



Easy! Smooth!

Replacement Guidebook (Hardware)

Pro-face IoT Gateway GP-4G01 → STM6000 Gateway STM-6B00

The 1st Edition Dec. 2021

Update History

| Date | Edition | Updated Slide | Description |
|------------|---------|---------------|---------------|
| 2021/12/20 | | - | Newly created |

Preface

This guidebook introduces the procedures to replace a unit from “Pro-face IoT Gateway” to a “STM6000 Gateway (GP-Pro EX)”. The recommended substitute models are as follows.

| Model in use | | Recommended substitutes | |
|---------------------------------|----------------|---|--------------|
| Pro-face IoT Gateway GP-4G01 | PFXGP4G01DNWLS | STM6000 Gateway (GP-Pro EX) STM-6B00 | PFXSTM6B00DE |

Safety Information

HAZARD OF OPERATOR INJURY, OR UNINTENDED EQUIPMENT DAMAGE

- Before operating any of these products, be sure to read all related manuals thoroughly.
- Be sure to do installation, connection, and maintenance by a person who is familiar with the construction method of electrical equipment, related laws and regulations, and has appropriate technology.

We shall not be liable for any serious injury to human life, damage to equipment, or any other consequences if used without observing these.

Agenda

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Summary

When not in use of Gateway mode, the replacement from Pro-face IoT Gateway to STM6000 Gateway (GP-Pro EX) generally keeps compatibility, but the following points are the main points to note.

If you are using Gateway mode with Pro-face IoT Gateway, there is no replacement model.

- External Dimensions are different. As all the dimensions of W x H x D are different, it is necessary to check the dimensions of the HMI installation location. Please refer to [3. Hardware Compatibility \(Page 10\)](#).
- Some interfaces are different (for example, no SD card slot on STM6000 Gateway). Please refer to [3. Hardware Compatibility \(Page 11\)](#).
- Both models adopt DIN Rail Mounting, but the installation procedures are different. Please refer to [3. Hardware Compatibility \(Page 12\)](#).
- Display resolution: you may need to convert resolution by the software to use old project data from Pro-face IoT Gateway. For more details, please refer to Chapter1 from software replacement procedure Replacement Guidebook (Software)_EN_ver2.pdf.

| | | | |
|-----------------------------|--|--|---|
| Pro-face IoT Gateway | 640 x 480 pixels (VGA) 800 x 480 pixels (WVGA) 800 x 600 pixels (SVGA) | STM6000 Gateway (GP-Pro EX) | 480 x 272 pixels (WQVGA) 800 x 480 pixels (WVGA) |
|-----------------------------|--|--|---|

1. Pro-face IoT Gateway vs STM6000 Gateway (GP-Pro EX) Spec Comparison -1. Basic information-

| | | Pro-face IoT Gateway GP-4G01 | STM6000 Gateway (GP-Pro EX) | Compatibility |
|-----------------------------|---------------|--|---|---|
| Input Voltage | | 24Vdc | 24Vdc | ○ |
| Ambient air temperature | | 0 to 60 ° C (Storage Temperature: -20 to 60 ° C) | 0 to 60 ° C (Storage Temperature: -20 to 60 ° C) | ○ |
| Display Colors | | 65,536 color | 16 million color | UP! |
| Display Resolution | | 640 x 480 pixels (VGA) 800 x 480 pixels (WVGA) 800 x 600 pixels (SVGA) | 480 x 272 pixels (WQVGA) 800 x 480 pixels (WVGA) | × |
| Number of connected drivers | | 4 (when not in use of gateway mode) | 2 | × |
| External Dimensions (mm) | | W46 x H162 x D126 | W150.49 x H109.97 x D63.3 (With DIN Rail Adapter) | × |
| Memory | Application | FLASH EPROM 32MB | FLASH EPROM 64MB | UP! Please refer to the FAQ for the available capacity of each memory. |
| | Local Storage | - | - | |
| | Backup Memory | SRAM 320KB | MRAM 320KB | |
| Backup Battery | | Replaceable battery / Primary battery for clock data backup | Not replaceable battery / Primary battery for clock data backup | × |
| Structure | | IP20 | IP20 | ○ |
| Mounting | | DIN Rail mount | DIN Rail mount | ○ |

