

Accessories

NETWORK INTERFACE UNITS

The background color of each cell shows the connectivity of the unit to a GP in each of the GP Series system designs.

| | | | | |
|---|---|---|--|---|
| | | | | |
| Bus Conversion Unit for GP-2600/2500/2601/2501 Series PSL-CONV00 CE | DeviceNet DeviceNet Slave Unit*1 CA1-DNSALL-21 CE DeviceNet Slave Unit*2 GP070-DN41 CE | | PROFIBUS PROFIBUS Slave Unit*1 CA1-PFSALL-21 CE PROFIBUS Slave Unit*2 GP070-PF11 | |
| | | | | |
| INTERBUS Slave Unit*2 GP070-IB41 CE | T-Link I/F Unit*2 GP450-ZB21 | Ethernet I/F Unit*2 (10 Base-T) GP070-ET41 CE | CANopen Slave Unit*1 CA1-COSALL-21 CE | MELSECNET/10 Unit*2 GP070-MNL11 |
| | | | | |
| MELSECNET/10 Unit*2 (Coaxial bus type) GP070-MNB11 | CC-Link I/F Unit*2 GP070-CL11 For the Remote Device Station GP077-CL11*3 For the Intelligent Device Station | Video-mix Unit for GP-2600T, 2500T GP2000-VM41 CE | Multi Unit E*2 for GP-2601/2501 Series GP077-MLTE41 CE | Multi Unit S*2 for GP-2601/2501 Series GP077-MLTS11 |

*1 To be sold at only Pro-face Europe B.V. For further information, please contact Pro-face Europe B.V.
*2 When using a GP70/77R Series Expansion Unit with GP-2600/2500/2601/2501 Series Unit, the optional Bus Conversion Unit (PSL-CONV00) is required. There Unit are not support with GP-2400/2300/2401/2301 Series.
*3 Bus Conversion Unit (PSM-CONV00) is required. Be careful when installing, because this unit will protrude from the main body.

OPTIONAL ITEMS

| | | | | | | |
|--|---|--------------------------------------|---|--|---|--|
| | | | | | | |
| Data Transfer Cable GPW-CB02 | USB Data Transfer Cable GPW-CB03 | RS-232C Cable (5m) GP410-IS00-O | RS-422 Cable (5m) GP230-IS11-O Multi-link Cable GP230-IS12-O | RS-422 Connector Terminal Block GP070-CN10-O | CPU I/F Cable for Mitsubishi PLC A, QnA Series GP430-IP10-O | CPU I/F Cable for Mitsubishi FX Series GP2000-CBLFX/1M-01 GP2000-CBLFX/5M-01 |
| | | | | | | |
| RS-422 cable (5m) for the Two-port Adapter II GP070-MDCB11 | Two-port Adapter II for Mitsubishi PLC A, QnA, FX Series GP070-MD11 | GP2000 Printer Cable (2m) PSM-PRCB00 | TTY Converter I/F Cable (5m) for SIEMENS S5 Series GP000-IS11-O | CF Card CA3-CFCALL/MB-01 64 (64MB)/128 (128MB) 256 (256MB)/512 (512MB) | CF Card Adapter GP077-CFAD10 | CF Card Front Maintenance Unit GP077-CFFM10 (for GP-2600T/2500T) |

| | | | |
|--|---|--|---|
| Backlight* | Installation Gasket | Connector Cover | Screen Protection Sheet |
| PS600-BU00 (For GP-2600T, 2601T) GP577RT-BL00-MS (For GP-2500T, 2501T) PS500S-BU00 (For GP-2500S) PS501S-BU00 (For GP-2501S) PS400-BU00-MS (For GP-2400T, 2401T) PS300-BU00 (For GP-2300L, 2301S/L) | GP570-WP10-MS (For GP-2600T, 2500T/S/L, 2601T, 2501T/S) PS400-WP00-MS (For GP-2400T, 2401T) PS300-WP00 (For GP-2300 Series) | PS-BH00 Installation Fastener GP070-AT01 Screw Lock Terminal Block GPM-AXCN01 (For GP-2601T, 2501T/S/L, 2401T) | PSL-DF00 (For GP-2600T, 2500T/S/L, 2601T, 2501T/S) PS400-DF00 (For GP-2400T, 2401T) PS300-DF00 (For GP-2300 Series) |

* The GP-2500L/2501L/2300T/2301T's backlights cannot be replaced by the user. When the backlights need to be replaced, please contact your local GP distributor.

OPTIONAL ITEMS FOR HAND-HELD MODELS

| | | | | | |
|---|---|-------------------------------|--|--|------------------------------|
| RS-232C Open-end Cable (3m) GP2000H-C232-3M | RS-232C Cable with D-sub (3m) GP2000H-D232-3M | RS-232C Adapter GP2000H-AP232 | RS-422 Open-end Cable (3m) GP2000H-C422-3M | RS-422 Cable with D-sub (3m) GP2000H-D422-3M | RS-422 Adapter GP2000H-AP422 |
| RS-232C Open-end Cable (10m) GP2000H-C232-10M | RS-232C Cable with D-sub (10m) GP2000H-D232-10M | | RS-422 Open-end Cable (10m) GP2000H-C422-10M | RS-422 Cable with D-sub (10m) GP2000H-D422-10M | |

Smooth system integration of Pro-face products is assured with a total support network.

WORLDWIDE SUPPORT

Pro-face regional offices and partners offer technical support and repair services around the world. Contact your local Pro-face office for more information about support services available.

ACCESS!! www.pro-face.com
Worldwide Contacts:
General Info: info@pro-face.com
Technical Info: support@proface.co.jp

Conformity 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.

CE / UL / cUL / R / cR

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

- For printing purposes, the colors in this catalog may differ from those of the actual unit.
- Actual user screens may differ from the screens shown here.
- LCD screens may exhibit minute grid-points (light and dark) on the Display Panel surface. Also, "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.
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Pro-face

Human Machine Interface

- Touch Panel
- Easy Operation
- Beautiful Graphics
- Increased Connectivity



GP-2600T
GP-2500T/S/L
GP-2400T
GP-2300T/S/L
GP-2601T
GP-2501T/S/L
GP-2401T
GP-2301T/S/L
GP-2401HT
GP-2301HS/HL

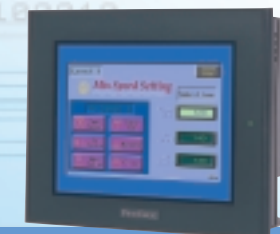


ISO9001
JQA-1367



GP2000 SERIES

Increase your business opportunities with **powerful performance** and **Ethernet connectivity**.



Aluminum body for superb cooling and dust resistance.



- 12.1 inch
- TFT Color
- 800 x 600 pixels
- 256 Colors
- 4MB FEPROM
- 256KB SRAM
- CF Card
- Ethernet
- Expansion SIO
- Optional Video

GP-2600T

GP2600-TC11 CE
GP2600-TC41-24V CE



- 10.4 inch
- TFT Color
- 640 x 480 pixels
- 256 Colors
- 4MB FEPROM
- 256KB SRAM
- CF Card
- Ethernet
- Expansion SIO
- Optional Video

GP-2500T

GP2500-TC11 CE
GP2500-TC41-24V CE



- 10.4 inch
- STN Color
- 640 x 480 pixels
- 64 Colors
- 4MB FEPROM
- 256KB SRAM
- CF Card
- Ethernet
- Expansion SIO

GP-2500S

GP2500-SC41-24V
CE



- 10.4 inch
- Monochrome LCD
- 640 x 480 pixels
- Black & White, Gray Scale
- 4MB FEPROM
- 256KB SRAM
- CF Card
- Ethernet
- Expansion SIO

GP-2500L

GP2500-LG41-24V
CE



- 7.4 inch
- TFT Color
- 640 x 480 pixels
- 256 Colors
- 4MB FEPROM
- 256KB SRAM
- CF Card
- Ethernet
- Expansion SIO

GP-2400T

GP2400-TC41-24V
CE



- 5.7 inch
- TFT Color
- 320 x 240 pixels
- 256 Colors
- 2MB FEPROM
- 256KB SRAM
- CF Card
- Ethernet
- Expansion SIO

GP-2300T

GP2300-TC41-24V
CE



- 5.7 inch
- STN Color
- 320 x 240 pixels
- 64 Colors
- 2MB FEPROM
- 256KB SRAM
- CF Card
- Ethernet
- Expansion SIO

GP-2300S

GP2300-SC41-24V
CE



- 5.7 inch
- Monochrome LCD
- 320 x 240 pixels
- Black & White, Gray Scale
- 2MB FEPROM
- 256KB SRAM
- CF Card
- Ethernet
- Expansion SIO

GP-2300L

GP2300-LG41-24V
CE

GP2001 SERIES

With the **Built-in CF Card I/F**,
handling of production data management and
screen maintenance is smooth and easy.



- 12.1 inch
- TFT Color
- 800 x 600 pixels
- 256 Colors
- 4MB FEPRM
- 128KB SRAM
- CF Card

GP-2601T

GP2601-TC11



- 10.4 inch
- TFT Color
- 640 x 480 pixels
- 256 Colors
- 2MB FEPRM
- 128KB SRAM
- CF Card

GP-2501T

GP2501-TC11



- 10.4 inch
- STN Color
- 640 x 480 pixels
- 64 Colors
- 2MB FEPRM
- 128KB SRAM
- CF Card

GP-2501S

GP2501-SC11



- 10.4 inch
- Monochrome LCD
- 640 x 480 pixels
- Black & White, Gray Scale
- 2MB FEPRM
- 128KB SRAM
- CF Card

GP-2501L

GP2501-LG41-24V



- 7.4 inch
- TFT Color
- 640 x 480 pixels
- 256 Colors
- 2MB FEPRM
- 128KB SRAM
- CF Card

GP-2401T

GP2401-TC41-24V



- 5.7 inch
- TFT Color
- 320 x 240 pixels
- 256 Colors
- 1MB FEPRM
- 128KB SRAM
- CF Card

GP-2301T

GP2301-TC41-24V



- 5.7 inch
- STN Color
- 320 x 240 pixels
- 64 Colors
- 1MB FEPRM
- 128KB SRAM
- CF Card

GP-2301S

GP2301-SC41-24V



- 5.7 inch
- Monochrome LCD
- 320 x 240 pixels
- Black & White, Gray Scale
- 1MB FEPRM
- 128KB SRAM
- CF Card

GP-2301L

GP2301-LG41-24V



Aluminum body for superb cooling and dust resistance.

GP2000H Series — Designed to meet global safety standards —



- 6.5 inch
- TFT Color
- 640 x 480 pixels
- 256 Colors
- 2MB FEPRM
- 128KB SRAM

- CF Card
- Tool Connector
- Vibration Function
- 3-position Enable Switch
- 3-contact Emergency Switch



GP-2401HT

GP2401H-TC41-24V



- 5.7 inch
- STN Color
- 320 x 240 pixels
- 64 Colors
- 1MB FEPRM
- 128KB SRAM

- CF Card
- Tool Connector
- Vibration Function
- 3-position Enable Switch
- 3-contact Emergency Switch



GP-2301HS

GP2301H-SC41-24V



- 5.7 inch
- Monochrome LCD
- 320 x 240 pixels
- Black & White, Gray Scale
- 1MB FEPRM
- 128KB SRAM

- CF Card
- Tool Connector
- Vibration Function
- 3-position Enable Switch
- 3-contact Emergency Switch



