

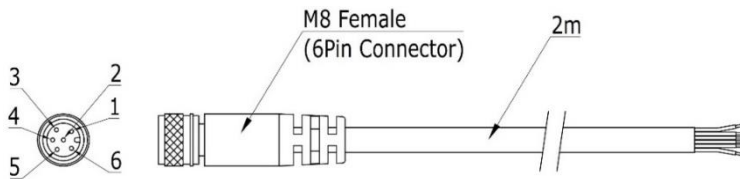
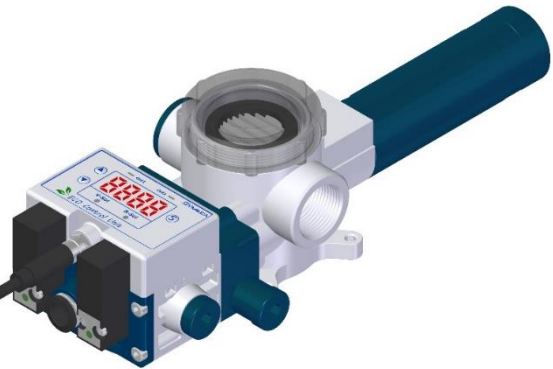
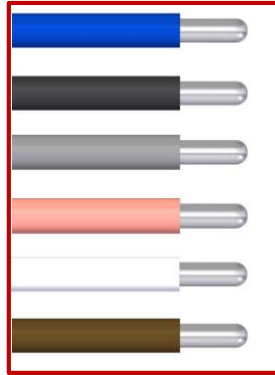
# ECO Turtle Pump

## Features and Strengths

- Integral structure: AS-kit + Digital Vacuum switch + 2 Control valves.
- Built-in air saving function, blocking air consumption when vacuum is reached.
- Installed with Turtle pumps (optimized for Turtle series)
- Easy and convenient wiring with M8X6PIN connector and wiring cable.

## Cable wiring of Eco Turtle Pump

Blue	: DC 0V (-)
Black	: Out 1
Gray	: Out 2
Pink	: (-) Release On / Off
White	: (-) Vacuum On / Off
Brown	: DC 24V (+)



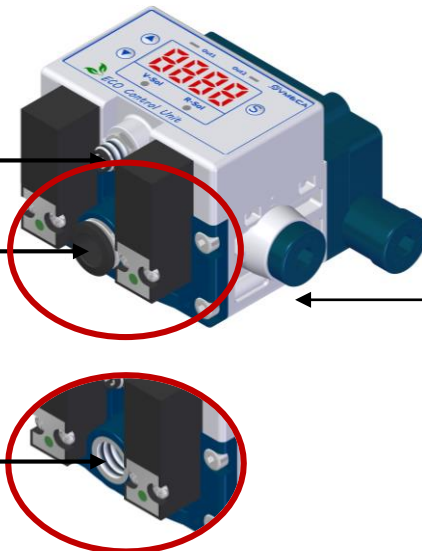
▲ VCM8-6-2 (M8-6pin, 2M cable for Eco-Turtle Pump)

- 1 : BROWN (+) DC 24V
- 2 : PINK (-) VACUUM RELEASE SOL
- 3 : GRAY OUT2
- 4 : BLACK OUT1
- 5 : BLUE (-) DC 0V
- 6 : WHITE (-) VACUUM SOL

