



PT9E-0351

# **Pyrolyzer Unit**

**(For Use with GD-81D Series)**

## **PLU-80**

# **Operating Manual**

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# 1. Product Overview

## 1-1. Introduction

Thank you for purchasing this PLU-80 Pyrolyzer Unit (“the product” hereinafter) designed specifically for use with a GD-81D Series gas detector head. Please confirm that the model number of the product you purchased corresponds to the specifications described in this manual.

The product should be used only by fully-trained personnel.

Maintenance procedures described in this manual should be performed only by fully-trained personnel.

Any maintenance procedure not described in this manual must be performed by RIKEN KEIKI or our certified service engineers. Please contact RIKEN KEIKI.

The product is a pyrolyzer unit specifically for use with a GD-81D Series gas detector head. It must always be used in conjunction with a GD-81D Series base unit.

This operating manual describes how to use the product (PLU-80) in conjunction with a gas detector head. For information on basic operating procedures, refer to the operating manual for the GD-81D Series base unit. This document is intended to supplement the GD-81D Series operating manual (PT2-343).

To ensure correct use of the product, make sure you have read and understand the GD-81D Series operating manual before use.

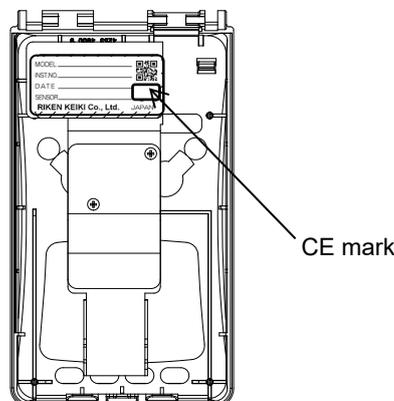
Keep this operating manual on hand to allow ready reference during use.

## 1-2. DANGER, WARNING, CAUTION, and NOTE

|  |   |
|--|---|
|  <b>DANGER</b>  | The DANGER symbol indicates that improper handling of the product may result in death, severe injury, or serious property damage. |
|  <b>WARNING</b> | The WARNING symbol indicates that improper handling of the product may result in severe injury or serious property damage.        |
|  <b>CAUTION</b> | The CAUTION symbol indicates that improper handling of the product may result in minor injury or minor property damage.           |
| <b>*NOTE</b>   | The NOTE sign indicates recommendations for product handling.   |

## 1-3. Checking CE mark

The product specifications will vary depending on the specific standards and explosion-proof certification. Check the actual product specifications before use.



CE mark location (rear of front cover)

## 2. Important Safety Information

### 2-1. Danger items

#### **DANGER**

The product is a non-explosion-proof device. Never attempt to use the product to detect gases above the lower explosive limit (LEL).

### 2-2. Warnings

#### **WARNING**

##### Power source

Before turning on the power for the product, be sure to confirm that the power source meets the specified voltage requirements. Do not use unstable power supplies. Doing so may result in malfunctions.

##### Protective grounding required

Do not cut the internal or external protective grounding wire of the product or disconnect the protective grounding terminal.

##### Piping

The product and base unit gas detector head are designed to draw in gas at atmospheric pressure. Applying excessive pressure to the sampling pipe openings (GAS IN, GAS OUT) is dangerous. Doing so may cause the detection target gas to leak from the inside. Be careful to avoid excessive pressure during use. Discharge exhaust gas after detection to a location determined to be safe by connecting an exhaust pipe to the detection target gas outlet (GAS OUT) located on the bottom of the gas detector head.

##### Operating in the presence of gases

Do not operate the product in locations where combustible or explosive gases or vapor are present. Operating this product in such environments is extremely hazardous.

##### Pyrolyzer heater (pyrolyzer)

The pyrolyzer heater becomes hot. Do not touch the pyrolyzer heater. Doing so may result in burns. In addition, do not touch the pyrolyzer heater immediately after turning the power off, when it is still hot.

## 2-3. Precautions

### CAUTION

#### Do not use walkie-talkies near the product.

Radio waves from walkie-talkies or other radio transmitting devices near the product or cables may affect readings.

Walkie-talkies and other radio transmitting devices should be used only at a distance sufficient to avoid any effects on the product.

#### Wait at least five seconds after turning off the power before turning the power back on.

The product may not function correctly if the power is turned on again within five seconds.

#### Attach a dust filter before using the product.

Attach the specified filter when using this product to avoid the effects of gas absorption and airborne dust.

The appropriate dust filter depends on the type of gas to be detected. Contact our sales department for more information.

#### Observe the specified operating range to avoid condensation in the pipes.

Condensation within the pipes may lead to clogging or gas adsorption, preventing accurate gas detection. Take all required measures to prevent condensation. In addition to the installation environment, carefully monitor the temperature and humidity at the sampling point to prevent condensation within the pipes. When detecting gases that become more corrosive when dissolved in water (e.g., highly acidic gases), note that consequences may include impaired capacity to detect gases and corrosive damage to internal parts. Be sure to observe the operating range specified.

#### Do not disassemble or modify the product or alter the settings unnecessarily.

Never attempt to disassemble or modify the product. Doing so will void product performance guarantees. Additionally, under certain circumstances, altering the settings unnecessarily without a proper understanding of the details may prevent the alarm from operating correctly. Use the product correctly in accordance with this operating manual.

#### Be sure to perform regular maintenance.

The product is a safety device and must be regularly maintained to ensure safety. Continuing to use the product without maintenance will result in sensor sensitivity variations, preventing accurate gas detection.

## 3. Product Configuration

### 3-1. Main unit and standard accessories

#### <Pyrolyzer unit (PLU-80)>



#### <Standard accessories>

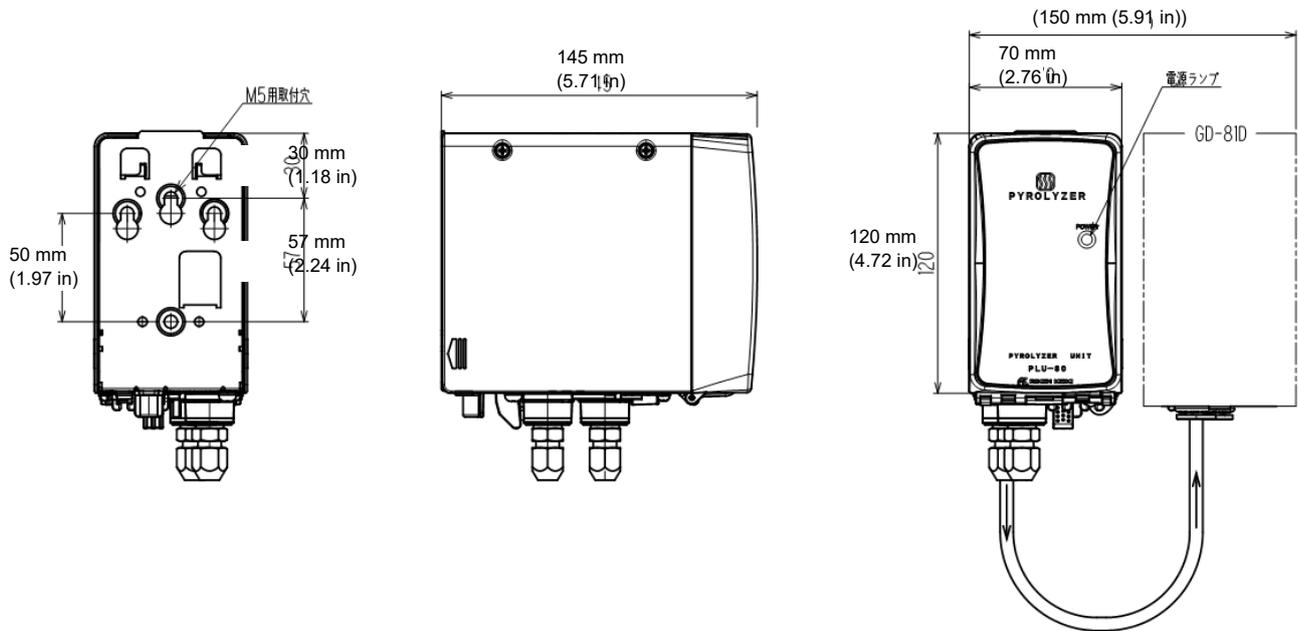
- Operating Manual
- Protective rubber caps (removed for use)
- Dedicated operating lever (used for wiring)
- Dedicated U-tube