GP-2301HL

GP2301H-LG41-24V



GP2600/2601 Series

Ethernet Model



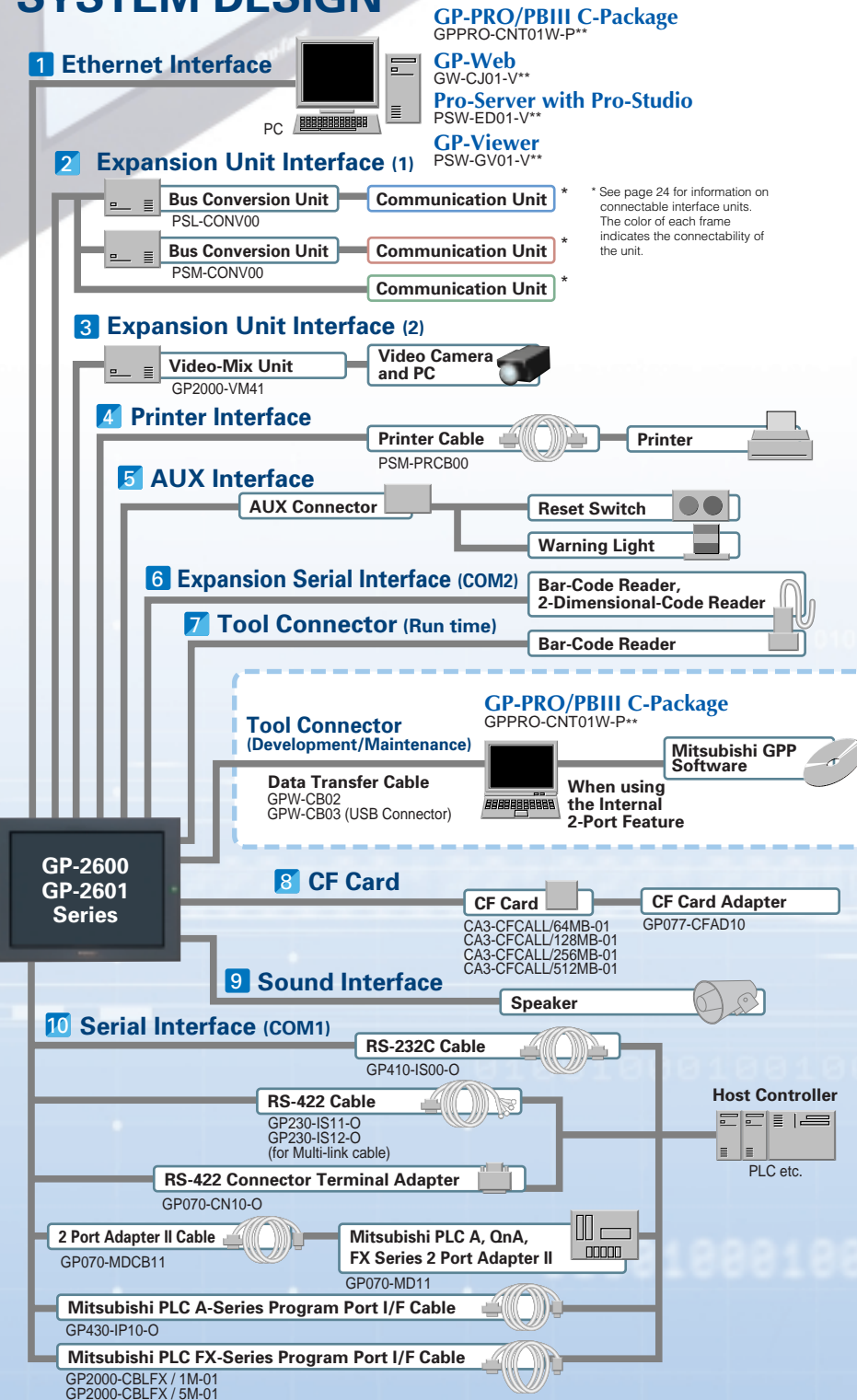
GP-2600T

Cost-efficient Model



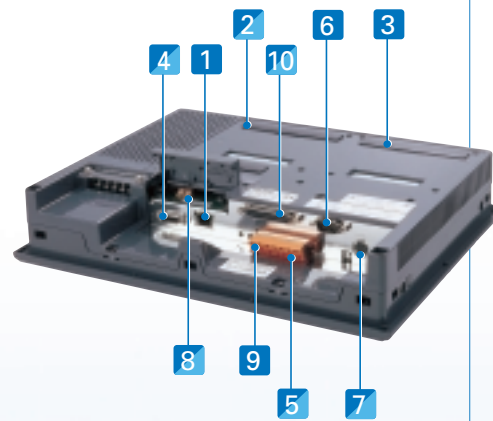
GP-2601T

SYSTEM DESIGN

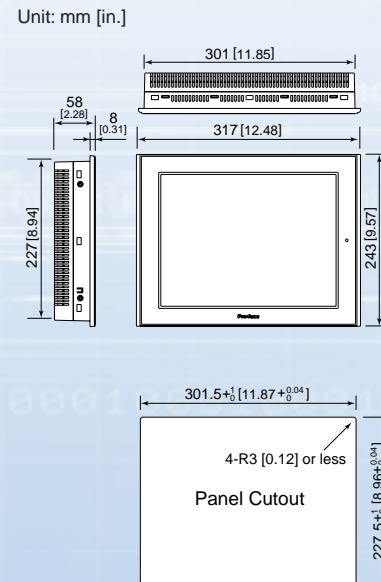


INTERFACES

- GP2600 Series Only.
- GP2600 and GP2601 Series can be used.



EXTERNAL DIMENSIONS



FUNCTIONAL SPECIFICATIONS

| Model | GP2600-TC11 GP2600-TC41-24V |
|-----------------------------------|--|
| Display Type | TFT Color LCD |
| Display Colors | 256 colors*1 |
| Backlight | User replaceable CCFL (Service life: 50,000 hrs. at 25°C and 24hr. operation) |
| Display Resolution | 800 x 600 pixels |
| Effective Display Area | W246mm [9.69in.] x H184.5mm [7.26in.] |
| Brightness Control | 4 levels of adjustment available via touch panel |
| Language Fonts | ASCII: (Code page 850) Alphanumeric (including European characters) Chinese: (GB2312-80 codes) simplified Chinese fonts Japanese: ANK 158, Kanji: 6962 (JIS Standards 1 and 2) Korean: (KSC5601-1992 codes) Hangul fonts Taiwanese: (Big 5 codes) traditional Chinese fonts |
| 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 |
| Character Sizes*2 | 8 x 8 dot font, 8 x 16 dot font, 16 x 16 dot font, 32 x 32 dot font |
| Font Sizes | Width: 1-8 times expandable / Height: 1/2*3, 1-8 times expandable |
| Touch Panel Resolution | 40 x 30 keys / screen - 1 or 2 point touch |
| Operation Status LED | Green : Normal Operation; Orange : Backlight Burn-out |
| Application | 4MB EPROM (Approx. 1280 screens at 3.2KB/screen) |
| Data Backup | 256KB SRAM — uses a lithium battery*4 |
| Serial Interface (COM1) | Asynchronous Transmission: RS-232C/RS-422 Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, Odd or Even Data Transmission Speed: 2,400bps to 115.2kbps (MPI: 187.5kbps)*5 |
| Expansion Serial Interface (COM2) | Asynchronous Transmission: RS-232C Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, Odd or Even Data Transmission Speed: 2,400bps to 38.4kbps |
| Expansion Unit Interface 1 | 1ch, for Optional Communication Unit Connection |
| Expansion Unit Interface 2 | 1ch, for Optional Video-mix Unit Connection |
| Ethernet Interface | IEEE802.3, 10BASE-T |
| Tool Connector Interface | Asynchronous TTL level nonprocedural command I/F -During screen file development- Used for transferring data to and from the GP application software and the GP. Used for data transfer with the 2-Port feature. -During Operation- Used for a variety of devices, including a bar-code reader. |
| CF Card Interface | 1 slot (CompactFlash™) |
| CF Card Expansion Interface | CF Card Front Maintenance Unit Connector |
| Printer Interface | Compatible with NEC PC-PR201/PL, EPSON ESC/P24-J84(C), HP Laser Jet PCL 4 command, EPSON PM/Stylus (6-color ink), EPSON Stylus (4-color ink) compatible printers*6 |
| AUX Input/Output | Remote Reset Input: 1 point Input Voltage: DC24V±10%, Input Current: 4mA (TYP), Min. Input Pulse Width: 2ms Operating Voltage: (When ON) Min. DC21.2V, (When OFF) Max. DC3V Isolation Method: Photocoupler Isolation Output -3 Points: RUN Output -1 point, System Alarm Output -1 point. Rated Voltage: DC24V Rated Current: 50mA/point Wire Gauge: AWG28 to AWG16 |
| Sound Output | External Speaker Connection (Terminal Block) Monaural 1CH Speaker Output: 70mW (Rated Load: 8W, Frequency: 1kHz) Sound Line Out Output: 2.7Vp-p (Rated Load: 10kW) |

| Model | GP2601-TC11 |
|--------------------------|--|
| Display Type | TFT Color LCD |
| Display Colors | 256 colors*1 |
| Backlight | User replaceable CCFL (Service life: 50,000 hrs. at 25°C and 24hr. operation) |
| Display Resolution | 800 x 600 pixels |
| Effective Display Area | W246mm [9.69in.] x H184.5mm [7.26in.] |
| Brightness Control | 4 levels of adjustment available via touch panel |
| Language Fonts | ASCII: (Code page 850) Alphanumeric (including European characters) Chinese: (GB2312-80 codes) simplified Chinese fonts Japanese: ANK 158, Kanji: 6962 (JIS Standards 1 and 2) Korean: (KSC5601-1992 codes) Hangul fonts Taiwanese: (Big 5 codes) traditional Chinese fonts |
| 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 |
| Character Sizes*2 | 8 x 8 dot font, 8 x 16 dot font, 16 x 16 dot font, 32 x 32 dot font |
| Font Sizes | Width: 1-8 times expandable / Height: 1/2*3, 1-8 times expandable |
| Touch Panel Resolution | 40 x 30 keys / screen - 1 or 2 point selectable |
| Operation Status LED | Green : Normal Operation; Orange : Backlight Burn-out |
| Application | 4MB EPROM (Approx. 1280 screens at 3.2KB/screen) |
| Data Backup | 128KB SRAM — uses a lithium battery*4 |
| Serial Interface (COM1) | Asynchronous Transmission: RS-232C/RS-422 Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, Odd or Even Data Transmission Speed: 2,400bps to 115.2kbps (MPI: 187.5kbps)*5 |
| Tool Connector Interface | Asynchronous TTL level nonprocedural command I/F -During screen file development- Used for transferring data to and from the GP application software and the GP. Used for data transfer with the 2-Port feature. -During Operation- Used for a variety of devices, including a bar-code reader. |
| CF Card Interface | 1 slot (CompactFlash™) |
| Printer Interface | Compatible with NEC PC-PR201/PL, EPSON ESC/P24-J84(C), HP Laser Jet PCL 4 command, EPSON PM/Stylus (6-color ink), EPSON Stylus (4-color ink) compatible printers*6 |
| AUX Input/Output *7 | Remote Reset Input: 1 point Input Voltage: DC24V±10%, Input Current: 4mA (TYP), Min. Input Pulse Width: 2ms Operating Voltage: (When ON) Min. DC21.2V, (When OFF) Max. DC3V Isolation Method: Photocoupler Isolation Output -3 Points: RUN Output -1 point, System Alarm Output -1 point, External Buzzer Output -1 point Rated Voltage: DC24V Rated Current: 50mA/point Wire Gauge: AWG28 to AWG16 |

*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, select "64 colors".
 *2 The font size varies depending on selected language and enlargement ratio.
 *3 Only available when using "12 Byte Character" settings via software. (Only Japanese, Chinese, Taiwanese, and Korean characters)
 *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 60 days, with a fully charged battery.
 • Approximately 6 days, with a half-charged battery.
 *5 SIEMENS SIMATIC S7-200/300/400 series (MPI port only).
 *6 Please contact your Pro-face sales representative for supported models and other details.
 *7 Printers with only Windows drivers cannot be used. However, certain types of printers with both Windows and DOS drivers can be used. For details, contact your local GP distributor.
 *8 Using the AUX Input/Output I/F requires the separately sold Screw Lock Terminal Block.

GENERAL SPECIFICATIONS

| Model | GP2600-TC11 | GP2600-TC41-24V | GP2601-TC11 |
|---|---|---|---|
| Rated Voltage | AC100V to AC240V | DC24V | AC100V to AC240V |
| Rated Voltage Range | AC85V to AC265V | DC19.2V to DC28.8V | AC85V to AC265V |
| Power Consumption | 50VA or less (ACIN100V) 85VA or less (ACIN240V) | 50W or less | 50VA or less (ACIN100V) 85VA or less (ACIN240V) |
| Allowable Voltage Drop | 20ms or less | 10ms or less | 20ms or less |
| Voltage Endurance | AC1500V 20mA for 1 minute (between charging and FG terminals) | AC1000V 20mA for 1 minute (between charging and FG terminals) | AC1500V 20mA for 1 minute (between charging and FG terminals) |
| Insulation Resistance | 10MΩ or higher at DC500V (between charging and FG terminals) | | |
| Operating Temperature | 0°C to +50°C*1 | | |
| Storage Temperature | -20°C to +60°C | | |
| Humidity | 10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C or less) | | |
| Storage Humidity | 10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C or less) | | |
| Vibration Resistance | IEC61131-2 (JIS B 3502) compliant | When vibration is NOT continuous: 10Hz to 57Hz 0.075mm, 57Hz to 150Hz 9.8m/s ² When vibration is continuous: 10Hz to 57Hz 0.035mm, 57Hz to 150Hz 4.9m/s ² X, Y, Z directions for 10 times (80min.) | 10Hz to 57Hz 0.075mm, 57Hz to 150Hz 9.8m/s ² 10Hz to 57Hz 0.035mm, 57Hz to 150Hz 4.9m/s ² X, Y, Z directions for 10 times (80min.) |
| Noise Immunity (via noise simulator) | Noise Voltage: 1500Vp-p Pulse Duration: 1μs Arise Time: 1ns | Noise Voltage: 1000Vp-p Pulse Duration: 1μs Arise Time: 1ns | Noise Voltage: 1500Vp-p Pulse Duration: 1μs Arise Time: 1ns |
| Corrosive Gasses | Free of corrosive gasses | | |
| Electrostatic Discharge Immunity | 6kV (complies with EN 61000-4-2 Level 3) | | |
| Certifications | EN55011 Class A, EN61000-3-2, EN61000-3-3, EN61000-6-2, EN60950, UL60950, UL1604 | EN55011 Class A, EN61000-6-2, UL508, UL1604 | EN55011 Class A, EN61000-3-2, EN61000-6-2, EN60950, UL60950, UL1604 |
| Grounding | 100Ω or less, or your country's applicable standard*2 | | |
| Ratings (For front panel of installed unit) | Equivalent to IP65f (JEM 1030)*3 / NEMA#250 TYPE4 X/12 | | |
| Cooling Method | Natural air circulation | | |
| Weight | 3.5kg (7.7lb) or less | | |
| External Dimensions | W317mm [12.48in.] x H243mm [9.57in.] x D58mm [2.28in.] | | |
| Panel Cutout Dimensions | 301.5mm [11.87±0.04in.] x 227.5mm [8.96±0.04in.] (Panel thickness: 1.6mm [0.06in.] to 10mm [0.40in.]) | | |

*1 When using GP-2600T/GP-2601T in an environment where the temperature exceeds 40°C for an extended period of time, the screen contrast level may decrease from its original level of brightness.
 *2 Grounding requirements differ from country to country. Be sure to confirm your work environment requirements prior to installation. For more information, please contact your Pro-face distributor.
 *3 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.

