

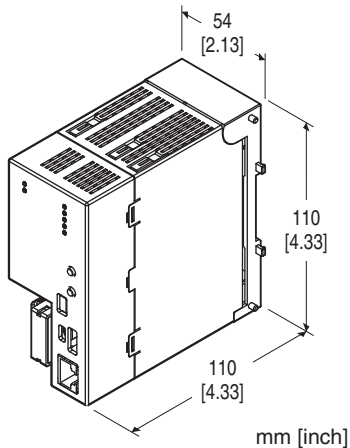
Web Data Logger GM30

/C02: Polyurethane coating

GRAPHICAL MAILING UNIT

Functions and Features

- Makes trend graph and status graph from the input data
- Monitors the input data and e-mail trend graph and status graph to the mobile phone and the PC
- Compatibles to Modbus/TCP client and SLMP client
- Monitors the input value and change the settings by web browser



MODEL: GM30-N-R[1]

ORDERING INFORMATION

- Code number: GM30-N-R[1]
Specify a code from below for [1].
(e.g. GM30-N-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

MODULE TYPE

N: Standard

POWER INPUT

DC power
R: 24 V DC
(Operational voltage range: $\pm 10\%$; ripple 10 %p-p max.)

[1] OPTIONS

blank: none
/Q: Options other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to our web site.)
/C01: Silicone coating

FUNCTIONS & FEATURES

Acquiring and recording the input data and mailing

Connects to the remote I/O using Modbus/TCP via Ethernet, acquire and record input data from remote I/O, and send the e-mail with the images of the trend graph and the status graph.

Connects with Mitsubishi programmable controller MELSEC using SLMP to access to the data in the PLC CPU.

Sends email in accordance with the preset alarm level.

Ethernet connection settings

Various settings and maintenance can be performed using a web browser.

RELATED PRODUCTS

- PC Configurator cable
USB 2.0 compatible cable
(GM30 connector: mini-B type, 5.0m max.)
- PC configurator software (model: GM30GCFG)
Software downloadable at our web site.

GENERAL SPECIFICATIONS

Connection

RUN contact output and power: M3 separable screw terminal (torque 0.5 N·m)

Ethernet: RJ-45 modular jack

Solderless terminal: Refer to the drawing at the end of the section.

Recommended manufacturer: Japan Solderless Terminal MFG.Co.Ltd, Nichifu Co.,Ltd

Applicable wire size: 0.25 to 0.75 mm²

Screw terminal: Nickel-plated steel

Housing material: Flame-resistant resin (gray)

Isolation: Ethernet to RUN contact output to power to FE

Calendar clock: Year (4 digits), month, date, day, hour, minute, second

Status Indicator LEDs: PWR, RUN, POWER, GM30 RUN, DHCP, COM, ERROR

(Refer to Operating Manual for details)

■ RUN CONTACT OUTPUT

RUN contact turns ON in normal conditions, and turns OFF when the power is not supplied or when an error occurs.

Rated load: 250 V AC @ 0.5 A (cos $\phi = 1$)

30 V DC @ 0.5 A (resistive load)

(Less than 50 V AC to conform with EU Directive)

Maximum switching voltage: 250 V AC or 30 V DC

Maximum switching power: 250 VA (AC) or 150 W (DC)

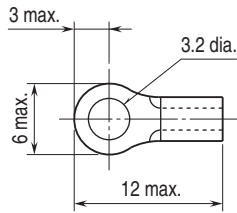
Minimum load: 5 V DC @ 10 mA

Mechanical life: 2×10^7 cycles (rate: 300 cycles/min.)

When driving an inductive load, external contact protection

and noise quenching recommended.