#### <Gas detector head (GD-81D Series) [Base unit: Sold separately]>



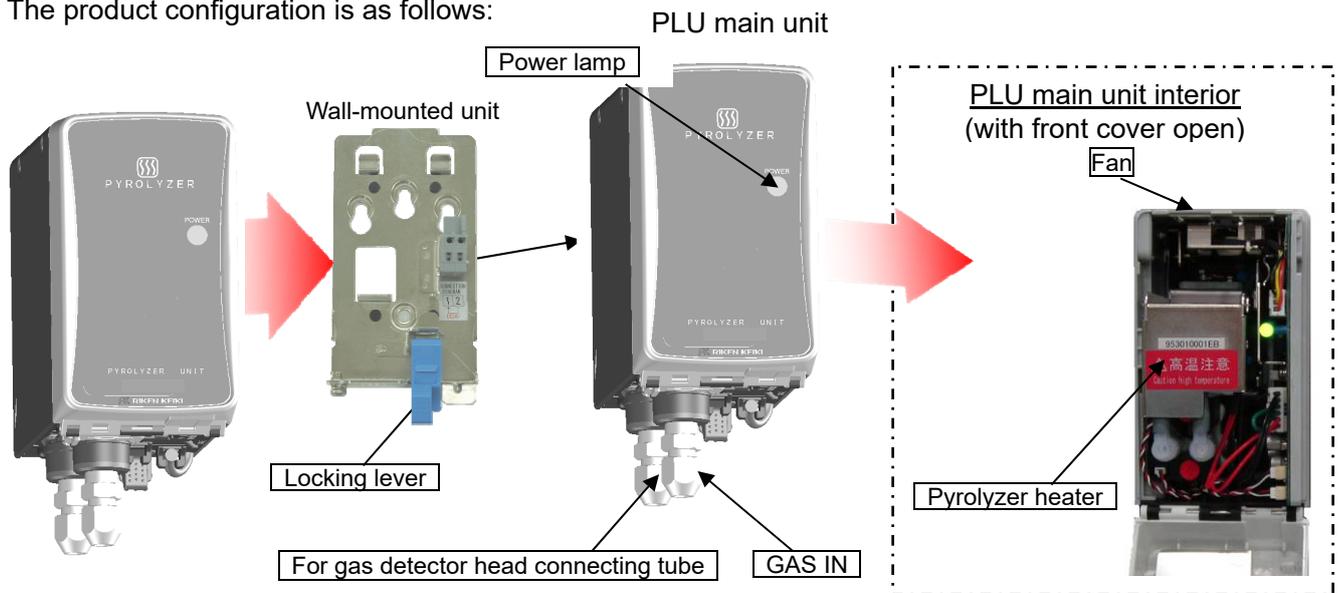
\* The product is a pyrolyzer unit specifically for use with a GD-81D Series gas detector head. Use the product only in conjunction with a GD-81D Series base unit.

### 3-2. Exterior drawings



### 3-3. Part names and functions

The product configuration is as follows:



## ⚠ CAUTION

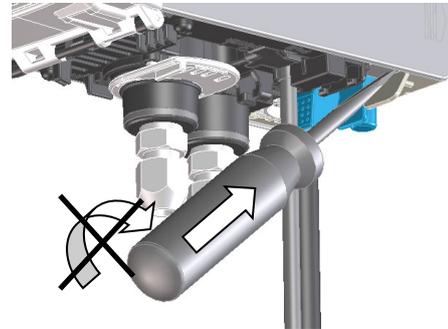
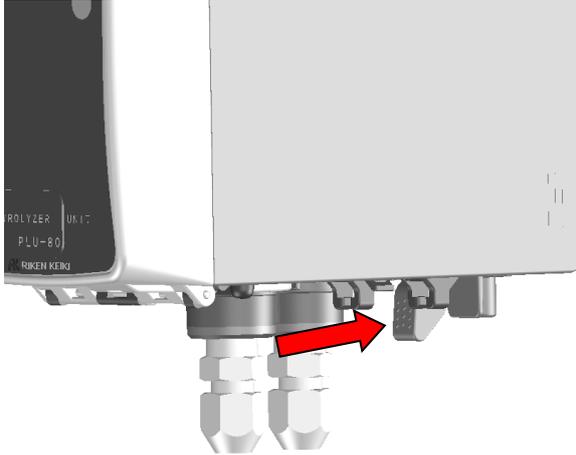
Each unit is composed of precision components. Be careful to avoid dropping the units during removal. Doing so may result in impaired performance or failure.

## <Removing and attaching the PLU main unit>

### Removing the PLU main unit

Press the pale-blue lever to the side of the wall-mounted unit and lift the PLU main unit while continuing to press on the lever.

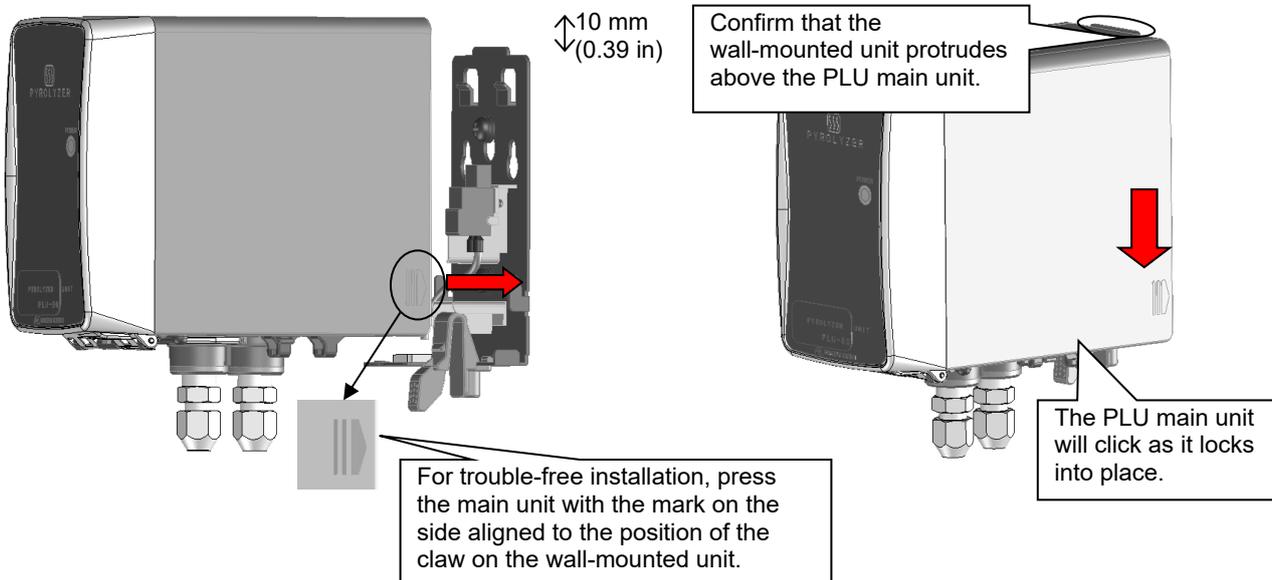
If you cannot lift the PLU main unit, insert a large flathead screwdriver as shown in the diagram below while pressing on the lever. The unit should come loose easily. Simply insert the flathead screwdriver into the wall-mounted unit, avoiding rotating or moving up or down.