GP 2500/2501 Series

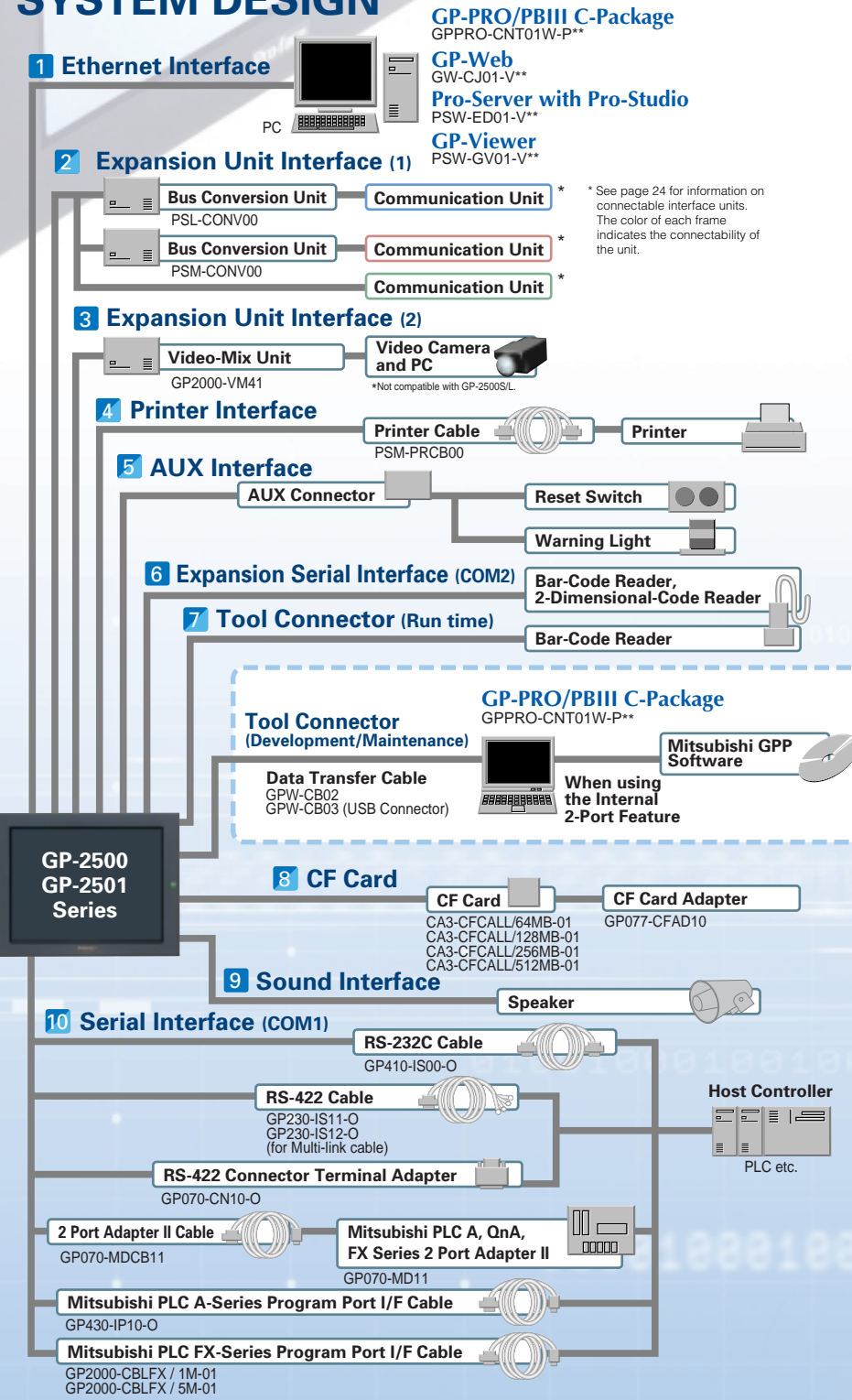
Ethernet Model



Cost-efficient Model

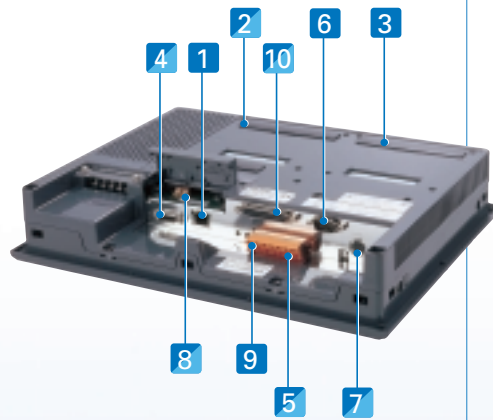


SYSTEM DESIGN

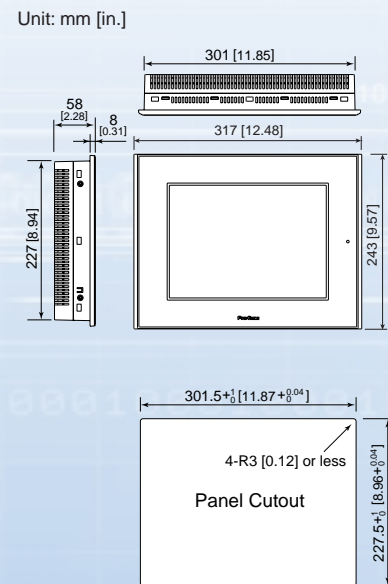


INTERFACES

- GP2500 Series Only.
- GP2500 and GP2501 Series can be used.



EXTERNAL DIMENSIONS



FUNCTIONAL SPECIFICATIONS

| Model | GP2500-TC11 GP2500-TC41-24V | GP2500-SC41-24V | GP2500-LG41-24V |
|-----------------------------------|--|--|--|
| Display Type | TFT Color LCD | STN Color LCD | Monochrome LCD |
| Display Colors | 256 colors *1 | 64 colors | Black and White or 8 Levels of Gray |
| Backlight | User replaceable CCFL (Service life: 50,000 hrs. at 25°C and 24hr. operation) | CCFL (Service life: 50,000 hrs. at 25°C and 24hr. Operation) | CCFL (Service life: 50,000 hrs. at 25°C and 24hr. Operation) |
| Display Resolution | 640 x 480 pixels | | |
| Effective Display Area | W211.2mm [8.34in.] x H158.4mm [6.24in.] | | |
| Brightness Control | 4 levels of adjustment available via touch panel | | |
| Contrast Adjustment | 8 levels of adjustment available via touch panel | | |
| Language Fonts | ASCII: (Code page 850) Alphanumeric (including European characters) Chinese: (GB2312-80 codes) simplified Chinese fonts Japanese: ANK, 158, Kanji, 6862 (JIS Standards 1 and 2) Korean: (KSC5601-1992 codes) Hangeul fonts Taiwanese: (Big 5 codes) traditional Chinese fonts | | |
| Text | 8 x 8 dots 8 x 16 dots 16 x 16 dots 32 x 32 dots | 80 Char. x 60 rows 80 Char. x 30 rows 40 Char. x 30 rows 20 Char. x 15 rows | 80 Char. x 60 rows 80 Char. x 30 rows 40 Char. x 30 rows 20 Char. x 15 rows |
| Character Sizes*2 | 8 x 8 dot font, 8 x 16 dot font, 16 x 16 dot font, 32 x 32 dot font | | |
| Font Sizes | Width: 1~8 times expandable / Height: 1/2*3, 1~8 times expandable | | |
| Touch Panel Resolution | 32 x 24 keys / screen - 1 or 2 point touch | | |
| Operation Status LED | Green : Normal Operation; Orange : Backlight Burn-out | | |
| Application | 4MB FEPR0M (Approx. 1280 screens at 3.2KB/screen) | | |
| Data Backup | 256KB SRAM — uses a lithium battery*4 | | |
| Serial Interface (COM1) | Asynchronous Transmission : RS-232C/RS-422 Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, Odd or Even Data Transmission Speed: 2,400bps to 115.2kbps (MP: 187.5kbps)*5 | | |
| Expansion Serial Interface (COM2) | Asynchronous Transmission : RS-232C, Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, Odd or Even, Data Transmission Speed: 2,400 bps to 38.4kbps | | |
| Expansion Unit Interface 1 | 1ch, for Optional Video-mix Unit Connection | | |
| Expansion Unit Interface 2 | 1ch, for Optional Video-mix Unit Connection | | |
| Ethernet Interface | IEEE802.3, 10BASE-T | | |
| Tool Connector Interface | Asynchronous TTL level nonprocedural command I/F <During screen file development> Used for transferring data to and from the GP application software and the GP. Used for data transfer with the 2-Port feature. <During Operation> Used for a variety of devices, including a bar-code reader. | | |
| CF Card Interface | 1 slot (CompactFlash™) | | |
| CF Card Expansion Interface | CF Card Front Maintenance Unit Connector | | |
| Printer Interface | Compatible with NEC PC-PR201/PL, EPSON ESC/P24-J84(C), HP Laser Jet PCL 4 command, EPSON PM/Stylus (6-color ink), EPSON Stylus (4-color ink) compatible printers *6 | | |
| AUX Input/Output | Remote Reset Input: 1 point Input Voltage: DC24V±10%, Input Current: 4mA (TYP), Min. Input Pulse Width: 2ms Operating Voltage: (When ON) Min. DC21.2V, (When OFF) Max. DC3V Isolation Method: Photocoupler Isolation Output -3 Points: RUN Output -1 point, System Alarm Output -1 point, External Buzzer Output -1 point Rated Voltage: DC24V Rated Current: 50mA/point Wire Gauge: AWG28 to AWG16 | | |
| Sound Output | External Speaker Connection (Terminal Block) Monaural 1CH Speaker Output: 70mW (Rated Load: 8W, Frequency: 1kHz) Sound Line Out Output: 2.7Vp-p (Rated Load: 10kΩ) | | |

| Model | GP2501-TC11 | GP2501-SC11 | GP2501-LG41-24V |
|-----------------------------|--|--|--|
| Display Type | TFT Color LCD | STN Color LCD | Monochrome LCD |
| Display Colors | 256 colors *1 | 64 colors | Black and White or 8 Levels of Gray |
| Backlight | User replaceable CCFL (Service life: 50,000 hrs. at 25°C and 24hr. operation) | CCFL (Service life: 50,000 hrs. at 25°C and 24hr. Operation) | CCFL (Service life: 50,000 hrs. at 25°C and 24hr. Operation) |
| Display Resolution | 640 x 480 pixels | | |
| Effective Display Area | W211.2mm [8.34in.] x H158.4mm [6.24in.] | | |
| Brightness Control | 4 levels of adjustment available via touch panel | | |
| Contrast Adjustment | 8 levels of adjustment available via touch panel | | |
| Language Fonts | ASCII: (Code page 850) Alphanumeric (including European characters) Chinese: (GB2312-80 codes) simplified Chinese fonts Japanese: ANK, 158, Kanji, 6862 (JIS Standards 1 and 2) Korean: (KSC5601-1992 codes) Hangeul fonts Taiwanese: (Big 5 codes) traditional Chinese fonts | | |
| Text | 8 x 8 dots 8 x 16 dots 16 x 16 dots 32 x 32 dots | 80 Char. x 60 rows 80 Char. x 30 rows 40 Char. x 30 rows 20 Char. x 15 rows | 80 Char. x 60 rows 80 Char. x 30 rows 40 Char. x 30 rows 20 Char. x 15 rows |
| Character Sizes*2 | 8 x 8 dot font, 8 x 16 dot font, 16 x 16 dot font, 32 x 32 dot font | | |
| Font Sizes | Width: 1~8 times expandable / Height: 1/2*3, 1~8 times expandable | | |
| Touch Panel Resolution | 32 x 24 keys / screen - 1 or 2 point selectable | | |
| Operation Status LED | Green : Normal Operation; Orange : Backlight Burn-out | | |
| Application | 2MB FEPR0M (Approx. 640 screens at 3.2KB/screen) | | |
| Data Backup | 128KB SRAM — uses a lithium battery*4 | | |
| Serial Interface (COM1) | Asynchronous Transmission : RS-232C/RS-422 Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, Odd or Even Data Transmission Speed: 2,400bps to 115.2kbps (MP: 187.5kbps)*5 | | |
| Tool Connector Interface | Asynchronous TTL level nonprocedural command I/F <During screen file development> Used for transferring data to and from the GP application software and the GP. Used for data transfer with the 2-Port feature. <During Operation> Used for a variety of devices, including a bar-code reader. | | |
| CF Card Expansion Interface | 1 slot (CompactFlash™) | | |
| Printer Interface | Compatible with NEC PC-PR201/PL, EPSON ESC/P24-J84(C), HP Laser Jet PCL 4 command, EPSON PM/Stylus (6-color ink), EPSON Stylus (4-color ink) compatible printers*6 | | |
| AUX Input/Output *7 | Remote Reset Input: 1 point Input Voltage: DC24V±10%, Input Current: 4mA (TYP), Min. Input Pulse Width: 2ms Operating Voltage: (When ON) Min. DC21.2V, (When OFF) Max. DC3V Isolation Method: Photocoupler Isolation Output -3 Points: RUN Output -1 point, System Alarm Output -1 point, External Buzzer Output -1 point Rated Voltage: DC24V Rated Current: 50mA/point Wire Gauge: AWG28 to AWG16 | | |

*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, select "64 colors".
 *2 The font size varies depending on selected language and enlargement ratio.
 *3 Only available when using "1/2 Byte Character" settings via software. (Only Japanese, Chinese, Taiwanese, and Korean characters)
 *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 60 days, with a fully charged battery.
 • Approximately 6 days, with a half-charged battery.
 *5 SIEMENS SIMATIC S7-200/300/400 series (MP port only)
 *6 Please contact your Pro-face sales representative for supported models and other details.
 *7 Printers with only Windows drivers cannot be used. However, certain types of printers with both Windows and DOS drivers can be used. For details, contact your local GP distributor.
 *8 Using the AUX Input/Output I/F requires the separately sold Screw Lock Terminal Block.

