



SMART SENSOR UNIT

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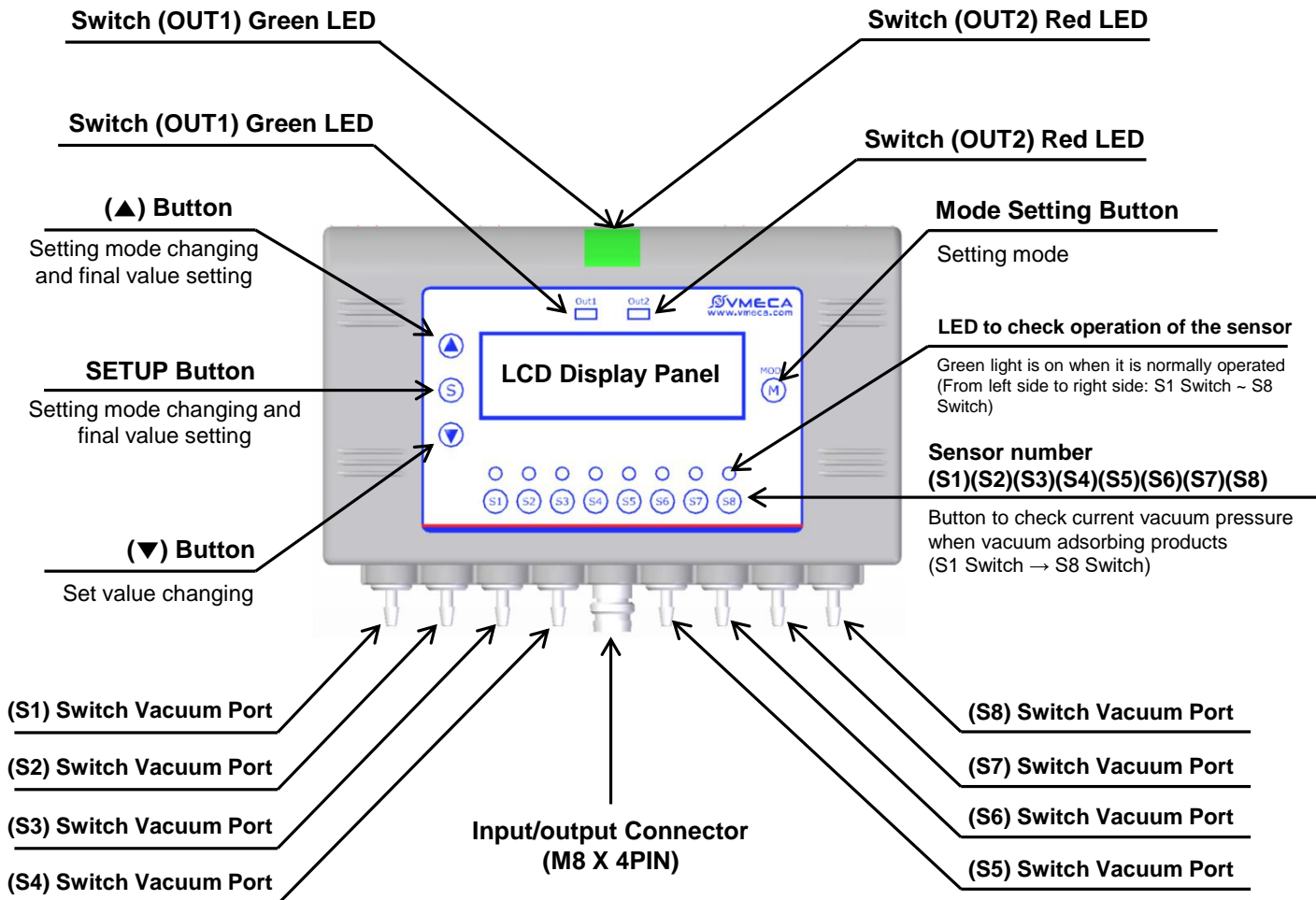
Phone: +1-213-258-7114
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Features and Strengths

- ✓ Can control eight (8) Magic Grippers with a single Smart Sensor Unit
- ✓ Four (4) different signal function mode available
- ✓ Easily recognizes an error or damage of Magic Grippers & suction cups
- ✓ NPN or PNP type
- ✓ Two (2) output signal (Output 1 & output 2)
- ✓ Set pressure range: 0 ~ -100 kPa
- ✓ Cable connection: M8X4Pin
- ✓ Wide LCD display panel for convenient setting or check
- ✓ Vacuum line piping: (OD) Ø4 X (ID) Ø2 Hose connection



Structure

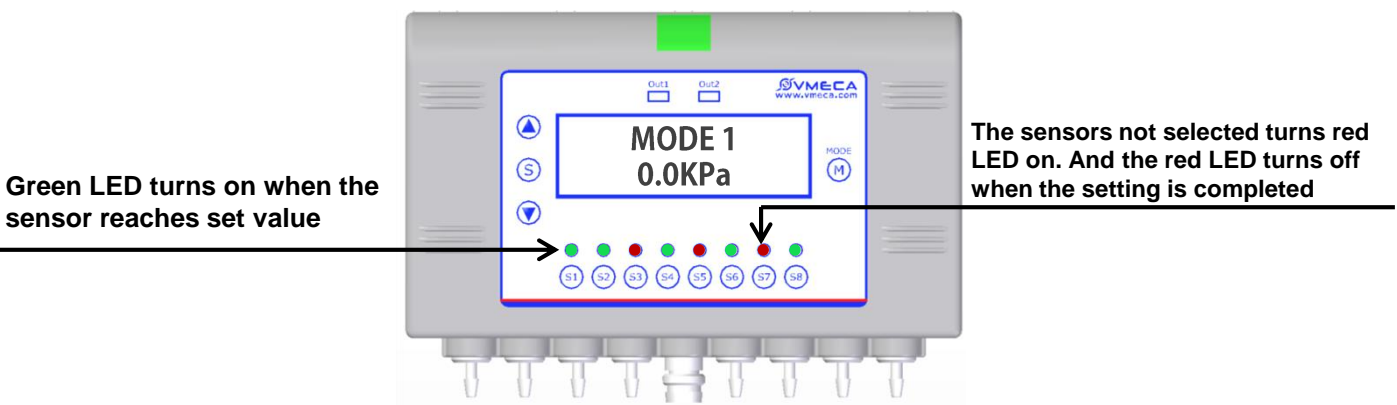
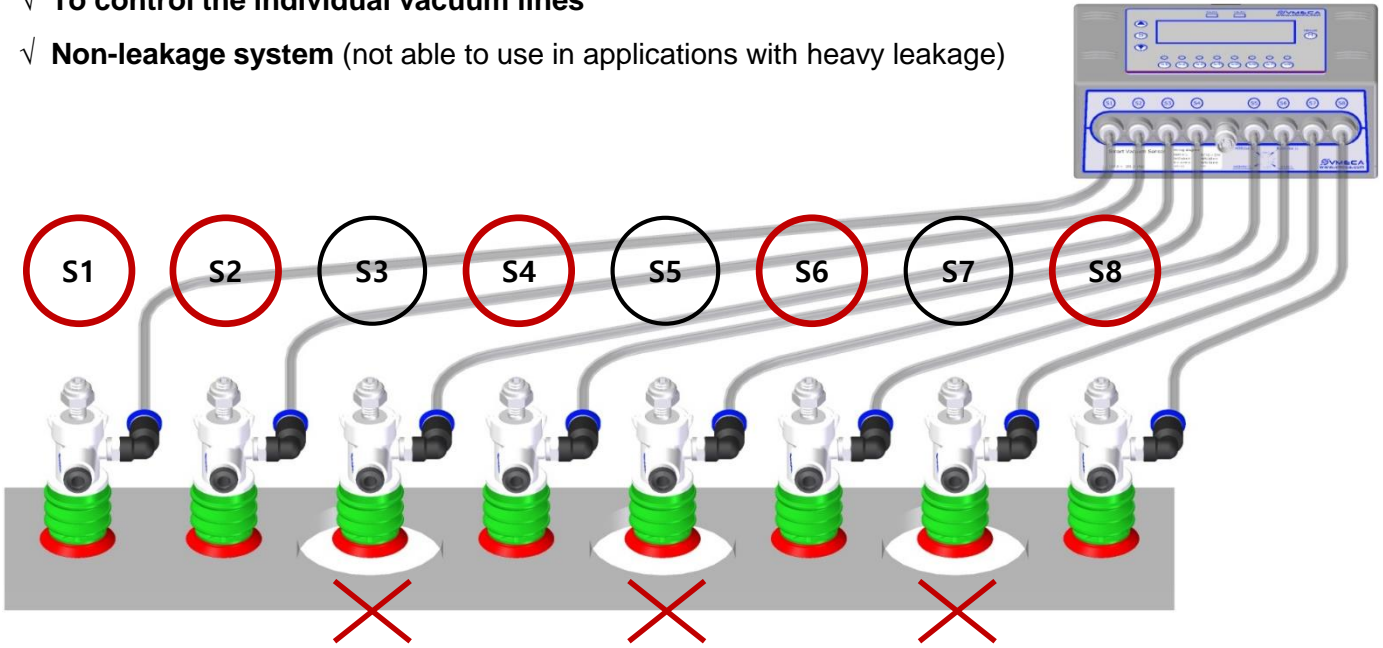