### Attaching the PLU main unit

Position the PLU main unit 10 mm above the wall-mounted unit and press the main unit against the wall-mounted unit. Make sure the claws on both sides of the wall-mounted unit fit the grooves of the PLU main unit.

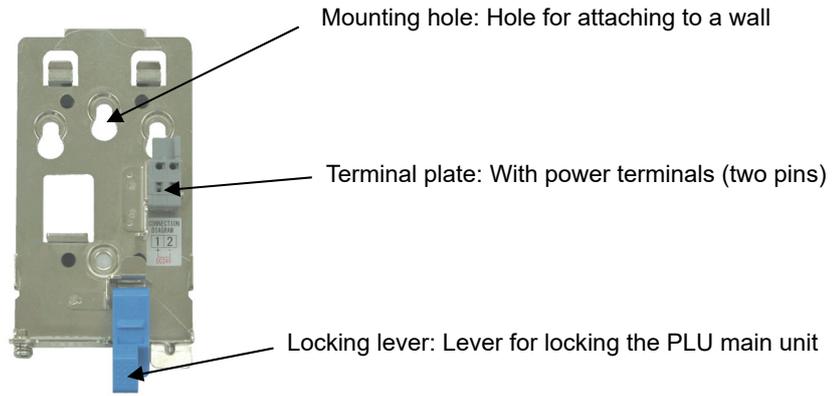
Next, press down on the PLU main unit to secure into place. When the PLU main unit is correctly secured into place, the lock at the bottom of the main unit will click. Confirm that the upper central part of the wall-mounted unit protrudes above the PLU main unit.



## ⚠ CAUTION

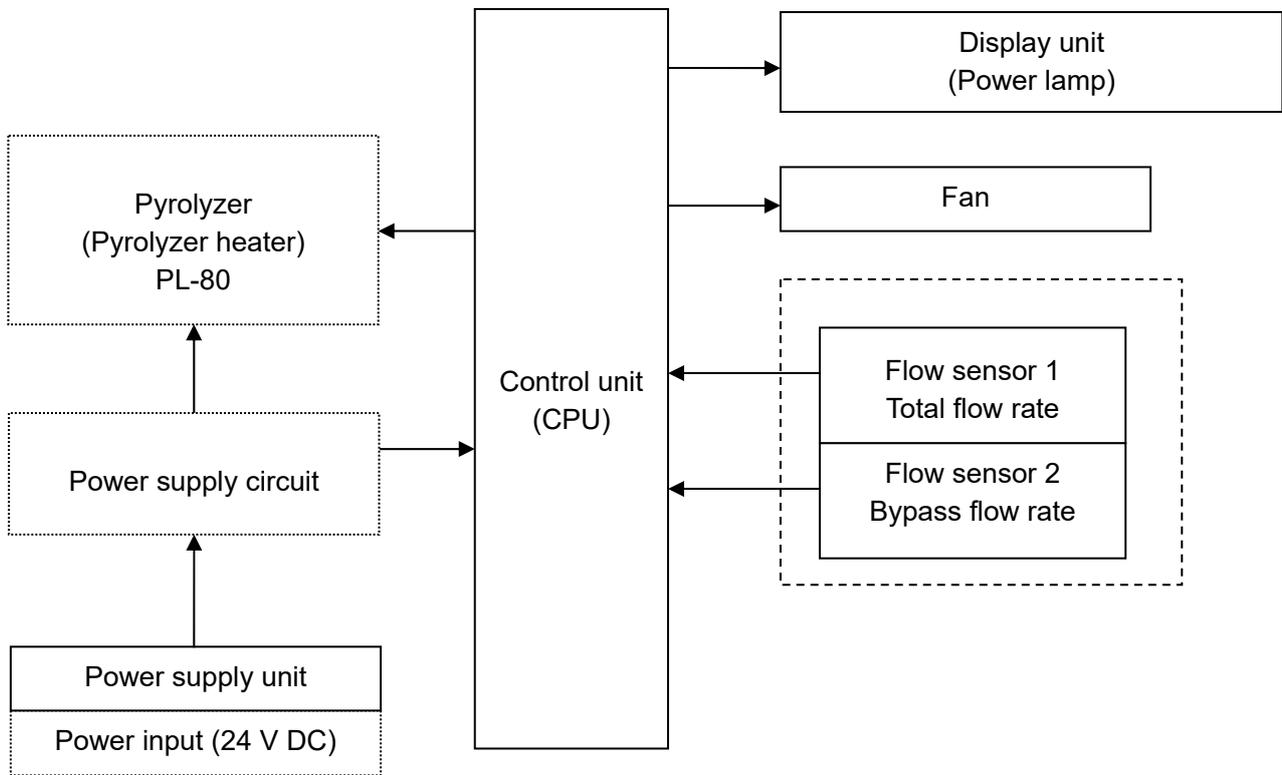
- Be careful to avoid dropping the PLU main unit when removing it. When attaching the PLU main unit to the wall-mounted unit, confirm that it is attached securely. If it is not attached securely, the PLU main unit may fall and result in unexpected injuries or damage to the devices.
- Remove and attach the PLU main unit with the power turned off.