1. Pro-face IoT Gateway vs STM6000 Gateway (GP-Pro EX) Spec Comparison -2. Interface-

| | | Pro-face IoT Gateway GP-4G01 | STM6000 Gateway (GP-Pro EX) | Compatibility | |
|--------------------------------|--------------|---|--|---|----------------------------------|
| Serial I/F | COM1/PLC | RS-232C/RS-422/RS-485 (D-Sub 9pin Plug) | RS-232C/RS-422/RS-485 (D-Sub 9pin Plug) Isolation unit | ○ Please check the manual for the communication cable. | |
| | HMI | RS-232C/RS-422/RS-485 (D-Sub 9pin Socket) | - | × | |
| Ethernet I/F | | x1: IEEE802.3u, 10BASE-T/100BASE-TX (RJ-45) | x2: IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX (RJ-45) | UP! | |
| CF card I/F | | - | - | ○ | |
| SD card I/F | | x1 SD Card Slot, SD/SDHC card of up to 32 GB | - | × | |
| USB I/F | Type A | x1 USB2.0 -USB transfer cable (CA3-USBCB-01) | x1 USB 2.0 | ○ | |
| | Type mini B | x1 USB2.0 -USB data transfer cable(ZC9USCBMB1) or commercial USB mini B transfer cable | - | × | Please use Type micro B instead. |
| | Type micro B | - | x1 USB 2.0 -USB transfer cable(PFXZUSCBMB2) or commercial USB microB transfer cable | UP! | |
| Auxiliary I/O I/F | | - | - | ○ | |
| Sound Output I/F | | - | - | ○ | |
| Field Bus / Expansion Unit I/F | | - | - | ○ | |

Hardware Manual: <https://www.proface.com/en/download/stm6000/manual/hardware>

2. Standards compatibility

○: supported
×: not supported

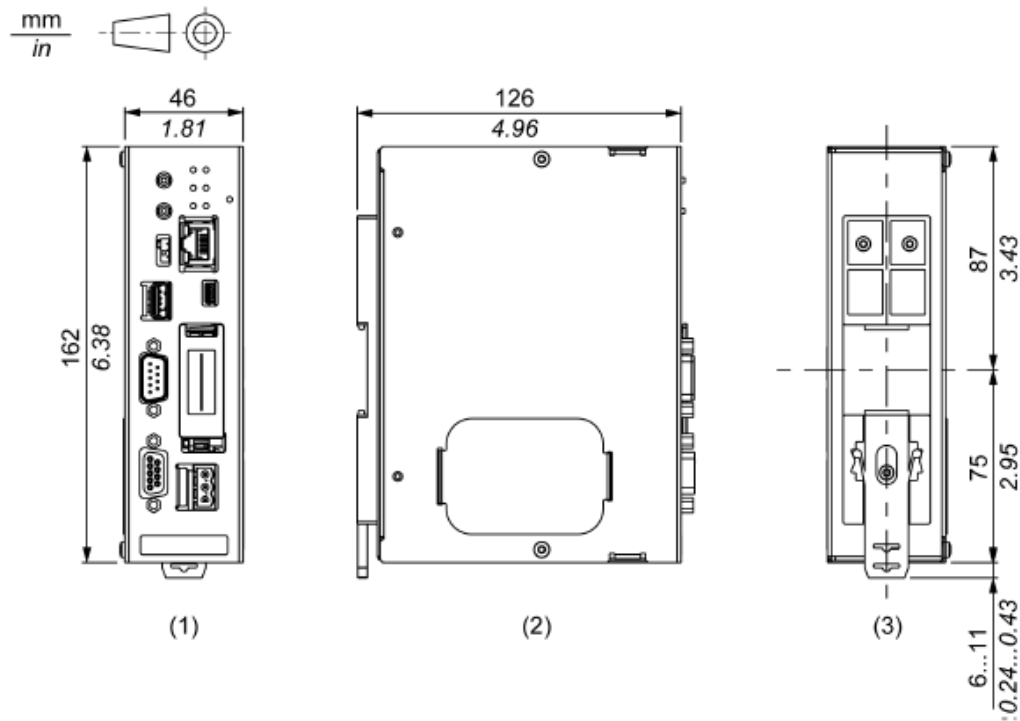
| Certification | Pro-face IoT Gateway | STM6000 Gateway (GP-Pro EX) |
|---|--|--|
| CE (EN61000-6-4, EN61000-6-2, EN61131-2) | ○ | ○ |
| UL/cUL | ○ (UL61010-2-201) (CSA C22.2 No.61010-2-201) | ○ (UL61010-2-201) (CSA C22.2 No.61010-2-201) |
| UL/cUL Class 1, Div. 2 | × | ○ (UL121201) (CSA C22.2 No213) |
| ATEX (Zones 2/22, equipment category 3 Gas Dust) | × | Planned *1 |
| IECEx (Zones 2/22, equipment category 3 Gas Dust) | × | |
| KCs | × | × |
| NEPSI | × | × |
| RCM (C-Tick) | ○ | ○ |
| EAC (GOST-R) | ○ | ○ *2 |
| RoHS for EU | ○ | ○ |
| RoHS for China | ○ | ○ |
| REACH | ○ | ○ |
| CCC *apply for CCC exemption | - | - |
| KC | ○ | ○ |
| Marine (DNV-GL, ABS, LR, BV, NK, RINA, CCS) | × | ABS, DNV-GL: ○ (RINA and BV: Planned *1) |
| WEEE | ○ | ○ |