Specification

Specification	Model	
	SSU08-N (NPN)	SSU08-P (PNP)
Pressure range	0 ~ -100kPa	0 ~ -100kPa
Setting pressure range	0 ~ -100kPa	0 ~ -100kPa
Resistance pressure	1.5tims less than setting pressure range	
Corporeality	Air, Non-corrosive gas, Non-combustible gas	
Setting pressure resolution	0.1 kPa	
Supply voltage	12 to 24VDC $\pm 10\%$, Fluctuation under 10%	
Current consumption	≤ 40 mA	
Switch out print	NPN Open collector 2outputs Max load current: 80mA Max supply voltage: 30V Residual voltage: $\leq 1V$	PNP Open collector 2outputs Max load current: 80mA Max supply voltage: 30V Residual voltage: $\leq 1V$
Repeatability (Switch Print)	$\pm 0.2\%$ F.S ± 1 digit	
Hysteresis	Adjustable \emptyset	
Response time	≤ 2.5 ms(Chattering prevent function: 25ms, 250ms, 2500ms)	
Output leakage protection	Yes	
Accuracy	$\leq \pm 2\%$ F.S ± 1 digit(Ambient temperature 25 ± 3)	
Display	Green LED(Out1) / Red LED(Out2)	
Temperature characteristics	In the range of 0 ~ 50°C, under 25°C $\pm 2\%$ of F.S	

Mode 1

- ▶ Output is signaled when selected sensors all reach the set value. (ex. S1, S2, S4, S6 and S8)
(Displays the average vacuum level for the selected sensors on the display panel.)
 - ▶ Able to select 1 through 8 sensors for sensing.
 - ▶ Able to set the same vacuum level value for all sensors at once by setting one of the sensors.
-
- √ For high risk/safety factor required applications
 - √ Transferring several products at the same time
 - √ To control the individual vacuum lines
 - √ Non-leakage system (not able to use in applications with heavy leakage)



Mode 2

▶ Although one or more of the selected sensors were not able to reach the set valued level, the output is signaled when the set value level reaches the average value. (ex. **S1, S2, S4** reaches, **S3** misses)

(Displays the average vacuum level for the selected sensors on the display panel.)

▶ If selected sensors did not reach the set value more than five times* in a row, it outputs an error (Red LED Blinks). If the selected sensors reach the average value, normal output is signaled.

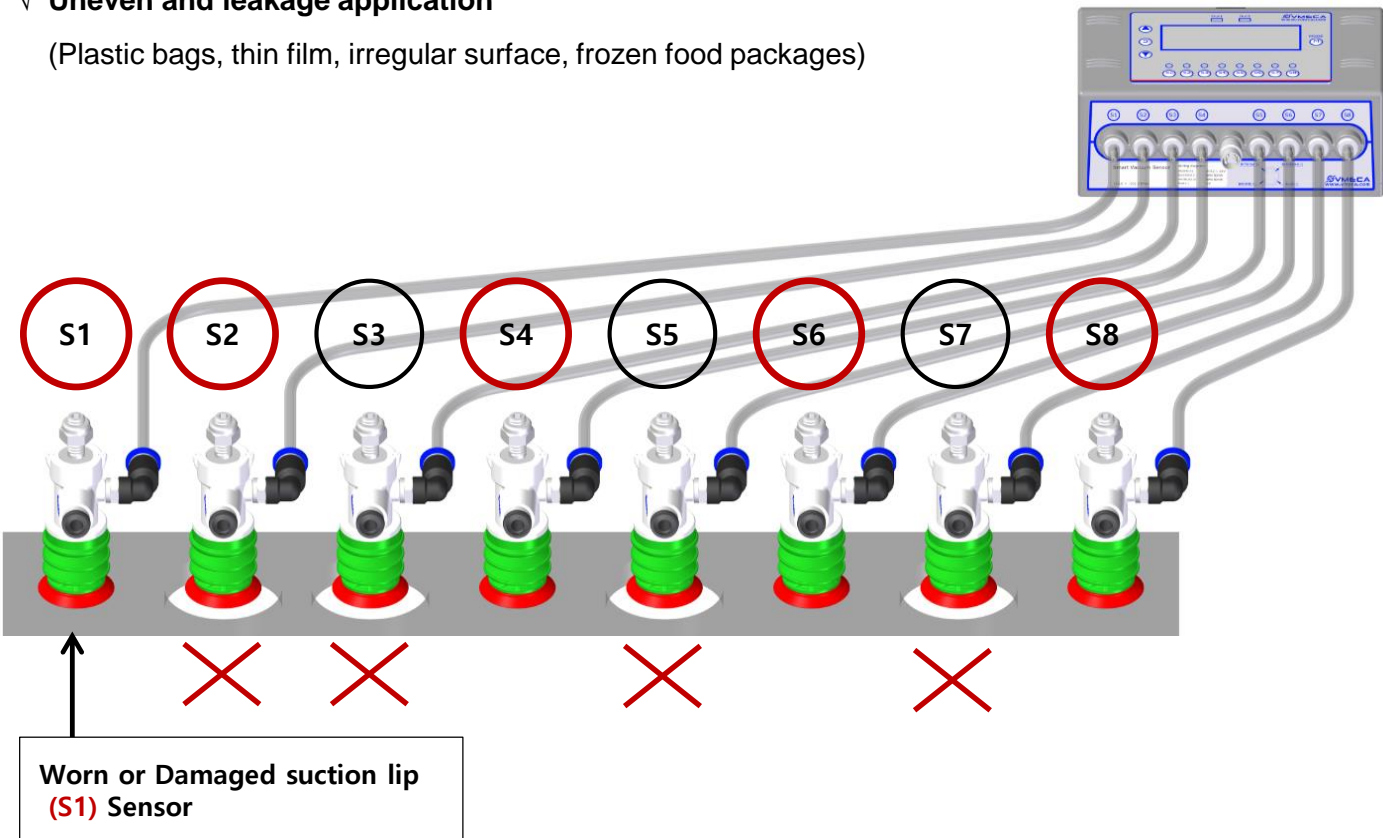
▶ Can select 2 through 8 sensors for sensing at random.

