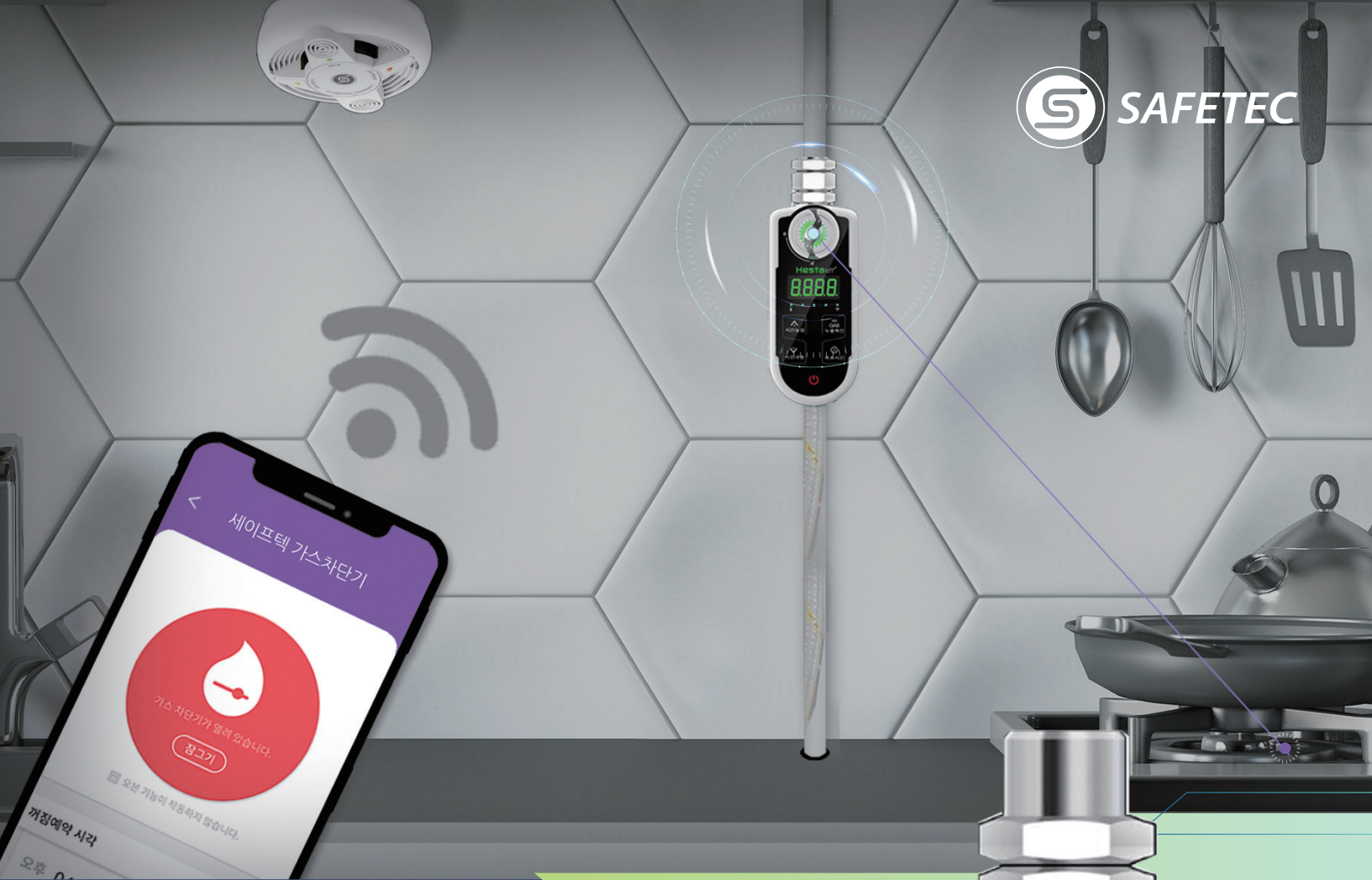




HestaIoT[™]