<Wall-mounted unit>

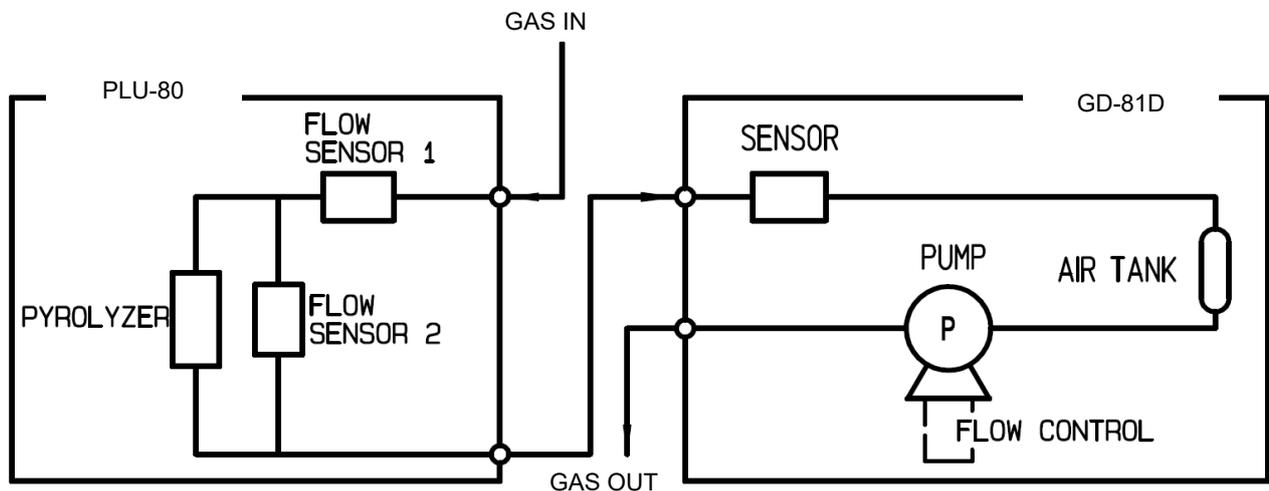


3-4. Block diagrams

<Electrical system diagram>



<Piping diagram>



## 4. Usage Instructions

### 4-1. Usage note

The usage precautions apply to both users who have previously used the product and first-time users. Failure to observe these precautions may result in failure of the product and/or inability to detect gas correctly.

#### CAUTION

Use the product as soon as possible after delivery.

### 4-2. Precautions regarding installation location

#### CAUTION

The product is installed in close proximity to the base unit gas detector head (GD-81D Series). As with the gas detector head, the product is a precision device. Observe the same precautions regarding installation location given for the gas detector head. [Refer to the GD-81D Series operating manual.]

### 4-3. System design precautions

#### CAUTION

An unstable power supply or noise may result in malfunctions or false alarms. The system in which the product is used must be designed in accordance with the information provided in the operating manual for the base unit gas detector head (GD-81D Series) as well as the information provided in this section.

#### Use a stable power source.

Supply the product with a power source that meets the following requirements:

|   |   |
|---|---|
| Power supply voltage                          | 24 V DC $\pm$ 10 % (main unit terminal voltage)   |
| Time allowed for instantaneous power failures | Approx. 10 ms<br>(A power failure of 10 ms or more will result in restarting.)<br>Use an external uninterruptible power supply or similar system to guarantee continuous operation and functionality. |
| Miscellaneous                                 | Do not use with power sources subject to very high power loads or high frequency noise.<br>Where necessary, use a line filter or other device, and keep the product away from noise sources.          |

#### Design with consideration for heat dissipation.

- Avoid blocking the ventilation holes when installing vertically. We recommend leaving at least 10 mm (0.39 in) between each set. A gap of at least 5 mm (0.20 in) must be left.
- If you plan to install the product in an enclosed instrument panel or similar space, install ventilation fans at the top and bottom of the panel.

#### CAUTION

If temperatures inside the product reach approximately 60 °C (140 °F), a trouble alarm will be issued (on the gas detector head side), stopping the pyrolyzer heater. Internal temperatures will exceed ambient temperatures by 10 to 20 °C (50 to 68 °F). Make sure ambient temperatures do not exceed 40 °C (104 °F). Leave a clearance of at least 30 mm (1.18 in) above the product to keep internal temperatures from rising.

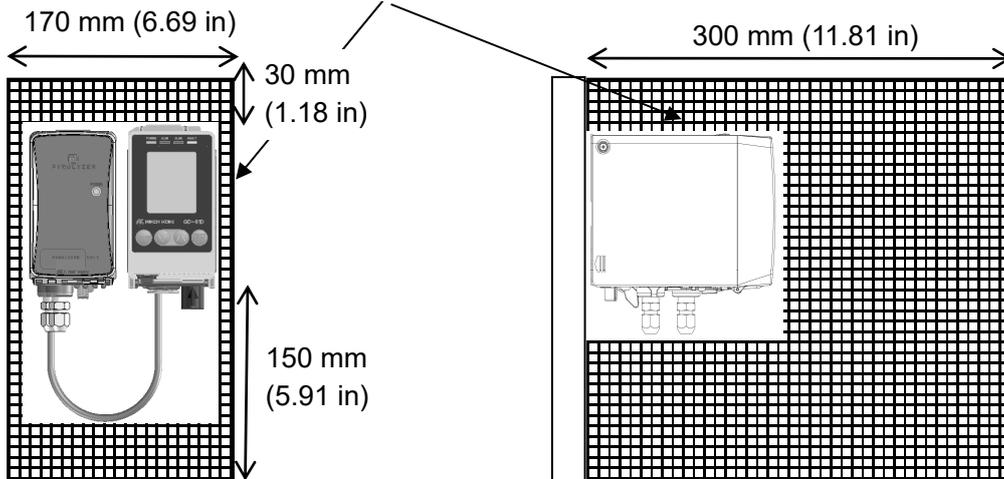
#### 4-4. Mounting method

### ⚠ CAUTION

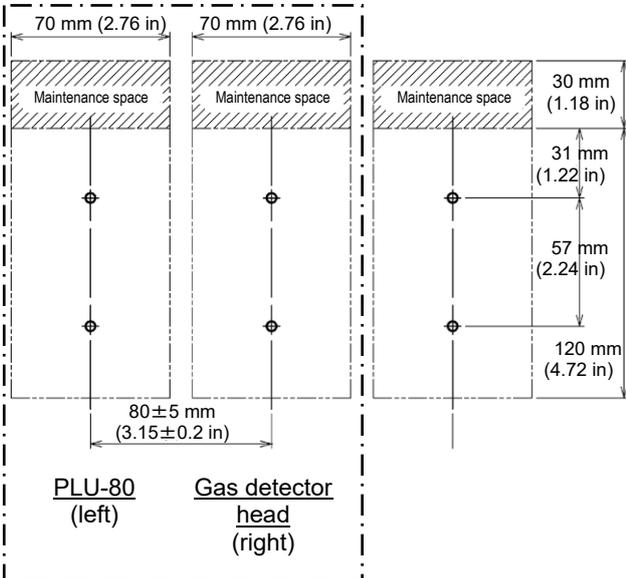
- The product is installed in close proximity to the base unit gas detector head (GD-81D Series). Refer to this section and the gas detector head (GD-81D Series) operating manual before installing.
- Before installing the product, remove the protective rubber caps attached to the GAS IN and GAS OUT ports. Installing the product with the rubber caps attached and turning on the power in this state will impose excess loads on the pump and sensor and may result in damage. Be sure to remove the caps.

<Mounting dimensions and maintenance space>

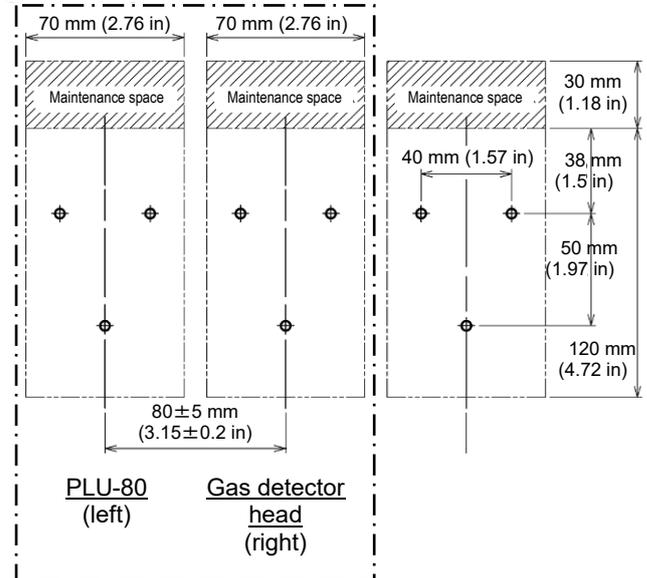
Secure the hatched areas as mounting space before installing the product.