GENERAL SPECIFICATIONS

| Model | GP2500-TC11 | GP2500-TC41-24V | GP2500-SC41-24V | GP2500-LG41-24V | GP2501-TC11 | GP2501-SC11 | GP2501-LG41-24V |
|---|---|---|--|---|--|-------------|--|
| Rated Voltage | AC100V to AC240V | DC24V | | AC100V to AC240V | DC24V | | DC24V |
| Rated Voltage Range | AC85V to AC265V | DC19.2V to DC28.8V | | AC85V to AC265V | DC19.2V to DC28.8V | | DC19.2V to DC28.8V |
| Power Consumption | 50VA or less (ACIN100V) 85VA or less (ACIN240V) | 50W or less | | 50VA or less (ACIN100V) 85VA or less (ACIN240V) | 50W or less | | 50W or less |
| Allowable Voltage Drop | 20ms or less | 10ms or less | | 20ms or less | 10ms or less | | 10ms or less |
| Voltage Endurance | AC1500V 20mA for 1 minute (between charging and FG terminals) | AC1000V 20mA for 1 minute (between charging and FG terminals) | | AC1500V 20mA for 1 minute (between charging and FG terminals) | AC1000V 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 (between charging and FG terminals) | | | | | | |
| Operating Temperature | 0°C to +50°C*1 | | | | | | |
| Storage Temperature | -20°C to +60°C | | | | | | |
| Humidity | 10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C or less) | | | | | | |
| Storage Humidity | 10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C or less) | | | | | | |
| Vibration Resistance | IEC61131-2 (JIS B 3502) compliant | | When vibration is NOT continuous: 10Hz to 57Hz 0.075mm, 57Hz to 150Hz 9.8m/s ² When vibration is continuous: 10Hz to 57Hz 0.035mm, 57Hz to 150Hz 4.9m/s ² | | X, Y, Z directions for 10 times (80min.) | | |
| Noise Immunity (via noise simulator) | Noise Voltage: 1500Vp-p Pulse Duration: 1μs Arise Time: 1ns | | Noise Voltage: 1000Vp-p Pulse Duration: 1μs Arise Time: 1ns | | Noise Voltage: 1500Vp-p Pulse Duration: 1μs Arise Time: 1ns | | Noise Voltage: 1000Vp-p Pulse Duration: 1μs Arise Time: 1ns |
| Corrosive Gases | Free of corrosive gases | | | | | | |
| Electrostatic Discharge Immunity | 6kV (complies with EN 61000-4-2 Level 3) | | | | | | |
| Certifications | EN55011 Class A, EN61000-3-2, EN61000-3-3, EN61000-6-2, EN60950, UL60950, UL1604 | | EN55011 Class A, EN61000-6-2, UL508, UL1604 | | EN55011 Class A, EN61000-3-2, EN61000-3-3, EN61000-6-2, EN60950, UL60950, UL1604 | | EN55011 Class A, EN61000-6-2, UL508, UL1604 |
| Grounding | 100Ω or less, or your country's applicable standard*2 | | | | | | |
| Ratings (For front panel of installed unit) | Equivalent to IP65 (JEM 1030)*3 / NEMA#250 TYPE4 X12 | | | | | | |
| Cooling Method | Natural air circulation | | | | | | |
| Weight | 3.5kg (7.7lb) or less | | | | | | |
| External Dimensions | W317mm [12.48in.] x H243mm [9.57in.] x D58mm [2.28in.] | | | | | | |
| Panel Cutout Dimensions | 301.5*mm [11.87*in.] x 227.5*mm [8.96*in.] (Panel thickness: 1.6mm [0.06in.] to 10mm [0.40in.]) | | | | | | |

*1 When using GP-2500L/GP-2500S/GP-2501L/GP-2501S in an environment where the temperature exceeds 40°C for an extended period of time, the screen contrast level may decrease from its original level of brightness.
 *2 Grounding requirements differ from country to country. Be sure to confirm your work environment requirements prior to installation. For more information, please contact your Pro-face distributor.
 *3 The degree of protection provided by these products is equivalent to IP65, however their performance cannot be guaranteed for every environment. Be sure to confirm your work environment requirements prior to installation.

GP2400/2401 Series

Ethernet Model



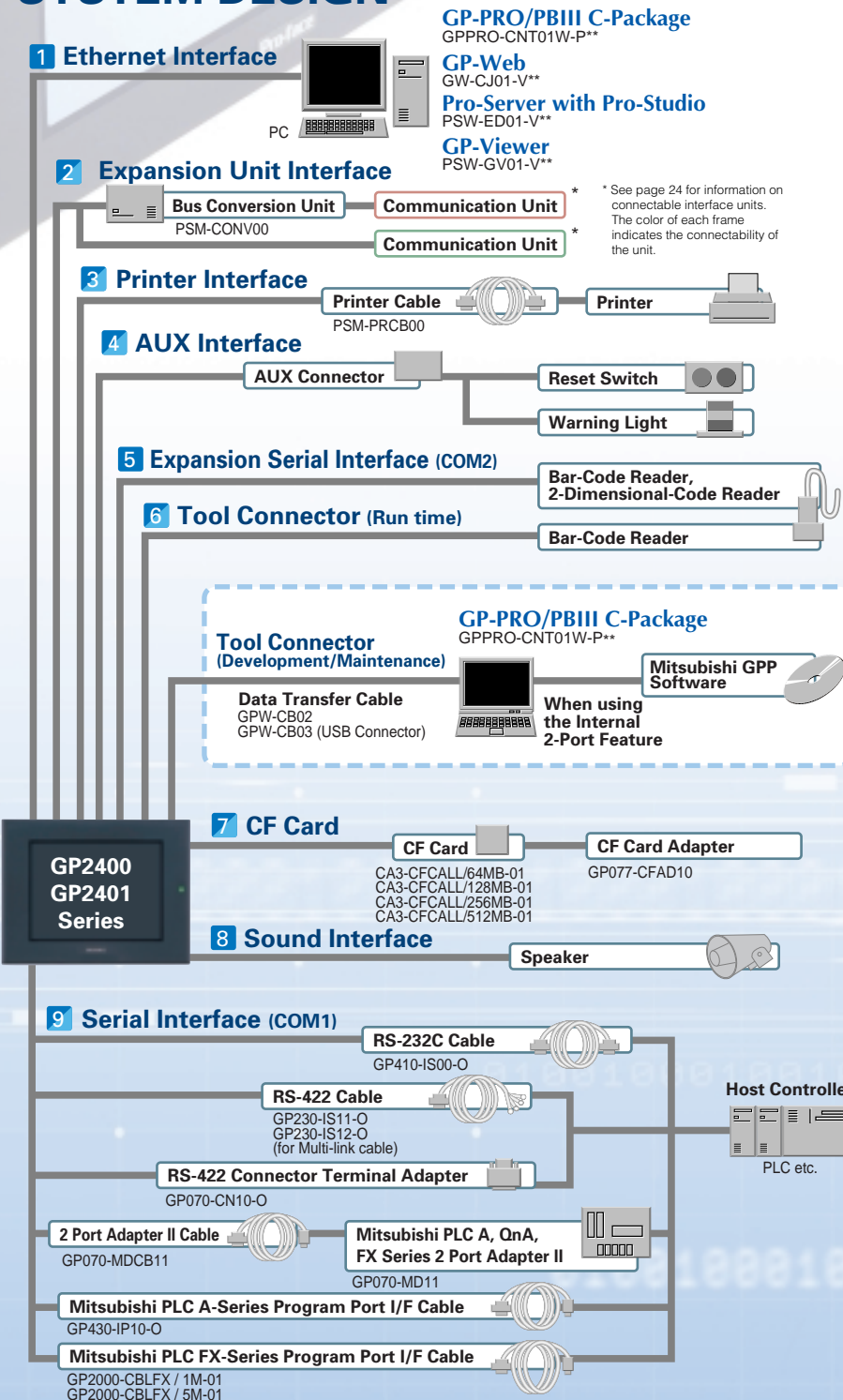
GP-2400T

Cost-efficient Model



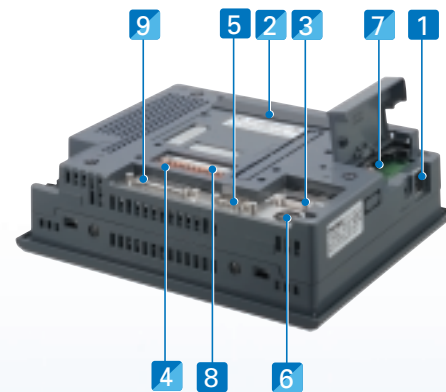
GP-2401T

SYSTEM DESIGN

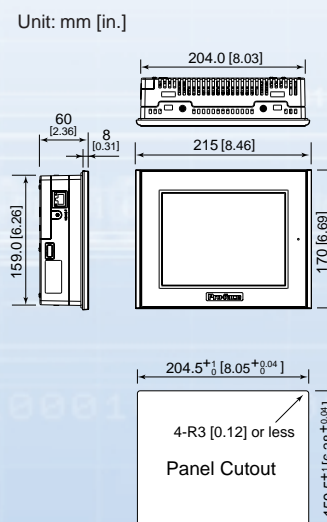


INTERFACES

- GP2400 Series Only.
- GP2400 and GP2401 Series can be used.



EXTERNAL DIMENSIONS



FUNCTIONAL SPECIFICATIONS

| Model | GP2400-TC41-24V |
|-----------------------------------|---|
| Display Type | TFT Color LCD |
| Display Colors | 256 colors *1 |
| Backlight | User replaceable CCFL (Service life: 50,000 hrs. at 25°C and 24hr. operation) |
| Display Resolution | 640 x 480 pixels |
| Effective Display Area | W149.8mm [5.90in.] x H112.3mm [4.42in.] |
| Brightness Control | 4 levels of adjustment available via touch panel |
| Language Fonts | ASCII: (Code page 850) Alphanumeric (including European characters) Chinese: (GB2312-80 codes) simplified Chinese fonts Japanese: ANK 158, Kanji: 6962 (JIS Standards 1 and 2) Korean: (KSC5601-1992 codes) Hangeul fonts Taiwanese: (Big 5 codes) traditional Chinese fonts |
| 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 |
| Character Sizes*2 | 8 x 8 dot font, 8 x 16 dot font, 16 x 16 dot font, 32 x 32 dot font |
| Font Sizes | Width: 1-8 times expandable / Height: 1/2 ³ , 1-8 times expandable |
| Touch Panel Resolution | 32 x 24 keys / screen - 1 or 2 point touch |
| Operation Status LED | Green : Normal Operation; Orange : Backlight Burn-out |
| Memory | Application: 4MB FEPRAM (Approx. 1280 screens at 3.2KB/screen) Data Backup: 256KB SRAM — uses a lithium battery*4 |
| Serial Interface (COM1) | Asynchronous Transmission : RS-232C/RS-422 Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, Odd or Even Data Transmission Speed: 2,400bps to 115.2kbps (MPI: 187.5kbps)*5 |
| Expansion Serial Interface (COM2) | Asynchronous Transmission : RS-232C Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, Odd or Even Data Transmission Speed : 2,400 bps to 38.4kbps |
| Ethernet Interface | IEEE802.3, 10BASE-T |
| Tool Connector Interface | Asynchronous TTL level nonprocedural command I/F <During screen file development> Used for transferring data to and from the GP application software and the GP. <During Operation> Used for data transfer with the 2-Port feature. Used for a variety of devices, including a bar-code reader. |
| CF Card Interface | 1 slot (CompactFlash™) |
| Printer Interface | Compatible with NEC PC-PR201/PL , EPSON ESC/P24-J84(C), HP Laser Jet PCL 4 command, EPSON PM/Stylus (6-color ink), EPSON Stylus (4-color ink) compatible printers*6 |
| AUX Input/Output | Remote Reset Input: 1 point Input Voltage: DC24V +/-10%, Input Current: 4mA (TYP), Min. Input Pulse Width: 2ms Operating Voltage: (When ON) Min. DC21.2V, (When OFF) Max. DC3V Isolation Method: Photocoupler Isolation Output -3 Points: RUN Output -1 point, System Alarm Output -1 point, External Buzzer Output -1 point Rated Voltage: DC24V Rated Current: 50mA/point Wire Gauge: AWG28 to AWG16 |
| Sound Output | External Speaker Connection (Terminal Block) Monaural 1CH Speaker Output: 70mW (Rated Load: 8W, Frequency: 1kHz) Sound Line Out Output: 2.7Vp-p (Rated Load: 10kW) |

| Model | GP2401-TC41-24V |
|--------------------------|---|
| Display Type | TFT Color LCD |
| Display Colors | 256 colors *1 |
| Backlight | User replaceable CCFL (Service life: 50,000 hrs. at 25°C and 24hr. operation) |
| Display Resolution | 640 x 480 pixels |
| Effective Display Area | W149.8mm [5.90in.] x H112.3mm [4.42in.] |
| Brightness Control | 4 levels of adjustment available via touch panel |
| Language Fonts | ASCII: (Code page 850) Alphanumeric (including European characters) Chinese: (GB2312-80 codes) simplified Chinese fonts Japanese: ANK 158, Kanji: 6962 (JIS Standards 1 and 2) Korean: (KSC5601-1992 codes) Hangeul fonts Taiwanese: (Big 5 codes) traditional Chinese fonts |
| 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 |
| Character Sizes*2 | 8 x 8 dot font, 8 x 16 dot font, 16 x 16 dot font, 32 x 32 dot font |
| Font Sizes | Width: 1-8 times expandable / Height: 1/2 ³ , 1-8 times expandable |
| Touch Panel Resolution | 32 x 24 keys / screen - 1 or 2 point selectable |
| Operation Status LED | Green : Normal Operation; Orange : Backlight Burn-out |
| Memory | Application: 2MB FEPRAM (Approx. 640 screens at 3.2KB/screen) Data Backup: 128KB SRAM — uses a lithium battery*4 |
| Serial Interface (COM1) | Asynchronous Transmission : RS-232C/RS-422 Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, Odd or Even Data Transmission Speed: 2,400bps to 115.2kbps (MPI: 187.5kbps)*5 |
| Tool Connector Interface | Asynchronous TTL level nonprocedural command I/F <During screen file development> Used for transferring data to and from the GP application software and the GP. Used for data transfer with the 2-Port feature. <During Operation> Used for a variety of devices, including a bar-code reader. |
| CF Card Interface | 1 slot (CompactFlash™) |
| Printer Interface | Compatible with NEC PC-PR201/PL , EPSON ESC/P24-J84(C), HP Laser Jet PCL 4 command, EPSON PM/Stylus (6-color ink), EPSON Stylus (4-color ink) compatible printers*6 |
| AUX Input/Output *7 | Remote Reset Input: 1 point Input Voltage: DC24V +/-10%, Input Current: 4mA (TYP), Min. Input Pulse Width: 2ms Operating Voltage: (When ON) Min. DC21.2V, (When OFF) Max. DC3V Isolation Method: Photocoupler Isolation Output -3 Points: RUN Output -1 point, System Alarm Output -1 point, External Buzzer Output -1 point Rated Voltage: DC24V Rated Current: 50mA/point Wire Gauge: AWG28 to AWG16 |

*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, select "64 colors".
 *2 The font size varies depending on selected language and enlargement ratio.
 *3 Only available when using "1/2 Byte Character" settings via software. (Only Japanese, Chinese, Taiwanese, and Korean characters)
 *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 60 days, with a fully charged battery.
 • Approximately 6 days, with a half-charged battery.
 *5 SIEMENS SIMATIC S7-200/300/400 series (MPI port only)
 *6 Please contact your Pro-face sales representative for supported models and other details.
 *7 Printers with only Windows drivers cannot be used. However, certain types of printers with both Windows and DOS drivers can be used. For details, contact your local GP distributor.
 *8 Using the AUX Input/Output I/F requires the separately sold Screw Lock Terminal Block.