AI Multifunctional Gas Safety Breaker

Automatic Leak Check & Blocking
Prevention of Home Cooking Fires

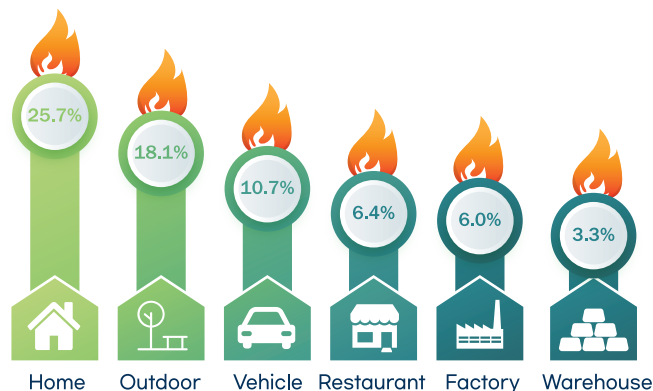


Home Cooking Fires! What should I do to prevent it?

AI Multifunctional Gas Safety Breaker DIBEL and HESTA!

With the “Set Time” selection of DIBEL and HESTA, there is no need to burn the pot anymore

Fire Occurrence Ranking (2013~2022)



- Cooking is such a routine activity that it is easy to forget that the high temperatures used can easily start a fire. During 2014-2018, cooking was the leading cause of reported home fires and home fire injuries and the second leading cause of home fire deaths.
- Cooking caused an average of 170,900 reported home structure fires per year (49 percent of all reported home fires in the US). These fires resulted in an average of 550 civilian deaths (21 percent of all home fire deaths) and 4,820 civilian injuries (44 percent of all reported home fire injuries) annually.

Country	Population (million)	Gas Using Households (million)	Home Fires	Home Cooking Fires	Civillian Deaths	Civillian Injuries	Property Damage (million\$)
USA	332.9	65.0	348,700	170,900	550	4,820	1,015.4
KOREA	51.8	18.2	11,549	3,532	11	149	4.4
	6.4	3.6	30.2	48.4	50.0	32.3	230.7

- The number of gas-using households in the United States is 65 million, 3.6 times higher than that of Korea, but the number of Home Cooking Fires in the United States is 170,900, 48 times higher than that of Korea.
- In Korea, many **safety devices** such as HESTA or DIBEL are distributed to prevent Home Cooking Fires, so unlike fire detectors that operate after a fire occurs, the necessary safety functions are automatically activated at once to prevent gas leakage / explosion / fire accidents in the kitchen.
 - ① **Automatic hazard cause detection** (leakage, overheating, fire, earthquake)
 - ② **Automatic Action** (Alert and Block)
 - ③ **Automatic preventive maintenance** (self-diagnosis)



- It also developed a multifunctional IoT Gas Safety Breaker by converging wireless communication technology of digital innovation. Multifunctional IoT Gas Safety Breaker can monitor and control parents' kitchens who live apart from each other at all times with smartphones, and can provide smart home risk response services that are differentiated from existing services with simple blocking functions.

AI Multifunctional Gas Safety Breaker!

Product Overview

It is an artificial intelligence multifunctional gas safety breaker that **automatically blocks gas** by detecting fire accidents, leaks, and earthquakes due to carelessness during cooking by improving the function of the domestic intermediate valve (fusecock) of LNG and LPG.

How the product works

By applying the world's best precision micro-gas leak detection and blocking technology, the built-in fuse-cock and smart sensors collectively detect gas flow, temperature changes, vibration, usage time, etc. Automatically shut off the gas with an alarm sound in the event of a dangerous situation such as **overheating, leakage, fire, or earthquake** while using the gas stove.

Product characteristics

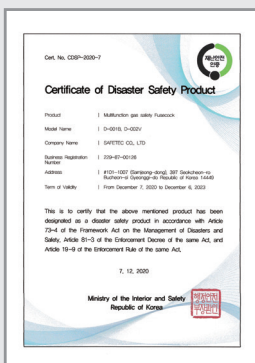
- ◎ Gas shut off when micro-gas leaks are detected
- ◎ Alert and block warning at 75°C ambient temperature
- ◎ Built-in structure opens and closes the valve more than 30,000 times
- ◎ Provides smart home services such as wireless remote blocking.
- ◎ Home Cooking Fires Prevention Safety Devices

Type of product

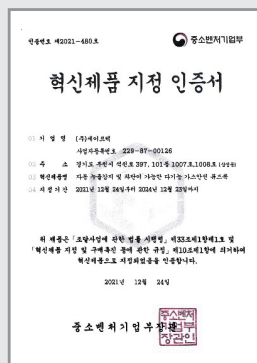
- ◎ Battery Type (DIBEL), General (D-001), Voice (D-002), Basic (ND-001, ND-002)
- ◎ Always power type (HESTA), General (NH-001), IoT Voice (NH-002)

The DIBEL checks the use of gas every 5 minutes, if the gas fire is off, automatically checks the leakage and closes the valve, and the HESTA automatically closes the valve immediately after counts 10 seconds

Disaster safety product certification



Innovative product designation certification



HESAT and DIBEL were designated as disaster safety products and innovative products in recognition of their innovation and publicity.