*1: Please contact our Customer Service for the latest information.

*2: Certification is already available but Marking on the product will be supported later.(Please contact our Customer Service for the latest information.)

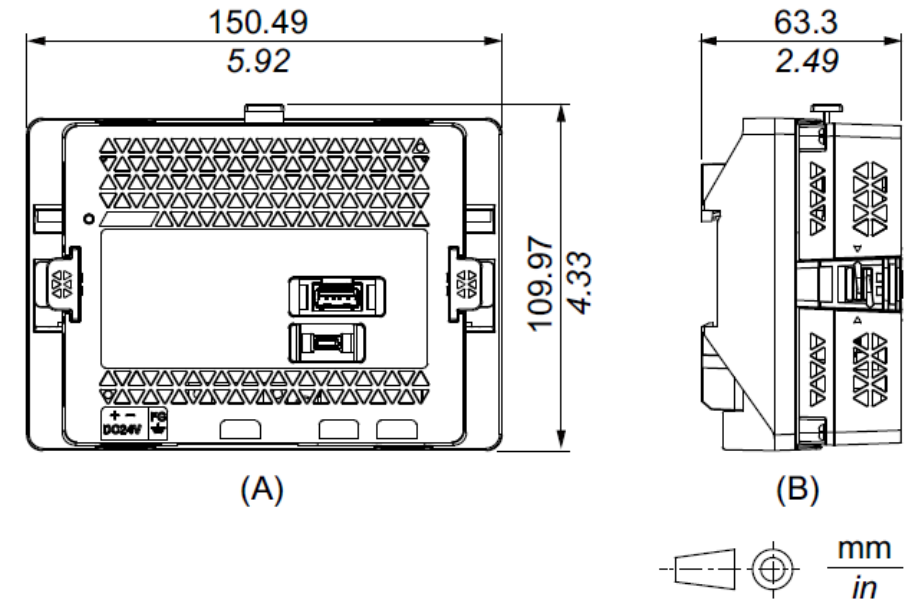
3. Hardware compatibility

Pro-face IoT Gateway GP-4G01



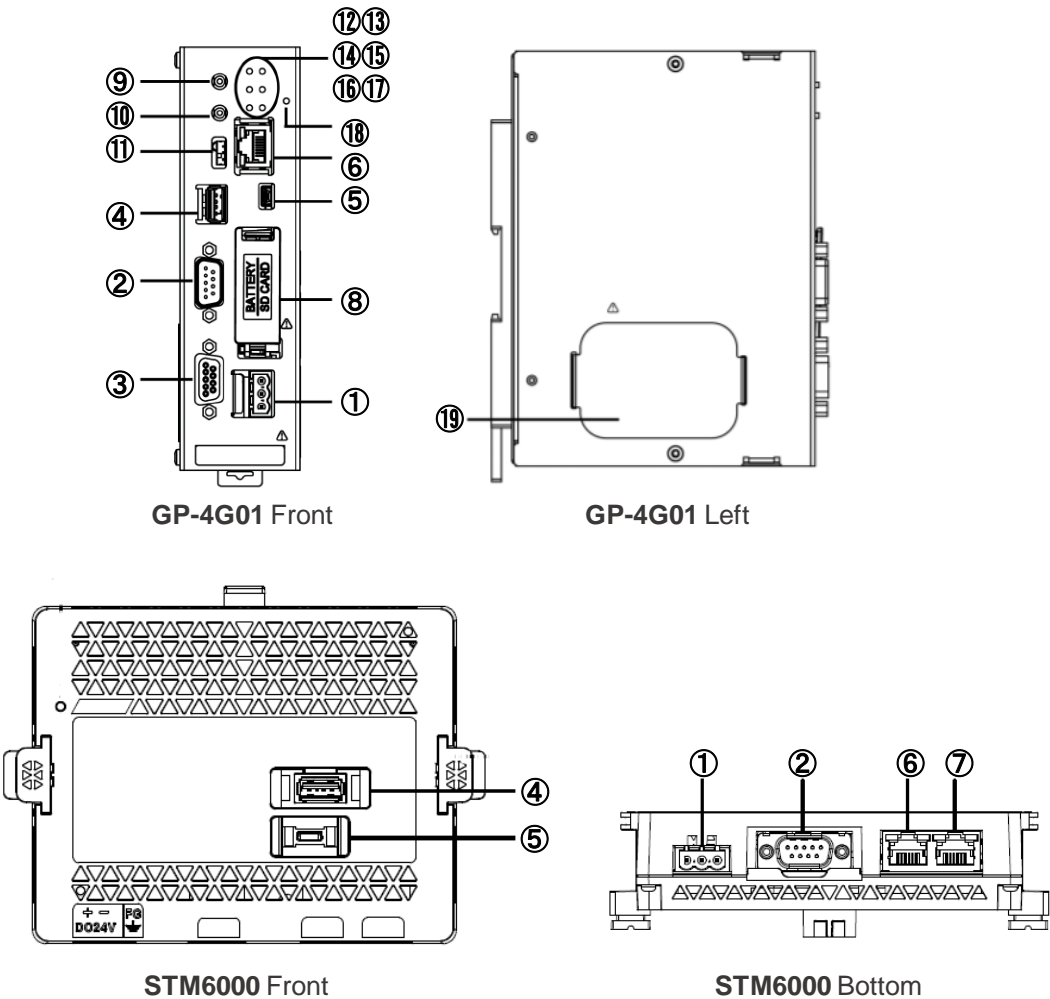
- 1 Front
- 2 Left
- 3 Rear

STM6000 Gateway (GP-Pro EX) STM-6B00



- A. Front
- B. Right

3. Hardware compatibility



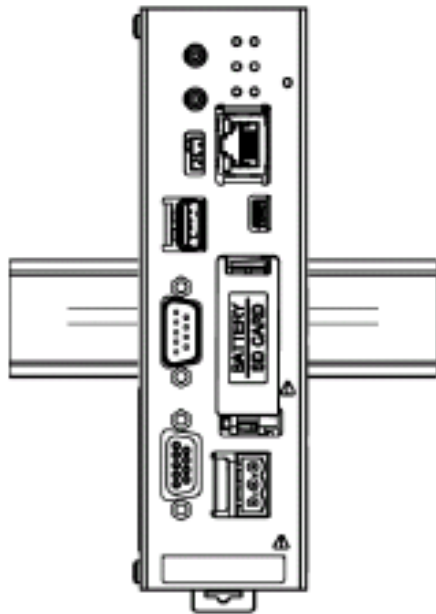
| | Pro-face IoT Gateway GP-4G01 | STM6000 Gateway (GP-Pro EX) |
|---|---|-----------------------------|
