

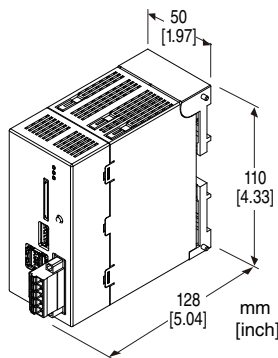
RGP30 Series

REMOTE GRAPHIC PANEL

(with HDMI® output)

Functions & Features

- Fulfills the function of display units using Web technology without dedicated displays.
- Supports Modbus/TCP and SLMP for connecting with various PLCs.
- Equipped with Web server which allows access via network and displays Web screen on browser of the user's terminal.
- Equipped with HDMI connector for connecting with an HDMI monitor.
- Facilitates creation of Graphic Panels with Designing Software (model: RGP-Designer).



The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

MODEL: RGP30-[1]-R[2]

ORDERING INFORMATION

- Code number: RGP30-[1]-R[2]
- Specify a code from below for each of [1] and [2].
(e.g. RGP30-N-R/E)

[1] TYPE

- N:** Standard
- W:** For power (Standard with power monitor screen)

POWER INPUT

- DC power**
 - R:** 24 V DC
- (Operational voltage range: ±10 %; ripple 10 %p-p max.)

[2] OPTIONS

- OS Language**
- Blank:** Japanese
- /E:** English

RELATED PRODUCTS

- Graphic Panel Designing Software for RGP30 Series (model: RGP-Designer)
 - Local certification authority creator (model: LCA-RGP)
- Software is downloadable at our web site.
- SD card (Only for RGP30-W)
- An SD card is required to store data in the unit.
Use an SD card of the designated model number which is available commercially and from us.
- Hagiwara Solutions NSD6-004GH(B21SEI)

GENERAL SPECIFICATIONS

Connection

- **Power supply:** Spring clamp terminal block
 - Applicable wire size:** 0.2 - 2.5 mm²
 - Stripped length:** 10 mm
 - Recommended solderless terminal**
- | | | |
|-------------|----------------------|-------------------|
| AI0,25-10YE | 0.25 mm ² | (Phoenix Contact) |
| AI0,34-10TQ | 0.34 mm ² | (Phoenix Contact) |
| AI0,5-10WH | 0.5 mm ² | (Phoenix Contact) |
| AI0,75-10GY | 0.75 mm ² | (Phoenix Contact) |
| AI1-10RD | 1.0 mm ² | (Phoenix Contact) |
| AI1,5-10BK | 1.5 mm ² | (Phoenix Contact) |
| AI2,5-10BU | 2.5 mm ² | (Phoenix Contact) |
- **Ethernet:** RJ-45 connector
 - **USB:** USB type A connector
 - **HDMI:** HDMI type A connector

Housing material: Flame-resistant resin (gray)

Isolation: Ethernet to USB or HDMI or internal power or power supply to FE

Indicator LEDs: POWER, RUN, ERROR
(Refer to the instruction manual for details)

CONTROL CIRCUIT

- CPU:** Intel Atom E3827 (Dual Core 1.75 GHz)
- Memory:** 2 GB DDR3K-1333
- Internal storage:** 30 GB
- OS:** Microsoft Windows 10 IoT Enterprise 2016 LTSB

ETHERNET COMMUNICATION

- Communication Standard:** IEEE 802.3u
- Transmission:** 10BASE-T / 100BASE-TX
- Baud rate:** 10 / 100 Mbps (Auto Negotiation function)
- Protocol:** TCP/IP, Modbus/TCP, SLMP, HTTPS, HTTP
- Transmission media:** 10BASE-T (STP, Category 5)

100BASE-TX (STP, Category 5e)

Max. length of fieldbus segment: 100 meters

Ethernet Status LED: ACT, LNK

IP address: 192.168.0.1 (Ex-factory setting)

USB

Specification: USB 2.0

No.of ports: 2

Transmission distance: 5 meters max.

Power supply capability: 5V DC±10%, 500mA DC max.

HDMI

Max. resolution: 1920 x 1080

Frame rate: 60 Hz

Transmission distance: 5 meters max.

