

# **[GAS DETECTOR & SHUTOFF SYSTEM]**

## **REFERENCE MANUAL**

MODEL: EWS032. EWS040. EWS050

MODEL: EWS065. EWS080. EWS100

### **[ NOTICE ]**

- Surely be aware of the specifications by skilled worker prior to using the product.
- Surely keep the specifications to where you are always able to see.

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# 1. SPECIFICATIONS

## 1-1. CONTROL PANEL

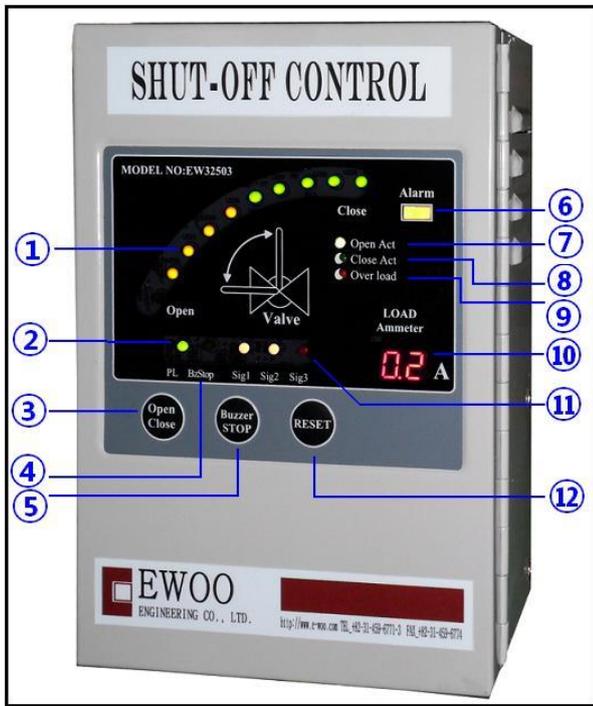
Model & Diameter of gas pipe	EWS032	EWS040	EWS050	EWS065	EWS080	EWS100
	32A	40A	50A	65A	80A	100A
Power supply	AC220V 60Hz	AC220V 60Hz	AC220V	AC220V	AC220V	AC220V
Operating temperature	0°C~40°C	0°C~40°C	0°C~40°C	0°C~40°C	0°C~40°C	0°C~40°C
Operating Humidity	0~95%	0~95%	0~95%	0~95%	0~95%	0~95%
Current output	DC 24(30V)	DC 24(30V)	DC 24(30V)	DC 24(30V)	DC 60(80V)	DC 60(80V)
Visual alarm	Yellow LED blinking					
Audible alarm	Buzzer sound (above 70dB)					
Current input	DC 5~18V					
Signal input	3 Gas Detector					
Dimensions	152x258x86mm					
Weight	2,718g					

## 1-2. SHUTOFF DEVICE

Diameter of gas pipe	32A	40A	50A	65A	80A	100A
Operating power	DC 30V	DC 30V	DC 30V	DC 30V	DC 80V	DC 80V
Valve type	Screw type ball valve			Flange type ball valve		
Torque	1,050	1,050	1,900	1,900	2,500	2,500
Response time	12sec			19sec	27sec	
Angle	90°	90°	90°	90°	90°	90°
Gear material	SC45C	SC45C	SC45C	SC45C	SC45C	SC45C
Housing material	Body: aluminum. Case: stainless Clamp: aluminum			Body: steel. Case: stainless Clamp: aluminum		
Operating temperature	-20°C~50°C					
Operating humidity	0~95% RH					
Mounting	Bolting at pipe					
Dimensions	Φ133x239x223mm (32A.40A.50A)			Φ133x239x311mm (65A) Φ197x483x501mm (80A.100A)		
Weight	3.3kg	3.2kg	3.1kg	4kg	16.11kg	16.6kg