▶ Able to set the same vacuum level value for all sensors at once by setting one of the sensors.

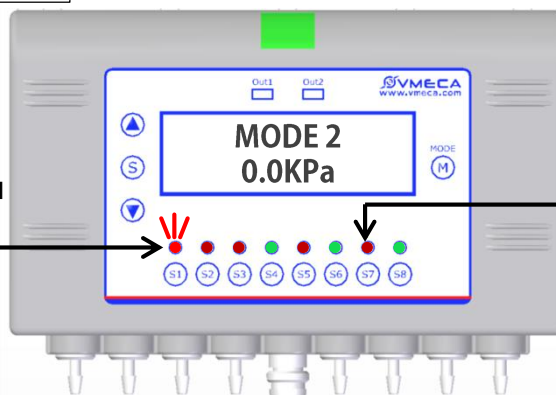
√ Various shaped products

√ Uneven and leakage application

(Plastic bags, thin film, irregular surface, frozen food packages)



If the sensor does not reach set value for more than five times, the color of (S1) sensor is changed from green to red and blinks.



The sensors not selected turns red LED on. And the red LED turns off when the setting is completed

Mode 3

► The set values levels of each selected sensors (S1)(S2)(S4)(S6)(S8) does not need to be the same. Output is signaled when ALL the set sensors reaches its value levels.

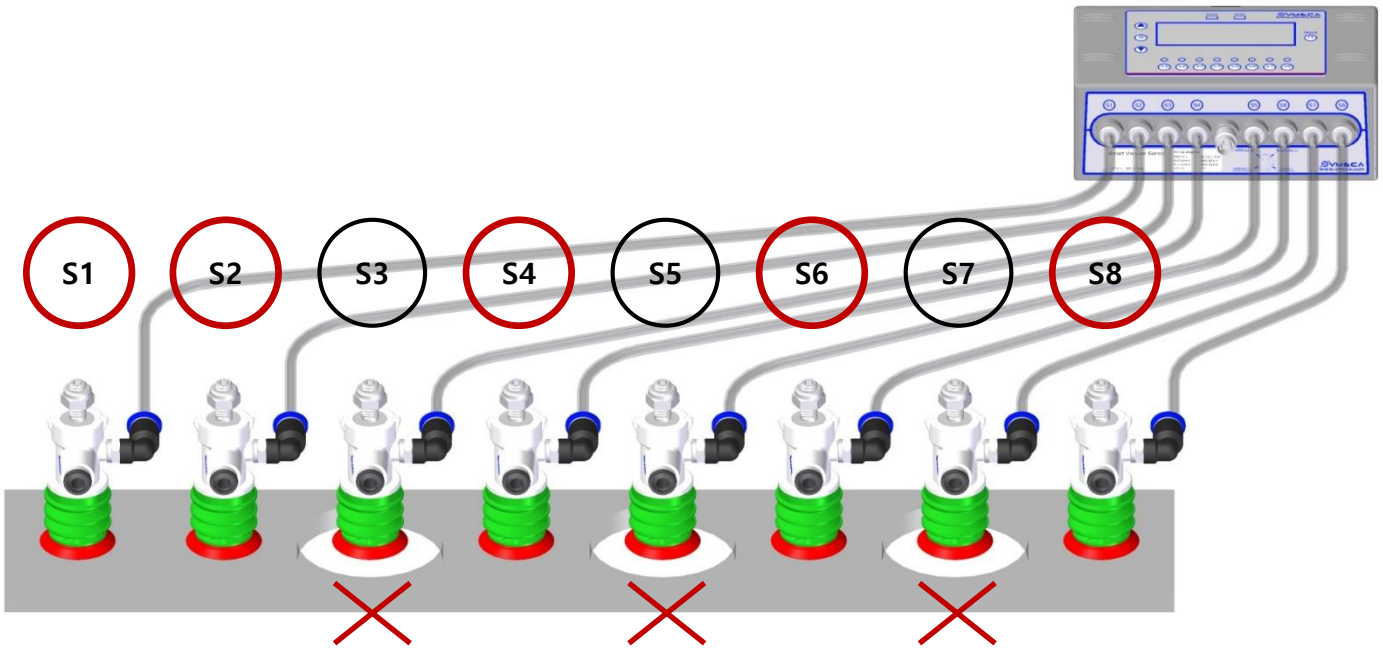
(Displays the average vacuum level for the selected sensors on the display panel.)

► Can select 2 through 8 sensors at random for sensing.

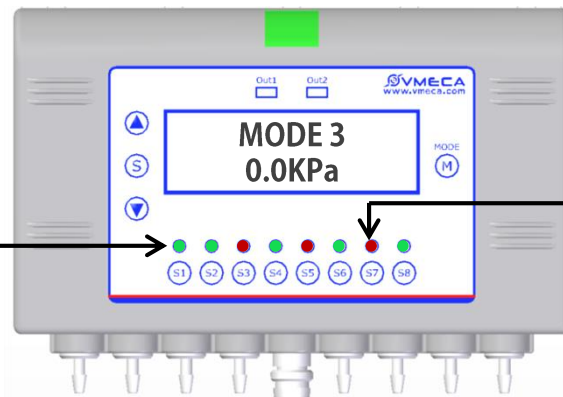
✓ Various shaped products

✓ A little leakage

(Can differently set the sensor which have the possibility of leakage separately)



Green LED turns on when the sensor reaches set value



The sensors not selected turns red LED on. And the red LED turns off when the setting is completed