Applicable cable: Standard HDMI cable (Ver.1.4 or later)

INSTALLATION

Power consumption : Approx. 18 W

Operating temperature: -10 to +50°C (14 to 122 °F)

Operating humidity: 30 to 90 %RH (non-condensing)

Atmosphere: No corrosive gas or heavy dust

Mounting: DIN rail

Weight: 400 g (0.88 lb)

PERFORMANCE

Calendar clock (with battery backup):

Accuracy: Monthly deviation of ≤ 3 minutes at 25°C or 77 °F

Back up period: Approx. 10 years at 25°C or 77 °F

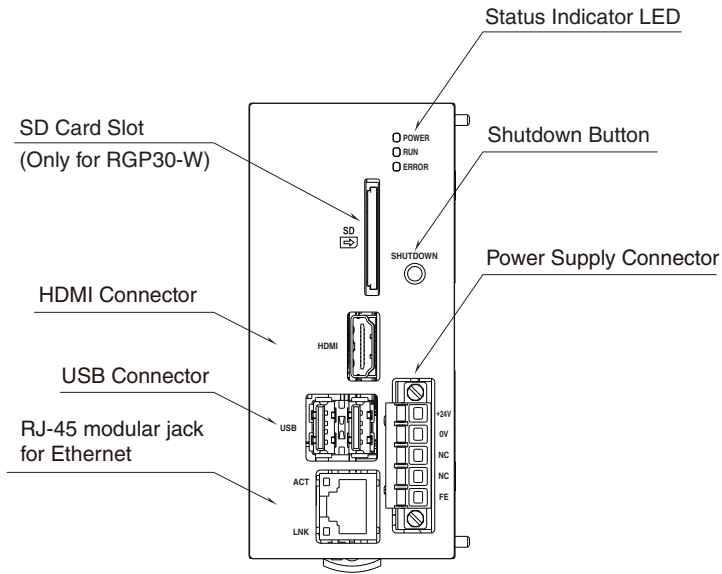
Battery: Primary lithium battery (non-removable)

Insulation resistance: ≥ 100 MΩ with 500 V DC

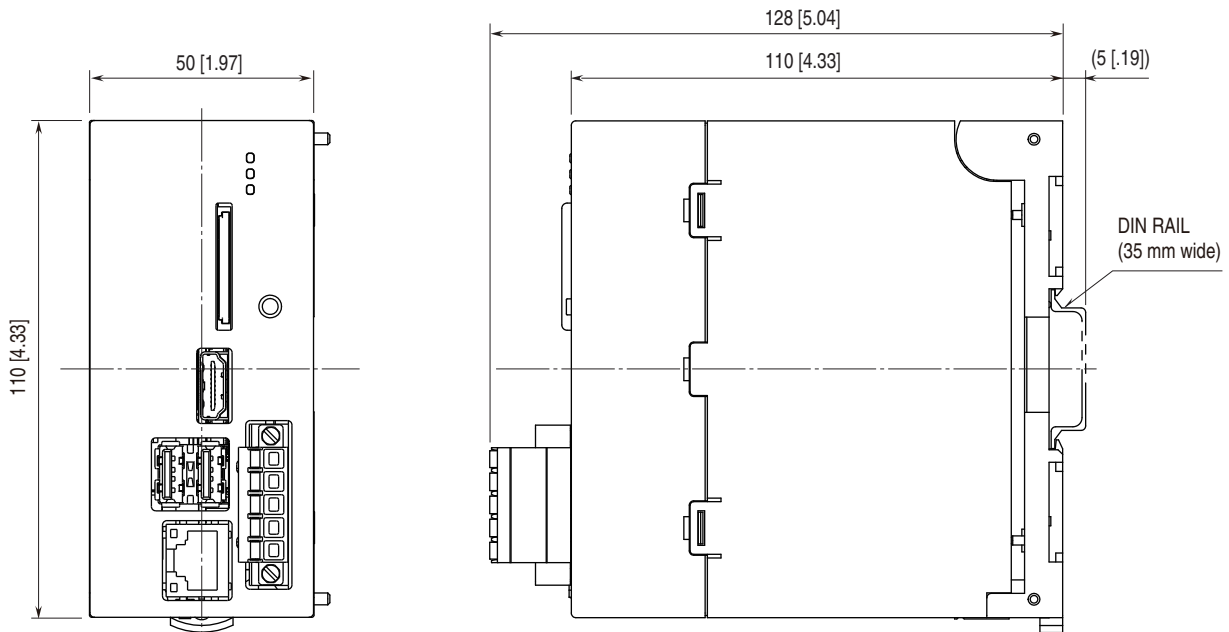
Dielectric strength: 1500 V AC @ 1 minute (Ethernet to USB or HDMI or internal power or power supply to FE)