**Cable Connector**  
(M8 X 6 pin)

**Air Supply Port**  
(Ø10 One-touch fitting)

**Air Port**  
(G1/4" Port)



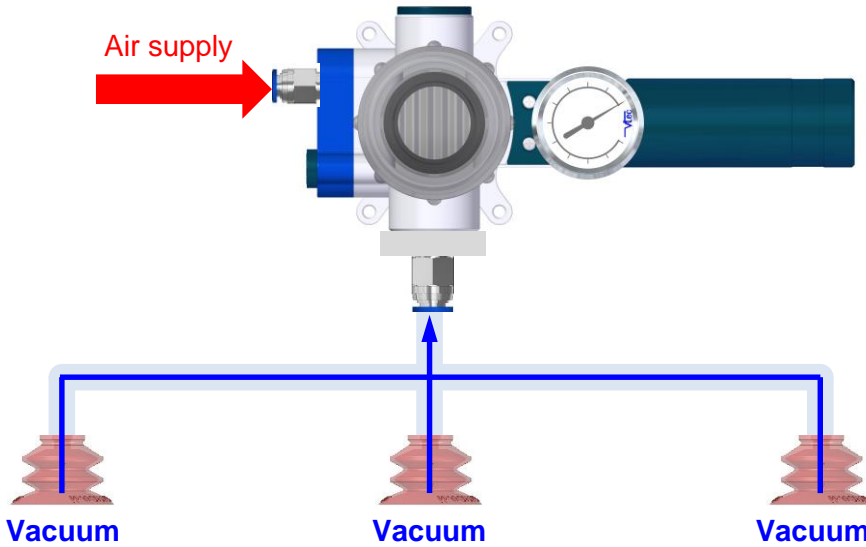
**Release Air Port**  
(connected with QR Valve Port)

**Air Port**

## Air Saving System

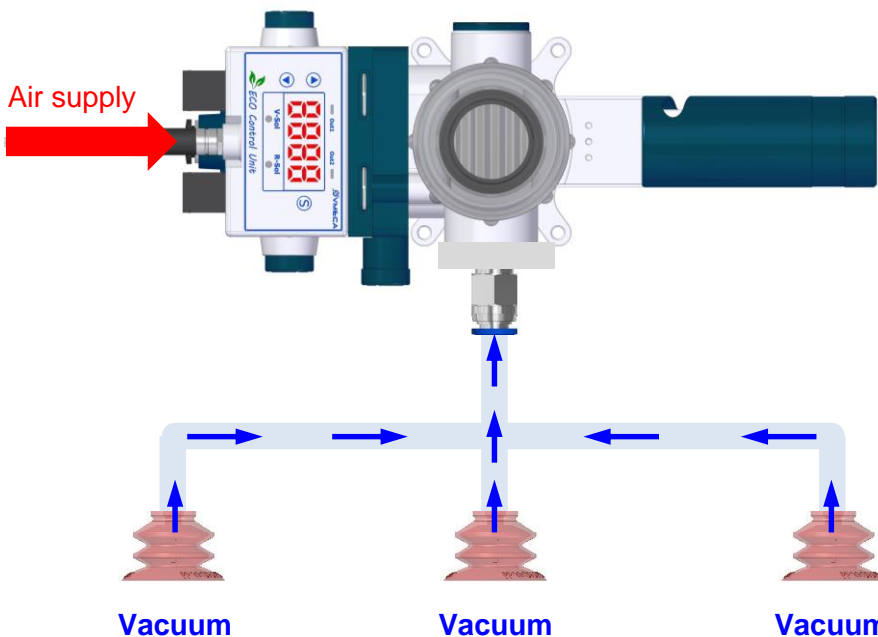
- By air saving function of Eco Turtle Pump, the air supply valve ON/OFF will be automatically operated within the range of the set value.

### Standard Turtle Pump



✓ Compressed Air (energy) is continuously consumed even the cups are vacuumed.