GENERAL SPECIFICATIONS

| Model | GP2400-TC41-24V | GP2401-TC41-24V |
|-------------------------|--|--|
| Electrical | Rated Voltage | DC24V |
| | Rated Voltage Range | DC19.2V to DC28.8V |
| | Power Consumption | 28W or less |
| | Allowable Voltage Drop | 10ms or less |
| Environmental | Voltage Endurance | AC1000V 20mA for 1 minute (between charging and FG terminals) |
| | Insulation Resistance | 10MΩ or higher at DC500V (between charging and FG terminals) |
| | Operating Temperature | 0°C to +50°C |
| | Storage Temperature | -20°C to +60°C |
| Mechanical | Humidity | 10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C or less) |
| | Storage Humidity | 10%RH to 90%RH (Non-condensing, wet bulb temperature: 39°C or less) |
| | Vibration Resistance | IEC61131-2 (JIS B 3502) compliant When vibration is NOT continuous: 10Hz to 57Hz 0.075mm, 57Hz to 150Hz 9.8m/s ² When vibration is continuous: 10Hz to 57Hz 0.035mm, 57Hz to 150Hz 4.9m/s ² X, Y, Z directions for 10 times (80min.) |
| | Noise Immunity (via noise simulator) | Noise Voltage: 1000Vp-p Pulse Duration: 1 μs Arise Time: 1ns |
| Structural | Corrosive Gasses | Free of corrosive gasses |
| | Electrostatic Discharge Immunity | 6kV (complies with EN 61000-4-2 Level 3) |
| | Certifications | EN55011 Class A, EN61000-6-2, UL508, UL1604 |
| | Grounding | 100Ω or less, or your country's applicable standard*1 |
| Ratings | For front panel of installed unit | Equivalent to IP65f (JEM 1030)*2 / NEMA#250 TYPE4 X/12 |
| | Cooling Method | Natural air circulation |
| | Weight | 1.7kg (5.5lb) or less |
| | External Dimensions | W215mm [8.46in.] x H170mm [6.69in.] x D60mm [2.36in.] |
| Panel Cutout Dimensions | 204.5 *1mm [8.05 *1in.] x 159.5 *1mm [6.28 *1in.] (Panel thickness: 1.6mm [0.06in.] to 10mm [0.40in.]) | |

*1 Grounding requirements differ from country to country. Be sure to confirm your work environment requirements prior to installation. For more information, please contact your Pro-face distributor.
 *2 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.

GP 2300/2301 Series

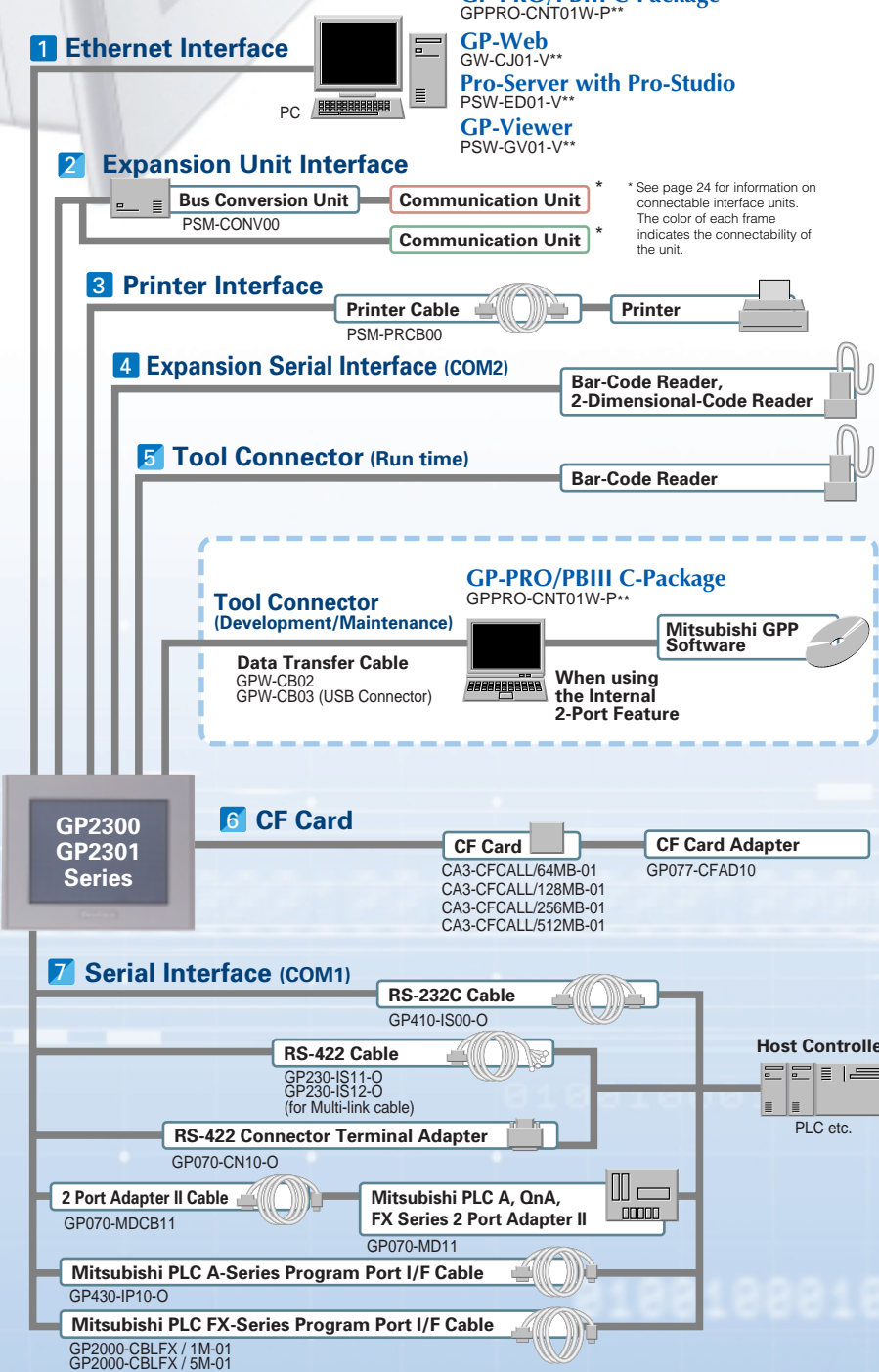
Ethernet Model



Cost-efficient Model

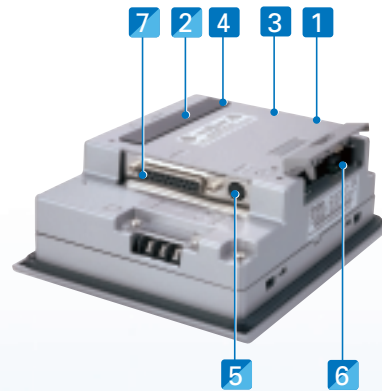


SYSTEM DESIGN

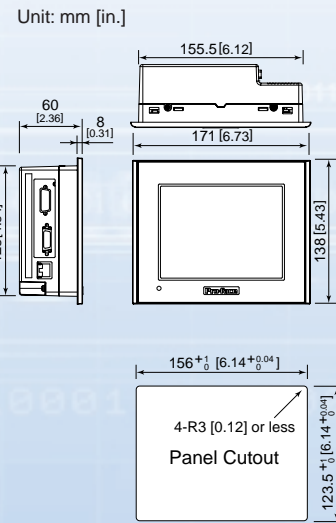


INTERFACES

- GP2300 Series Only.
- GP2300 and GP2301 Series can be used.



EXTERNAL DIMENSIONS



FUNCTIONAL SPECIFICATIONS

| Model | GP2300-TC41-24V | GP2300-SC41-24V | GP2300-LG41-24V | Model | GP2301-TC41-24V | GP2301-SC41-24V | GP2301-LG41-24V |
|-----------------------------------|--|--|--|--------------------------|--|--|--|
| Display Type | TFT Color LCD | STN Color LCD | Monochrome LCD | Display Type | TFT Color LCD | STN Color LCD | Monochrome LCD |
| Display Colors | 256 colors *1 | 64 colors | Black and White or 8 Levels of Gray | Display Colors | 256 colors *1 | 64 colors | Black and White or 8 Levels of Gray |
| Backlight | CCFL (Service life: 50,000 hrs. at 25 °C and 24hr. operation) | User replaceable CCFL (Service life: 50,000 hrs. at 25 °C and 24hr. operation) | User replaceable CCFL (Service life: 50,000 hrs. at 25 °C and 24hr. operation) | Backlight | CCFL (Service life: 50,000 hrs. at 25 °C and 24hr. operation) | User replaceable CCFL (Service life: 50,000 hrs. at 25 °C and 24hr. operation) | User replaceable CCFL (Service life: 50,000 hrs. at 25 °C and 24hr. operation) |
| Display Resolution | 320 x 240 pixels | | | Display Resolution | 320 x 240 pixels | | |
| Effective Display Area | W115.2mm [4.54in.] x H86.4mm [3.40in.] | | | Effective Display Area | W115.2mm [4.54in.] x H86.4mm [3.40in.] | | |
| Brightness Control | 4 levels of adjustment available via touch panel | | | Brightness Control | 4 levels of adjustment available via touch panel | | |
| Contrast Adjustment | 8 levels of adjustment available via touch panel | | | Contrast Adjustment | 8 levels of adjustment available via touch panel | | |
| Language Fonts | ASCII: (Code page 850) Alphanumeric (including European characters) Chinese: (GB2312-80 codes) simplified Chinese fonts Japanese: ANK 158, Kanji: 6962 (JIS Standards 1 and 2) Korean: (KSC5601-1992 codes) Hangul fonts Taiwanese: (Big 5 codes) traditional Chinese fonts | | | Language Fonts | ASCII: (Code page 850) Alphanumeric (including European characters) Chinese: (GB2312-80 codes) simplified Chinese fonts Japanese: ANK 158, Kanji: 6962 (JIS Standards 1 and 2) Korean: (KSC5601-1992 codes) Hangul fonts Taiwanese: (Big 5 codes) traditional Chinese fonts | | |
| Text | 8 x 8 dots | 40 Char. x 30 rows | | Text | 8 x 8 dots | 40 Char. x 30 rows | |
| | 8 x 16 dots | 40 Char. x 15 rows | | | 8 x 16 dots | 40 Char. x 15 rows | |
| | 16 x 16 dots | 20 Char. x 15 rows | | | 16 x 16 dots | 20 Char. x 15 rows | |
| | 32 x 32 dots | 10 Char. x 7 rows | | | 32 x 32 dots | 10 Char. x 7 rows | |
| Character Sizes*2 | 8 x 8 dot font, 8 x 16 dot font, 16 x 16 dot font, 32 x 32 dot font | | | Character Sizes*2 | 8 x 8 dot font, 8 x 16 dot font, 16 x 16 dot font, 32 x 32 dot font | | |
| Font Sizes | Width: 1~8 times expandable / Height: 1/2*3, 1~8 times expandable | | | Font Sizes | Width: 1~8 times expandable / Height: 1/2*3, 1~8 times expandable | | |
| Touch Panel Resolution | 16 x 12 keys / screen - 1 or 2 point touch selectable | | | Touch Panel Resolution | 16 x 12 keys / screen - 1 or 2 point touch selectable | | |
| Operation Status LED | Green : Normal Operation; Orange : Backlight Burn-out | | | Operation Status LED | Green : Normal Operation; Orange : Backlight Burn-out | | |
| Application | 2MB FEPR0M (Approx. 640 screens at 3.2KB/screen) | | | Application | 1MB FEPR0M (Approx. 320 screens at 3.2KB/screen) | | |
| Data Backup | 256KB SRAM — uses a rechargeable lithium battery*4 | | | Data Backup | 128KB SRAM — uses a rechargeable lithium battery*4 | | |
| Serial Interface (COM1) | Asynchronous Transmission : RS-232C/RS-422 Data Length : 7 or 8 bits Stop Bit : 1 or 2 bits Parity : None, Odd or Even Data Transmission Speed : 2,400bps to 115.2kbps (MPI: 187.5kpbs)*5 | | | Serial Interface (COM1) | Asynchronous Transmission : RS-232C/RS-422 Data Length : 7 or 8 bits Stop Bit : 1 or 2 bits Parity : None, Odd or Even Data Transmission Speed : 2,400bps to 115.2kbps (MPI: 187.5kpbs)*5 | | |
| Expansion Serial Interface (COM2) | Asynchronous Transmission : RS-232C Data Length : 7 or 8 bits Stop Bit : 1 or 2 bits Parity : None, Odd or Even Data Transmission Speed : 2,400 bps to 38.4kbps | | | Tool Connector Interface | Asynchronous TTL level nonprocedural command I/F -<During screen file development> Used for transferring data to and from the GP application software and the GP. Used for data transfer with the 2-Port feature. -<During Operation> Used for a variety of devices, including a bar-code reader. | | |
| Ethernet Interface | IEEE802.3, 10BASE-T | | | CF Card Interface | 1 slot (CompactFlash™) | | |
| Tool Connector Interface | Asynchronous TTL level nonprocedural command I/F -<During screen file development> Used for transferring data to and from the GP application software and the GP. Used for data transfer with the 2-Port feature. -<During Operation> Used for a variety of devices, including a bar-code reader. | | | Printer Interface | Compatible with NEC PC-PR201, PL, EPSON ESC/P24-J84(C), HP Laser Jet PCL 4 command, EPSON PM/Styleus (6-color ink), EPSON Stylus (4-color ink) compatible printers*6 | | |