Mode 4

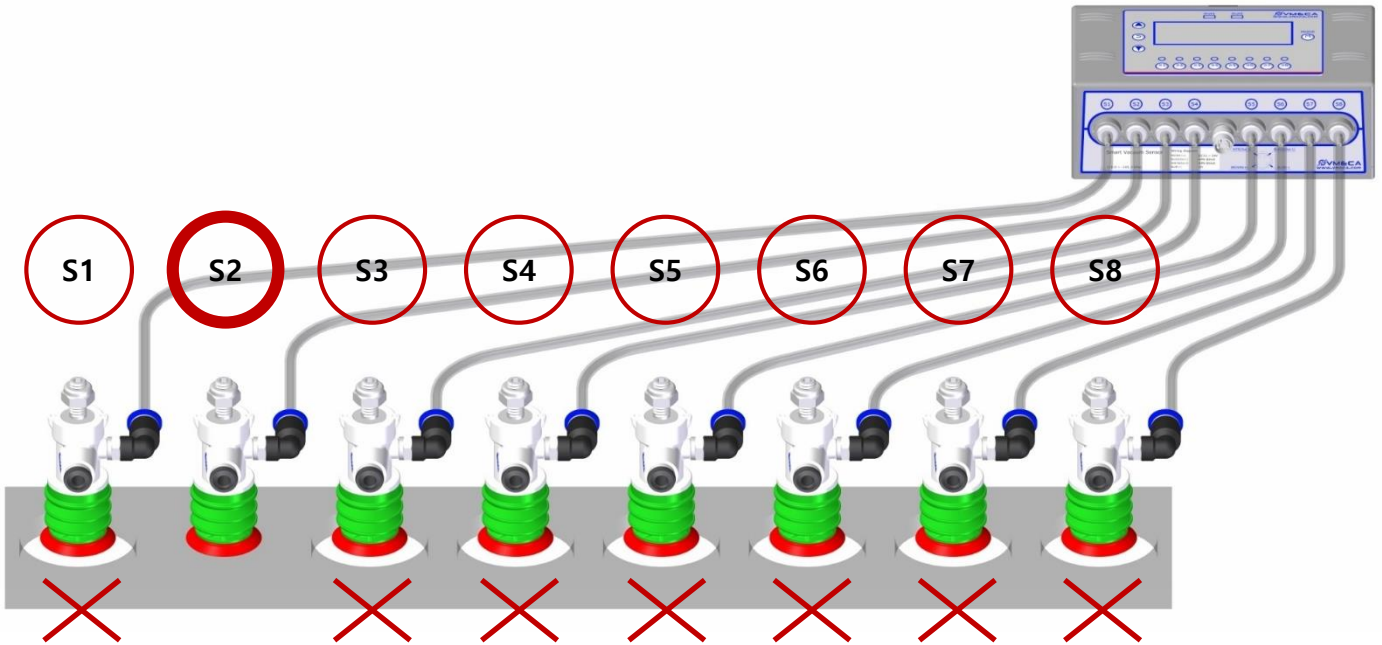
► Signal is output when the selected sensor at random (**S2**) reach its set pressure value. No need of all selected sensors (**S1**)(**S2**)(**S3**)(**S4**)(**S5**)(**S6**)(**S7**)(**S8**) reach the same value

(Displays the highest vacuum level for the selected sensors on the display panel.)

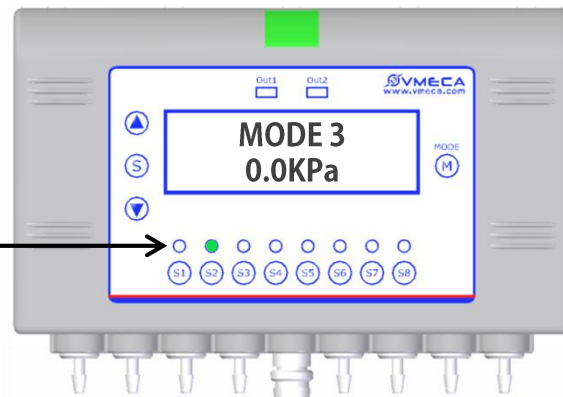
- All sensor can be set with same value by setting just one of the sensors at random
- No need to select sensors

