

1. SPECIFICATIONS

1-1. INDICATOR

Model	Gas Leak Detector EW-401
Detectable Gases	LPG, LNG, City Gas
Power supply	AC 220V. 50~60Hz
Power consumption	Normal condition - 2.5W. Alarm condition - 3W
Operating Temperature & Humidity	0°C ~ 40°C, Below 95%(RH)
Detection Range	0 ~ 100% LEL
Alarm point	Combustible gas- below 25% LEL (The set point is 18% LEL now)
Response time	Within 20 sec
Concentration display	3 FND 10 LED bar
Visual & audible Alarm	Yellow LED blinking, Buzzer Sound (above 70dB)
Operating	Green LED
Fault	Yellow LED, buzzer sound (short sound)
Warmup Time	about 1 min.
Cabling	VCT, CVVS (above 0.75mm)
Dimensions	149*259*87mm
Output	DC 12V (20~30mA). Dry contact (COM.NO.NC)
Relay contact	AC 220, 1A
Weight	about 1,718g

1-2. SENSOR

Detectable Gases	LPG, LNG, City Gas
Detection Technique	Catalytic combustion, diffusion
Operating Temperature & Humidity	-20°C~50°C. below 95% (RH)
Explosion-Proof	Exd II BT ₄
Conduit entry	16mm inside diameter, 23mm outside diameter
Dimensions	140*142*75 mm
Weight	1,016g
Detection range	0~100%(LEL)
Response time	within 20 sec