### Eco Turtle Pump

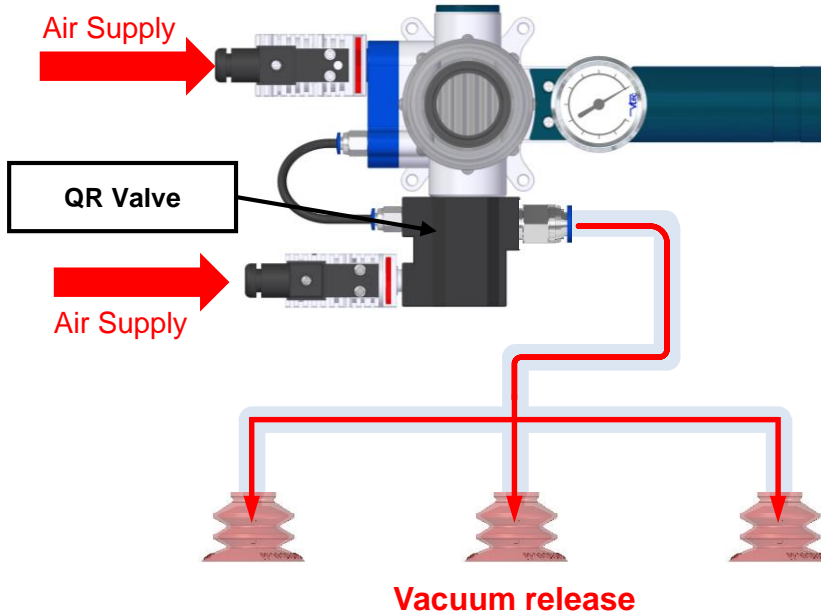


✓ Air saving 90%

✓ Compressed air is automatically cut off (energy saving) when the cups are vacuumed. And air is supplied again when vacuum level is lower than a set vacuum level automatically.

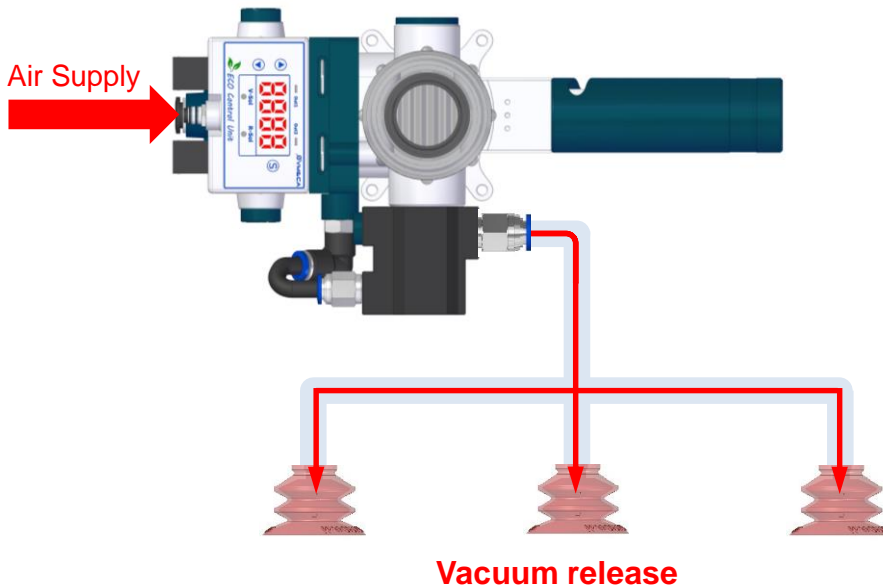
**With QR Valve Module**

**Standard Turtle Pump**



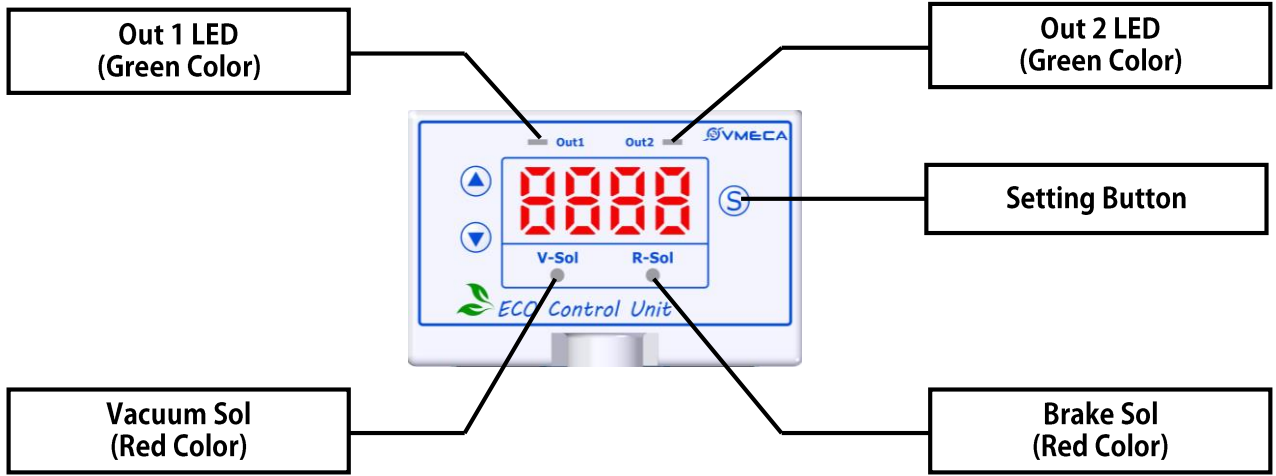
✓ When vacuum is released, release air is passing through the release control valve with QR-valve to release vacuum.