| ① | Power Connector (DC) | Power Connector (DC) |
| ② | Serial Interface (PLC/COM1) | Serial Interface (COM1) |
| ③ | Serial Interface (HMI) | - |
| ④ | USB (Type A) Interface | USB (Type A) Interface |
| ⑤ | USB (mini-B) Interface | USB (micro-B) Interface |
| ⑥ | Ethernet Interface | Ethernet Interface (ETH1) |
| ⑦ | - | Ethernet Interface (ETH2) |
| ⑧ | SD Card interface cover / Battery interface cover | - |
| ⑨ | USB storage eject switch | - |
| ⑩ | SD card eject switch | - |
| ⑪ | RS-232C/RS-422 change switch | - |
| ⑫ | USB1 storage access LED (USB1) | - |
| ⑬ | Status LED (STA) | - |
| ⑭ | PLC access LED (PLC) | - |
| ⑮ | Error LED (ERR) | - |
| ⑯ | HMI access LED (HMI) | - |
| ⑰ | SD card access LED (SD) | - |
| ⑱ | Power LED (PWR) | - |
| ⑲ | Termination resistance cover | |

3. Hardware compatibility

Note about Installation

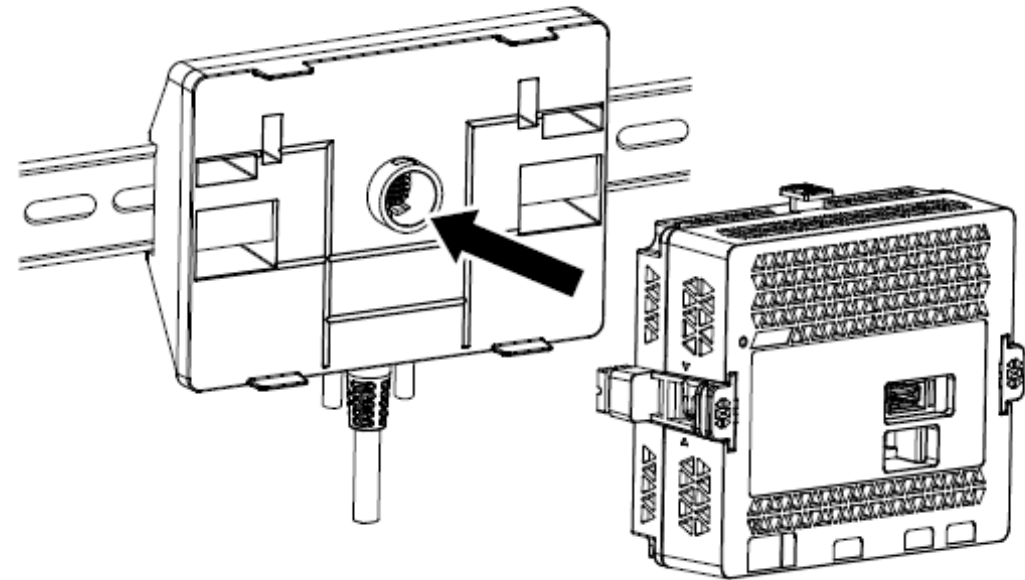
Pro-face IoT Gateway GP-4G01

You can install this product directly to the DIN rail.
Attach this product vertically.



STM6000 Gateway (GP-Pro EX) STM-6B00

Use the rear module installation adapter (included in package) to install this product to the DIN rail.
For installation procedure, refer to [STM6000 Series Hardware Manual](#).