## 2. PART & FUNCTIONS

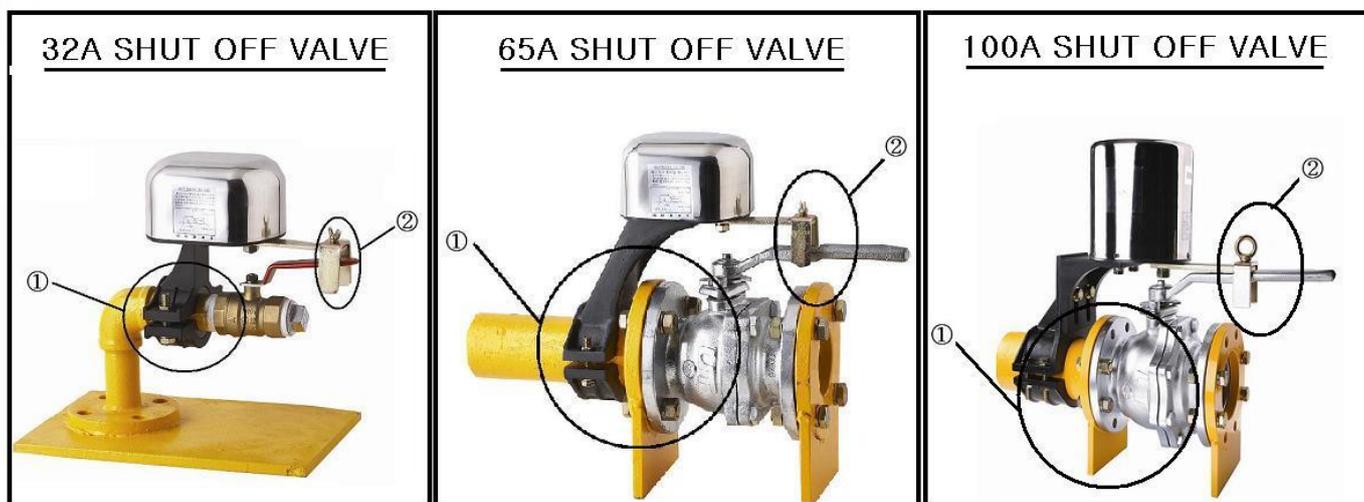
### 2-1. CONTROL PANEL



- ① Progress light: It displays the progress of the Shutoff device (The light is not lit if the shutoff device is disconnected) With the control panel. Or the fuse has Blown)
- ② Main power light: Green LED is it while supplied by AC220V
- ③ Open & Close button: If the button is pressed one time, The shutoff device gets opened. And if it is pressed Again, the shutoff device gets closed again.
- ④ Alarm mute warning light: Yellow LED blinks if the Buzzer Stop 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.

- ⑤ 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.
- ⑥ Warning light: Yellow LED gets lit when the alarm has been input.
- ⑦ OPEN light: It is lit while the shutoff device is actuating to open the valve. Or the shutoff device has been opened.
- ⑧ CLOSE light: It is lit while the shutoff device is actuating to close the valve. Or the shutoff device been closed (please refer to chapter 4)
- ⑨ Over Red LED gets lit if the current greater than 2.5A is flowing. And if the overload last more than 3sec. Current output To the shutoff device get ceased.
- ⑩ Ammeter – It measures and displays electric current in the circuit of the shutoff device when it's operating
- ⑪ Signal light – Red LED gets lit when the alarm signal has been input (DC 5V-18V). And then, visual and audible alarms being raised, the shutoff device operates.
- ⑫ Reset button - When alarm is raised, the Reset button on the Gas Detector can make only the gas detector reset. So after the Gas Detector is reset, you should press the Reset button on the Control panel separately. If you do, you can open the valve by pressing the Open&Close button again.

## 2-2. SHUTOFF DEVICE



### ① Holding clamp

This metal device holds Pipe firmly. And the shutoff device can be used regardless of Shape of valve because you can control the location of the shutoff device by controlling This clamp, And please adjust the shutoff device to be horizontal with valve

### ② Actuating clamp

It's one end is connected with the central axis of the shutoff device and the other end is Holding valve so that the clamp is able to control the valve, If you are to actuate valve Manually Please loosen the bolt on the clamp and remove the clamp