**Eco Turtle Pump**



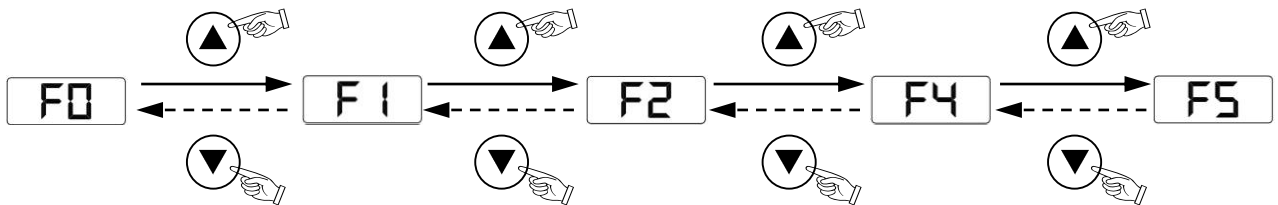
✓ When vacuum is release, air is supplied through air port of the Eco Turtle Pump, it released without release control valve and QR-valve also can be operated.

## Eco Turtle Pump Setting



### Function select mode

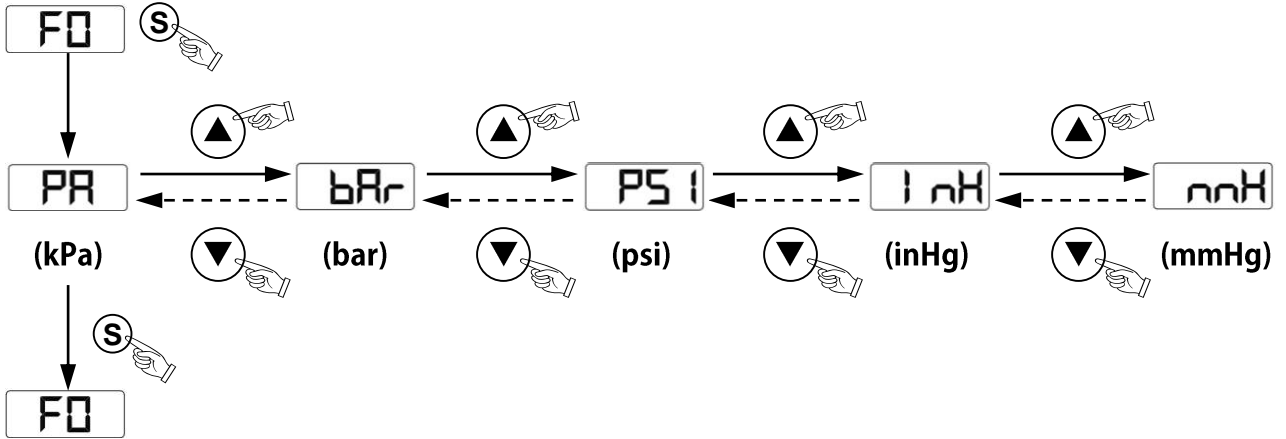
Press " **S** " setting button for 3 seconds - to enter the main set menu



- F 0** → Unit setting
- F 1** → OUT1/ OUT2 mode setting
- F 2** → Air Saving (Vacuum sol.) sitting
- F 4** → Response time setting
- F 5** → Reset the setting (factory reset)