4. Option compatibility

* ○ compatible
× not compatible

| | Product Name | Pro-face IoT Gateway | STM6000 Gateway (GP-Pro EX) | Description | Compatibility * |
|------------------|---|--|--|--|-----------------|
| Serial Interface | RS-232C Cable (5m) | CA3-CBL232/5M-01 | CA3-CBL232/5M-01 | Cable for RS-232C connection between various hosts and Pro-face IoT Gateway | ○ |
| | RS-422 Cable (5m) | CA3-CBL422/5M-01 | CA3-CBL422/5M-01 | Cable for RS-422 connection between various hosts and the Pro-face IoT Gateway (Socket Type) | ○ |
| | RS-422 Cable (5m) | CA3-CBL422-01 | CA3-CBL422-01 | Cable for RS-422 connection between various hosts and the Pro-face IoT Gateway (Plug Type) | ○ |
| | Mitsubishi PLC A-Series Connection Cable (5m) | CA3-CBLA-01 | CA3-CBLA-01 | Cable for directly connecting an A Series CPU | ○ |
| | Mitsubishi PLC Q-Series Connection Cable (5m) | CA3-CBLQ-01 | CA3-CBLQ-01 | Cable for directly connecting a Q Series CPU | ○ |
| | Mitsubishi PLC Q-Series Link Cable (5m) | CA3-CBLLNKM-01 | CA3-CBLLNKM-01 | Cable for directly connecting a Q Series Link Unit | ○ |
| | Mitsubishi PLC FX-Series Connection Cable | CA3-CBLFX/1M-01 (1m) CA3-CBLFX/5M-01 (5m) | CA3-CBLFX/1M-01 (1m) CA3-CBLFX/5M-01 (5m) | Cable for directly connecting an FX Series CPU | ○ |
| | Omron PLC SYSMAC Link Cable(5m) | CA3-CBLSYS-01 | CA3-CBLSYS-01 | Cable for directly connecting a SYSMAC Link Unit | ○ |
| | Siemens TTY Converter Cable (5m) | CA6-CBLTTY/5M-01 | CA6-CBLTTY/5M-01 | Cable for connecting a PLC S5 series to Pro-face IoT Gateway | ○ |
| | MPI Cable (3.5m) | ST03-A2B-MPI21-PFE CA3-MPI-PG1-PFE CA3-MPI-PGN-PFE | ST03-A2B-MPI21-PFE | Connects a host controller to Pro-face IoT Gateway for MPI communication. | × |

4. Option compatibility

* ○ compatible
× not compatible

| | Product Name | Pro-face IoT Gateway | STM6000 Gateway (GP-Pro EX) | Description | Compatibility * |
|------------------|--|----------------------|-----------------------------|--|-----------------|
| Serial Interface | Multi-Link Cable (5m) | CA3-CBLMLT-01 | CA3-CBLMLT-01 | Connects a host controller to Pro-face IoT Gateway (D-sub 9 pin plug) for multi-link (n:1) communication. | ○ |
| | | PFXZCBCBML1 | PFXZCBCBML1 | Connects a host controller to Pro-face IoT Gateway (D-sub 9 pin plug) for multi-link (n:1) communication. | ○ |
| | 9-pin-to-25-pin RS-232C Conversion Cable (0.2m) | CA3-CBLCBT232-01 | - | Cable for converting a D-Sub 9-pin plug to a D-Sub 25-pin socket | × |
| | 9-pin-to-25-pin RS422 Conversion Cable (0.2m) | PFXZCBCBCVR41 | - | Cable for converting a D-Sub 9-pin plug to a D-Sub 25-pin socket | × |
| | 2 Port Adapter Cable (5m) | CA3-MDCB11 | CA3-MDCB11 | Cable for connecting a 2-port adapter to Pro-face IoT Gateway | ○ |
| | | PFXZCBCBMD1 | PFXZCBCBMD1 | Connects Mitsubishi PLC directly to Pro-face IoT Gateway (D-sub 9 pin plug) using 2 port adapter II (RS-422) | ○ |
| | Mitsubishi PLC A, QnA, FX Series 2 Port Adapter II | GP070-MD11 | GP070-MD11 | Interface unit required for simultaneous use of A/QnA/FX Series peripheral devices | ○ |
| | COM Port Conversion Adapter | CA3-ADPCOM-01 | CA3-ADPCOM-01 | For COM 1 Pin conversion adapter for connecting the COM 2-dedicated communication option to the COM 1 port on Pro-face IoT Gateway | ○ |
| | RS-422 Terminal Block Conversion Adapter | PFXZCBADTM1 | PFXZCBADTM1 | Connects output from a Pro-face IoT Gateway's Serial Interface (D-sub 9 pin plug) directly with an RS-422 terminal block. | ○ |
| | Terminal Block Conversion Adapter | CA3-ADPTRM-01 | CA3-ADPTRM-01 | Connects output from a Pro-face IoT Gateway's Serial Interface (D-sub 9 pin plug) directly with an RS-422 terminal block. | ○ |
| | RS-232C Isolation Unit | CA3-ISO232-01 | CA3-ISO232-01 | Unit for connecting various hosts and Pro-face IoT Gateway by insulating. | ○ |