## 3. INSTALLATION (SHUTOFF DEVICE)

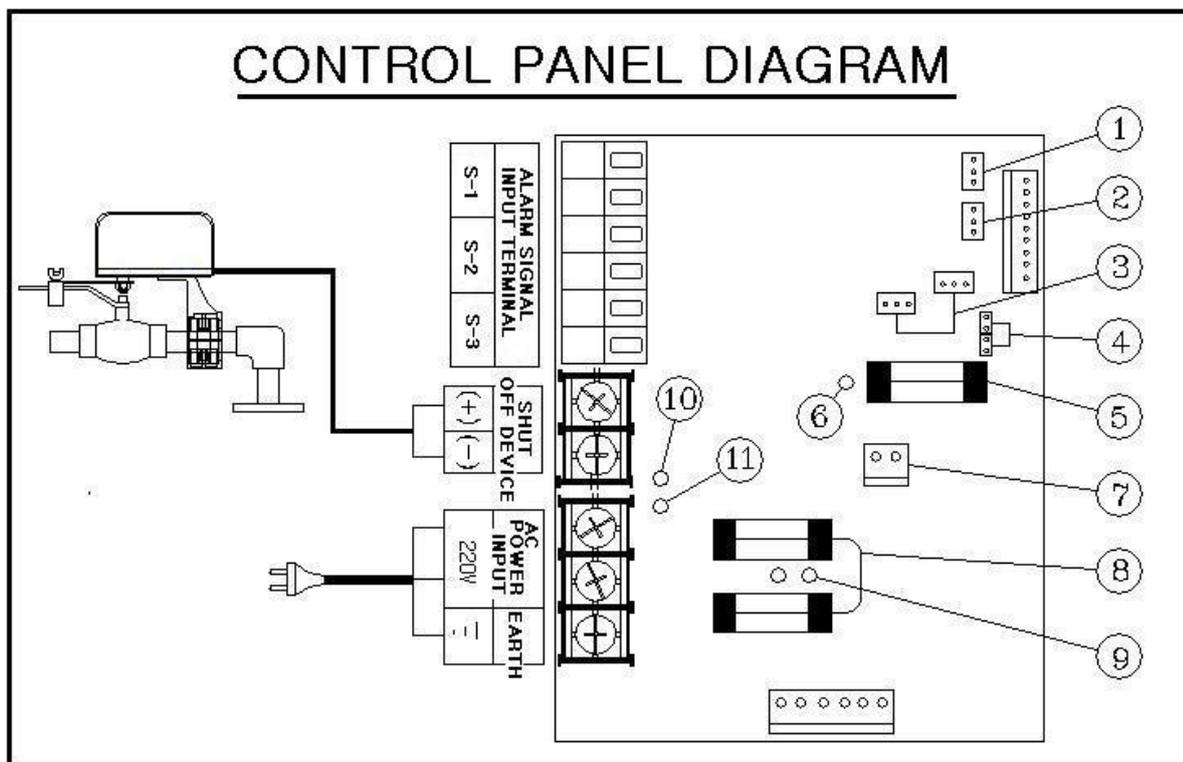
### Before installation

- ① Please check the voltage of power supply for the control panel before using  
(The rated voltage: AC 220V)
- ② Please check the connection between the detector and the control panel and between the Control panel and the shutoff device
- ③ Please confirm whether the valve meets the standard diameter of the product you purchased
- ④ Open & Close button allows you to make the audible alarm mute  
(But while the alarm signal is input continuously. The shutoff device can't be opened  
You can only make the audible alarm mute during this time)

## Installation

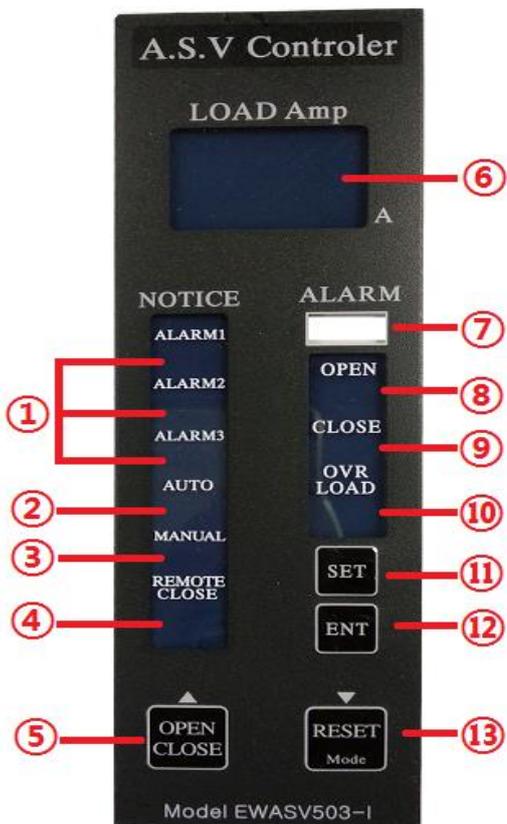
- ① Please pull the lower bolt. Then insert shutoff device into valve
- ② Please correspond the location of the spindle of valve handle with that of the Shutoff device exactly
- ③ Tighten up the two bolts for the shutoff device not to move. And check fixing again