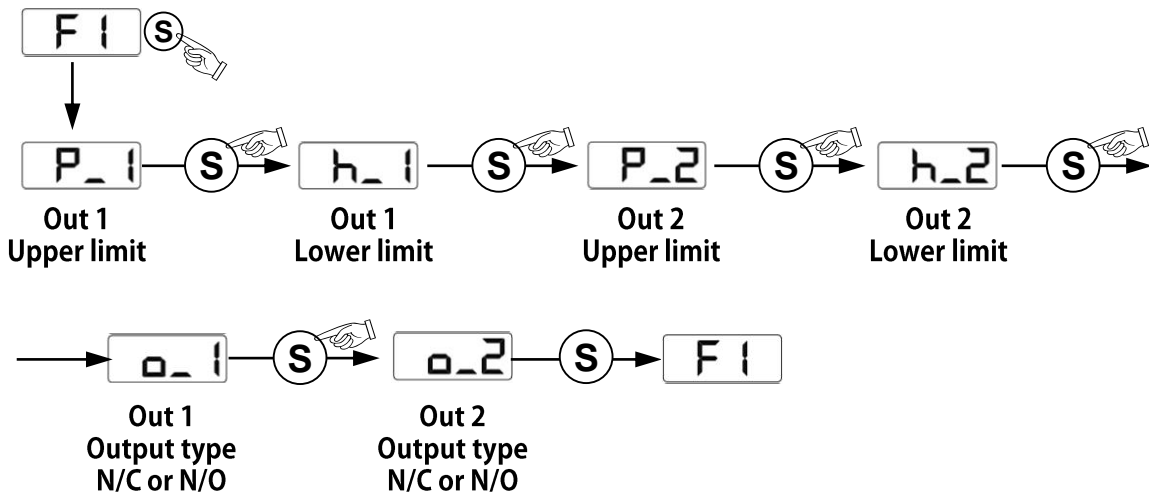
### Vacuum Unit Setting Mode

Press " **S** " setting button for 3 seconds - to enter the main set menu



### OUT1/ OUT1 Setting Mode

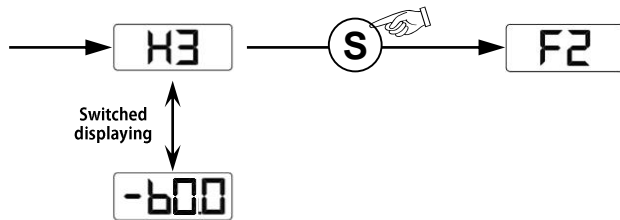
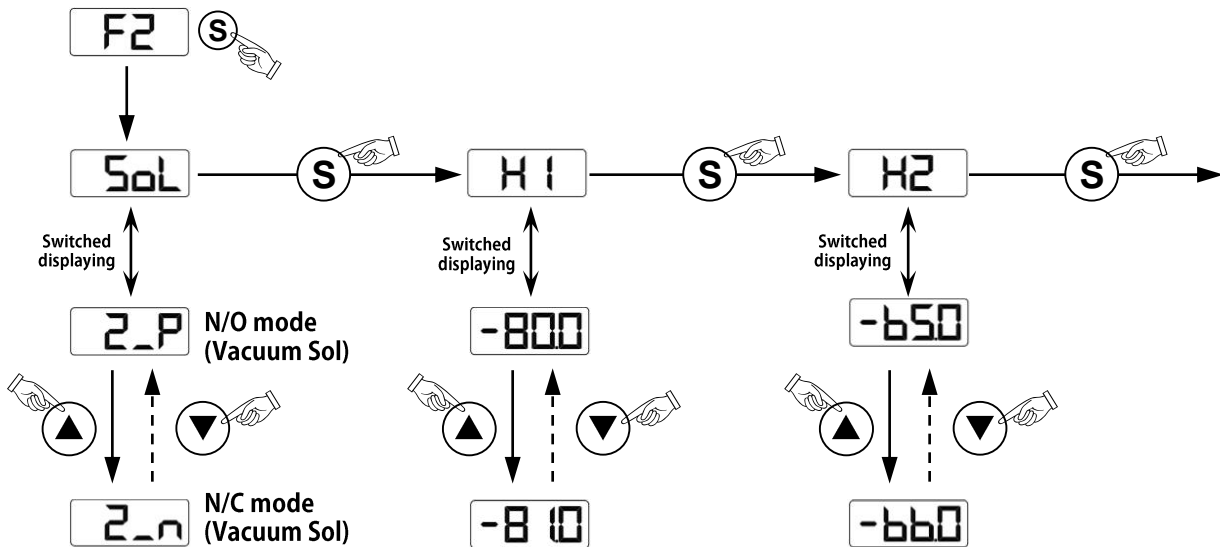
Press " **S** " setting button for 3 seconds - to enter the main set menu