■ Recommended solderless terminal size - M3 (unit: mm)



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, HTTP, SNTP

Transmission media: 10BASE-T (STP, Category 5),
100BASE-TX (STP, Category 5e)

Max. segment length: 100 meters

Status Indicator LEDs: DPX, LNK

IP address: 192.168.0.10 (factory default)

INSTALLATION

Power consumption

• DC: Approx. 5 W 24 V DC

Operating temperature: 0 to 50°C (32 to 122°F)

Storage temperature: -10 to +60°C (14 to 140°F)

Operating humidity: 10 to 90 %RH (non-condensing)

Atmosphere: No corrosive gas or heavy dust

Mounting: Surface or DIN rail

Weight: 330 g (0.73 lb)

PERFORMANCE

Calendar clock: (with battery backup)

Accuracy: Monthly deviation 2 minutes at 25°C

Back up period: Approx. 2 years at 25°C

Battery: Primary lithium battery (non-removable)

(In order to prevent battery drain, battery back up is OFF at factory default. Turn it ON prior to start using.)

Insulation resistance: $\geq 100 \text{ M}\Omega$ with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute

(Ethernet to RUN contact output to power supply to FE)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

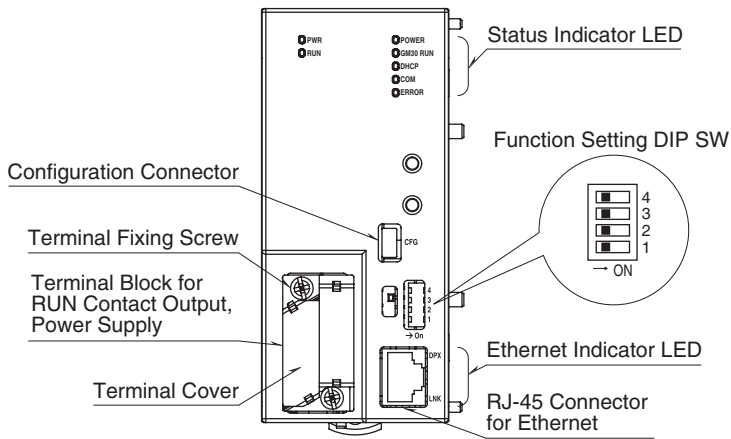
EMI EN 61000-6-4

EMS EN 61000-6-2

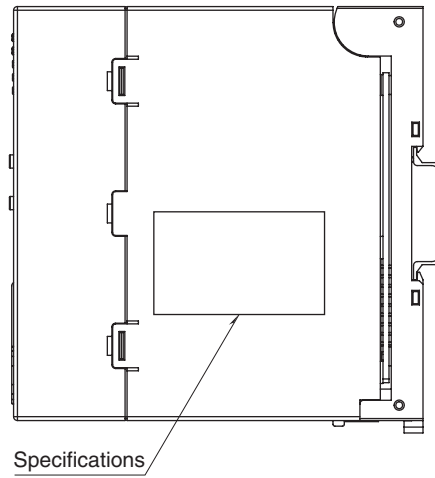
RoHS Directive

EXTERNAL VIEW

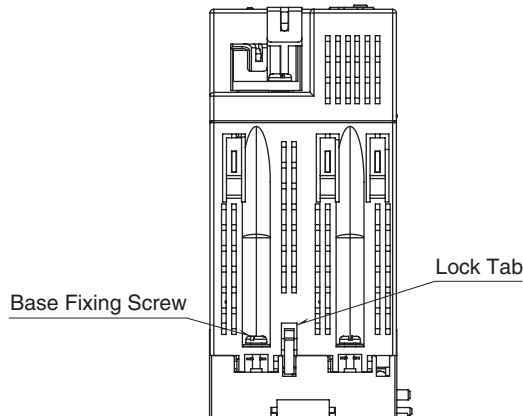
FRONT VIEW



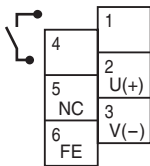
SIDE VIEW



BOTTOM VIEW



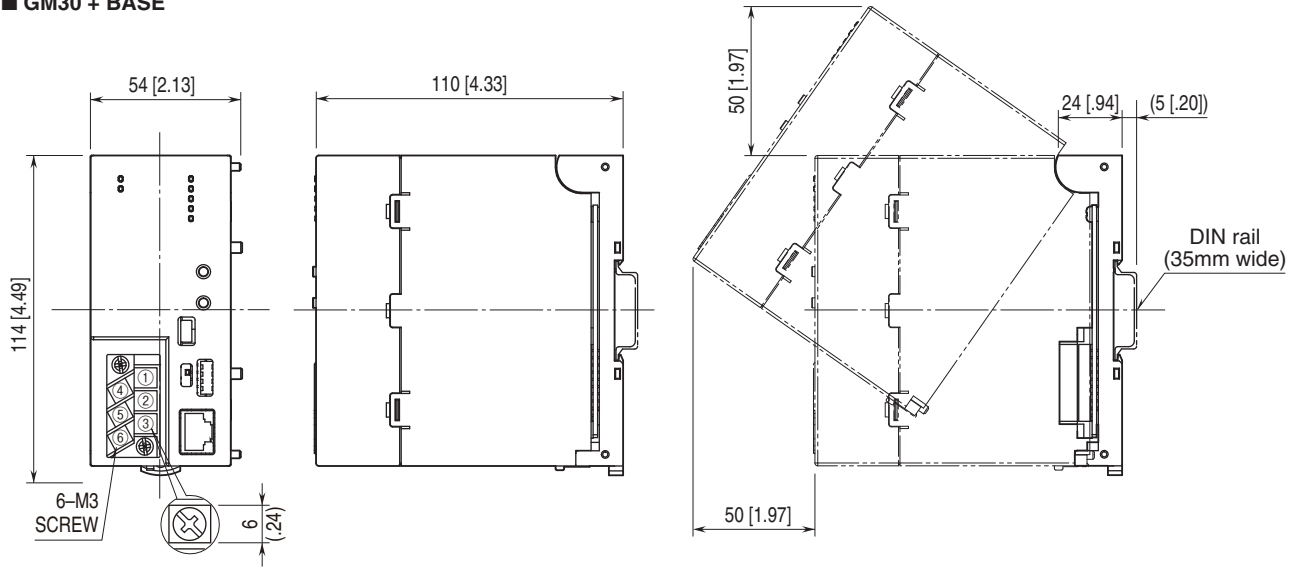
TERMINAL ASSIGNMENTS



NO.	ID	FUNCTION
1	RUN contact output	RUN contact output
2	U (+)	Power supply (24 V DC)
3	V (-)	Power supply (0 V DC)
4	RUN contact output	RUN contact output
5	NC	Not used
6	FE	Functional earth

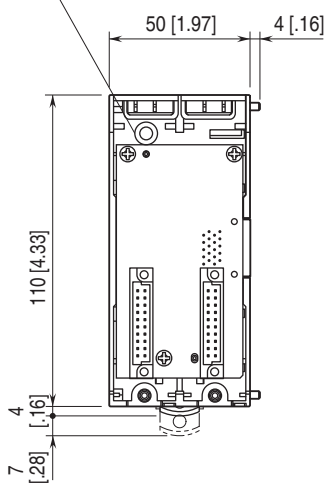
EXTERNAL DIMENSIONS unit: mm [inch]

■ GM30 + BASE



■ BASE

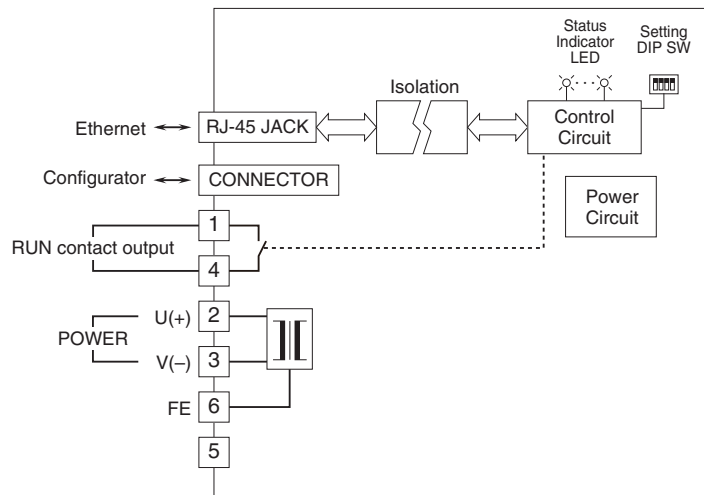
2-4.5 [.28] dia. MTG HOLE
3 [.12] deep



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

Note: In order to improve EMC performance, bond the FE terminal to ground.