2. PART & FUNCTION

2-1. INDICATOR

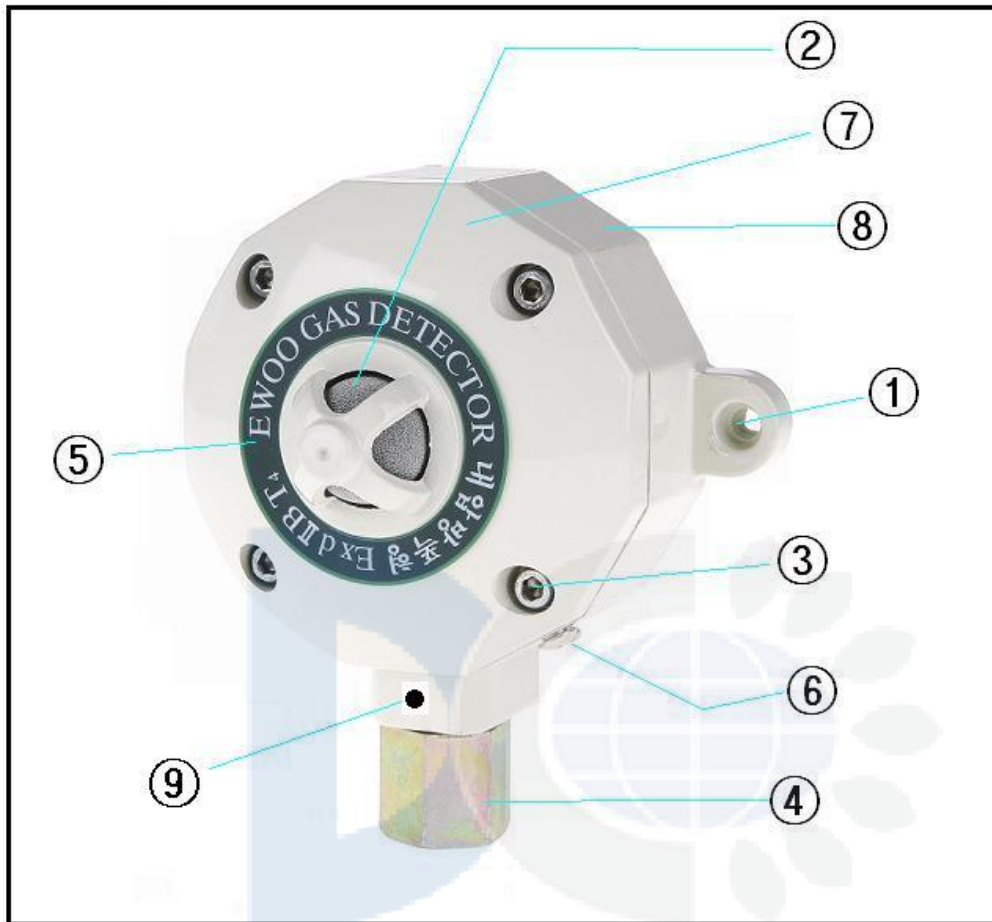


1. Power light- Green LED is lit while supplied by AC 220V
2. Alarm mute warning light (B/Z STOP)-Yellow LED blinks if the alarm mute button is pressed. and during this time, the audible alarm is mute in spite of the alarm condition. And if the button is pressed again, the light is eliminated and the buzzer becomes audible again.

3. Fault light (ERROR)- It gets lit when the fuse for the Sensor has blown. Or the Connection wire between the Sensor and the Indicator is isconnected or short-circuited. Or the sensitivity of the Sensor has been lost.

4. Digital display - It displays the Concentration of gas on 7 segment display - 3FND
 - If the concentration exceeds the point and the value of the concentration is maintained for several seconds, it displays letter GAS and the value of the concentration by rotation. (If the concentration keeps changing, the changing value of concentration is displayed only.)
5. LED dot display - It displays the Concentration of gas on LED dot display
6. Warning light(ALARM)- Yellow LED Blinks when Gas is detected. Eliminated in normal condition.
7. Test button - It allows the user to check the circuit of the UNIT panel. If it is pressed, the concentration of gas increases, as if gas is detected actually. And if the concentration exceeds the alarm point the audible alarm beeps.
8. Alarm mute button - It allows the user to silence the buzzer when it's alarm condition. If pressed one time, buzzer becomes mute. And pressed again, buzzer becomes audible again.
9. Reset button - It allows the user to reset the value of the concentration. But if the Concentration of Gas exceeds Alarm point, the alarm condition is not reset.

2-2. SENSOR



① Mounting hole

When mounting the detector, you can screw or nail through this hole.

② Protecting Filter

This filter protects the sensing device. (Made of sintered bronze, and plated)

③ Holding bolts

The cover is bolted to the body by these bolts. (Wrench Bolt M58*15)

④ Conduit entry

– It holds the Pipe or Flexible.

⑤ Sticker

⑥ Earth terminal

– rounded and cross head screw (M4*6)

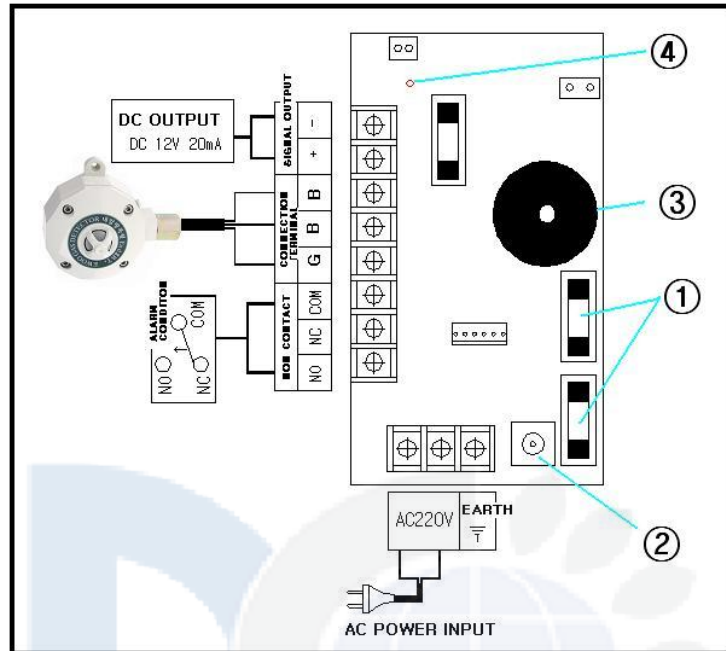
⑦ Cover

⑧ Body

⑨ Set screw bolt

3. COMPOSITION

3-1. INDICATOR



1. AC FUSE (2EA): 220V. 1A. glass tube
(When it has blown, Red warning light of the fuse gets lit)
2. Power switch: AC Power supply switch.
3. Buzzer: It makes audible alarm.
4. Warning light of AC fuse: When the AC fuse has blown, Red LED gets lit