- |  |  |
|--|--|
| <b>P_1</b> Out 1: value of signal out (ON)   | <b>P_2</b> Out 2: value of signal out (ON)   |
| <b>h_1</b> Out 1: value of signal stop (OFF) | <b>h_2</b> Out 2: value of signal stop (OFF) |

## Setting the Air saving(Vacuum solenoid valve)

Press " **S** " setting button for 3 seconds - to enter the main set menu



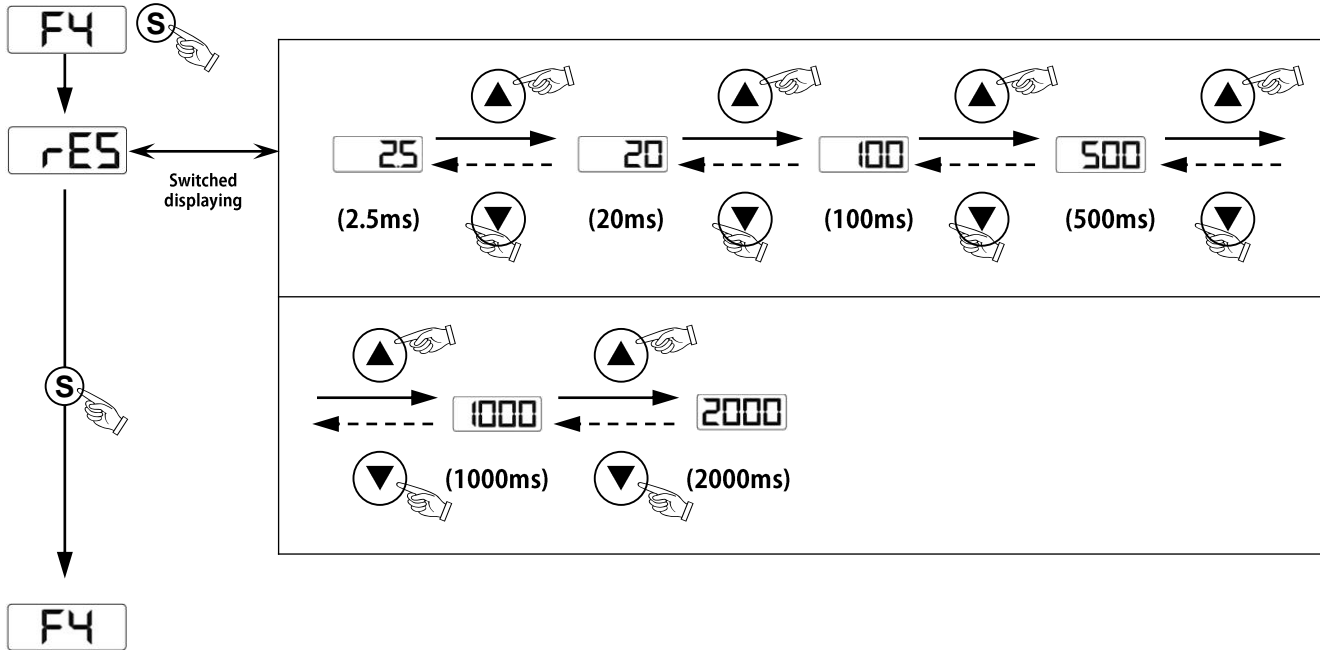
### h 1(Vacuum lower limit) displayed

\* Not available to set this value lower than h1 value.