When installing each unit with two screws



When installing each unit with three screws



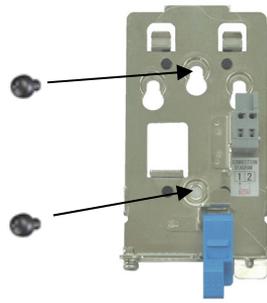
### ⚠ CAUTION

- Mount the product (PLU-80) and a gas detector head (GD-81D Series) at a pitch of  $80 \pm 5$  mm ( $3.15 \pm 0.2$  in) (Gap: 5 to 15 mm (0.2 to 0.59 in)). We recommend leaving at least 10 mm (0.39 in) between each set. A gap of at least 5 mm (0.2 in) must be left.
- Install the PLU-80 on the left side of the gas detector head (GD-81D Series).



<Installing the wall-mounted unit>

Secure the wall-mounted unit to the installation surface with two or three M5 screws.



**Recommended attachment screws**  
Length: 8 mm (0.31 in) or longer  
The flat washer must be O.D.10 mm (0.39 in) or less (small round).

After attaching the wall-mounted unit to the wall face, attach the PLU main unit to the wall-mounted unit.

**⚠ CAUTION**

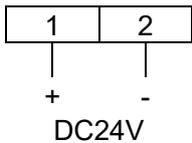
Install the wall-mounted unit so that no gap remains between the wall-mounted unit and the installation surface. A gap may result in unnecessary vibrations and noise.

4-5. Wiring procedure

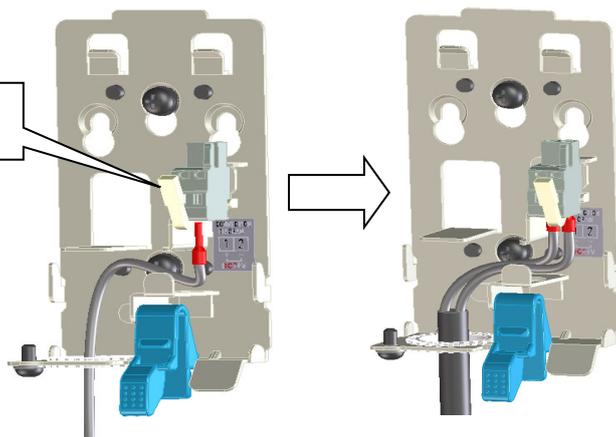
**⚠ CAUTION**

- The wall-mounted unit for the product and the wall-mounted unit for the gas detector head (GD-81D Series) have different numbers of terminals. Make sure they are mounted correctly. (PLU-80: 2 pins, gas detector head: 10 pins)
- The wiring procedure is the same as for the gas detector head. Refer to 'Terminal plate specifications', 'Terminal plate connections', 'Clamping cables', and 'Grounding terminal connections' of the gas detector head (GD-81D Series) operating manual.

<Terminal plate diagram>

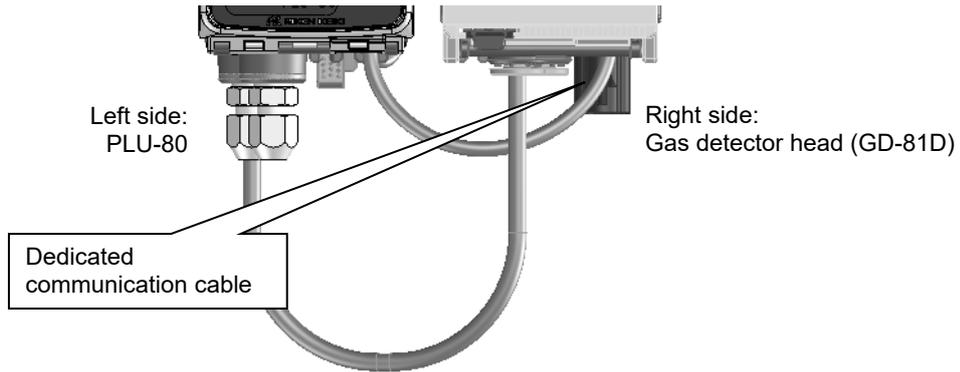


Use the dedicated operating lever.

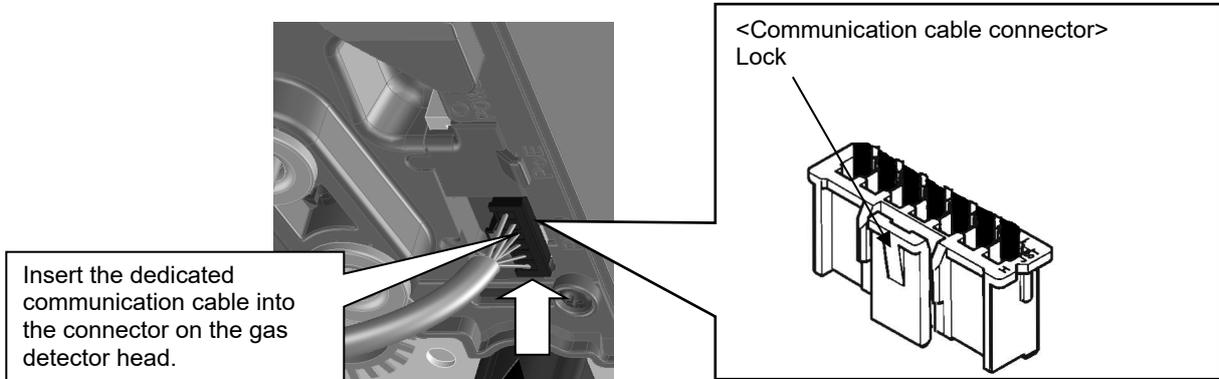


<Connecting with the gas detector head>

Connect the PLU-80 to the gas detector head using the dedicated communication cable extending from the PLU-80.



- Position the PLU-80 on the left side and the gas detector head on the right side when viewed from the front.
- Make the PLU communication connector on the gas detector head available for use in advance.
- The dedicated communication cable connector is fitted with a locking mechanism. Make sure the lock is securely engaged when connecting and release the lock before disconnecting.



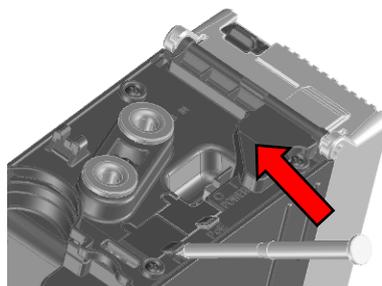
**CAUTION**

- Do not allow the communication cable to become snagged.
- The communication cable connector is fitted with a locking mechanism. Release the lock when connecting and disconnecting the cable. Attempting to pull out the cable while the connector is locked may damage the cable or cause other malfunctions.