## 4. CONTROL PANEL DIAGRAM



- ① Compulsory closure(option)
- ② Closure check
- ③ Connector for DC type gas detector
- ④ Jumper pin (+, -) for battery
- ⑤ Fuse for output (DC) : Fuse for output (DC) blows if the shutoff device is overloaded
- ⑥ Fuse for output (DC) Warning light : It is gets when the fuse for output (DC) has blown
- ⑦ Battery Connector: DC 30V 1.8Ah
- ⑧ Fuse for AC power supply: 250V 1A
- ⑨ Warning light of fuse for AC power supply: It is gets lit when fuse for AC power supply has blown
- ⑩ Output light (CLOSE): It gets lit when the signal of signal of close is being output (90sec)  
(If the light is not lit, fuse could have blown or part of power supply could have troubles)
- ⑪ Output light (OPEN): It gets lit when the signal of open is being output (90sec)  
(If the light is not lit, fuse could have blown or part of power supply could have troubles)

## 5. UNIT pnal (EW503 TYPE)



- ①.Signal 1 light. Signal 2 light. Signal 3 light: Red LED gets lit when has been input (DC 5V-18V). And then, visual and audible alarm device operates
- ②.Automatic operation: When the gas detector raises Visual and Audible alarm, the warning light on the Control panel being lit as well, (DC 5V-18V being input) shutoff device is actuated to close the valve.
- ③.Manual operation: When the Gas Detector raises Visual and Audible alarms, the warning light on the Control panel gets lit. But the shutoff device is not actuated.
- ④REMOTE CLOSE: Compulsory closure light – If It gets lit, you can't control the shutoff device by Open &Close button
- ⑤Open &Close button - If the button is pressed one time, the shutoff device gets opened. And if it is pressed again, the shutoff device gets closed again. [Beeping] short sound – OPEN, Consecutive sound – CLOSE

⑥Ammeter – It measures and displays electric current in a circuit of the shutoff device when it's operating.

⑦Warning light – Yellow LED gets lit with Audible alarm beeping. When the alarm signal has been input.

⑧.OPEN light – OPEN light - It is lit while the shutoff device is actuating to open the valve.

Or the shutoff device has been opened

⑨.CLOSE light - It is lit while the shutoff device is actuating to close the valve. Or the shutoff device has been closed (please refer to chapter 4.).

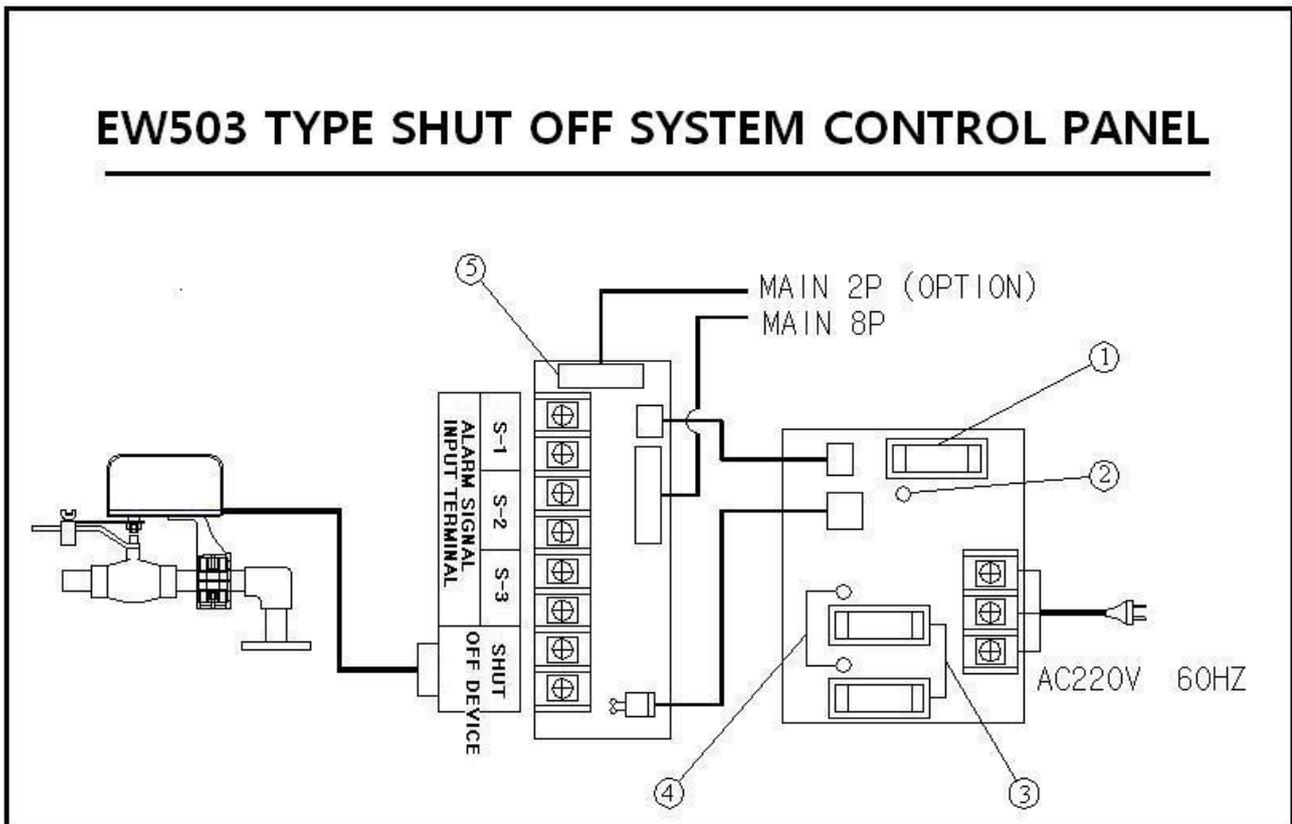
⑩.Overload light – Red LED gets lit If the current greater than 2.3A is flowing. and If the overload last more than 3 sec, the output to the shutoff device get ceased