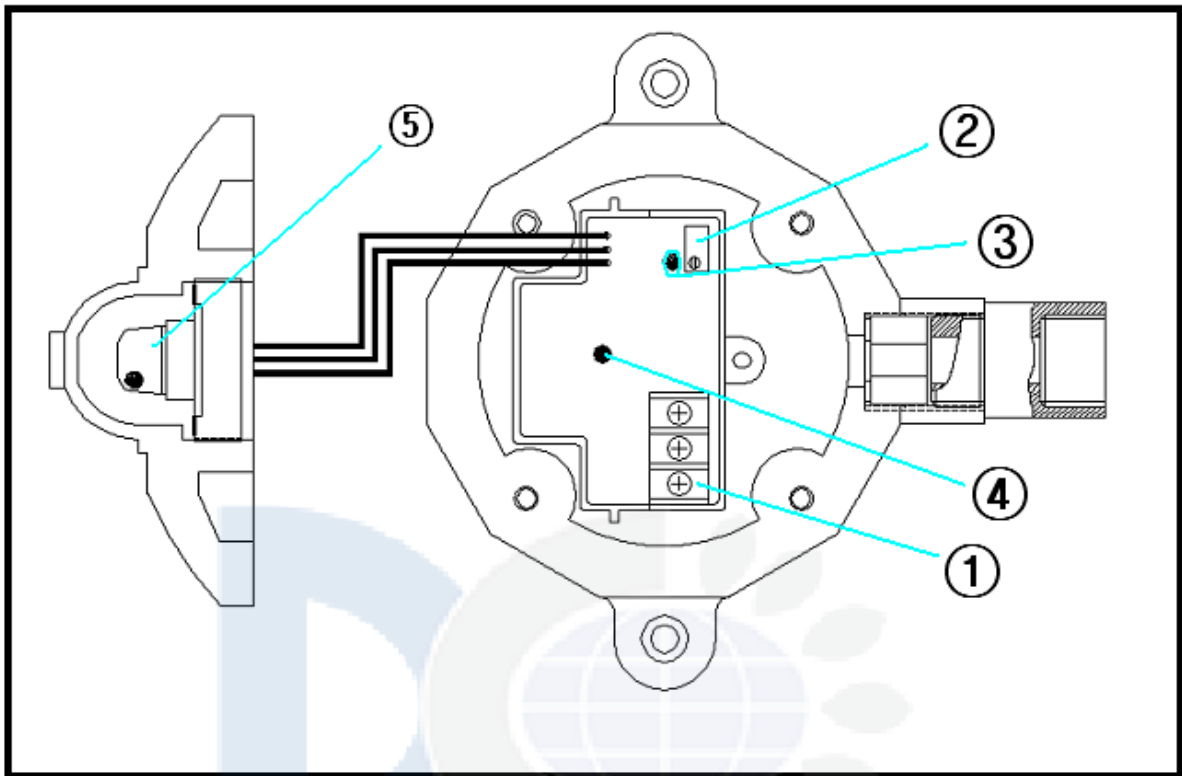
WIRING DIAGRAM

1. AC 220V input terminal: Please Connect with rated voltage (AC 220V)
2. Dry contact (NO.NC.COM) – In normal condition, COM terminal is connected with NC terminal. And in alarm condition, COM terminal is connected with NO terminal
3. Sensor connector (terminal block) – Please match the wires with terminals in color

Blue (White) +	Brown (Black)-	Green (Wire of signal)
Power supply of sensor + (DC 24V)	Power supply of sensor - (DC 24V GND)	Output of Sensor (4~20mA)

4. Alarm output terminal – These terminals are used when the Indicator outputs the alarm signal to the Control panel and others. (DC 12V 20mA)