4. Option compatibility

* ○ compatible
× not compatible

| | Product Name | Pro-face IoT Gateway | STM6000 Gateway (GP-Pro EX) | Description | Compatibility * |
|---------------|--|----------------------|-----------------------------|---|------------------------------------|
| USB Interface | USB Transfer Cable (2m) | CA3-USBCB-01 | - | Cable for transferring screen data between a PC (USB Type A) and Pro-face IoT Gateway (USB Type A). | × |
| | USB Transfer Cable | ZC9USCBMB1 | - | Cable for transferring screen data between a PC (USB Type A) and Pro-face IoT Gateway (USB mini- B). | NEW! Use the option of STM6000. |
| | USB Transfer Cable | - | PFXZUSCBMB2 | Cable for transferring screen data from a PC (USB Type A) to this product (USB micro-B). | |
| | USB Cable (5m) | FP-US00 | FP-US00 | Connects a USB printer. (TYPE-B) | ○ |
| | USB Front Cable (1m) | CA5-USBEXT-01 | CA5-USBEXT-01 | Extension cable for attaching to USB port on front panel. | ○ |
| | USB Panel-mount Extension Cable (USB mini-B) (1 m) | ZC9USEXMB1 | - | Extension cable that attaches to the USB (mini-B) interface on the front side of the operation panel. | NEW! Use the option of STM6000. |
| | USB (micro-B) Front Cable | - | PFXZCIEXMB2 | Extension cable that attaches USB interface (micro-B) to front panel. | |
| | USB-Serial (RS-232C) Conversion Cable (0.5m) * | CA6-USB232-01 | CA6-USB232-01 | Cable for converting a Pro-face IoT Gateway's USB interface into a serial interface (RS-232C). Allows connection to modems or barcode readers that support RS-232C. | ○ |
| | USB/RS-422/485 Conversion Adapter * | PFXZCBCBCVUSR41 | PFXZCBCBCVUSR41 | Cable for connecting a Pro-face IoT Gateway (USB Type A) with an external device (RS-422/RS-485) | ○ |

* Can be used except Gateway mode.

4. Option compatibility

* ○ compatible
× not compatible

| | Product Name | Pro-face IoT Gateway | STM6000 Gateway (GP-Pro EX) | Description | Compatibility * |
|---------------|---|----------------------|-----------------------------|--|-----------------|
| USB Interface | EZ Tower Light tube mounting fixing plate | PFXZCETWHA1 | PFXZCETWHA1 * | USB Connection Type Monolithic EZ Tower Light tube mounting with fixing plate. | ○ |
| | EZ Tower Light with base mounting | PFXZCETWW1 | PFXZCETWW1 * | USB Connection Type Monolithic EZ Tower with base mounting. | ○ |
| | EZ Illuminated Switch | PFXZCCEUSG1 | PFXZCCEUSG1 | USB Connection Type Monolithic EZ Tower with base mounting. | ○ |
| | EZ Numpad | PFXZCCEUKB1 | PFXZCCEUKB1 | A unit of ten-key pad easily connected with HMI via USB. | ○ |
| | EZ Fingerprint Recognition Unit | PFXZCCEUSS1 | PFXZCCEUSS1 | A unit of fingerprint identification easily connected with HMI via USB. (End of Sale: Dec. 27, 2019) | ○ |
| Others | SD Memory Card | PFXZCBSD4GC41 | - | SD Memory Card (4GB, CLASS4) | × |
| | Display module / Rear module separation cable (3m) | - | PFXZCM6SM3 | Cable for use when installing the rear module and display module apart from the other. | NEW! |
| | Display module / Rear module separation cable (5m) | - | PFXZCM6SM5 | | |
| | Display module / Rear module separation cable (10m) | - | PFXZCM6SM10 | | |

* Planned to be supported. Please contact our Customer Service for the latest information.