⑪.[SET] BUTTON: product setting button (separate wetting prohibited)

⑫.[ENT] BUTTON: product setting button (separate wetting prohibited)

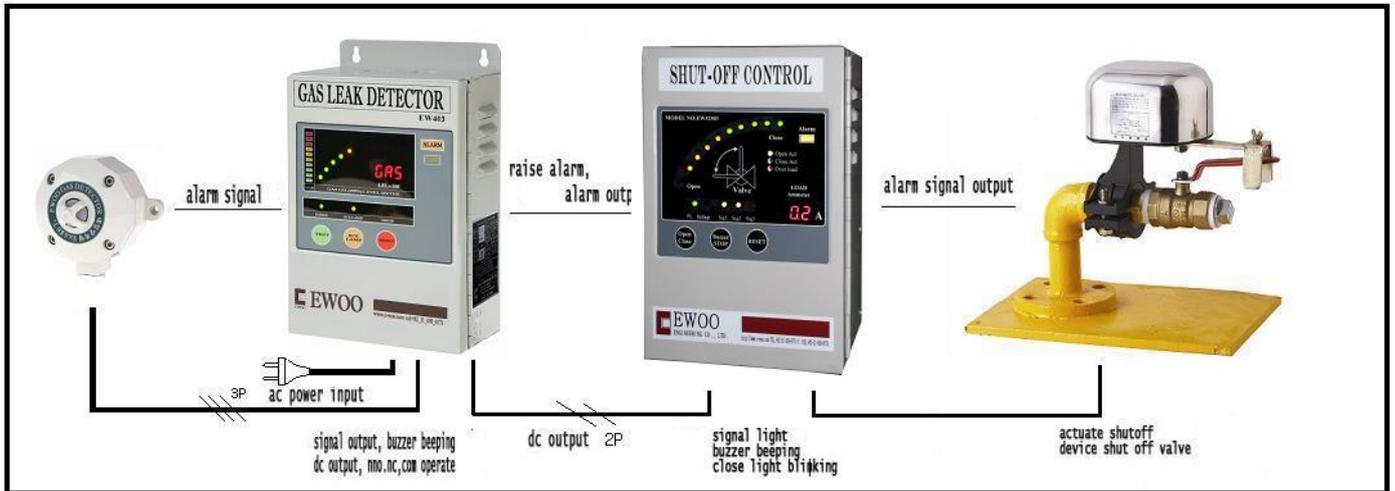
⑬.Reset button – When alarm is raised, the Reset button on the Gas Detector can make only the Gas detector reset. So after the Gas Detector is reset, you should press the Reset button on the Control panel separately. Then, you can open the valve by pressing the Open & Close button again