EXTERNAL VIEW

■ FRONT VIEW

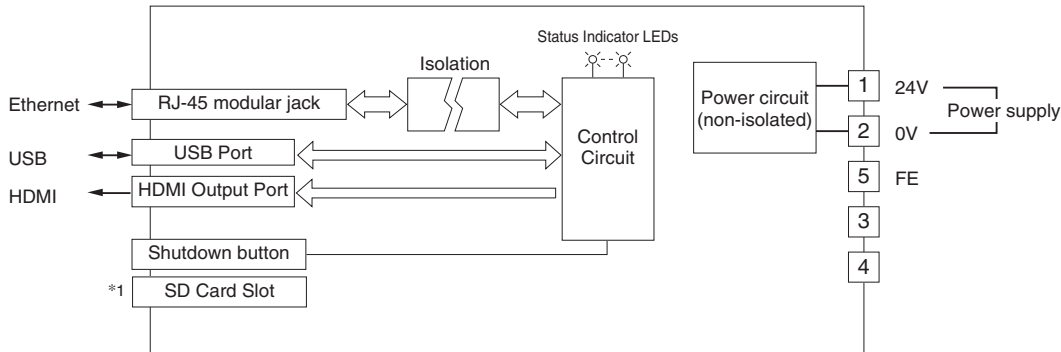


EXTERNAL DIMENSIONS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

Caution: FE terminal is NOT a protective conductor terminal.



Note 1) Only for RGP30-W.

DISPLAY FUNCTION

- No. of GP (Graphic Panels) for simultaneous display: Max.8
- Screen size: VGA (640*480), SVGA (800*600), XGA (1024*768), SXGA (1280*1024), HD (1280*720), FHD (1920*1080), Custom
- No. of screens: Max. 1024 for 8 GPs in total
- No. of parts: Max.1024 on a single screen
- Parts for screens:
 - Shape (Rectangle, Circle, Line, Picture)
 - Character string (Variable, fixed)
 - Lamp/switch (Bit/Word)
 - Data display
 - Gauge
 - Screen display frame
 - [Change screen] switch

LOWER COMMUNICATION

■ Modbus/TCP master

RGP30 can connect with R3 or R7 series remote I/Os for I/O expansion and collectively handle data acquired from multiple remote measuring points.

- Connectable devices (Modbus slave)
 - R3-NE1
 - R5-NE1
 - R6-NE2
 - R7E series
 - 72EM2-M4
 - DL8
 - TR30
 - DL30
 - R30NE1
 - Yokogawa FA-M3 (F3SP71-4S)
 - GR8-EM
- Connectable power measuring devices (Modbus slave, only for RGP30-W)
 - R7EWTU

- R7MWTU
- R9EWTU
- R9MWTU
- M5XWT
- M5XWTU
- M50XWTU
- M50EXWTU
- 53U
- 54U
- L53U

■ SLMP client

RGP30 can connect with SLMP-compatible MELSEC CPU units for I/O expansion and collectively handle data acquired from multiple remote measuring points.

- Connectable devices (SLMP)
 - MELSEC iQ-R Series
 - MELSEC iQ-F Series
 - MELSEC Q Series
- No. of connectable devices (No. of slaves)
 - 32 nodes (selectable from Modbus/TCP and SLMP devices)
- No. of connectable power measuring devices: 64 (only for RGP30-W)

HOST COMMUNICATION (ONLY RGP30-W)

■ Modbus/TCP slave

Power data during measurement can be exported.

- Connectable devices (Modbus master)
 - RGP30
 - RGP6
 - DL8
 - DL30
 - TR30
 - JC-IO
- No. of connectable devices: 4

WEB SERVER

RGP30 works as a Web server and fulfils the function of display units.

- Compatible terminals and browsers

- iPad (iPad OS 18.4.1): Safari
- iPhone (iOS 18.4.1): Safari
- Android tablet (Android 15):
Google Chrome 135.0
- Windows PC (Windows 10, 11):
Microsoft Edge 135.0
Google Chrome 135.0
Firefox 137.0

- No. of connectable terminals: 8

- Protocol

- HTTP
- HTTPS

Certificate can be created using Local certification authority creator (model: LCA-RGP).

GRAPHIC PANEL DESIGN

Create Graphic Panels using Graphic Panel Designing Software for RGP30 Series (model: RGP-Designer).