**\*NOTE**

<Using the PLU communication connector on the gas detector head (GD-81D Series)>

- Insert a small flathead screwdriver into the gap where the tab on the communication connector cover is exposed and lift the cover in the direction indicated by the arrow to remove. Be careful to avoid pushing in the screwdriver too far. Doing so may damage the connector pins.
- The communication connector cover covers both the PLU dedicated communication cable connector and the LAN cable connector. It is easily split/separated, as required. Attach the cover if the connector is not connected.
- When attaching the cover, insert the tab side into the main unit first, then press the cover into place.



#### 4-6. Piping procedure

### ⚠ CAUTION

The piping for the product should be connected with the gas detector head (GD-81D Series), with the product positioned upstream of the gas detector head.

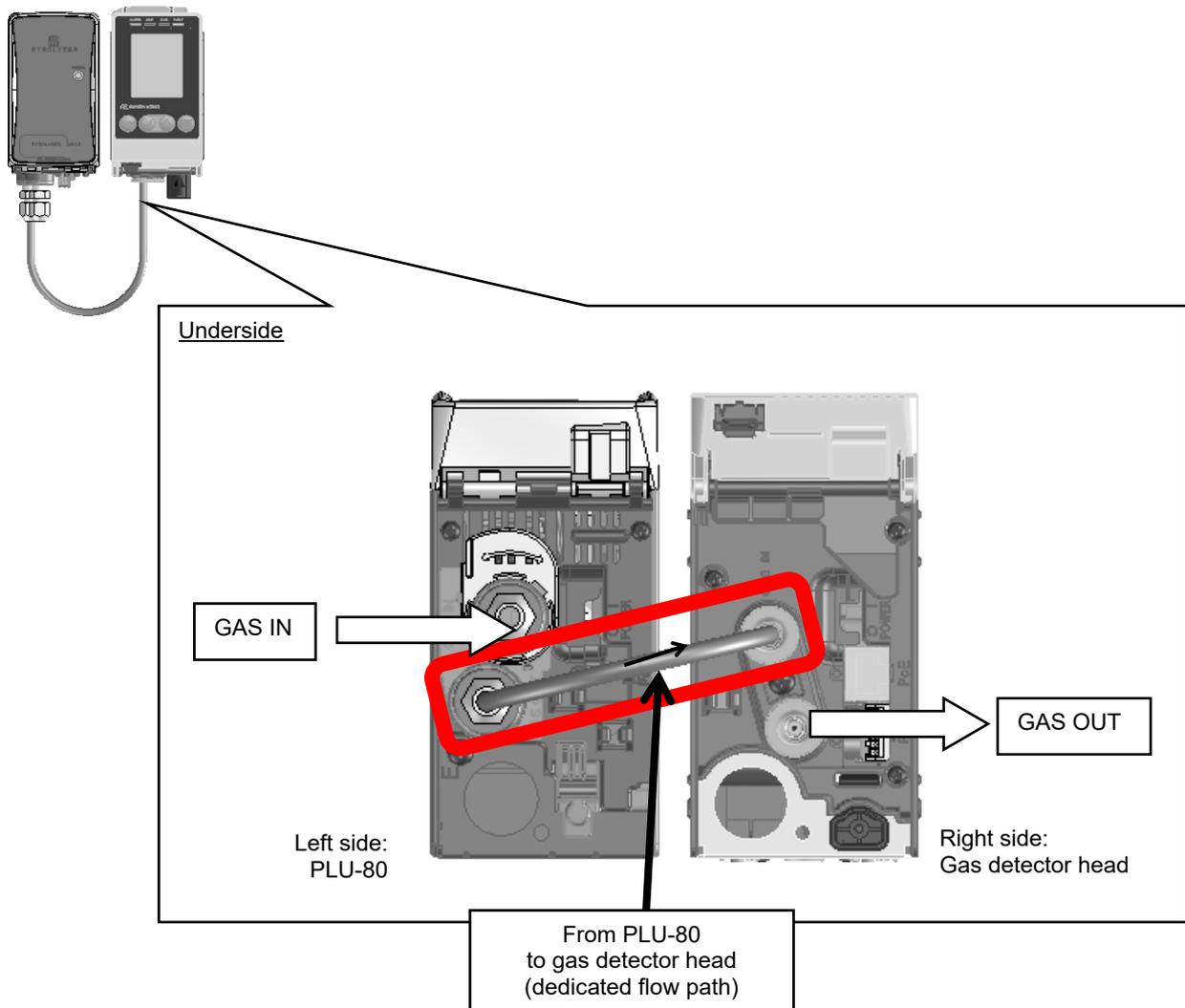
The sampling pipe openings (GAS IN, GAS OUT) on the product feature Rc1/4 screw threads to which polypropylene unions are fitted on the standard product in the same way as on the gas detector head. The piping connection procedure is basically the same. [Refer to the GD-81D Series operating manual.]

#### <Connecting with the gas detector head>

When the product (PLU-80) is used in conjunction with a gas detector head (GD-81D Series), the piping must be connected to make the following flow path:

GAS IN → **PLU-80** → **Gas detector head (GD-81D Series)** → GAS OUT

Use the dedicated U-tube provided to connect the PLU-80 to the gas detector head. (The OUT side on the PLU-80 and the IN side on the gas detector head)



## CAUTION

- Correct gas detection will not be possible if the pipes are not connected correctly. Be careful to avoid errors when connecting the pipes.  
Note that connecting the dedicated U-tube (from the gas detector head to the PLU-80) incorrectly will not generate any error messages.
- Be sure to use the dedicated U-tube provided to connect the PLU-80 to the gas detector head. Performance cannot be guaranteed if parts other than those specified are used.

## 5. Operating Procedures

### 5-1. Preparations for startup

Note the following precautions before connecting the power source. Ignoring these precautions may result in electric shock or damage to the product.

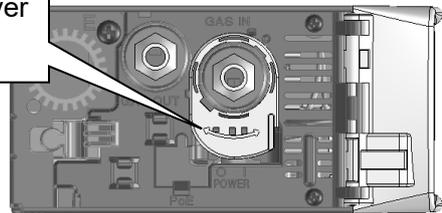
- Check to confirm that the connections between the product and the base unit gas detector head (GD-81D Series) (dedicated cable and dedicated tube) are correct.
- Ground the product.
- Check to confirm that external wiring (power supply wiring) is correctly connected.
- Check to confirm that the power supply voltage is within the rated range.
- Check to confirm that the dust filter is correctly attached.

### 5-2. Startup procedure

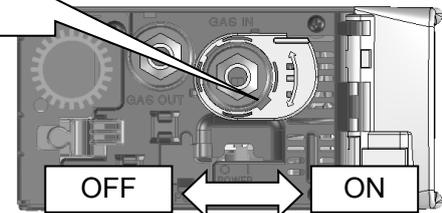
- Before turning on the power switch, check to confirm that the product has been correctly installed.
- After checking, turn on the power switch.  
The power lamp flashes. (After one hour, the lamp stops flashing and remains lit constantly.)