## 6. Control panel (EW 503 UNIT panel type) diagram



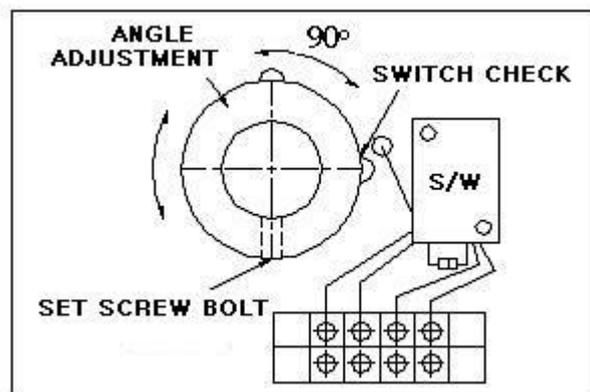
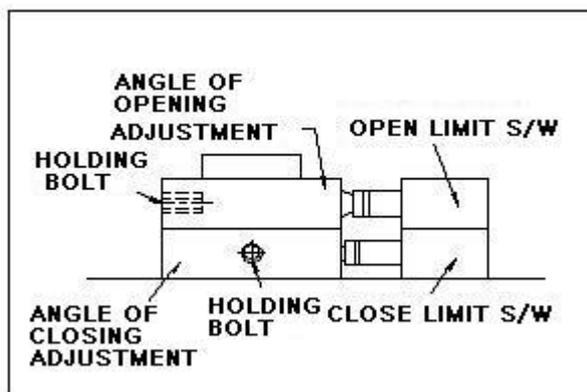
1. Fuse for output (250V 2A): Fuse for output blows If the shutoff device is overloaded.
2. Fuse for output Warning light: It gets lit when the fuse for output (DC) blows
3. Fuse for AC Power supply: 250V 1A
4. Warning light of Fuse for AC Power supply: It gets lit when fuse for AC Power supply has blown.
5. Connector for ASV Card MAIN 2P. (Option): Compulsory closure. Common alarm.

## 7. OPERATIONAL SYSTEM



## 8. CHECKS right after installing

1. Check the entire connections and then please switch on the power supply. And take the following examinations. First, confirm whether the visual and audible alarms of the control panel are raised when you emit the standard gas to the Sensor.  
Second, confirm whether the OPEN, CLOSE light conform to the direction of shutoff device operating (if it operate reversely, reverse the +, - wire)
2. Please check the angle of the actuating clamp. If the angle is not a right angle, open the cover of the shutoff device and loosen the holding bolt and make it a right angle by controlling the tuning RING.  
(Refer to Installation Company.)