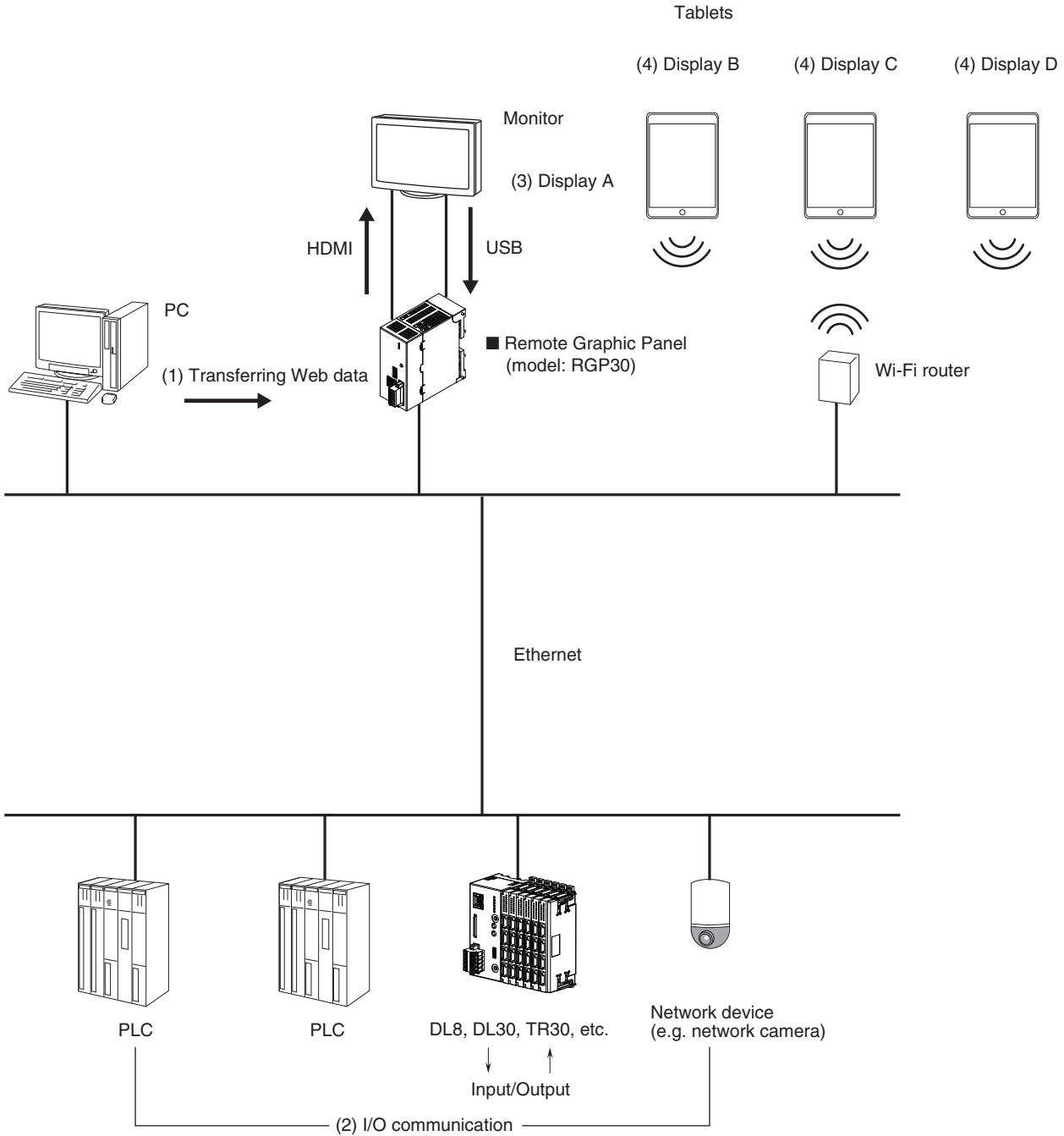
SYSTEM CONFIGURATION EXAMPLES

■ RGP30-N

■ Designing Software
(model: RGP-Designer)

■ Field monitoring
(Web screen)

■ Field monitoring
(Web screen)