Smart Home Service, Smart Hesta (IoT type)

Features

Always power type (no need to replace batteries),
Safetec App. (smart home service provided)
IoT function

Component

Body (including Union Set)/
Adapter/ User's Manual



Remote control
function

Key Names and Functions



NH-002 (IoT Voice)

\$60 (FOB BUSAN)

Gas Leak
Warning Indication
Fire Detection
Warning Indication
Earthquake detection
warning Indication
Self-diagnosis
indicator light
Gas leak check button
Oven mode
switching button
Initial time
change button
Volume control button

Status
display LED
Manual handle
Status
Display Window
Adjust Time
Power button

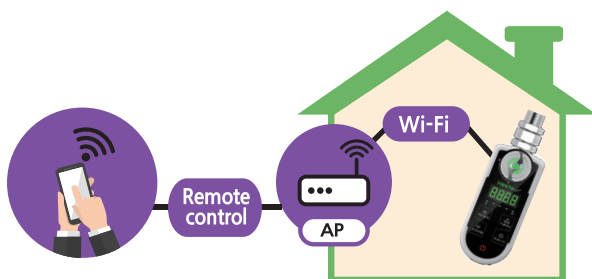


NH-001 (General)

\$50 (FOB BUSAN)

Smart HESTA!

Remote control of the gas
stove fire at my parents'
kitchen with my smartphone!



- Remotely shut off the gas valve, time adjustment Valve status notification (use status, remaining time, etc.)
- Display and share push characters when detecting danger (leakage, fire, earthquake, product malfunction, etc.)
- Notification and sharing of gas valve usage history
- Connecting the BLE with the wireless fire detector and blocking the valve



SAFETEC

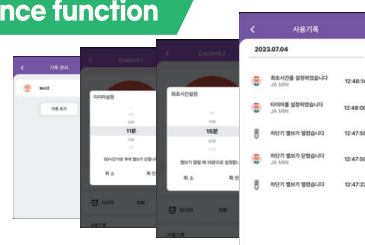
Differentiated smart home services
such as leakage/fire/earthquake
detection are provided through
IoT of specialized gas products

Safety function



Remote shut-off / Gas Leak / Fire / Earthquake
Smoke/CO detection blocked

Convenience function



Family care / Set time / Timer / Use history

AI Gas Leak Check Breaker, DIBEL!

Features

Battery type, easy installation, gas usage check every 5 minutes, and safety device for home cooking fire prevention.

Component

Body (including union set)/
Battery (1.5 V x 4 ea) /
User's manual

Key Names and Functions



D-002 (Voice)

\$45 (FOB BUSAN)

Gas Leak Warning Indication
Fire Detection Warning Indication
Earthquake detection warning Indication

Self-diagnosis indicator light

Gas leak check button

Oven mode switching button

Set time change button

Volume control button

Status display LED

Manual handle

Status Display Window

Adjust Time

Power button



D-001 (General)

\$40 (FOB BUSAN)

HESTA / DIBEL Key Fuction



Gas leak check blocking function

If a gas leak is suspected, touch the Gas Check button for 1 second to automatically check for gas leakage



Automatic Timer Function

Touch the Power button to automatically activate the timer. You can change the setting time from 5 minutes to 9 hours while cooking. Automatically shut off the valve at the set time



Volume control function

The volume size is adjusted in four stages: Strong/Medium/Weak/Mute. If you touch the Set time button for 3 seconds and you hear a "ding" sound You can adjust the volume by touching the Time up and the down button



Battery replacement notification function (DIBEL applied)

If the battery falls below a certain voltage, the valve cannot be turned, indicating or notifying you of a battery replacement notification.