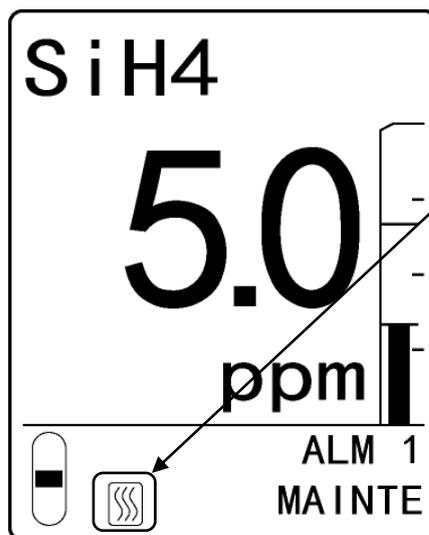
Switch cover closed



Switch cover open



- After turning on the power switch for the product (PLU-80), turn on the power for the base unit gas detector head (GD-81D Series). Confirm the initialization and startup of the gas detector head.



Pyrolyzer connection display



## 6. Maintenance

The product is used in conjunction with the base unit gas detector head (GD-81D Series). As with the gas detector head, the product is an important safety and disaster-prevention device. Perform product maintenance in conjunction with the gas detector head at regular intervals to ensure performance and to improve disaster prevention and safety reliability. For maintenance details, refer to the gas detector head (GD-81D Series) operating manual.

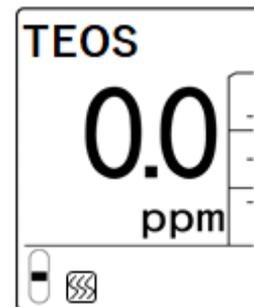
### 6-1. Maintenance mode

The product data (parameters) can be viewed from the menus in maintenance mode of the gas detector head. The data is displayed on the LCD of the gas detector head.

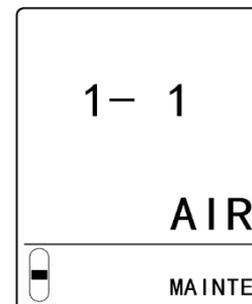
<Pyrolyzer data display [2-11]>

«Maintenance mode (operations on the gas detector head)»

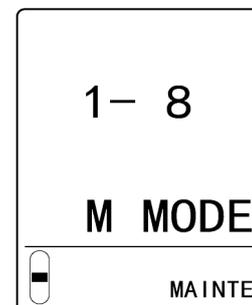
- 1 In detection mode, hold down the **MODE** key for about three seconds.



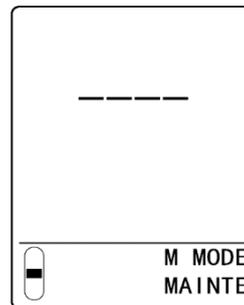
The product switches to user mode.



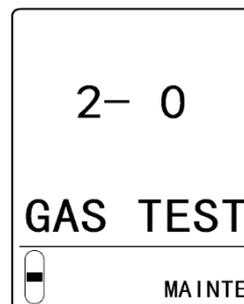
- 2 Press the **▲** key or **▼** key to select [1- 8 M MODE], then press the **TEST/SET** key.



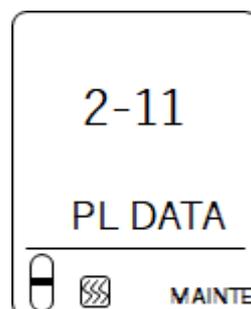
3 Hold down the TEST/SET key for about three seconds.



The product switches to maintenance mode.

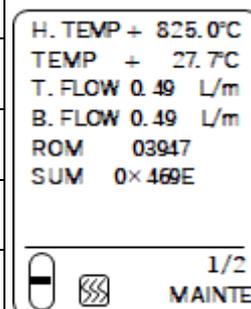


4 In maintenance mode, press the ▲ key or ▼ key to select [2-11 PL DATA], then press the TEST/SET key.

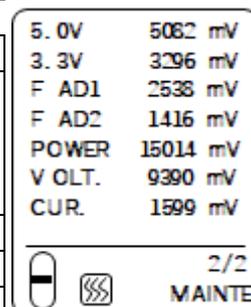


Press the ▲ or ▼ key to switch between screens.

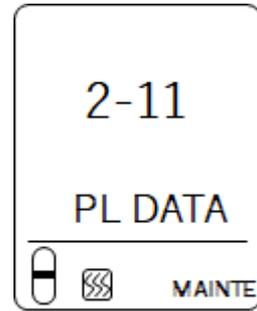
| Screen | Parameter | Description   |
|--------|-----------|---|
| 1/2    | [H. TEMP] | Displays the temperature setting of the pyrolyzer.      |
|        | [TEMP]    | Displays the current temperature of the pyrolyzer.      |
|        | [T. FLOW] | Displays the current flow rate in the pyrolyzer.        |
|        | [B. FLOW] | Displays the current bypass flow rate in the pyrolyzer. |
|        | [ROM]     | Displays the program version of the instrument.         |
|        | [SUM]     | Displays the SUM value of this instrument.              |



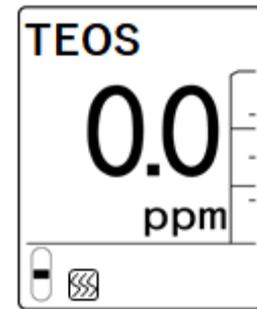
| Screen | Parameter | Description   |
|--------|-----------|---|
| 2/2    | [5. 0V]   | Product internal information.<br>Used to diagnose abnormalities, etc. |
|        | [3. 3V]   |   |
|        | [F AD1]   |   |
|        | [F AD2]   |   |
|        | [POWER]   | Displays the current pyrolyzer power.                                 |
|        | [VOLT.]   | Displays the current pyrolyzer voltage.                               |
|        | [CUR.]    | Displays the current pyrolyzer current.                               |



5 Press the MODE key.



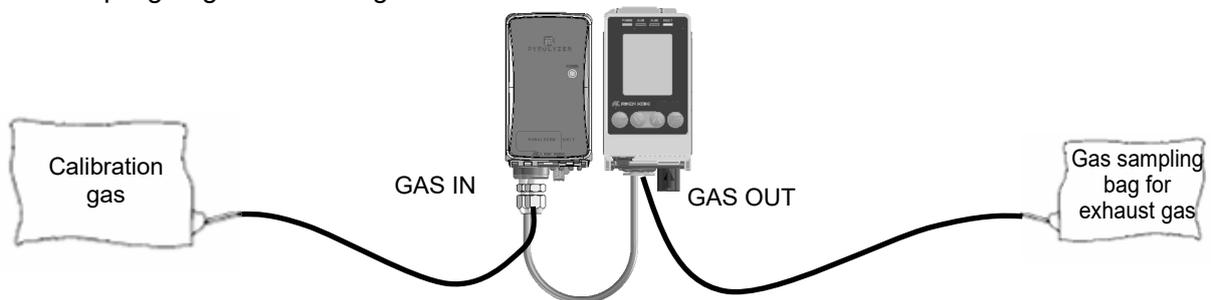
6 Hold down the MODE key for about three seconds to switch to detection mode.



## 6-2. Calibration procedure

Before performing calibration, prepare the calibration gas, then calibrate with the gas detector head in maintenance mode (zero adjustment mode and span adjustment mode).

- Zero adjustment gas (collected in a gas sampling bag)
- Calibration gas for span adjustment (collected in a gas sampling bag)
- Gas sampling bag for exhaust gas



### \*NOTE

For detailed operation procedures in zero adjustment mode and span adjustment mode, refer to the gas detector head (GD-81D Series) operating manual.