GENERAL SPECIFICATIONS

| Model | GP2300-TC41-24 V | GP2300-SC41-24V | GP2300-LG41-24V | GP2301-TC41-24 V | GP2301-SC41-24V | GP2301-LG41-24V |
|---|---|-----------------|-----------------|------------------|-----------------|-----------------|
| Rated Voltage | DC24V | | | | | |
| Rated Voltage Range | DC19.2V to DC28.8V | | | | | |
| Power Consumption | 22W or less | | | | | |
| Allowable Voltage Drop | 10ms or less | | | | | |
| Voltage Endurance | AC1000V 20mA for 1 minute (between charging and FG terminals) | | | | | |
| Insulation Resistance | 20MΩ or higher at DC500V (between charging and FG terminals) | | | | | |
| Operating Temperature | 0°C to +50°C*1 | | | | | |
| Storage Temperature | -20°C to +60°C | | | | | |
| Humidity | 10%RH to 90%RH (Non-condensing, wet bulb temperature:39°C or less) | | | | | |
| Storage Humidity | 10%RH to 90%RH (Non-condensing, wet bulb temperature:39°C or less) | | | | | |
| Vibration Resistance | IEC61131-2 (JIS B 3502) compliant When vibration is NOT continuous: 10Hz to 57Hz 0.075mm, 57Hz to 150Hz 9.8m/s ² When vibration is continuous: 10Hz to 57Hz 0.035mm, 57Hz to 150Hz 4.9m/s ² X, Y, Z directions for 10 times (80min.) | | | | | |
| Noise Immunity (via noise simulator) | Noise Voltage: 1000Vp-p Pulse Duration: 1 μs Arise Time: 1ns | | | | | |
| Corrosive Gasses | Free of corrosive gasses | | | | | |
| Electrostatic Discharge Immunity | 6kV (complies with EN 61000-4-2 Level 3) | | | | | |
| Certifications | EN55011 Class A, EN61000-6-2, UL60950, UL1604 | | | | | |
| Grounding | 100Ω or less, or your country's applicable standard*2 | | | | | |
| Grounding | Equivalent to IP65f (JEM 1030) *3 / NEMA#250 TYPE4 X/12 | | | | | |
| Ratings (For front panel of installed unit) | Natural air circulation | | | | | |
| Cooling Method | 1.2kg (2.65lb) or less | | | | | |
| Weight | W171mm[6.73in.] x H138mm[5.43in.] x D60mm[2.36in.] | | | | | |
| External Dimensions | W171mm [6.73in.] x H138mm [5.43in.] x D60mm [2.36in.] | | | | | |
| Panel Cutout Dimensions | 156 ⁺⁰ mm [6.14 ^{+0.04} in.] x 123.5 ⁺⁰ mm [4.86 ^{+0.04} in.] (Panel thickness: 1.6mm[0.06in.] to 5mm[0.2in.]) | | | | | |

*1 The LCD displays of GP-2300L, GP-2300S, GP-2301L and GP-2301S may occasionally blur when they are used for hours at over 40°C ambient operating temperature. This is a temporary phenomenon. After the temperature returns to normal, the display will be restored to normal. The GP's operation will not be affected even though the display is blurred.

*2 Grounding requirements differ from country to country. Be sure to confirm your work environment requirements prior to installation. For more information, please contact your Pro-face distributor.

*3 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.

GP2000H Series



GP-2401HT

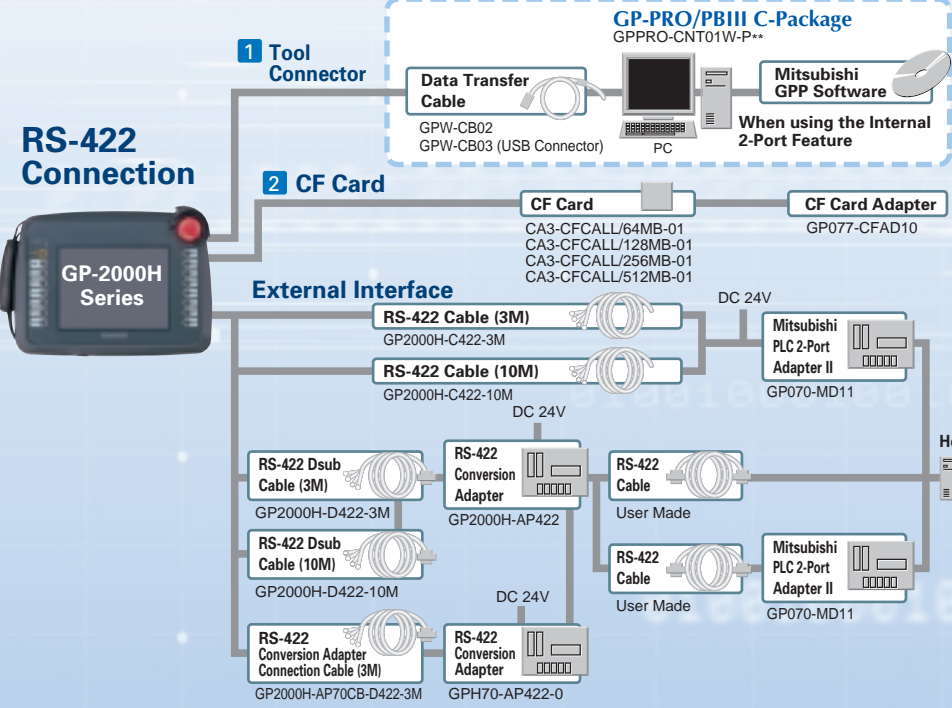
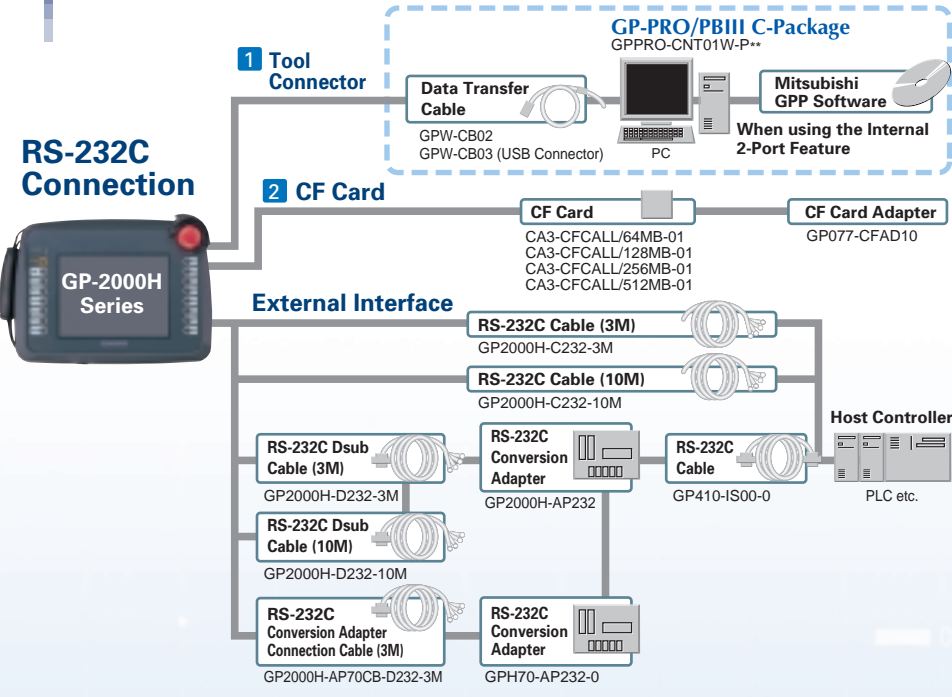


GP-2301HS



GP-2301HL

SYSTEM DESIGN



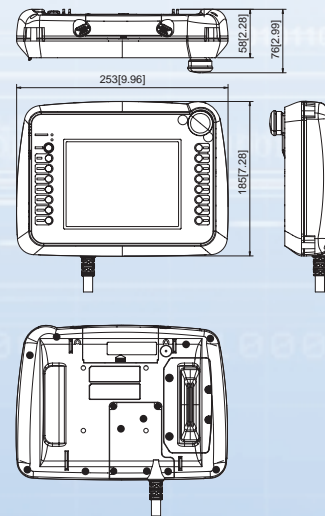
INTERFACES



* Photo shows GP-2301H*

EXTERNAL DIMENSIONS

Unit: mm [in.]



FUNCTIONAL SPECIFICATIONS

| Model | GP2401H-TC41-24V | GP2301H-SC41-24V | GP2301H-LG41-24V |
|------------------------|---|---|--|
| Display Type | TFT Color LCD | STN Color LCD | Monochrome LCD |
| Display Colors | 256 colors *1 | 64 colors | Black and White or 8 Levels of Gray |
| Backlight | CCFL (Service life: 50,000hrs, at 25°C and 24hr. operation) | | |
| Display Resolution | 640x 480 pixels | 320 x 240 pixels | |
| Effective Display Area | W132.5mm [5.22in.] x H99.4mm [3.91in.] | W115.2mm [4.54in.] x H86.4mm [3.40in.] | |
| Brightness Control | 4 levels of adjustment available via touch panel | | |
| Contrast Adjustment | 8 levels of adjustment available via touch panel. | | |
| Language Fonts | ASCII: (Code page 850) Alphanumeric (including European characters) Chinese: (GB2312-80 codes) simplified Chinese fonts Japanese: ANK 158, Kanji: 6962 (JIS Standards 1 and 2) Korean: (KSC5601-1992 codes) Hangul fonts Taiwanese: (Big 5 codes) traditional Chinese fonts | | |
| 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 |
| Character Sizes*2 | 8 x 8 dot font, 8 x 16 dot font, 16 x 16 dot font, 32 x 32 dot font | | |
| Font Sizes | Width: 1~8 times expandable / Height: 1/2*3, 1~8 times expandable | | |
| Touch Panel Resolution | 32 x 24 keys / screen - 1 or 2 point selectable | 16 x 12 keys / screen - 1 or 2 point touch selectable | |
| Operation Status LED | Green : Normal Operation; Orange : Backlight Burn-out | | |
| Memory | Application | 2MB FEPR0M (Approx. 640 screens at 3.2KB/screen) | 1MB FEPR0M (Approx. 320 screens at 3.2KB/screen) |
| | Data Backup | 128KB SRAM - uses a lithium battery*4 | |
| Function Switches | 15 (DOUT Output: F1, F2) | | 11 (DOUT Output: F1, F2) |
| | Operation Switches | | |
| External Interfaces | DOUT Output | 2-point (F1, F2) open collector output Rated voltage: DC24V Rated current: 300mA/point Max. | |
| | Operation Output | 1-point (F1, F2) open collector output Rated voltage: DC24V Rated current: 300mA/point Max. | |
| | Buzzer Output | 1-point (F1, F2) open collector output Rated voltage: DC24V Rated current: 300mA/point Max. | |
| | Emergency Switch Output | 2 Contacts (NC) Rated Voltage: DC 30V Rated Current: 1A max. (Applicable Load: 1mA DC 5V min.) Open Collector Output: 1 point Rated voltage: DC 24V Rated Current: 300mA max. | |
| | 3-Position Enable Switch Output | 2 Contacts (NO)*5 Rated Voltage: DC 24V Rated Current: 300mA max. (Applicable Load: 4mA DC 24V min.) | |
| | Serial Interface (COM1) | Asynchronous Transmission : RS-232C/RS-422 Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, Odd or Even Data Transmission Speed: 2,400bps to 115.2kpbs (MPI: 187.5kpbs)*6 | |
| | Tool Connector Interface | Asynchronous TTL level nonprocedural command I/F <During screen file development> Used for transferring data to and from the GP application software and the GP. Used for data transfer with the 2-Port feature. | |
| | CF Card Interface | 1 slot (CompactFlash™) | |

*1 Changing the "Colors" setting to "256 color" will disable the blinking feature on all screens in your project. If you wish to use the blinking feature, select "64 colors".
 *2 The font size varies depending on selected language and enlargement ratio.
 *3 Only available when using "12 2 Byte Character" settings via software. (Only Japanese, Chinese, Taiwanese, and Korean characters)
 *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 backup :
 • Approximately 60 days, with a fully charged battery.
 • Approximately 6 days, with a half-charged battery.
 *5 When GP-H70 Compatibility mode is selected, 1 Contact (NO).
 *6 SIEMENS SIMATIC S7-200/300/400 series (MPI port only). Please contact your Pro-face sales representative for supported models and other details.

GENERAL SPECIFICATIONS

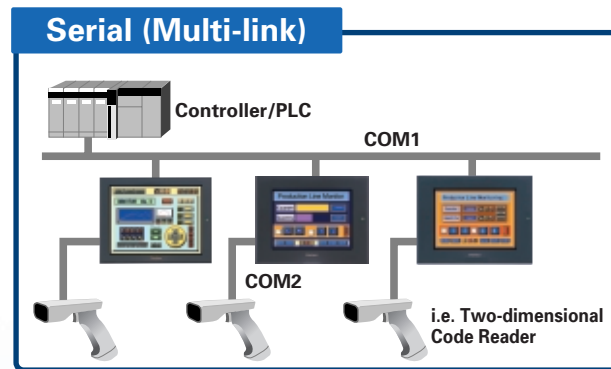
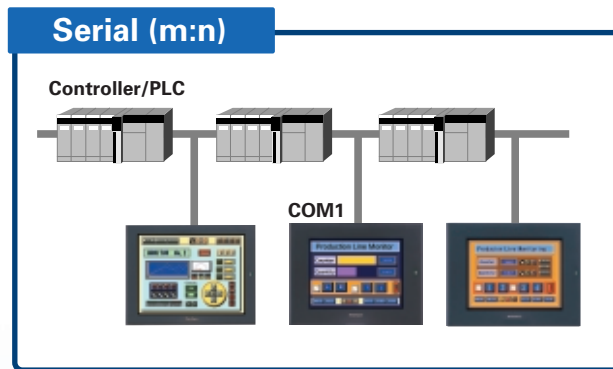
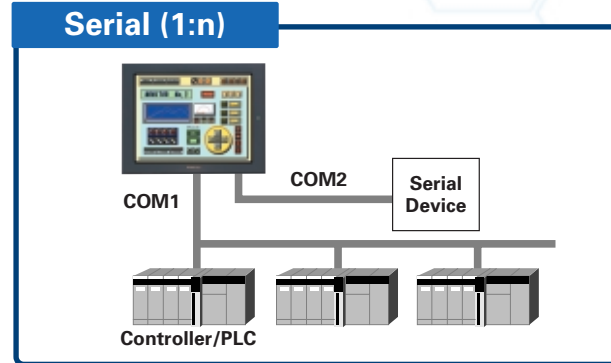
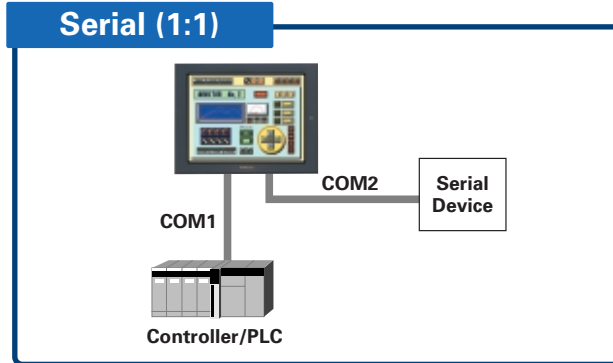
| Model | GP2401H-TC41-24V | GP2301H-SC41-24V | GP2301H-LG41-24V |
|---------------------|--|---|------------------|
| Electrical | Rated Voltage | DC24V | |
| | Rated Voltage Range | DC19.2V to DC28.8V | |
| | Power Consumption | 15W max. | |
| | Allowable Voltage Drop | 10ms max. | |
| | Voltage Endurance | AC 500V 20mA for 1 minute (between charging and FG terminals) | |
| Environmental | Insulation Resistance | 20MΩ or more at DC500V (between charging and FG terminals) | |
| | Operating Temperature | 0°C to +40°C | |
| | Storage Temperature | -20°C to +60°C | |
| | Humidity | 10%RH to 90%RH (non-condensing, wet bulb temperature: 39°C or less) | |
| | Storage Humidity | 10%RH to 90%RH (non-condensing, wet bulb temperature: 39°C or less) | |
| Structural | Vibration Resistance | IEC61131-2 (JIS B 3502) compliant When vibration is NOT continuous: 10Hz to 57Hz 0.075mm, 57Hz to 150Hz 9.8m/s² When vibration is continuous: 10Hz to 57Hz 0.035mm, 57Hz to 150Hz 4.9m/s²; 10 times (80min.) for each (X, Y, Z) direction | |
| | Shock Resistance | IEC61131-2 (JIS B 3502) compliant, 147m/s² Release time: 1ms, Twice for each (X, Y, Z) direction | |
| | Drop Resistance | IEC61131-2 (JIS B 3502) compliant (1.0-meter drop, twice) | |
| | Noise Immunity (via noise simulator) | Noise Voltage: 1000Vp-p Pulse Duration: 1 μs Arise Time: 1ns | |
| | Corrosive Gasses | Free of corrosive gasses | |
| | Electrostatic Discharge Immunity | 6kV (EN61000-4-2 Level 3) | |
| | Certifications | EN55011 Class A, EN61000-6-2, UL60950 | |
| | Grounding | 100Ω Max., or your country's applicable standard*1 | |
| | Rating (For front face of installed unit) | Equivalent to IP65f (JEM1030) / NEMA #250 TYPE 4X/12*2 | |
| | Cooling Method | Natural air circulation | |
| Weight | 1.2kg (2.65lb) | | |
| External Dimensions | W253mm[9.96in.] x H185mm[7.28in.] x D58mm[2.28in.] (excluding projections) | | |