3-2. SENSOR

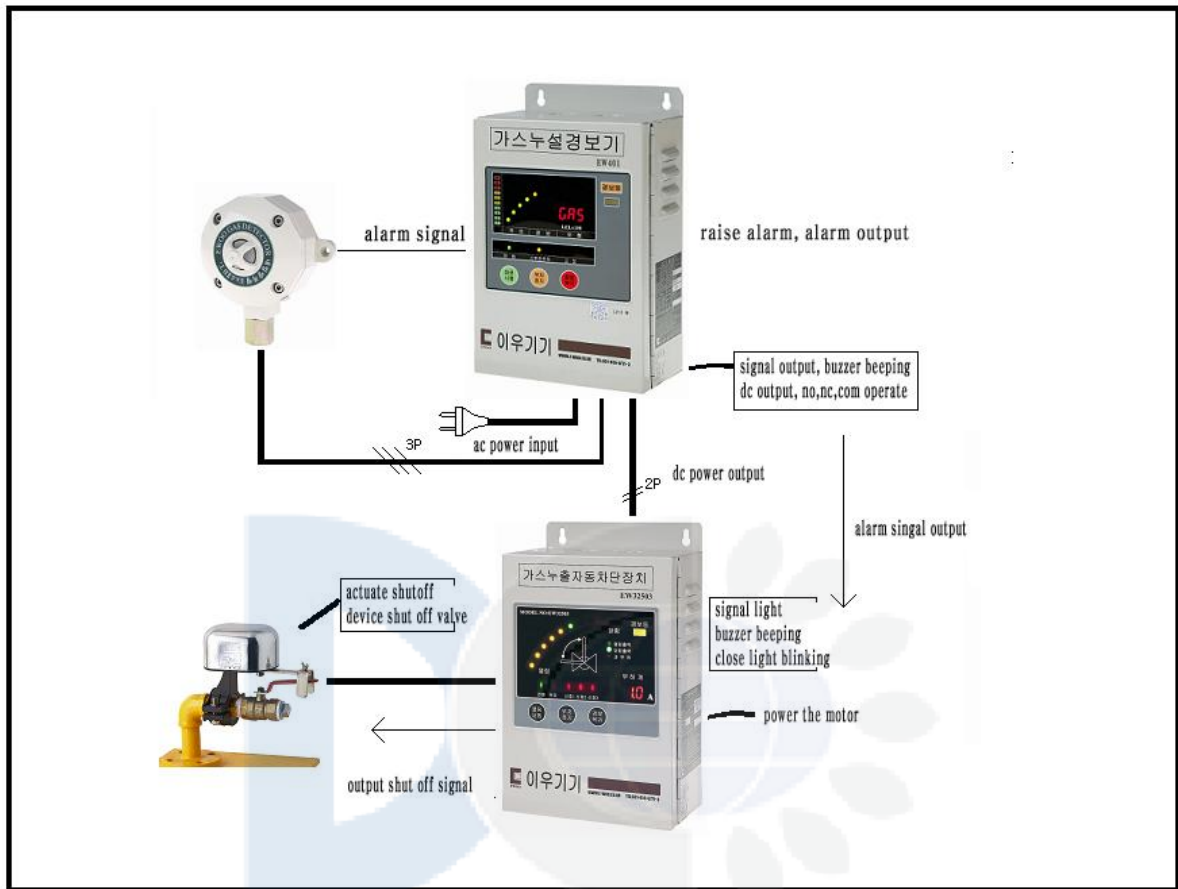


- ① Connector (terminal block)

Blue (White) +	Brown (Black)-	Green (Wire of signal)
Power supply of sensor + (DC 24V)	Power supply of sensor - (DC 24V GND)	Output of Sensor (4~20mA)

- ② Zero Calibration – We release the detector with it being set. Do not attempt to modify.
- ③ Concentration light – The brightness of Yellow light changes in proportion to the Concentration of Gas (eliminated in normal condition)
- ④ Power supply light – Green LED is lit while supplied with Power.