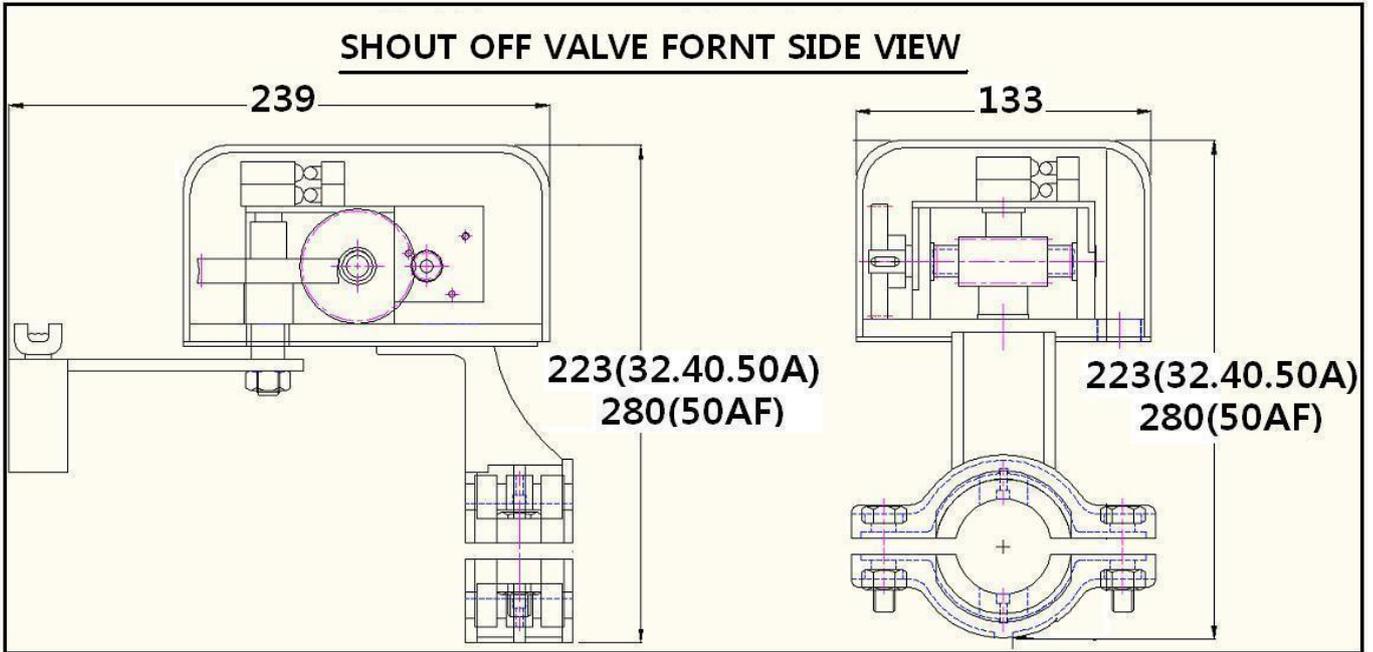
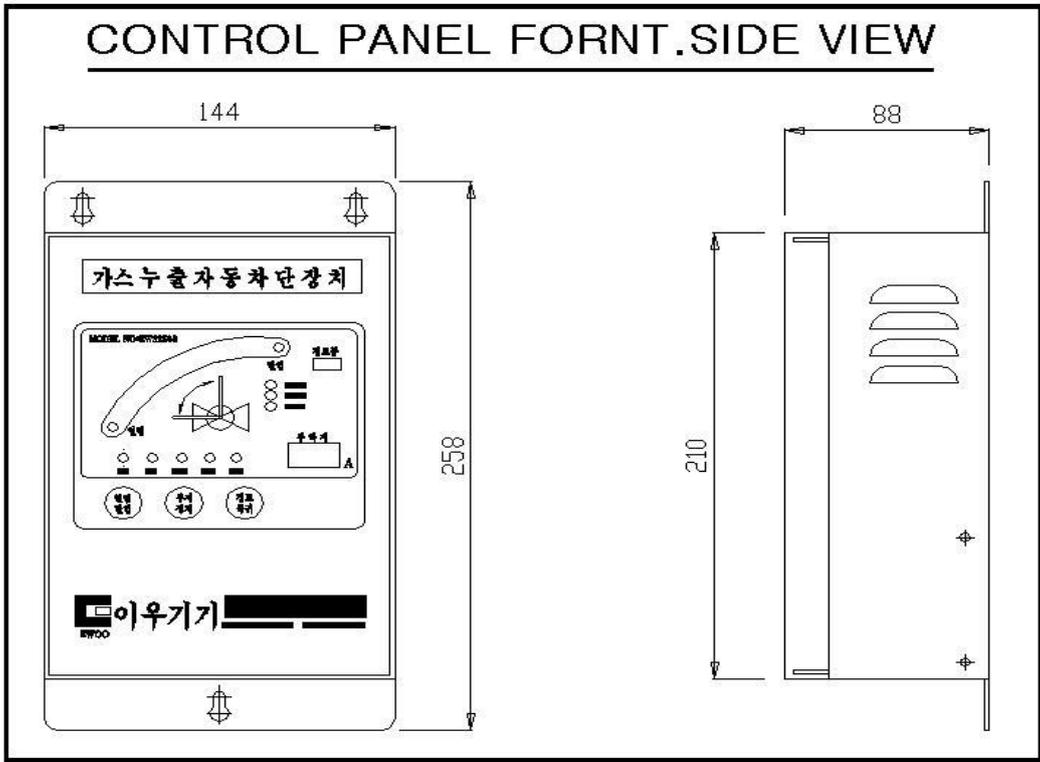
## 9. Instruction

1. When the Control panel raises visual and audible alarms and, signal light and CLOSE light gets lit -> Check the closure of valve for yourself.
2. When signal light on the Control panel gets lit, confirm whether gas is being leaked actually or not. If gas is not being leaked actually, after resetting the Gas Detector, reset the control panel. And then open the valve by pressing the Open & Close button.  
(Refer to Gas Company to confirm the gas leak exactly.)
3. When alarm of the Gas Detector is not reset so the control panel does not operate though gas is not being leaked -> Contact us
4. If there are troubles at the circuit of the Control panel or, Visual and Audible alarm is raised ->Check the leakage thoroughly and refer to us or shop where you purchased or Installation Company.
5. The control panel should be at the place where it is able to be watched.  
(Area to avoid: a humid, filthy or dusty place.)