4. Option compatibility

* ○ compatible
× not compatible

| | Product Name | Pro-face IoT Gateway | STM6000 Gateway (GP-Pro EX) | Description | Compatibility * |
|-------------|----------------------------------|----------------------|-----------------------------|--|------------------------------------|
| Maintenance | USB Clamp Type A (1 port) | PFXZCBCLUSA1 | PFXZCBCLUSA1 | Clamp to prevent disconnection of USB cable (1 port, 5 pcs/set) | ○ |
| | DC Power Supply Connector | PFXZCBCNDC1 | - | Connector to connect DC power supply cables (Straight type, 5pcs/set) | NEW! Use the option of STM6000. |
| | DC Power Supply Connector | - | CA5-DCCNM-01 | Connector to connect DC power supply cables (5 pcs/set) | |
| | Battery for Memory Backup | PFXZCBBT1 | - | Primary battery for memory and time data backup (1 piece) | × |
| | Rear module | - | PFXSTM6BE | Rear module for PFXSTM6200WADE/PFXSTM6400WADE | NEW! |
| | Rear module installation adapter | - | PFXZCM6DSA | DIN rail installation adapter for rear modules in non-display operation. | NEW! |

5. Software compatibility

* ○ Compatible
× Not Compatible

| Software | Pro-face IoT Gateway GP-4G01 | STM6000 Gateway (GP-Pro EX) | Compatibility of Project data |
|------------------------------------|---|---|-------------------------------|
| GP-Pro EX | ✓ Ver.4.07.000 or later https://www.proface.co.jp/otasuke/files/manual/soft/gpproex/new/refer/gpproex.htm | ✓ Ver 4.09.350 or later https://www.proface.co.jp/otasuke/files/manual/soft/gpproex/new/refer/gpproex.htm | ○ |
| BLUE | - | - | |
| Pro-Server EX | ✓ Ver.1.36 or later *1 https://www.pro-face.com/otasuke/files/manual/soft/server_ex/v1_37/ref/SRContents.htm | ✓ Ver 1.37.200 or later *2 https://www.pro-face.com/otasuke/files/manual/soft/server_ex/v1_37/ref/SRContents.htm | ○ |
| Pro-face Remote HMI (iOS/Android) | ✓ Ver.1.30 or later *1 https://www.pro-face.com/otasuke/qa/remotehmi/faq.html | ✓ Ver.1.30 or later https://www.pro-face.com/otasuke/qa/remotehmi/faq.html | |
| Pro-face Remote HMI Client for Win | ✓ Ver.1.40 or later *1 | ✓ Ver.1.40 or later | ○ |
| Pro-face Connect | - | ✓ SiteManager Ver. 9.4.621282042 or later | |
| | | | UP! |

*1: The supported GP-Pro EX version differs depending on the software used.

| Software | Version | Supported GP-Pro EX Version |
|------------------------------------|------------------|-----------------------------|
| Pro-Server EX | 1.32 or later | 3.1 or later |
| Pro-face Remote HMI (iOS/Android) | 1.3x | 4.0 or later |
| | 1.4x, 1.5x, 1.6x | 4.03 or later |
| Pro-face Remote HMI Client for Win | 1.4 or later | 4.03 or later |

*2: -Manual is not updated so ST6000, STM6000 is not mentioned. (Planned to be updated. Please contact our Customer Service for the latest information.)
 -Only provided with full installer. (Update module and Online update will be released later. Please contact our Customer Service for the latest information.)

If you would like to check the software replacement procedure, please check the following.
 Replacement Guidebook (Software)_EN_ver2.pdf

6. Other Important notes

- Do not expose the hardware to direct sunlight.
To prevent deterioration due to ultraviolet rays, we recommend using an optional screen protection sheet.
- Do not use the hardware outdoors.
- Do not turn on the hardware if condensation has occurred inside the device.
- The panel brightness may decrease when used for a long time in an environment continuously filled with inert gas.
Please ventilate the control panel periodically.