✓ Various shaped products and works

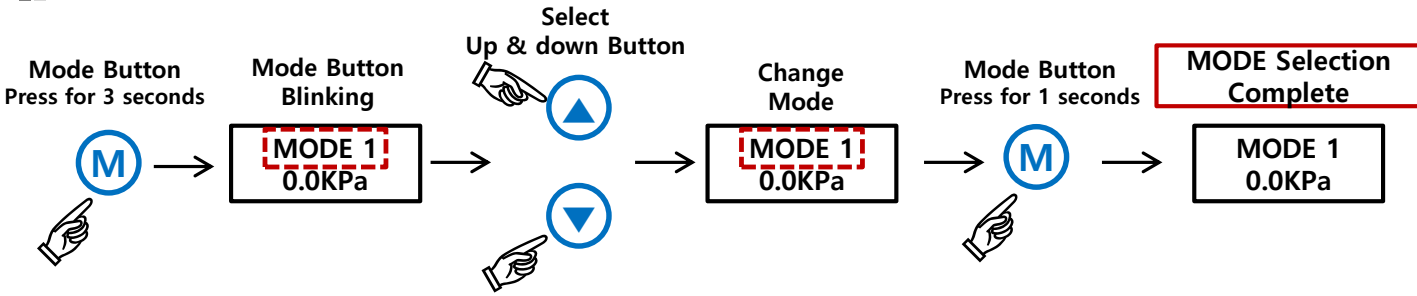
✓ Uneven and leakage application



Green LED turns on when the sensor reaches set value

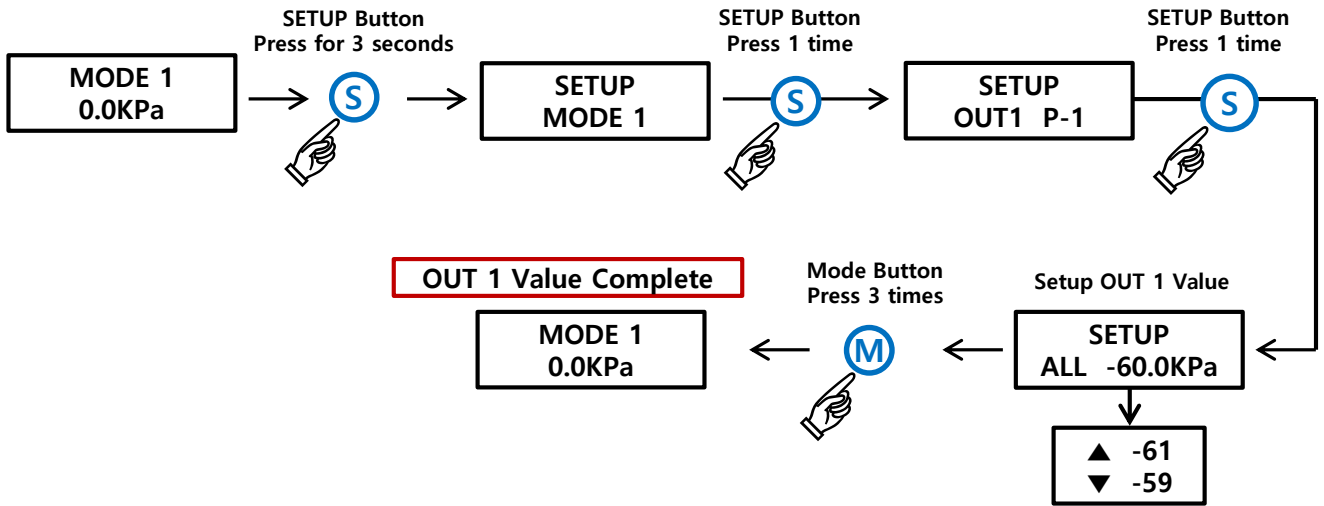


Mode Select

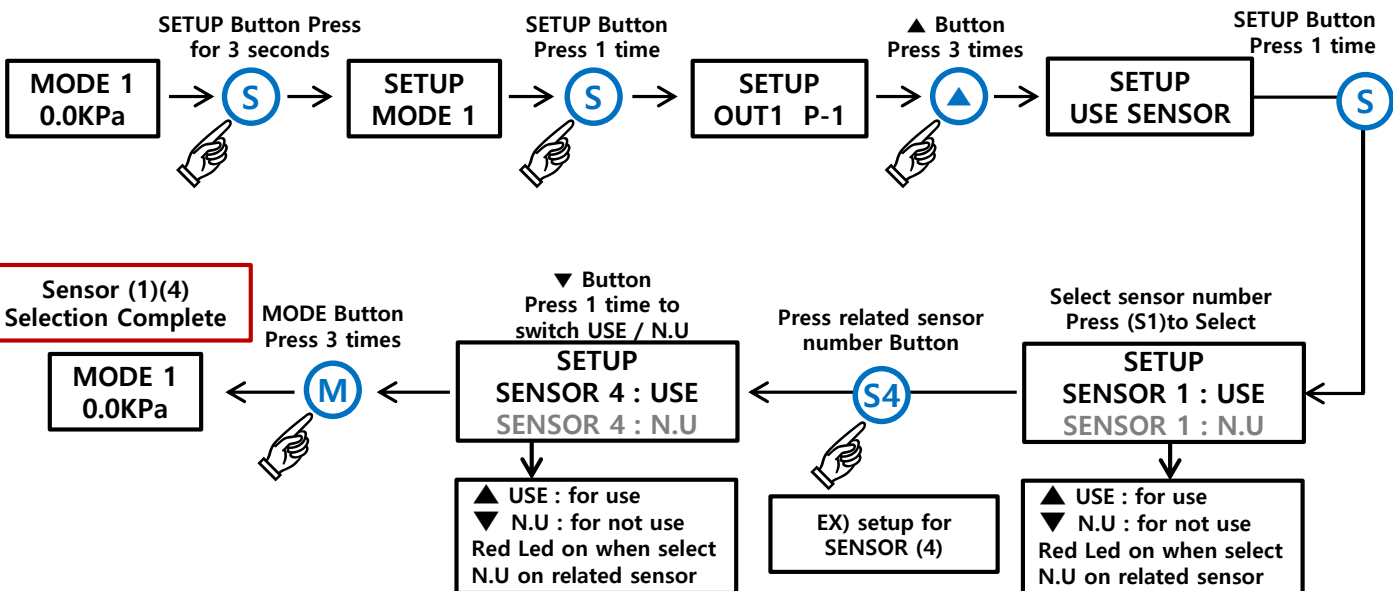


Mode 1 Selection

▶ OUT1 Setup

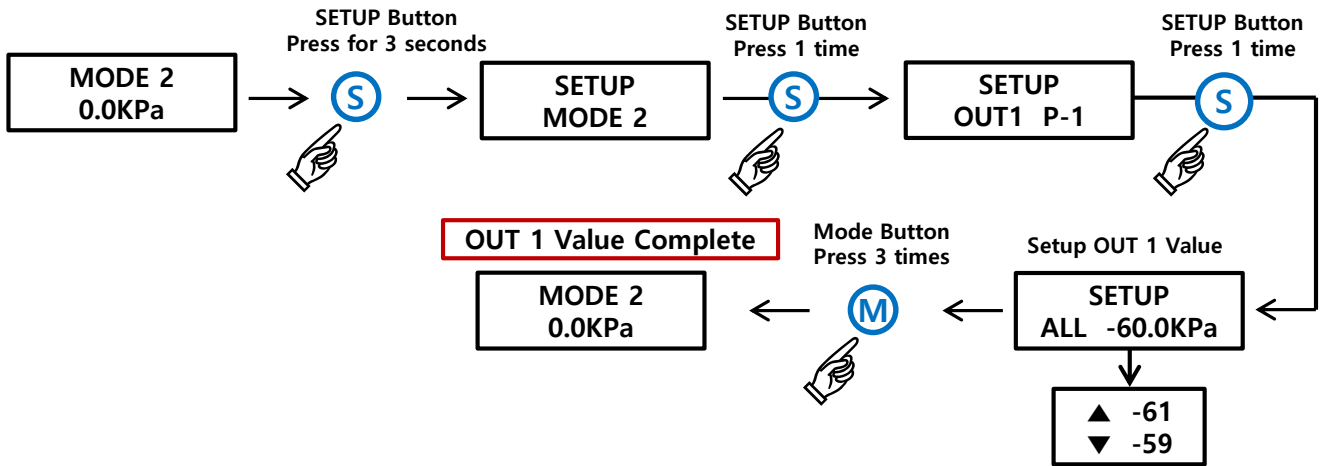


▶ Sensor Select

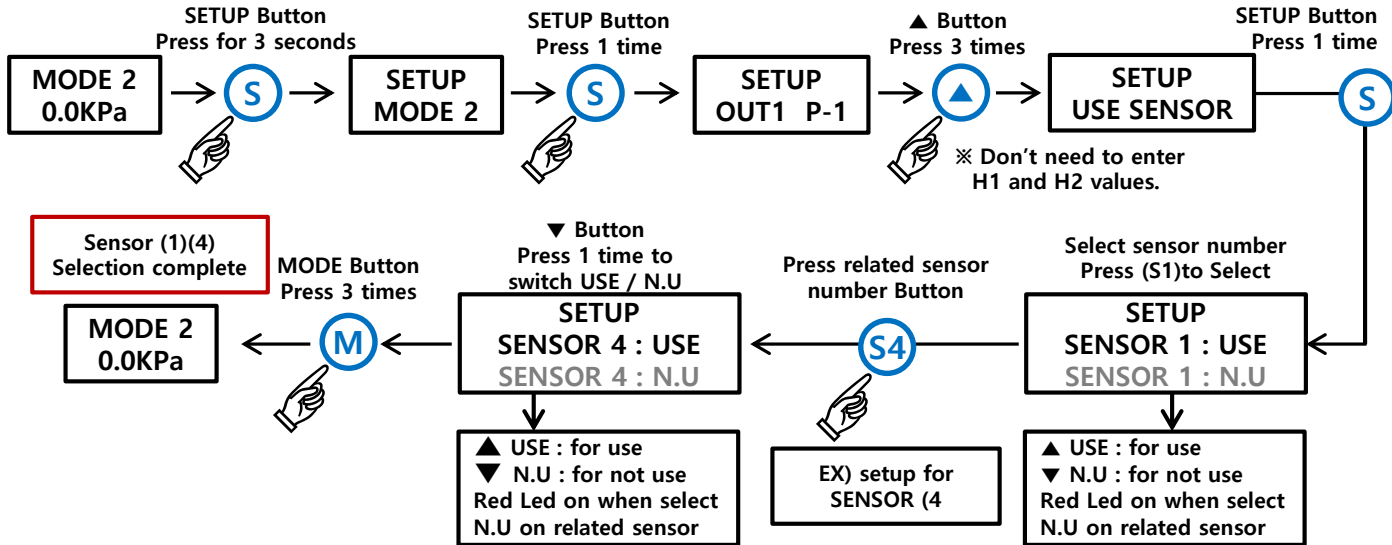


