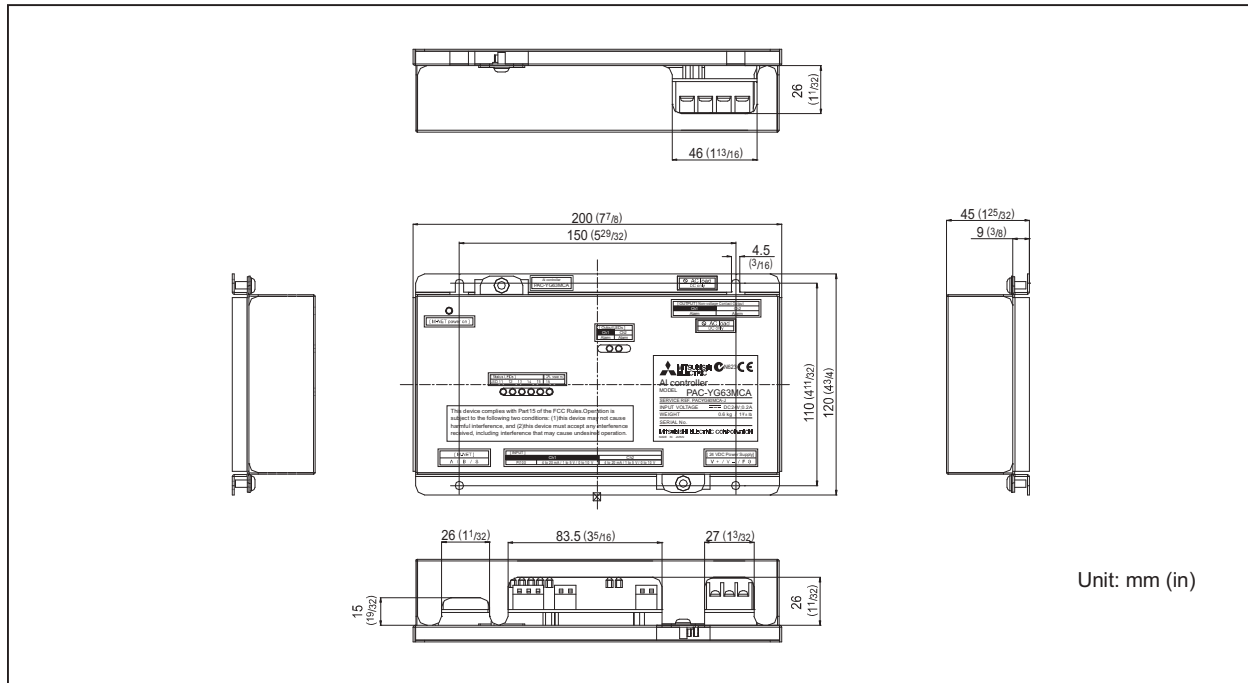


3-14. AI controller [PAC-YG63MCA]

The AI controller measures temperature and humidity; it also has an alarm capability if the measurement data exceeds defined setpoints. Historical measurement data can be displayed via only the AG-150/GB-50ADA Web browser and TG-2000. Temperature and humidity cannot be displayed on the AG-150 LCD. Furthermore, an alarm can be output if measurement data exceeds a preset upper or lower limit. The AI controller also features a function that interlocks M-NET devices for indoor units, etc.

■ External Dimensions



Usage Restrictions

- Mitsubishi Electric does not take financial responsibility for damages caused by issues beyond our control or special circumstances (predicable or unpredictable); and secondary or accidental damages, and damages to other objects. We also do not take financial responsibility for opportunities lost as a result of device failure, or electrical power failure at the end-user site.

Mitsubishi Electric does not take financial responsibility caused by end-users' requests including, but not limited to, device testing, startup, readjustment and replacement.

- Do not use this device in disaster prevention security or "critical to life" applications.

3. SYSTEM CONTROLLER

3-14-1. Specifications

3-14-1-1. Device Specifications

Item	Description						
Power Supply	24 VDC ±10%: 5 W						Screw terminal block (M3) (*5)
Interface	M-NET communication			17 to 30 VDC (*1)			Screw terminal block (M3) (*5)
	Input 						

*1: Supply electric power from a power supply unit for the transmission line or an outdoor unit. Furthermore, the power consumption factor of the MNET circuitry of this unit is "1/4" (equivalent to one ME Remote Controller).

*2: Configure the dip switch settings for the analog input method to use.

*3: The measurement error for the system includes the measurement error for this unit, sensor, and wiring.

a%FS (full scale) = a% × ([measurement range's upper limit value] - [lower limit value])

*4: Settings for the interlock function are performed from the Maintenance Tool. For details, refer to the operation manual for the Maintenance Tool.

*5: M3 and M3.5 are sizes of the screw on the terminal block (ISO metric screw thread). The number indicates the screw diameter (mm).

3. SYSTEM CONTROLLER

3-14-1. Specifications

3-14-1-2. Parts Purchased Separately

Prepare the following parts to install this device.

