan, U.S.A., Canada, Europe and other areas and countries.

© 2011.5 Digital Electronics Corporation. All Rights Reserved.

Global Head Office
Digital Electronics Corporation
Osaka, JAPAN
Tel: +81 (0)6 6613 3116
Fax: +81 (0)6 6613 5888
http://www.pro-face.com
info@pro-face.com

North/South American Head Office
Pro-face America, Inc.
Saline, MI U.S.A.
Tel: +1 734 429 4971
Fax: +1 734 429 1010
http://www.profaceamerica.com
sales.info@profaceamerica.com

European Head Office
Pro-face Europe B.V.
Hoofddorp, THE NETHERLANDS
Tel: +31 (0)23 55 44 094
Fax: +31 (0)23 55 44 090
http://www.proface.com
info@proface.com

France
Pro-face France S.A.S.
Mitry-Mory, FRANCE
Tel: +33 (0)1 60 21 22 91
Fax: +33 (0)1 60 21 22 92
http://www.proface.fr
info@proface.fr

Poland
Pro-face Europe B.V.(Warsaw Office)
Warzawa, POLAND
Tel/FAX:+48 (22) 465-66-62
http://www.proface.pl
proface@proface.pl

Switzerland
Pro-face Deutschland GmbH
Regensdorf, SWITZERLAND
Tel: +41 (0)43 343 7272
Fax: +41 (0)43 343 7279
http://www.pro-face.ch
info@pro-face.ch

Australia and New Zealand
Pro-face Australia
Melbourne, AUSTRALIA
Tel: +61 (0)3 9550 7395
Fax: +61 (0)3 9550 7390
http://www.pro-face.com.au   http://www.pro-face.co.nz
pfau@pro-face.com

South-East Asia Pacific
Pro-face South-East Asia Pacific Co.,Ltd.
Bangkok, THAILAND
Tel: +66 (0)2 617 5678
Fax: +66 (0)2 617 5688
http://www.proface.co.th
support@proface.co.th

Austria
Pro-face Europe B.V.(Austria Office)
Hagenberg, AUSTRIA
Tel: +43 7236 3343-620
FAX: +43 7236 3343-629
http://www.pro-face.at
office@pro-face.at

Germany
Pro-face Deutschland GmbH
Solingen, GERMANY
Tel: +49 (0)212 258 260
Fax: +49 (0)212 258 2640
http://www.pro-face.de
sales@pro-face.de

Scandinavia, Baltic Countries
Pro-face Northern Europe ApS
Roskilde, DENMARK
Tel: +45 70 22 01 22
Fax: +45 70 22 01 33
http://www.pro-face-eu.net/
info@pro-face.dk

United Kingdom
Pro-face UK Ltd
Coventry, ENGLAND
Tel: +44 (0)2476 511288
Fax: +44 (0)2476 511499
http://www.profaceuk.com
info@profaceuk.com

China
Pro-face China International Trading (Shanghai) Co., Ltd.
Shanghai, P. R. CHINA
Tel: +86 (0)21 6361 5175
Fax: +86 (0)21 6361 5176
http://www.proface.com.cn
proface@proface.com.cn

South Korea
Pro-face Korea Co., Ltd.
Seoul, SOUTH KOREA
Tel: +82 (0)2 2630 9850
Fax: +82 (0)2 2630 9860
http://www.proface.co.kr
support@proface.co.kr

Spain and Portugal
Pro-face España
Cardedeu (Barcelona)、SPAIN
Tel: +34 (0)93 846 07 45
Fax: +34 (0)93 845 48 68
http://www.pro-face.es
central@pro-face.es

Russia
Pro-Face Northern Europe ApS (Saint-Petersburg office)
Saint-Petersburg, RUSSIA
Tel: +007 (812) 336-47-06
Fax: +007 (812) 336-47-18
http://www.pro-face.ru
info@pro-face.ru

Italy
Pro-face Italia S.p.a.
Bovisio Masciago (Milano)、ITALY
Tel: +39 0362 59 96 1
Fax: +39 0362 59 96 69
http://www.proface.it
info@proface.it

Sweden
Pro-face Sweden AB
Löddeköpinge (Malmö), SWEDEN
Tel: +46 46 540 90 70
Fax: +46 46 71 27 90
http://www.pro-face-eu.net
info@pro-face.se

India
Pro-face India
Bangalore, INDIA
Tel: +91 80 3066 7454/7456
Fax: +91 80 3066 7452
sales.proface@proface.co.in

Taiwan
Pro-face Taiwan Co., Ltd.
Taipei, TAIWAN
Tel: +886 (0)2 2657 1121
Fax: +886 (0)2 2657 1021
http://www.proface.com.tw
proface@proface.com.tw

DS/DS0903-GP3000ALL-03cE00