Fire detection alarm blocking function

When the ambient temperature of a suspected fire reaches 75°C while using the gas stove, the gas is automatically shut off at the same time as the fire alarm



Set time change function

Press the Set button for 1 second to "Ting" and the time flashes in the display window. You can change every 5 minutes from 5 minutes to 60 minutes by pressing the Time Up/Down button and apply the next time the power is turned on.



Auto-lock function

If you do not turn on the gas within 30 seconds of touching the power button, it is determined that you are not willing to use it and automatically shuts off the valve after exactly 30 seconds.



Automatic leak check blocking function (DIBEL applied)

When the gas stove is turned off after cooking or the gas fire is turned off due to overflowing soup during cooking, the valve is automatically blocked after checking for leakage even if the set time remains.



Earthquake detection alarm blocking function

If vibration is detected while using the gas stove, it is displayed with 'E5' and automatically shuts off the gas to prevent a secondary explosion.



Oven switching function

If the oven is to be used, touch the Gas Check button for 3 seconds to make a "beep" sound, the timer changes to 1 hour and switches to oven function



Manual handle operation function

If the power button does not work, the valve can be manually opened and closed by hand



10-second auto-lock function (HESTA applied)

If the gas stove is turned off after cooking, or if the gas fire is turned off due to overflowing soup during cooking, the valve is automatically shut off after a 10-second countdown

New DIBEL Basic type (for government support)

Features

battery type, easy installation/battery replacement (removable battery case), built-in gas leakage check device certification

Component

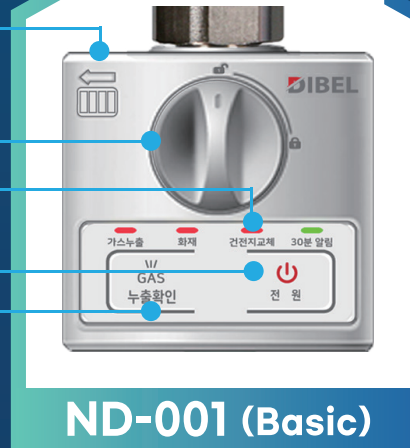
Body (including union set)/
Battery (1.5 V x 4 ea) /
User's manual

Key Names and Functions



ND-002 (Basic Voice)

\$35 (FOB BUSAN)



ND-001 (Basic)

\$30 (FOB BUSAN)

Gas leak check blocking function



Gas leak check blocking function

If a gas leak is suspected, touch the Gas Check button for 1 second to automatically check for gas leakage



Fire detection alarm blocking function

When the ambient temperature of a suspected fire reaches 75°C while using a gas stove, the gas is automatically shut off at the same time as the fire alarm



Automatic Timer Function

Touch the power button to automatically activate the timer and change the setting time from 5 minutes to 6 hours during cooking. Automatically shut off the valve at the set time



Initial time change function

Press the Time Up + Time Down button for 1 second at the same time to "Ting" and the time window flashes. You can change every 5 minutes from 5 minutes to 60 minutes by pressing the Time Up/Down button and apply the next time the power is turned on.



Volume control function

The volume size is adjusted in four stages: Strong/Medium/Weak/Mute. If you touch the Gas Check button for 3 seconds and you hear a "ding" sound. You can adjust the volume by touching the Time up and the down button



Battery replacement notification function

When the battery falls below a certain voltage, the valve is not energized to turn, indicating or notifying you of a battery replacement notification.