Mode 2 Selection

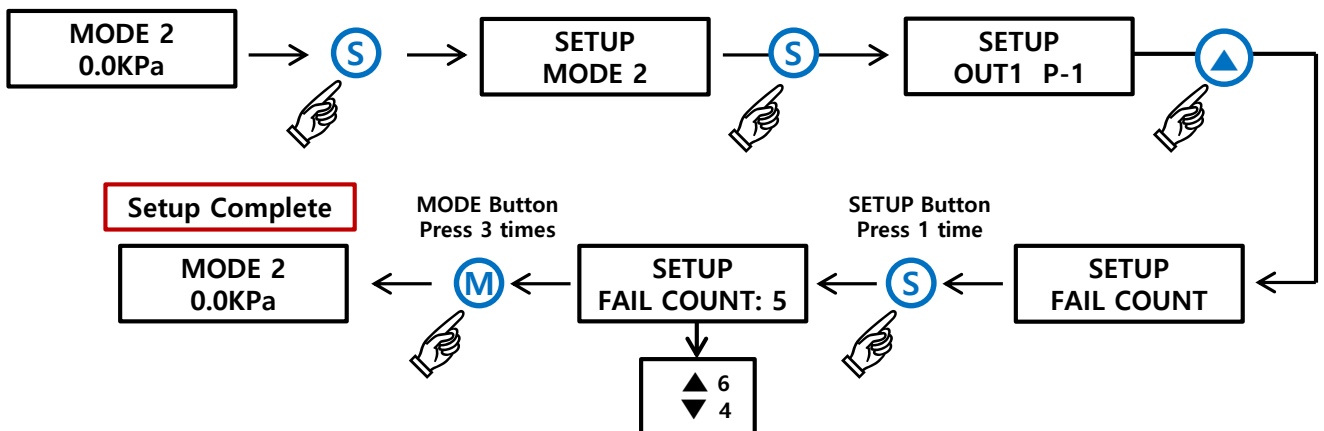
▶ OUT1 Setup



▶ Sensor Select

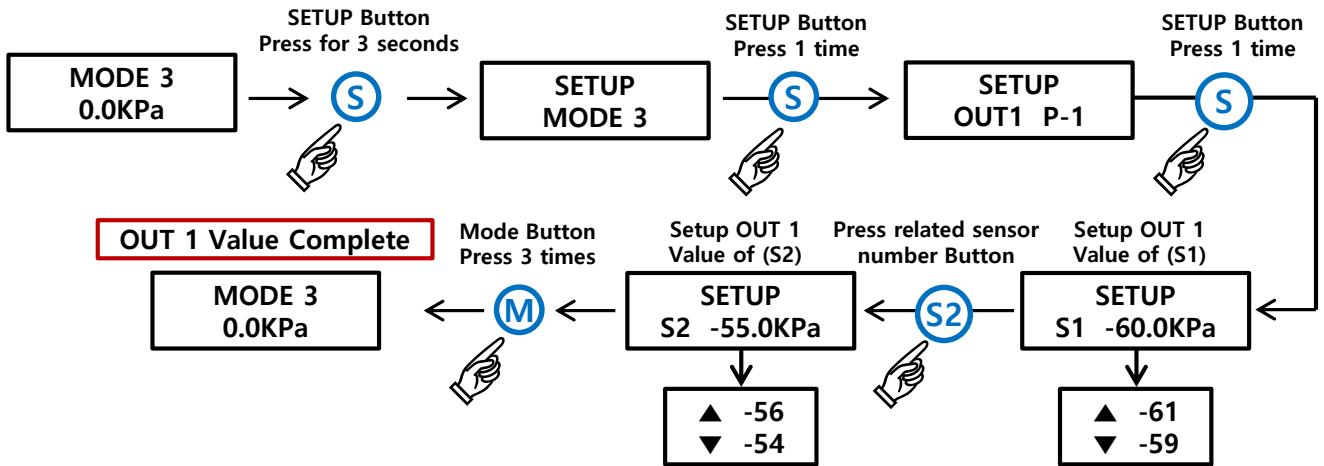


▶ Suction failure notification function- Setup allowed failure time

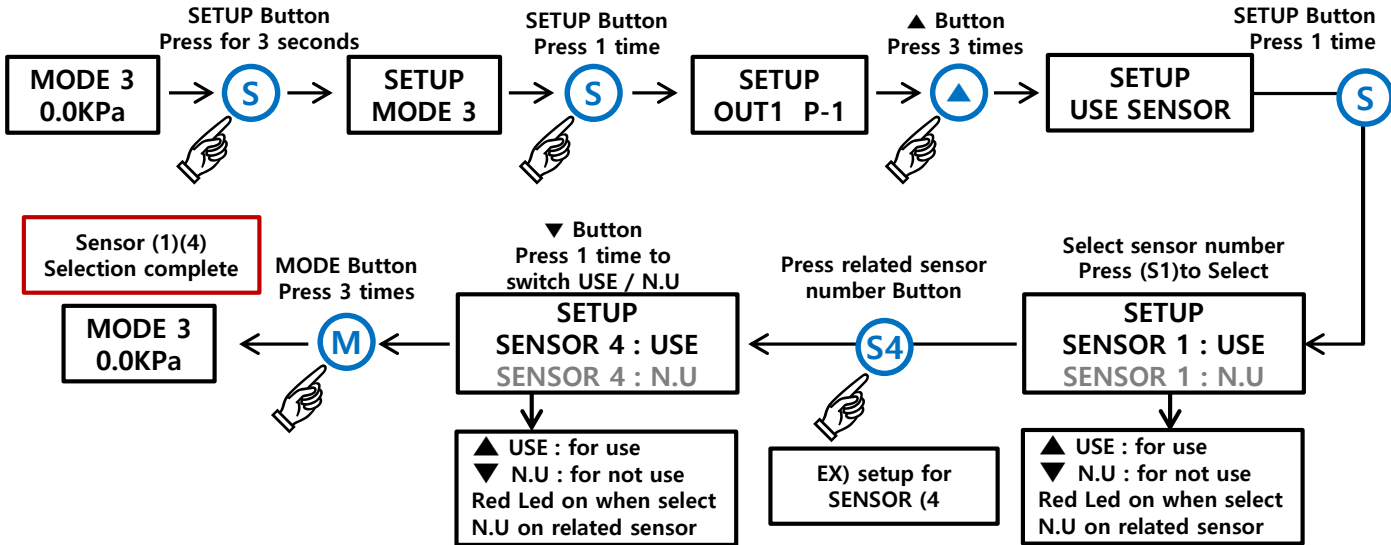


Mode 3 Selection

▶ OUT1 Setup

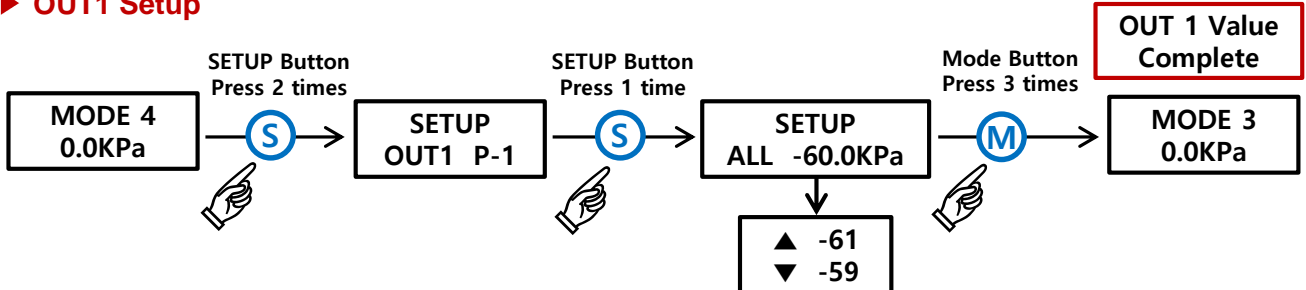


▶ Sensor Select



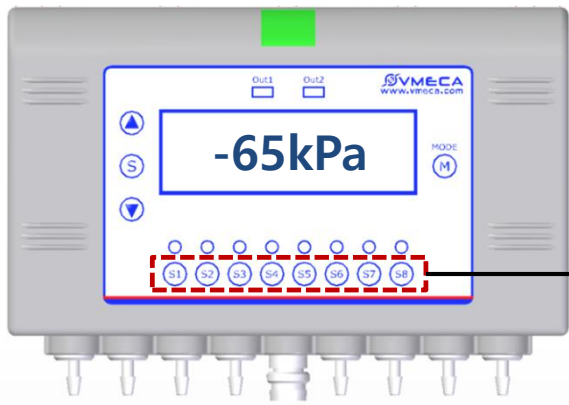
Mode 4 Selection

▶ OUT1 Setup