4. OPERATIONAL SYSTEM



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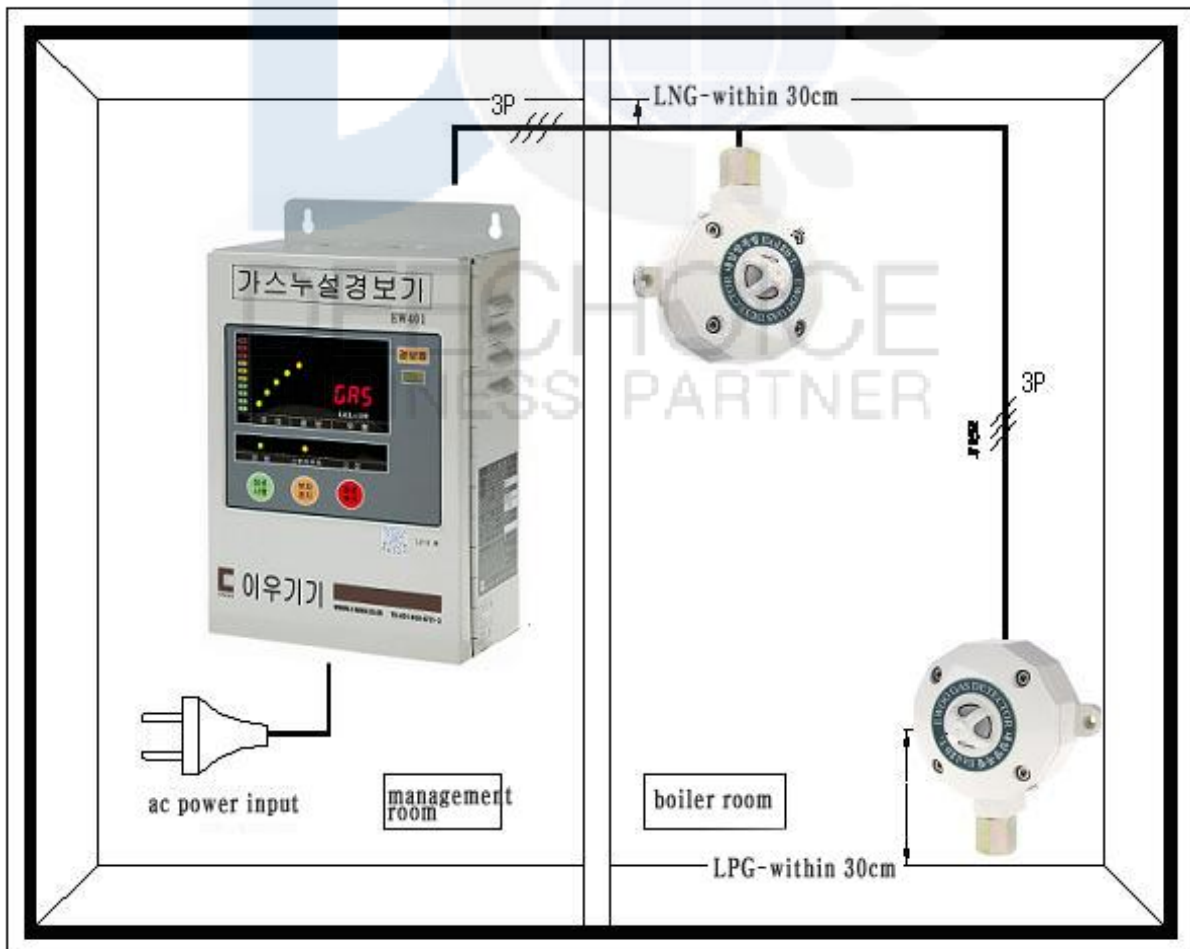
5. Installation

5-1. WHERE TO INSTALL

1. The detector is designed to be installed in the area that is subject to expose to gas or the area where the leaked gas tend to stay.
2. Please determine the location of the Sensor considering the kind of the gas, cautions and condition.
3. If you are to detect the gas that is heavier than air, Sensor should be mounted at floor or the wall within 30cm from floor. And if you are to detect the gas that is lighter than air, Sensor should be mounted at the ceiling or the wall within 30cm from ceiling. (Plus: Sensor should be farther than 1m and within 4m from the gas appliances)
4. Please install the Detector at the place that the audible alarm is able to be heard so that manager can take follow-up measures.