Caution: FE terminal is NOT a protective conductor terminal.



COMMUNICATION

■ IP

GM30 supports DHCP client;

Allows manual setting of IP address, subnet mask, default gateway, and DNS server.

■ MODBUS/TCP CLIENT

DL30 allows I/O expansion with remote I/Os such as R3 or R7 series;

Collectively handles data from measuring points in multiple locations.

■ CONNECTABLE DEVICES (Modbus slaves)

- DL8
- DL30
- TR30-G
- R3-NE1
- R7E series
- R9EWTU
- R6-NE1
- R6-NE2
- R5-NE1
- D3-NE1
- D3-NE2
- D5-NE1
- IB10W2
- WL40EW2
- 72EM2-M4
- GR8-EM
- IT series

■ SLMP CLIENT

GM30 allows I/O expansion by connecting with the SLMP-compatible CPU unit of Mitsubishi programmable controller

MELSEC;

Collectively handles data from measuring points in multiple locations.

■ CONNECTABLE MELSEC MODEL

- MELSEC iQ-R series
- MELSEC iQ-F series
- MELSEC Q series

■ MAX. NO. OF CONNECTABLE DEVICES (No. of slaves)

- 32 (nodes) (selectable between Modbus/TCP and SLMP)

■ ETHERNET CONNECTION SETTING

Test mailing and changing settings can be performed using web browser.

Compatible Terminals & Browsers

- **iOS 15.5:** Safari
- **Android 11:** Chrome 103
- **Windows 10:**
 - Microsoft Edge 103
 - Firefox 102
 - Chrome 103

MAX. NO. OF CONNECTABLE DEVICES: 2

EVENT REPORTING E-MAIL

GM30 transmits an 'event reporting' e-mail at occurrence of event, continuance of event, returning from event, or at designated time.

Encrypted communication supported. (SMTP over SSL).

- **No. of e-mail recipients:** 32
- **Attached file:** Trend graph and status graph (Makes image file each time at report)

GRAPH

■ TREND GRAPH

Performs sampling of trend data in 1 sec. cycle, and attach the generated image file at reporting.

· Pen

Max. 10 (Select from AI, DI and PI)

· Dot transfer

10, 15, 20, 30 sec.

1, 2, 5, 10, 15, 20, 30, 60 min.

Specify the number of times: 10 to 3600 times

· Graph

No. of data sample: Max. 1620 dots

Number of samples of graph plotting (approximate value)

DOT SEND	TIME
10 sec.	4 hours
15 sec.	6 hours
20 sec.	9 hours
30 sec.	12 hours
1 min.	1 day
2 min.	2 days
5 min.	5 days
10 min.	1 week
15 min.	2 weeks
20 min.	3 weeks
30 min.	1 month
60 min.	2 months

· Image

Format: PNG (8-bit RGB)

Size: 1920 × 1080 px

■ STATUS GRAPH

Creates images from sampling value at reporting that can monitor the latest status and attaches it to the e-mail.