Required Part	Specification
Unit fixing screws	M4 screw × 4 (* M4: ISO metric screw thread)
Power supply for this device	Commercially available power source: 24 VDC ± 10% 0.2 A (Minimum loading), SELV circuit, power line with grounding terminal Ripple noise: Lower than 200 mVp-p Compatible specification Authorized or CE marked products. Subject to regulations: - IEC60950 (or EN60950) - CISPR22/24 (or EN55022/24) - IEC61000-3-2/3-3 (or EN61000-3-2/3-3)
Power supply for sensors	A separate power supply for sensors may be required. In the case of 24 VDC voltage, the capacity of the power supply for this unit can be increased so that the power supply can be shared.
Power line	Use a sheathed vinyl cord or cable. At least 0.75 mm ² (AWG18)
M-NET transmission line	Type of the cable: Sheathed vinyl cords or cable which comply with the following specifications or equivalent. • CPEV ø 1.2 mm to ø 1.6 mm • CVVS 1.25 mm ² to 2 mm ² (AWG 16) * CPEV: PE insulated PVC jacketed shielded communication cable * CVVS: PVC insulated PVC jacketed shielded control cable PE: Polyethylene PVC: Polyvinyl chloride Power needs to be supplied to the M-NET circuitry of this device. Use an outdoor unit or a separately purchased power supply unit for the transmission line.
Signal lines (Sensor input lines)	Shows the size of the electric wire (copper wire) that is adapted to the terminal block of this device. Refer to the usage and cautionary items of the sensor when performing settings. However, use a line with shielded line. Electric wire size (1) Solid wire: ø 0.65 mm (AWG21) - ø 1.2 mm (AWG16) (2) Stranded wire: 0.75 mm ² (AWG18) - 1.25 mm ² (AWG16) Single strand: At least ø 0.18 mm

[Parts to be Purchased Separately]

Name	Model	Application	Remark
Power supply unit	PAC-SC51KUA	Power supply to the M-NET transmission line	This is not required when power is to be supplied from an outdoor unit.

[Commercially available parts]

Part	Use	Remark
External 24 VDC power source	Supplies power to the AI controller.	Refer to "Power supply for this device" and "Power supply for sensors" in "Required Part" above for the capacity of the power supply.
Sensor	Measures temperature and humidity.	Temperature sensor (PAC-SE40TSA) cannot be connected.

3-14-2. Interlock control

AI controller (PAC-YG63MCA) has an interlock control function, which enables operation or set temperature change on the M-NET devices such as indoor units.

Interlock control covers the units connected to the AI controller with M-NET system. AG-150/GB-50ADA/GB-24 must be connected to use the function. Ask your dealer for interlock control setting. The setting requires special tool support.

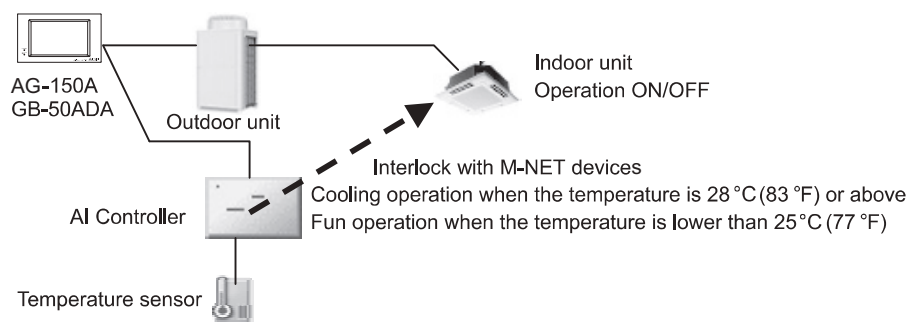


CAUTION

Before using the interlock control, you must agree to the following.

- 1.This feature must not be used for disaster prevention or security purpose.
(Not designed to be used in situations that are life-threatening)
- 2.No functions must be added that allow the malfunctioning unit to run by defeating the safety features, such as an external ON/OFF switch or a short-circuit.
- 3.Those settings for the function that are not supported by the interlocked units must not be made. All the settings must be made within the specified range.
(Failure to observe these precautions may result in malfunctions and failures.)
- 4.Perform a test run for interlock control, and confirm the correct settings and normal operation.
- 5.The system must be configured in the way that integrates the operation of the interlocked fire and emergency control systems.

Item	Content	Remarks
Number of events	24 events	1 event interlock with 1 unit
Determinant condition for interlock control	Measurement value Measurement interval is 1 to 7200 seconds.	- Exceeding measurement value in setting range - Exceeding upper/lower limit alarm detection value and cancellation value
Interlock control contents (to be output)	1 action for 1 condition - ON/OFF operation of indoor units - Operation mode change of indoor units - Temperature setting of indoor units - Contact output to DIDO controller	Interlock control covers the units connected to AI controllers with M-NET system.
Other	Interlock control prohibition function is enabled at emergency stop from AG-150/GB-50ADA/GB-24	



Interlock control of AI controller (example)