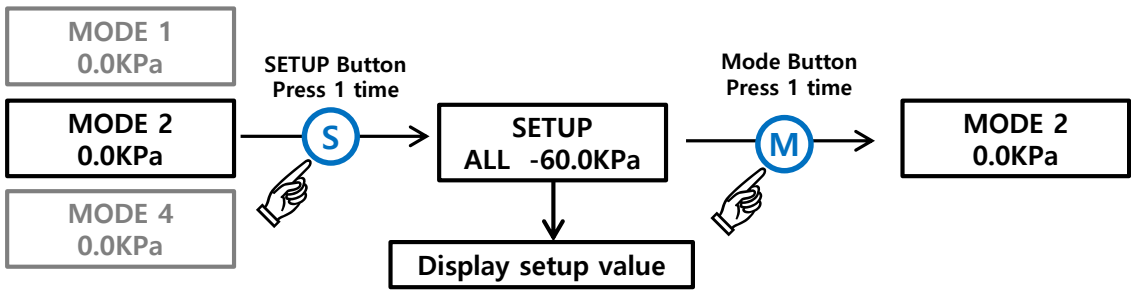
√ No need to select related sensor number in MODE 4

How to check the real-time Vacuum Level of the vacuum system.

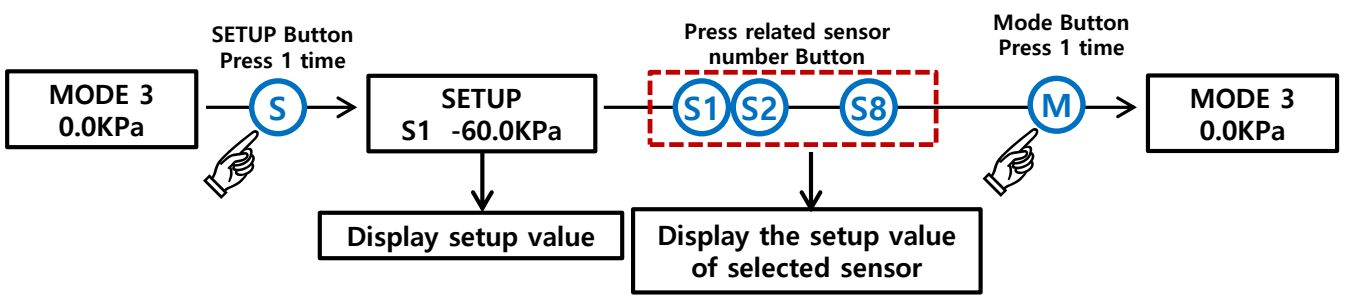


Display the vacuum level during the operation when press the button of related sensor

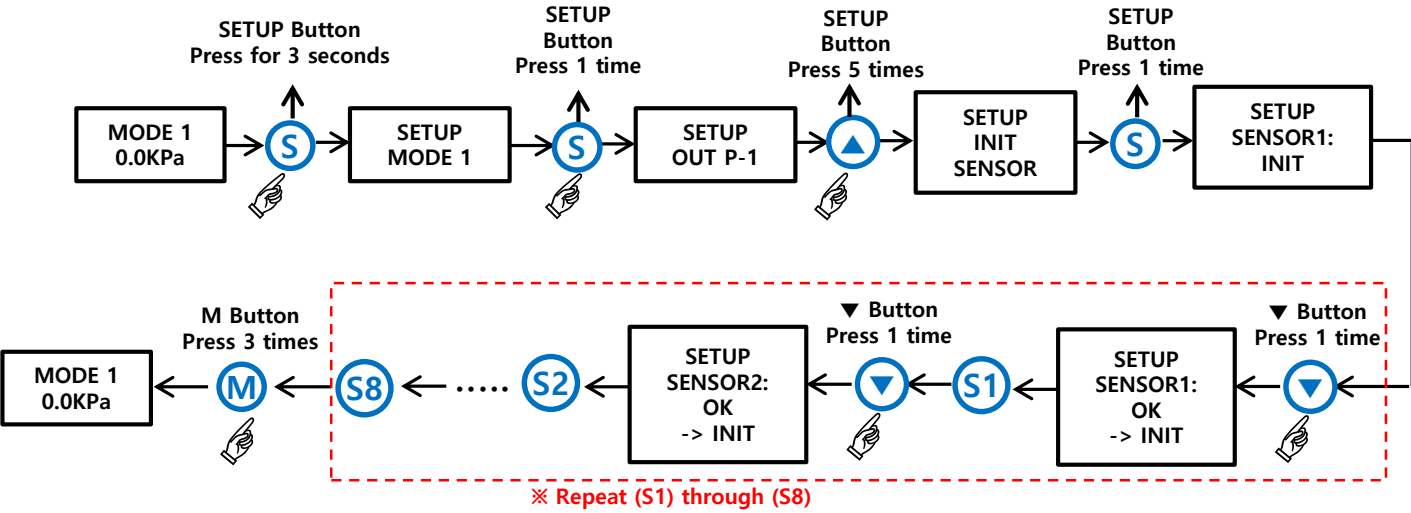
MODE1, MODE2, MODE4 (To check the setup vacuum level in current Mode)