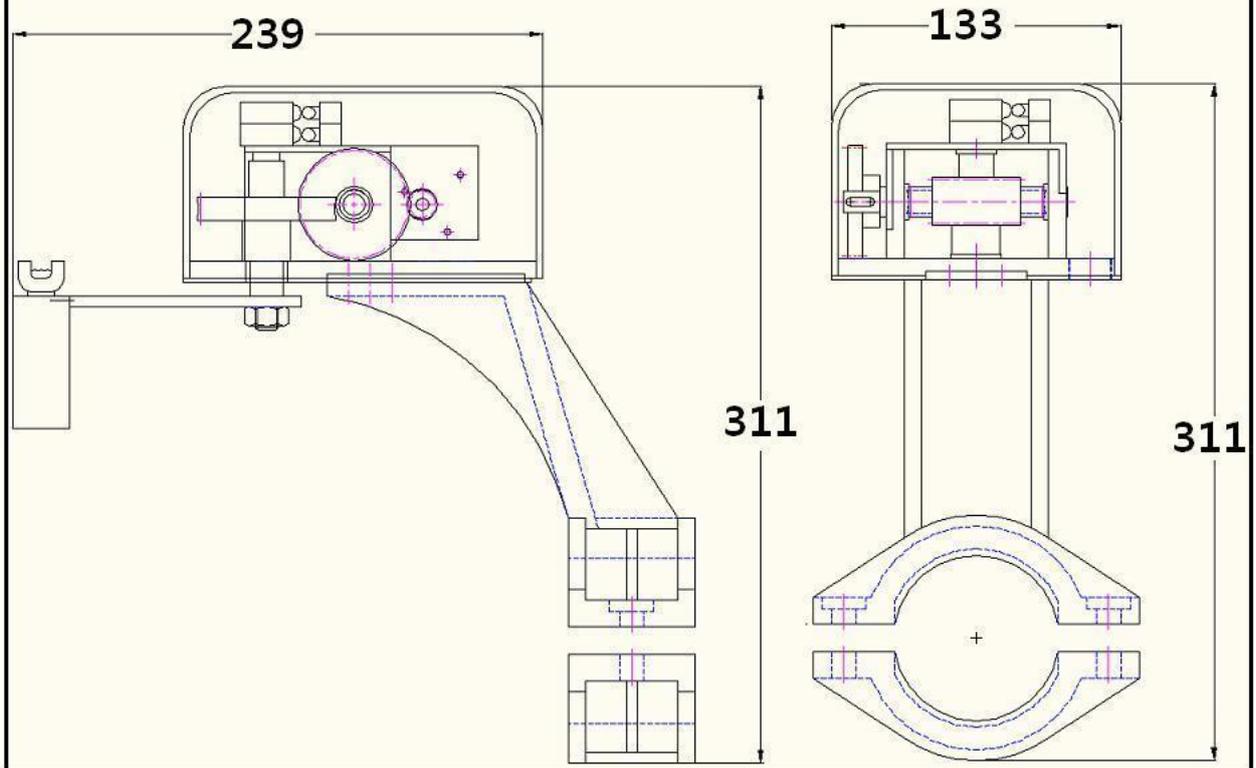
## 10. Cautions

1. Please use the shutoff device after earthing. (There are sign and terminal for earth on the control panel and shutoff device.)
2. Do not touch the shutoff device and valve while the shutoff device is operating.
3. Please check the voltage of power supply before using.
4. If you are to unplug the power cord, grasp the plug firmly and then unplug the cord.
5. Be careful not to damage the power cord.
6. Be cautious about using the silicon glue which could affect the Sensor. Silicon glue could cause malfunctioning.
7. Please use the rated voltage (AC 220V) written on the product.
8. If you ignore these cautions, you might be seriously injured or led to death.

# 11. Dimension



**SHUT OFF VALVE FORNT SIDE VIEW 65A**



**SHUT OFF VALVE FORNT SIDE VIEW (80A.100A)**