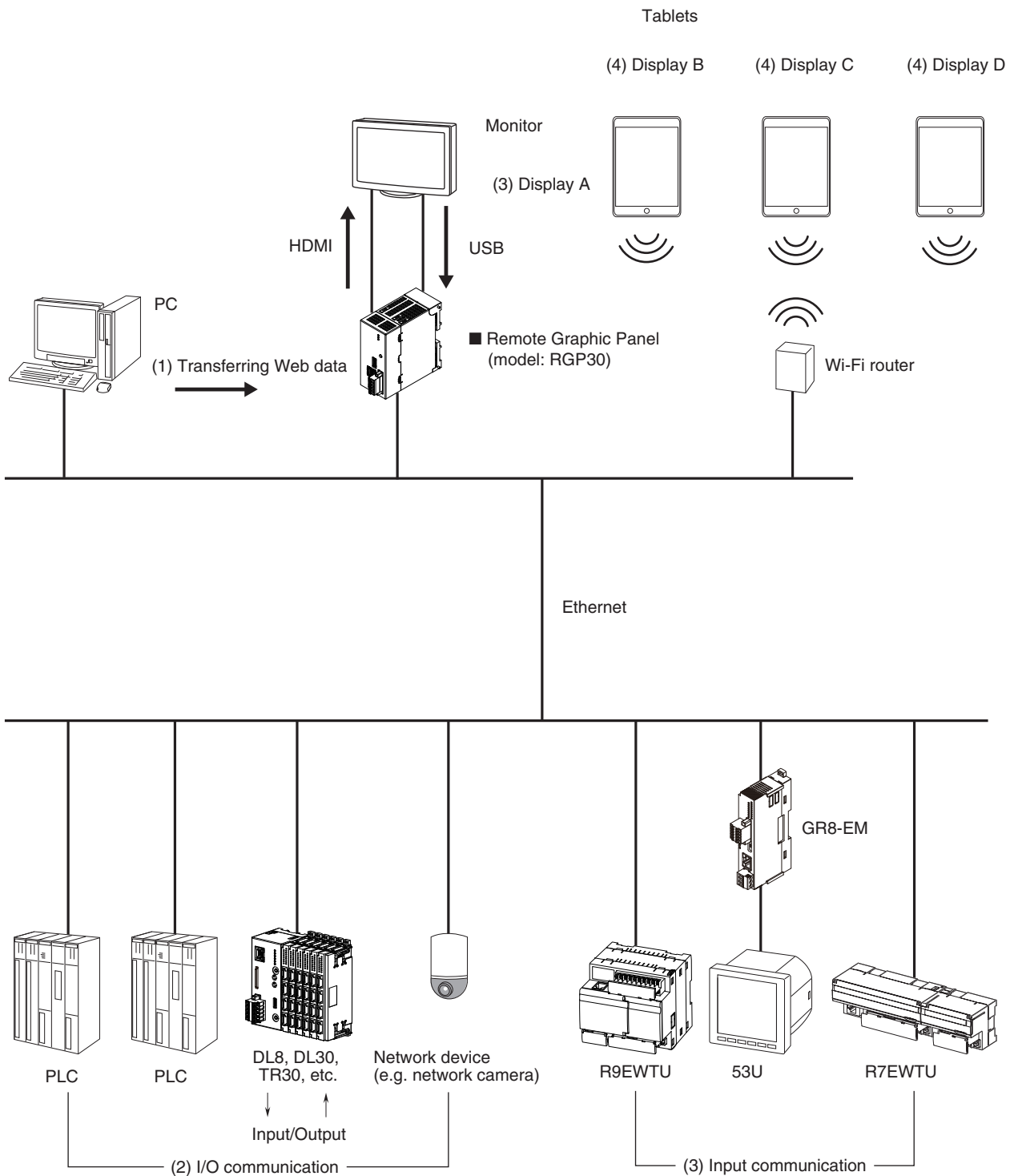
- (1) Transfer data of Graphic Panels created on RGP-Designer to the RGP unit.
- (2) Perform I/O communication with PLC over Modbus/TCP or SLMP.
- (3) Connect to the RGP Web server from browser of the RGP unit by loopback to display on an HDMI monitor.
(Display unit A).
- (4) Connect to the RGP Web server from outside via the network to display on a terminal (Display units B, C, D).

■ RGP30-W

■ Designing Software
(model: RGP-Designer)

■ Field monitoring
(Web screen)

■ Field monitoring
(Web screen)



- (1) Transfer data of Graphic Panels created on RGP-Designer to the RGP unit.
- (2) Perform I/O communication with PLC over Modbus/TCP or SLMP.
- (3) Import measurement values from the power measuring device over Modbus/TCP.
- (4) Connect to the RGP Web server from browser of the RGP unit by loopback to display on an HDMI monitor. (Display unit A).
- (5) Connect to the RGP Web server from outside via the network to display on a terminal (Display units B, C, D).



Specifications are subject to change without notice.