MODE3 (To check the setup vacuum level in current Mode)

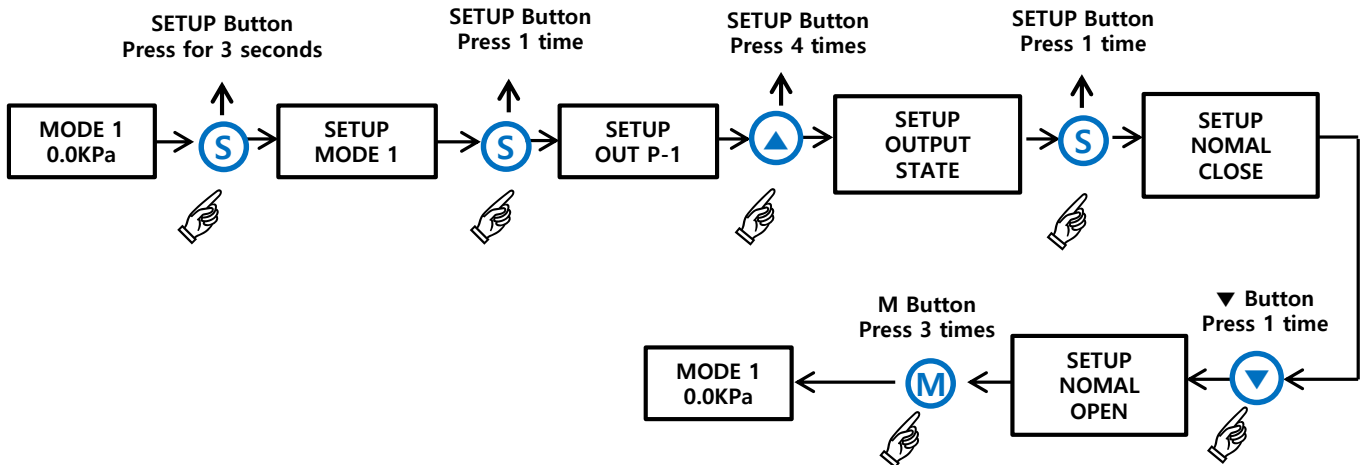


Zero Point Setting



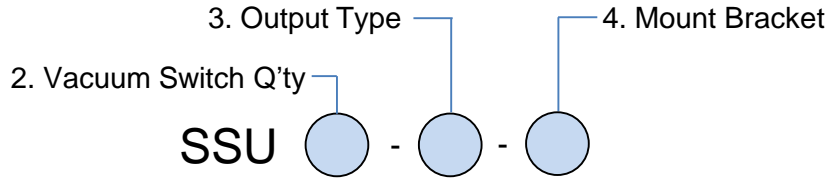
Change Signal Output Type (NO/ NC)

Can change (set) the signal output type for MODE1, MODE2, MODE3 and MODE4 Individually



※ Once SSU is shipped, the initial signal output type is NC (Normal Close).

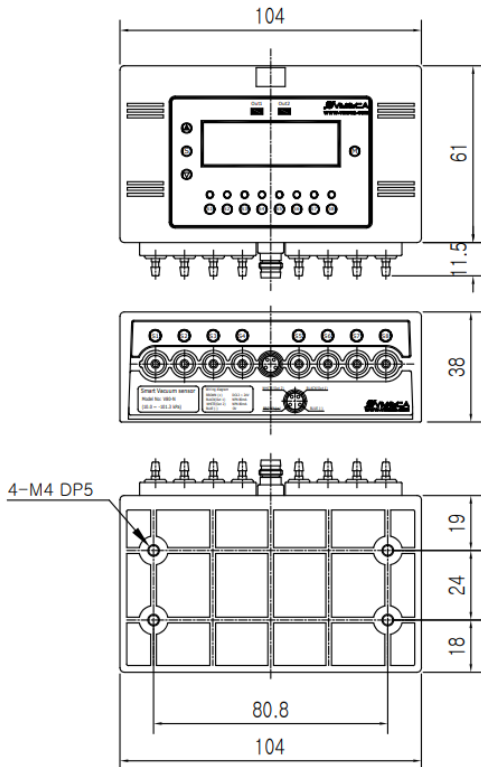
Build an Ordering No.



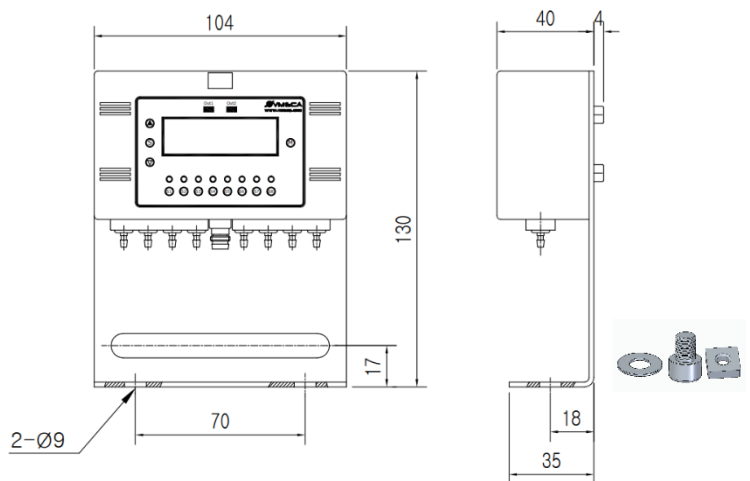
1. Smart Sensor Unit	Description	Ordering No.	Remark
	Smart Sensor Unit	SSU	
2. Vacuum Switch Quantity	Description	Ordering No.	Remark
	4EA	04	
	6EA	06	
	8EA	08	
3. Output Type	Description	Ordering No.	Remark
	NPN Type	N	
	PNP Type	P	
4. Mount Bracket	Description	Ordering No.	Remark
	Without mount bracket	(no mark)	
	With mount bracket	1	2x M6/ M8 Bolt Set Incl.

Dimension

> Without bracket



> With bracket



Connection