· Pen

Max. points: 16, 64, 144, 256 points

(Analog input, Digital input, Pulse input)

· Image

Format: PNG (8-bit RGB)

Size:

NO. OF PEN	IMAGE SIZE w × h (px)
16	1745 × 990
64	2312 × 1261
144	2596 × 1409
256	2052 × 1164

OTHER FUNCTIONS

• Maintenance

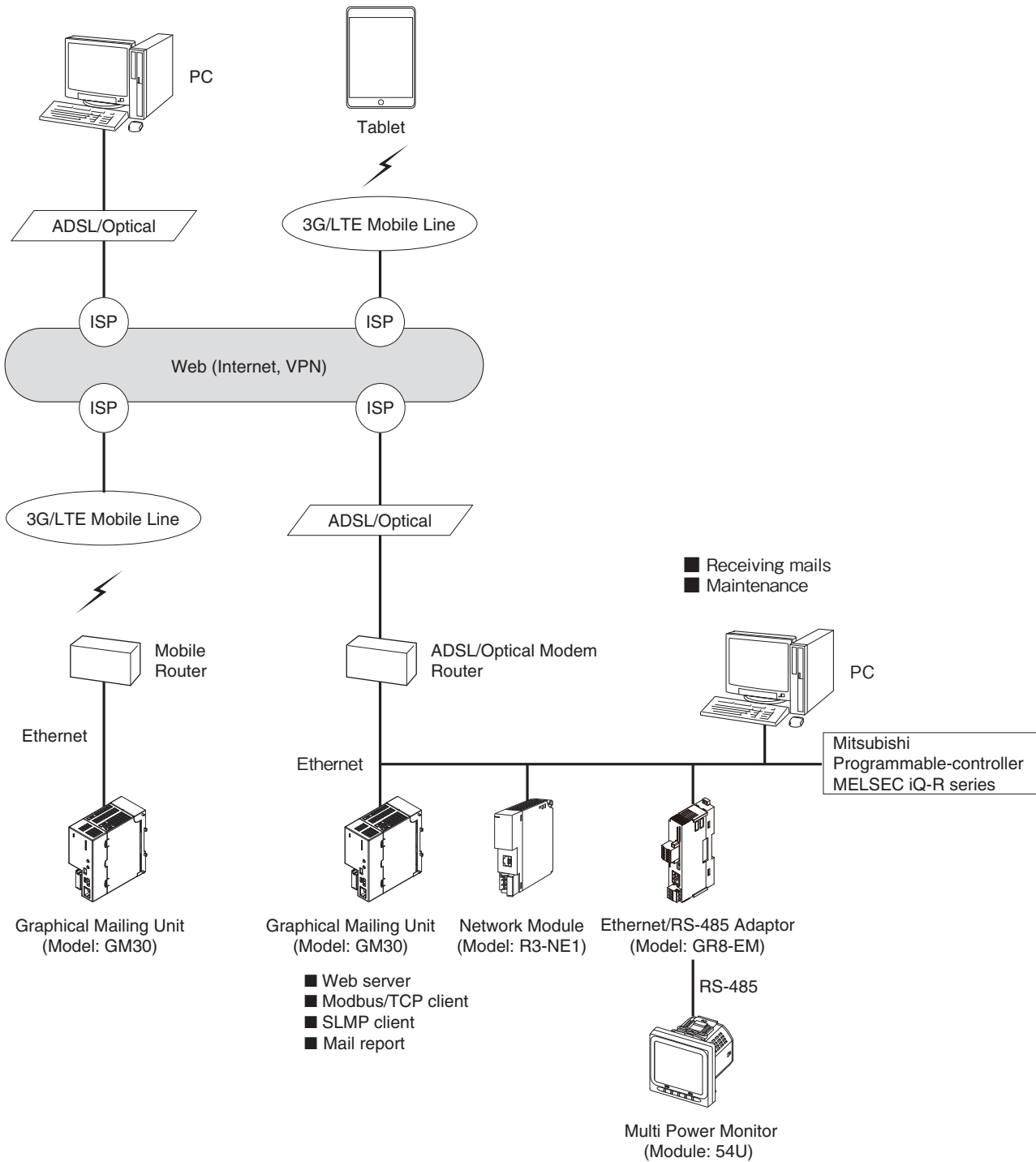
- Various settings and operations are available from the Maintenance menu on the configurator software (model: GM30CFG).

SYSTEM CONFIGURATION EXAMPLES

Devices other than the GM30 in the configuration below shall be provided by the user.

■ Receiving mails

■ Receiving mails



Specifications are subject to change without notice.