*1 Grounding requirements differ from country to country. Be sure to confirm your work environment requirements prior to installation.
 For more information, please contact your Pro-face distributor.
 *2 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.

Communication Connectivity

SERIAL CONNECTIONS

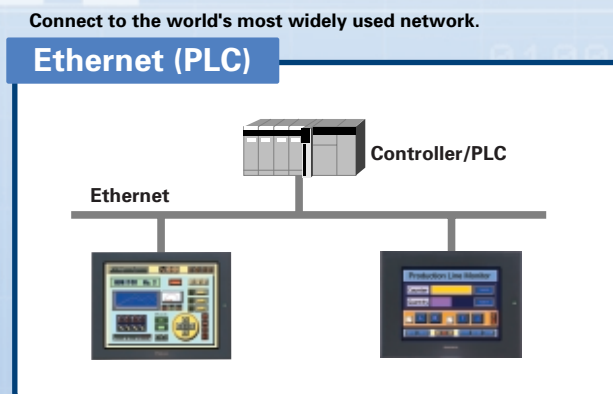
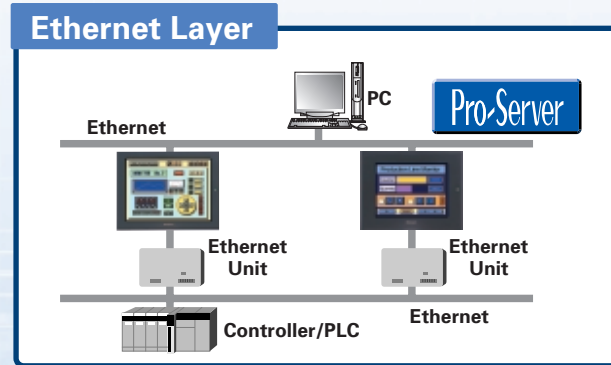
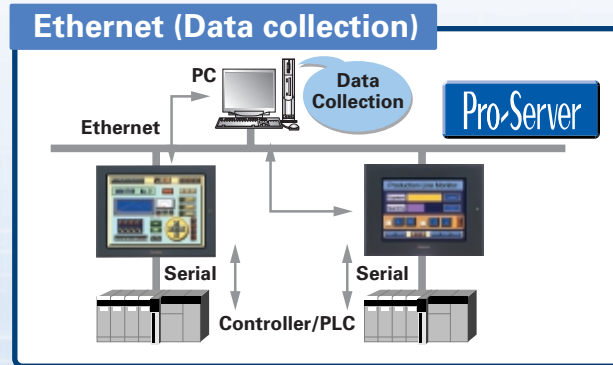
Use the RS-232C/RS-422 communication port to connect at up to 115.2 kbps to over 600 different PLCs and controllers.



Worldwide Controllers Supported Page ► 18
* Supported connection methods depends on a used controller and driver.

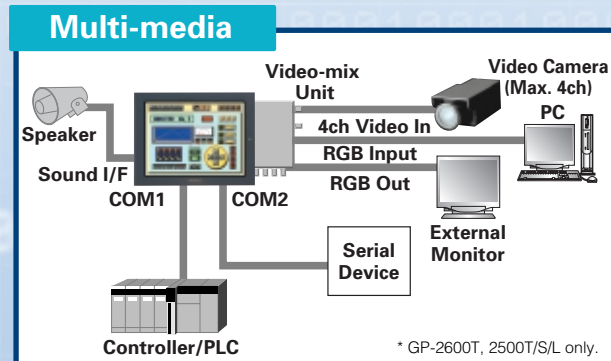
ETHERNET NETWORK

The Pro-Server with Pro-Studio software allows the host PC to collect PLC data via GP to common applications, such as Microsoft Excel or Access database.



VIDEO-MIX CONNECTION

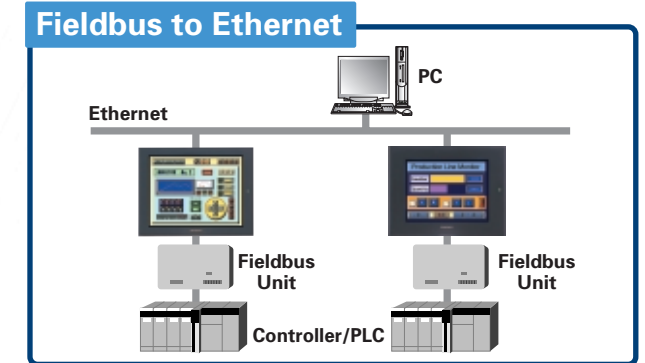
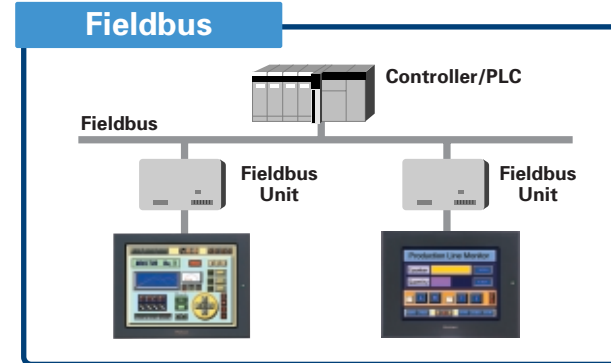
Display images from external video cameras and PCs on a single unit, and output the GP screen display to an external monitor.



* GP-2600T, 2500T/S/L only.

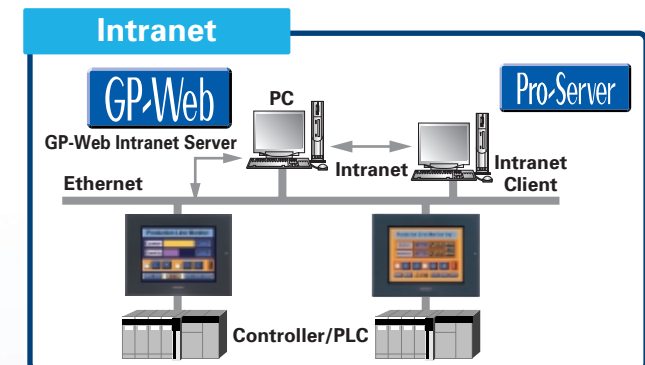
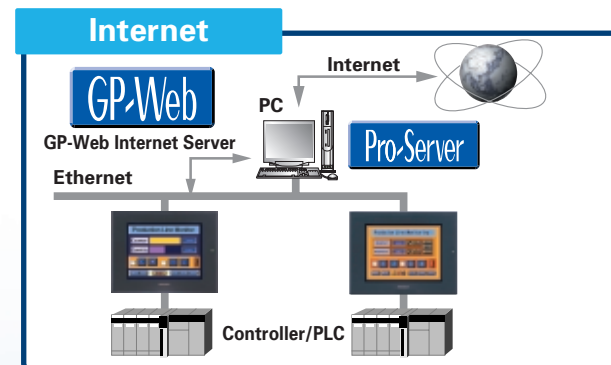
FIELDBUS CONNECTIONS

Attach an optional network unit and connect your GP to a variety of field networks.



REMOTE MONITORING

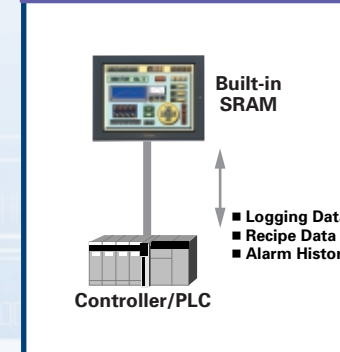
GP-Web enables remote monitoring of factory floor data anytime and anywhere without special programming.



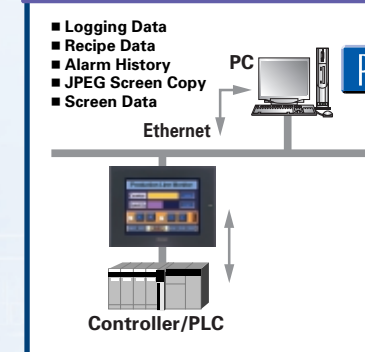
ETHERNET NETWORK

DATA HANDLING

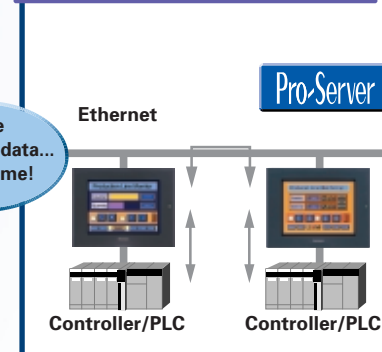
SRAM Data Storage



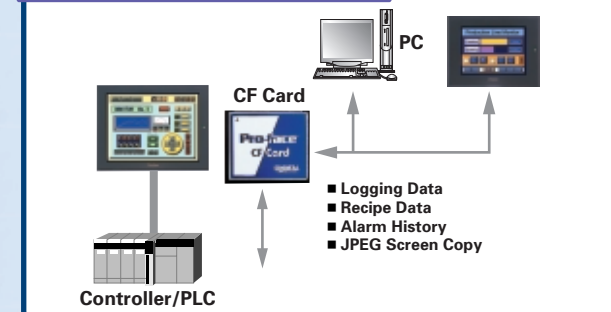
Network Data Collection



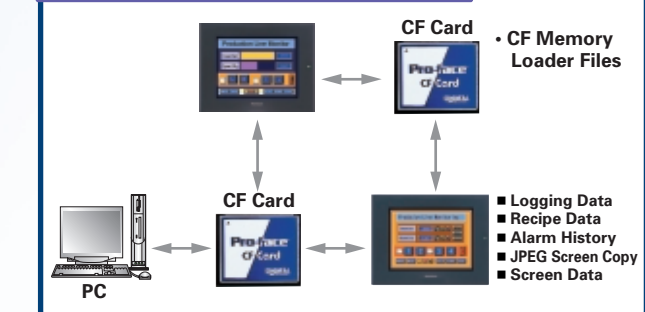
Peer-to-Peer Data Sharing



CF Card Data Handling



CF Card Data Maintenance



OMRON

Table listing OMRON SYSMAC CS1 and CJ series PLC models with columns for CPU, Link, Direct, 1:n, Multi-Link, Device-Net, and Ethernet.

Table for ORIMVEXTA series with columns for Series Name, CPU, and Link.

Table for Rockwell (Allen-Bradley) E1 series with columns for Series Name, CPU, and Link.

Table listing Rockwell SLC500 and PLC-5 series PLC models with columns for Series Name, CPU, Link, Direct, Multi-Link, Device-Net, DH+, DH485, Remote I/O, and Ethernet.

Table listing Control Logix 5000 series PLC models with columns for Series Name, CPU, Link, Direct, Profibus, MPI, INTERBUS, and Ethernet.

Table listing MicroLogix 1000 series PLC models with columns for Series Name, CPU, Link, Direct, Profibus, MPI, INTERBUS, and Ethernet.

Table listing MicroLogix 1200 series PLC models with columns for Series Name, CPU, Link, Direct, Profibus, MPI, INTERBUS, and Ethernet.

Table listing MicroLogix 1500 series PLC models with columns for Series Name, CPU, Link, Direct, Profibus, MPI, INTERBUS, and Ethernet.

Table listing CompactLogix series PLC models with columns for Series Name, CPU, Link, Direct, Profibus, MPI, INTERBUS, and Ethernet.

Schneider Electric

Table listing Schneider Electric Nano and Micro series PLC models with columns for Series Name, CPU, Modbus RTU, Modbus TCP, and Uni-Telway.

Schneider Electric

Table listing Schneider Electric Premium, Twido, and Quantum series PLC models with columns for Series Name, CPU, Modbus RTU, Modbus TCP, and Uni-Telway.

Sharp

Table listing Sharp New Satellite JW series PLC models with columns for Series Name, CPU, Link, and Multi-Link.