Wireless smoke/CO combined fire detector



1 Smoke detection alarm

2 CO Sensing Alarm

3 Battery anomaly alarm

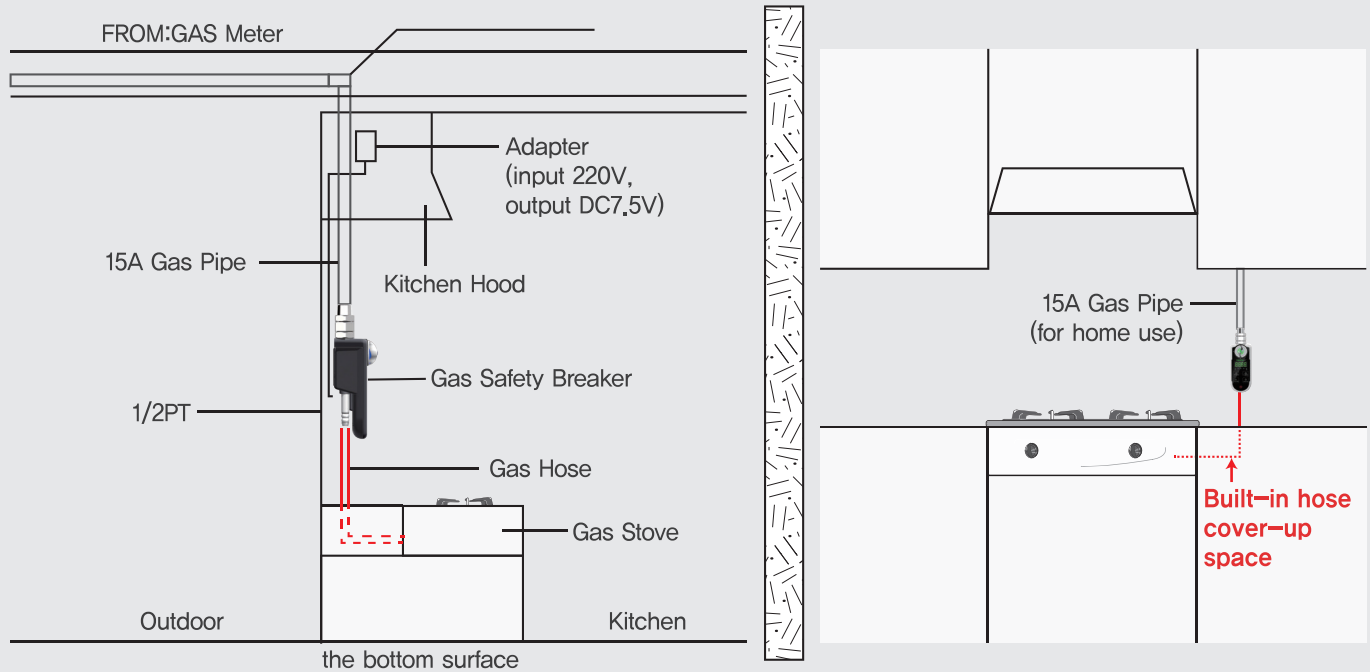
4 Wireless communication (BLE interworking)

5 Smoke/CO test function

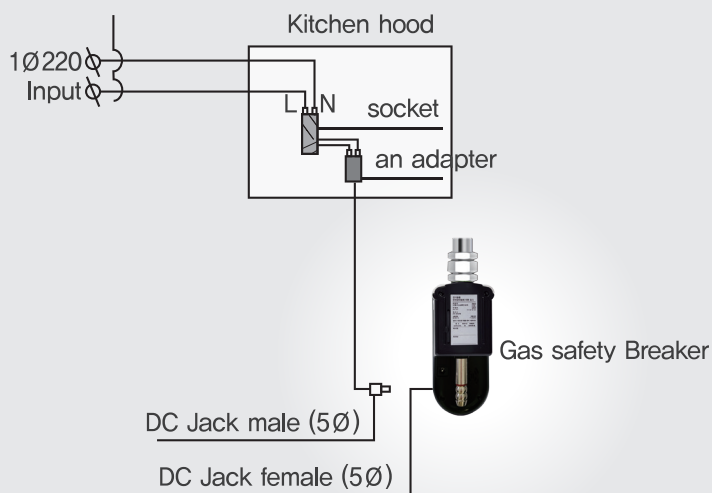
- Bluetooth Low Energy (BLE) with Smart HESTA
- Fire Products Approved by the KFI. (Korea Fire Industry Technology Institute)
- Operating period: 10 years

Size(mm)	Detection method	Voltage used	Voltage used
H48.1×W115.5×D115.5	photoelectric / electrochemical formula	DC 3V	For Smoke / CO detection

Detailed chart of HESTA installation (reflecting the design)



Circuit diagram for gas safety valve power connection



Gas Safety Breaker (HESTA)

Specification (mm) – H : 186, W : 61, L : 61

- ① Manual handle
- ② Status display window
- ③ Time control button
- ④ Power button



It is safe to install an AI
Multifunctional Gas safety breaker,
HESTA, or **DIBEL**
in the built-in gas stove



Hestai IoT



Hestai



DIBEL



DIBEL



DIBEL



DIBEL



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