## 6-3. Other adjustments/cleaning method

<Product cleaning>

The product must be cleaned if it becomes too dirty. Turn off the power and wipe off any dirt with a cloth. Do not use water or organic solvents to clean the product. Doing so may cause malfunctions. Pipes with extremely dirty interiors can affect gas detection. Use dry air to clean.

## 6-4. Replacing various parts

<Replacing periodic replacement parts>

List of recommended periodic replacement parts

| No. | Name        | Check interval | Replacement interval | Quantity (per unit) |
|-----|-------------|----------------|----------------------|---------------------|
| 1   | Flow sensor | 1 year         | 5 years              | 2                   |
| 2   | Fan         | 0.5 years      | 2 to 4 years         | 1                   |
| 3   | Pyrolyzer   | —              | 2 to 4 years         | 1                   |

### \*NOTE

- The above replacement intervals are guidelines only. Replacement intervals may vary depending on actual operating conditions. These intervals do not constitute warranty periods. Replacement intervals may vary depending on the results of regular maintenance.
- When replacing the pyrolyzer, replace the elbow at the same time.

Flow sensor, fan, and pyrolyzer replacement

A functional check by a qualified service engineer is required after replacing the flow sensors, fan, or pyrolyzer.

To ensure safety and product reliable operation, replacement parts requiring functional checks should be checked by a qualified service engineer. Contact our sales department.

## 7. Storage, Relocation, and Disposal

### 7-1. Procedure for storage or for extended periods without use

The product must be stored in the following environment:

- In a dark place at normal temperatures and humidity and away from direct sunlight
- In a location free of gases, solvents, and vapor

### 7-2. Procedures for relocation or reuse

When relocating the product, make sure that the new location conforms to the details described in '4-2. Precautions regarding installation location' and '4-4. Mounting method'.

Also refer to '4-5 Wiring procedure' and '4-6 Piping procedure' for wiring and piping work. Try to minimize the time for which the product is unpowered when relocating.

### CAUTION

Calibration must be performed before reusing a relocated product or a product that was previously stopped and stored. Contact our sales department for readjustments, including calibration.

### 7-3. Product disposal

Dispose of the product as industrial waste (incombustible) in accordance with local regulations.

#### <Disposal in EU member states>

- Waste Electrical and Electronic Equipment (WEEE) directive



The symbol on the product shown on the left indicates that the product and its individual parts must not be disposed of with general or household waste, and must be sorted and disposed of appropriately.

Proper disposal will help prevent potential negative effects on human health and the environment.

To ensure proper treatment, collection, and recycling of the product at the time of its disposal, please use the return and collection system available in your country. For more information on collecting and recycling used products, please contact the dealer or supplier from whom you purchased the product.

## 8. Troubleshooting

This troubleshooting section does not cover the causes of all problems that may occur with the product. It provides brief explanations to help identify the causes of common problems. If you encounter symptoms not addressed here or if problems persist even after taking corrective action, contact our sales department.

### CAUTION

This section describes troubleshooting procedures when using the pyrolyzer unit (PLU-80). For information on overall troubleshooting for the base unit gas detector head, refer to the gas detector head (GD-81D Series) operating manual.

#### <Pyrolyzer unit abnormalities>

| Symptom   | Cause  | Action   |
|---|--|--|
| <u>The power cannot be turned on.</u>   | The power switch is turned off.  | Turn on the power switch.  |
|   | Abnormalities or instantaneous interruptions in the power supply circuit   | Supply the rated voltage.<br>Review the uninterruptible power source, power line filter, and insulating transformer, then take additional necessary measures.  |
|   | The PLU main unit is not correctly mounted.  | Check to confirm that the PLU main unit is correctly fitted to the wall-mounted unit.  |
|   | Cable abnormalities (disconnections, loose connections, short circuits)  | Check the wiring for the product and for related devices.  |
| <u>Pyrolyzer abnormality</u><br>«on the gas detector head side»<br>• LCD display [E-70 PL COMM]<br>• FAULT lamp lit   | The power for the PLU-80 is not turned on.   | Turn on the power switch.  |
|   | The gas detector head and the dedicated communication cable are not connected, or the connection is faulty.              | Check to confirm that the dedicated communication cable is connected and that the connector of the cable is securely fitted.   |
| <u>Pyrolyzer abnormality</u><br>«on the gas detector head side»<br>• LCD display [E-70 PL COMM]<br>[E-71 PL FAULT]<br>[E-72 PL VOLT]<br>[E-73 PL CUR]<br>[E-74 PL FAN]<br>[E-75 PL TEMP]<br>[E-76 PL LOW]<br>[E-78 PL ROM]<br>[E-79 PL RAM]<br>• FAULT lamp lit | Abnormality inside the pyrolyzer, such as heater overheating or fan stoppage (The main unit power lamp flashes rapidly.) | Check to confirm that the top of the product fan is not blocked and that no foreign object is jammed in the fan. In enclosed instrument panels or other environments that trap heat, you may need to install a fan on the panel itself to ensure heat dissipation.<br>If the heater or fan is faulty, parts replacement is required. Contact our sales department. |
| <u>Pyrolyzer abnormality</u><br>«on the gas detector head side»<br>• LCD display [E-77 PL ADD]<br>• FAULT lamp lit  | The dedicated communication cable was connected incorrectly to a gas detector head that does not require a PLU-80.       | Reconnect to a gas detector head that does require a PLU (NF <sub>3</sub> , etc.).   |
|   | A sensor unit that does not require a PLU-80 was fitted in error.  | Change the sensor unit fitted to the gas detector head to a sensor unit (NF <sub>3</sub> , etc.) that requires a PLU.  |

## 9. Product Specifications

### 9-1. List of specifications

|  |   |
|--|---|
| Power supply indication                        | Power lamp lit (green)  |
| Recommended power cable                        | Cable 1.25 mm <sup>2</sup> (AWG16), 2 cores   |
| Power source                                   | 24 V DC ± 10 %  |
| Power consumption                              | Max. 25 W   |
| Pipe connection openings                       | Rc1/4 (with half union <PP> for PTFE tube<br>O.D.6 × I.D.4 mm (1/4 × 1/8 in) / (1/4 × 3/16 in)) |
| Operating temperature range                    | 0 °C to +40 °C (32 °F to 104 °F) (no sudden changes)  |
| Operating humidity range                       | 30 to 80 %RH (no condensation)  |
| Construction                                   | Box type, wall-mounting type  |
| External dimensions<br>(excluding projections) | Approx. 70 (W) × 120 (H) × 145 (D) mm<br>(Approx. 2.76 × 4.72 × 5.71 in)                        |
| Weight   | Approx. 0.9 kg (Approx. 1.98 lb)  |
| Exterior color                                 | Main unit: Gray, Front door: White  |

### 9-2. Accessory list

- Operating Manual
- Protective rubber caps
- Dedicated operating lever
- Dedicated U-tube

## Revision history

| Issue | Revision   | Issue date   |
|-------|--|--------------|
| 0     | First issue  | Aug 07, 2025 |
| 1     | Deletion: CE/UKCA Declaration of conformity<br>Correction: 7-3. Product disposal | Oct 31,2025  |