5-2. INSTALLATION DRAWING

※PLACE TO INSTALL: Kitchen, Boiler room, Room of Pressure regulator, Gas storage



6. INSTRUCTION & CAUTIONS

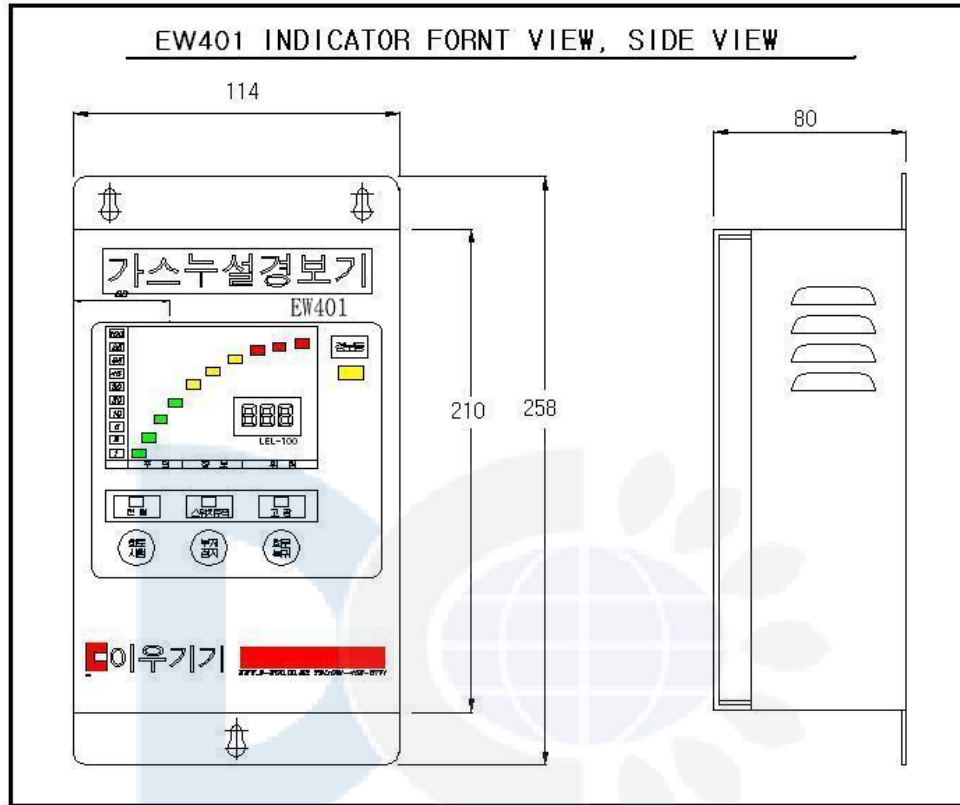
6-1. INSTRUCTION

1. Please open the case and connect the Sensor with the Indicator. And connect the AC 220V power supply as well.
2. Please turn on the power supply switch and wait for warmup time (1 minute). In 1 minute, the Detector begins to operate.
3. Fault light (ERROR) on the UNIT panel gets lit when the fuse for the Sensor has blown or the Connection wire between the Sensor and the Indicator is disconnected or short-circuited. Or the sensitivity of the Sensor has been lost.
4. If you are to test the operation of the Detector, please press the Test button on UNIT panel. Then the concentration increases as if gas is detected actually. And if the level exceeds the alarm point, the Detector makes Visual and Audible alarms.
5. If you want to stop the audible alarm, please press the alarm mute button (B/Z STOP). If you do, Alarm mute warning light (B/Z STOP) blinks and the audible alarm becomes mute.
6. When the fault light gets lit, please check the connection between Sensor and Indicator.

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7. Dimensions

7-1. INDICATOR – Front view, Side view



7-2. SENSOR – Front view, Side view