Shinko Electric

Table listing Shinko Electric SELMART series PLC models with columns for Series Name, CPU, and Link.

SIEMENS

Table listing Siemens SIMATIC S5 series PLC models with columns for Series Name, CPU, Link, Direct, Profibus, MPI, INTERBUS, and Ethernet.

SIEMENS

Table listing Siemens SIMATIC S7-200 series PLC models with columns for Series Name, CPU, Link, Direct, Profibus, MPI, INTERBUS, and Ethernet.

SIEMENS

Table listing Siemens SIMATIC S7-300 series PLC models with columns for Series Name, CPU, Link, Direct, Profibus, MPI, INTERBUS, and Ethernet.

SIEMENS

Table listing Siemens SIMATIC S7-400 series PLC models with columns for Series Name, CPU, Link, Direct, Profibus, MPI, INTERBUS, and Ethernet.

Schneider Electric

Table listing Schneider Electric SIMATIC 505 series PLC models with columns for Series Name, CPU, Modbus RTU, Modbus TCP, and Uni-Telway.

Toshiba

Table listing Toshiba PROSEC EX and T series PLC models with columns for Series Name, CPU, Link, Multi-Link, and Ethernet.

Toshiba

Table listing Toshiba PROSEC T, PROVISO B, and V Series PLC models with columns for Series Name, CPU, Link, Multi-Link, and 1:n.

Toshiba Machine

Table listing Toshiba Machine PROVISO TC200 series PLC models with columns for Series Name, CPU, and Link.

Toyoda Machine Works

Table listing Toyoda Machine Works TOYOPUC-PC2 and TOYOPUC-PC3 series PLC models with columns for Series Name, CPU, Link, and 1:n.

Yaskawa Electric

Table listing Yaskawa Electric Memocon-SC series PLC models with columns for Series Name, CPU, Link, Direct, Multi-Link, and Ethernet.

Yaskawa Electric

Table listing Yaskawa Electric Control Pack series PLC models with columns for Series Name, CPU, Link, Direct, Multi-Link, and Ethernet.

Yokogawa

Table listing Yokogawa FACTORY ACE and STARDOM series PLC models with columns for Series Name, CPU, Link, Direct, 1:n, Multi-Link, n:m, Ethernet, and Device-Net.

Ubon

Table listing Ubon UPZ series PLC models with columns for Series Name, CPU, and Link.

Fuji Electric

Table listing Fuji Electric FRENCIS and FVR series PLC models with columns for Series Name, Inverters, and 1:n.

Hitachi Industrial Equipment Systems

Table listing Hitachi Industrial Equipment Systems SJ300 and L300P series PLC models with columns for Series Name, Inverters, and 1:n.

Mitsubishi Electric

Table listing Mitsubishi Electric FREQROL series PLC models with columns for Series Name, Inverters, and 1:n.

Mitsubishi Electric

Table listing Mitsubishi Electric FREQROL-B3 series PLC models with columns for Series Name, Inverters, and 1:n.

Toshiba Schneider Inverter

Table listing Toshiba Schneider Inverter VF-S9, VF-nC1, VF-S11, and VF-A7 series with columns for Series Name, Inverters, and 1:n.

Yaskawa Electric

Table listing Yaskawa Electric Varspeed G7, Varspeed F7, VS mini V7, and VS mini J7 series with columns for Series Name, Inverters, and 1:n.

Temperature Controllers

Chino

Table listing Chino LT and JU series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

Fenwal Controls of Japan

Table listing Fenwal Controls of Japan AL Series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

Fuji Electric

Table listing Fuji Electric Micro Controller-X (PXR) series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

OMRON

Table listing OMRON E5_N Digital Temperature Controller series with columns for Series Name, Temperature Controllers, and 1:n.

RKC Instrument

Table listing RKC Instrument CB Series and SR-Mini series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

Toho Denshi

Table listing Toho Denshi REX-F and SR Mini HG series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

MA900

Table listing MA900 series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

HA400

Table listing HA400 series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

RKC Instrument

Table listing RKC Instrument HA400 and SA200 series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

Shimaden

Table listing Shimaden SR253 and SR80 series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

SR90

Table listing SR90 series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

MR13

Table listing MR13 series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

FP93

Table listing FP93 series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

SD16

Table listing SD16 series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

EM70

Table listing EM70 series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

Shinko Technos

Table listing Shinko Technos C and FC series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

FIR

Table listing FIR series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

GC

Table listing GC series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

FCL

Table listing FCL series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

PC-900

Table listing PC-900 series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

PCD-33A

Table listing PCD-33A series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

JCR-33A

Table listing JCR-33A series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

JCD-33A

Table listing JCD-33A series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

JJR-301-M

Table listing JJR-301-M series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

DCL-33A

Table listing DCL-33A series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

Yamatake

Table listing Yamatake SDC series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

DMC

Table listing DMC series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

Yokogawa M&C

Table listing Yokogawa M&C UT100, UT2000, and GREEN SERIES series Temperature Controllers with columns for Series Name, Temperature Controllers, and 1:n.

Servos

Matsushita Electric

Table listing Matsushita Electric MINAS-A and MINAS-S series Servos with columns for Series Name, Servos, and 1:n.

Analyzer

JT Engineering

Table listing JT Engineering JE-70 series Analyzer with columns for Series Name, Analyzer, and 1:n.

Bar-Code Readers

2-D Code Reader (Connected to Expansion Serial Interface)

Table listing 2-D Code Readers with columns for Series Name, Series Name, and Type.

Bar Code Readers (Connected to Tool Connector)

Table listing Bar Code Readers with columns for Series Name, Series Name, and Type.

Bar Code Readers (Connected to Expansion Serial Connector)

Table listing Bar Code Readers with columns for Series Name, Series Name, and Type.

Bar Code Readers (Connected to Expansion Serial Connector)

Table listing Bar Code Readers with columns for Series Name, Series Name, and Type.

Speakers

Table listing Arrow Electronics and Noboru Electric series Speakers with columns for Series Name, Series Name, and Connection Port.

GP2600/2500/2400 Series only.

The equipment in the above list is supported by "2000 series" or newer GP models. Some of this equipment is not supported by earlier GP models. There are also precautions and other information related to their connection. For details, please refer to the Device/PLC Connection Manual.

*New equipment is being added to this list regularly. Please consult your Pro-face sales representative for the latest information.

n:1(Multi-link) = multiple GPs; 1 PLC *1:n = 1 GP; multiple PLCs *n:m = multiple GPs; multiple PLCs *Some usage restrictions exist for Pro-Server. Please refer to the Pro-Server User's Manual for details.

EASY SCREEN CREATION & LOGIC PROGRAM DEVELOPMENT

Screen Editor and Logic Program Development Software

GP-PRO/PBIII C-Package

GPPRO-CNT01W-P**



High Visibility Menu Screen. Easy Programming for Beginners.

The Parts Palette and Editor Screen now appear in the same screen, so you can place parts quickly and easily by simply dragging them from the palette and dropping them on the screen. Positioning the cursor over a tag icon also brings up an explanation of that tag's operation, to help you create and edit screens.

Flexible screen design using tags

- Simultaneously display up to three windows. (Two U tag windows, three windows in total)
- Display the alarm history (Q tag).
- Easy, panel-touch operation setting (T tag).



Attractive Fonts

Windows font display

Windows fonts can be displayed as bitmap data on the GP screen just as you want them.

Integral-multiple fonts

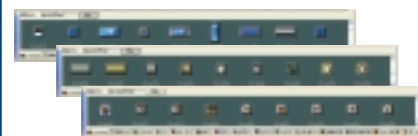
Now you can enlarge fonts in the usual scaling factors of 1, 2, 4 and 8, and in any magnification rate between 1 and 8. This lets you precisely adjust character size to match your layout.



Beautiful Graphics

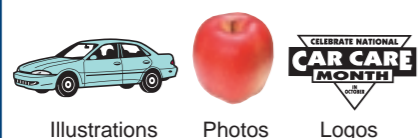
Select from 1,200 image parts

Create screens quickly and easily by simply arranging parts and marks selected from 1,200 available types.



Create and use your own BMP parts

Create your own parts or use parts created in the past.



Worldwide Compatibility

Touch panel language switching

By simply presetting a multiple language table on the touch panel, you can switch the text display with a single touch during operation. The import/export function for multiple language tables lets you easily input and translate CSV files.



EASY SCREEN CREATION

Time Scheduling

This function makes it easier to set up devices and handle routine tasks.

Bit On/Off and word setting can be scheduled by day of the week or for a specific time. The weekly and time setting can also be changed on the display device.



Improved Keypad Display Function

We expanded the setting parameter display function for more efficient on-screen input.

- Touch input for input mode activation.
- A sequence designation function for inputting multiple items (with the group function).
- Designation of the change notification bit for individual setting parameter displays.
- A more flexible arrangement for the popup keyboard.



Improved Editing

We made about 30 improvements to further enhance usability and convenience.

Upgrade Points C- Package03

Security Level Function

Restrict user access depending by operator level.

Use the 15-level password protection function to restrict access to specific screens, such as management and maintenance screens. This protection function helps to improve screen security, which also means greater safety for machines that are unattended or installed off-site.



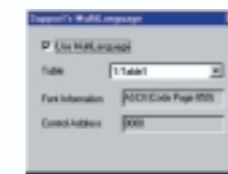
Expanded Alarm Summary Display Function Using Q Tags

We expanded and improved the Q tag function for alarm display.

- Generation count, cumulative time and level information added.
- Alarm sorting function (by date, generation count, etc.).
- The number of blocks were increased from the previous 3 to 8.
- Different colors for different level messages.

Text Screen's Multi-language Function

The text screen now supports multiple languages. A and X tags can be used to display different languages.



Share General-Purpose Data for Editing

| | | | | | |
|--------------------------------|-----------------------------------|---------------------------------|-------------------------------------|--------------------------------|--|
| TXT Notepad, Wordpad | DXF AutoCAD* (Autodesk) | CSV Excel (Microsoft) | BMP/JPG Photoshop (Adobe) | RTF Word (Microsoft) | WAV Media Player (Microsoft) |
|--------------------------------|-----------------------------------|---------------------------------|-------------------------------------|--------------------------------|--|

* Can be used for a Release 12 program.

GP-PRO/PBIII C-Package03 Software Environment Specifications

| Product No. | PC | Screen Resolution | Hard Disk Space | Memory | Drive Type | OS | Network Protocol |
|------------------|--|-----------------------------------|--|---|--------------|---|-------------------------------------|
| GPPRO-CNT01W-P03 | Windows® compatible PC with Intel PentiumIII 266MHz or faster. | SVGA (800 x 600 pixels) or higher | Minimum: 85 MB Recommended: 215 MB or more | Minimum: 32MB Recommended: 64MB or more | CD-ROM Drive | Windows® 95/98/2000/Me/XP Windows NT® (4.0 or later) (Windows NT® 4.0: Service Pack 3 or later) | TCP/IP (Set from the control panel) |

REAL-TIME DATA COLLECTION

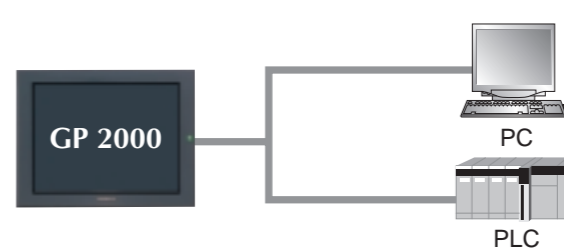
Data Collection Software

Pro-Server with Pro-Studio

PSW-ED01-V**



Data from the production sites can be collected by Pro-Server and sent to various PC applications in real-time. Automatic collection of production data makes great support for improving both productivity and quality.

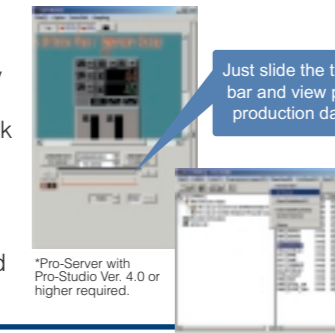


Pro-Server Add-on Software

GP-Viewer

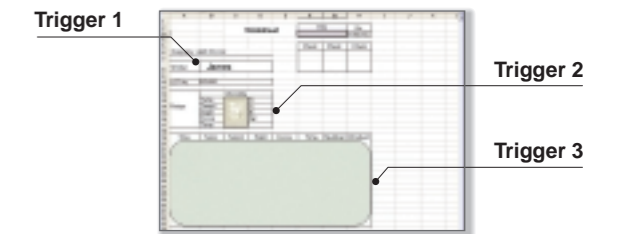
PSW-GV01-V**

GP screen at the production site can be monitored directly on Pro-Server. Use the data playback feature to check previously recorded production data and visually trace the source of hard-to-find problems.



NEW EXCEL REPORT

Use multiple provider triggers to collect data on a single sheet



- Update data with the Excel window open.
- Paste not only device values but also text strings and JPEG images from logging, trend and other stored data.
- Use delivery triggers to switch or print worksheets and books.

DEVICE VIEWER

View past or present production data as easily as you would view a video.

Automatically records and collects production data, for immediate playback of either past or present line operating conditions.

Immediately send out orders from your office to the factory.

Alert control staff to important alarms.

Share Device/PLC Data - Regardless of the Manufacturer.

Remote Screen Image Capturing.

Re-use Collected Data in Other Software Applications. (Excel, SCADA, OPC, SQL, DDE, API)

REMOTE MONITORING

Web Operation Software

GP-Web

GW-CJ01-V**



The GP screen can be remotely monitored on a Web browser, saving both time and costs.

Access a wide variety of vital production data from remote locations.

Just connect GP-PRO/PBIII data — without special programming.

Monitor production conditions anytime, anywhere.

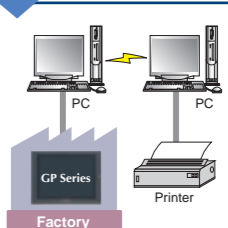
Check the conditions in real-time!

Using GP-Web, data from distant production sites can show actual conditions in real-time.



Create documents anywhere!

GP-Web can retrieve required data in CSV or JPEG format to analyze error histories or write up daily reports, anywhere, anytime.



Troubleshoot from a distance!

With complete grasp of the system status at your fingertips, you can save time going to the site for troubleshooting.

