Job Name:

Drawing Reference:

Schedule No.

# OVERVIEW OF CITY MULTI® CONTROLS **NETWORK (CMCN)**

· Consists of TG-2000 integrated system software, G-50A/GB-50A centralized controllers, timers, remote controllers, and BMS interfaces.



- TG-2000 integrated system software supports up to 40 G-50A/GB-50A centralized controllers (licensed for PC software features) for a maximum of 2,000 indoor units from a single PC.
- G-50A centralized controller operates up to 50 indoor units with optional control via a field-supplied PC with licensed software.
- GB-50A centralized controller operates up to 50 indoor units via a field-supplied PC with licensed software.
- ON/OFF Controller (PAC-YT40ANRA) provides on/off control for 16 individual groups (for a maximum of 50 indoor units).
- Schedule Timer (PAC-YT34STA) provides system schedule control (on/off, operation mode [cool or heat]), set temperature, permit/prohibit of remote controller functions (on/off, operation mode selection, set temperature).
- Group System Controller (PAC-SF44SRA) provides system control (on/off, operation mode [cool, heat, dry, fan, auto—R2-Series only]), set temperature, permit/ prohibit of remote controller functions (on/off, operation mode selection, set temperature), fan speed, and air flow direction of up to 50 indoor units.
- Remote controllers consist of Deluxe MA, Simple MA Wireless MA, and ME.
- I/O controllers consist of DIDO (PAC-YG66DCA) and AI (PAC-YG63MCA) for third-party equipment control.
- LonWorks® and BACnet® interfaces also available.
- Interlocking of LOSSNAY® ERV units for control via the G-50A/GB-50A centralized controllers.

## AI CONTROLLER (PAC-YG63MCA)

### **Capabilities**

- Monitors temperature and humidity; displays measurement data via G-50A/GB-50A web browser (v3.2 or later) and TG-2000A (v5.1 or later). PC Monitoring (SW-MON) and PC Scheduling (SW-SCHED) software licenses required.
- Graphically trend measurement data via G-50A/GB-50A web browser or TG-2000
- Enables alarm if measurement data exceeds preset upper and lower limits.
- · Interlock Function: Interlock M-NET devices according to measurement data values.

# **General Specifications**

- · Power Supply
  - 24 VDC, 5 W, 0.2 A (minimum loading).
  - Ripple noise: Lower than 200 mVp-p.
- Dimensions: 7-7/8 W x 4-3/4 D x 1-13/16" H (200 x 120 x 45 mm).
- Weight: 1-3/8 lbs. (0.6 kg).
- · Environment Conditions
  - Operating temperature range: 32° to 104° F (0° to 40° C).
  - Storage temperature range: -4° to +140° F (-20° to +60° C).
  - Relative humidity: 30 to 90% (no condensation).
  - Install in an indoor control panel.
- M-NET communication: 17 to 30 VDC.

M-NET circuitry for this device powered via a separate power supply unit (PAC-SC50KUA).

A separate power supply for the sensor may be required. In case of 24 VDC voltage, the capacity of the power supply for the AI Controller can be increased so that the power supply can be shared.

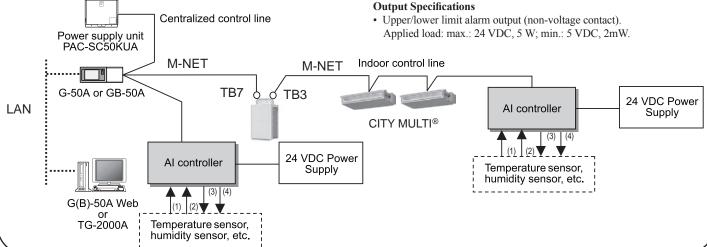
· Internal capacitor will continue to track time for one week in the event of a power failure.

#### **Input Channel 1 Specifications**

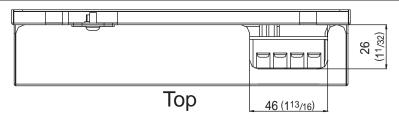
- Analog temperature/humidity sensor (4-20 mA, 1-5 VDC, 0-10 VDC).
  - Measurement range: Set by central controller.
  - Measurement error: 0.5%FS±0.18° F (0.1° C) at 77° F (25° C); 0.5%FS±0.1% RH at 77° F (25° C).
- Pt100 temperature sensor (three-wire sensor).
  - Measurement range:  $-22^{\circ}$  to  $+140^{\circ}$  F ( $-30^{\circ}$  to  $+60^{\circ}$  C).
  - Measurement error: 0.3%FS±0.18° F (0.1° C) at 77° F (25° C).

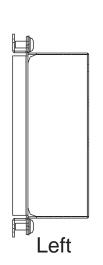
#### **Input Channel 2 Specifications**

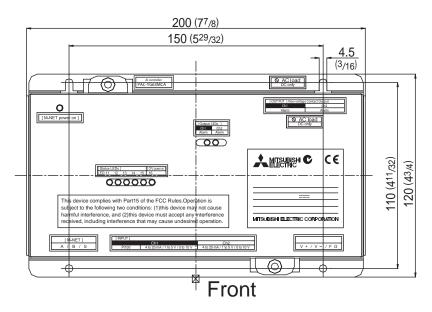
- Analog temperature/humidity sensor (4-20 mA, 1-5 VDC, 0-10 VDC).
  - Measurement range: Set by central controller.
  - Measurement error: 0.5%FS±0.18° F (0.1° C) at 77° F (25° C); 0.5%FS±0.1% RH at 77° F (25° C).

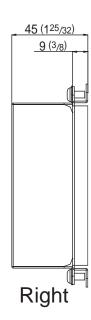


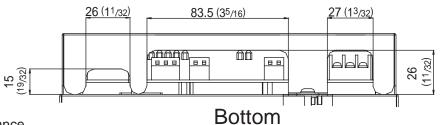
# Model: PAC-YG63MCA





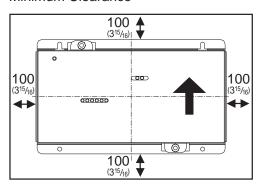






Unit: mm (in)

# Minimum Clearance



Unit: mm (in)







9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of quality warranties for the production of refrigeration and air

ISO Authorization System
The ISO 9000 series is a plant authorization system relating to quality warranties a stipulated by the ISO. ISO 9001 certifies quality warranties based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.



The ISO 14000 series is a set of standards applying to environmental pro-International Standard Organization (ISO).

PAC-YG63MCA\_AI\_Controller\_2008A © Mitsubishi Electric





Specifications are subject to change without notice.