- Sol → N/O, N/C type selection for vacuum solenoid valve
- H 1 → Set vacuum level (upper limit) for vacuum solenoid valve Off (=Air-saving ON)
- H 2 → Set vacuum level (lower limit) for vacuum solenoid valve ON (=Air-saving OFF)
- H 3 → Function of preventing the H2 value from being set below the lower limit value of h1.

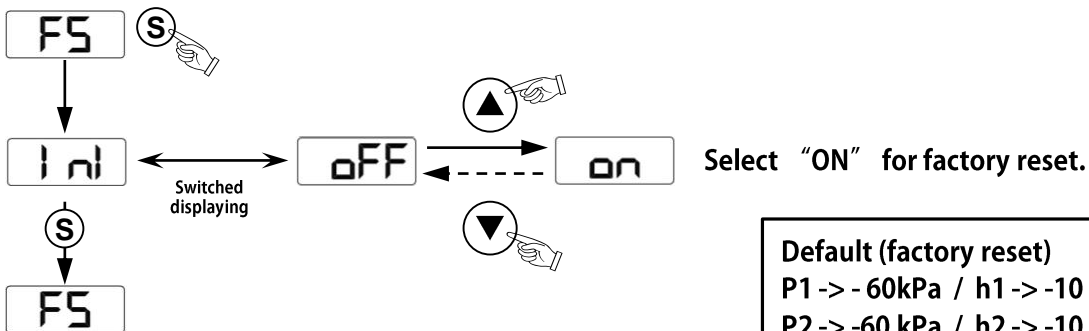
## Response Time Setting Mode

Press " **S** " setting button for 3 seconds - to enter the main set menu



## Factory Reset Mode

Press " **S** " setting button for 3 seconds - to enter the main set menu



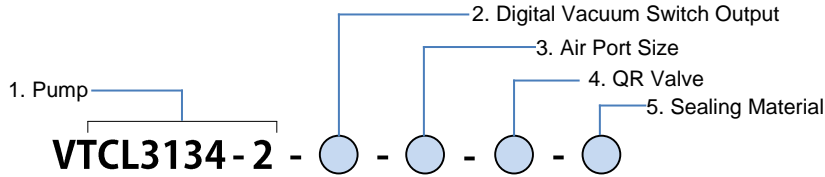
**Default (factory reset)**  
 P1 -> -60kPa / h1 -> -10 kPa  
 P2 -> -60 kPa / h2 -> -10 kPa

## Zero Point Setting

Press the + button at the same time until the "0" is shown



## Build an Ordering No.



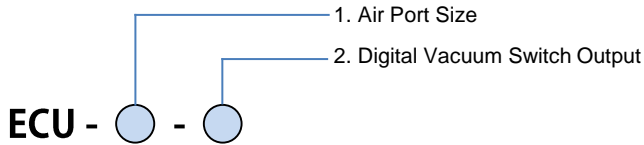
1. Pump	Description	Ordering No.	ETC
	Turtle Pump, VC303 1EA installed, Vacuum Filter, 2 Fold Silencer	<a href="#">VTC3031-2</a>	
	Turtle Pump, VC302 1EA installed, Vacuum Filter	<a href="#">VTC3021-2</a>	
	Turtle Pump, VC303 2EA installed, Vacuum Filter, 2 Fold Silencer	<a href="#">VTC3032-2</a>	
	Turtle Pump, VC302 2EA installed, Vacuum Filter	<a href="#">VTC3022-2</a>	
	Turtle Pump, VCL303 1EA installed, Vacuum Filter, 2 Fold Silencer	<a href="#">VTCL3031-2</a>	
	Turtle Pump, VCL302 1EA installed, Vacuum Filter	<a href="#">VTCL3021-2</a>	
	Turtle Pump, VCL303 2EA installed, Vacuum Filter, 2 Fold Silencer	<a href="#">VTCL3032-2</a>	
	Turtle Pump, VCL302 2EA installed, Vacuum Filter	<a href="#">VTCL3022-2</a>	
	Turtle Pump, VC303 1EA installed, Vacuum Filter, Plug	<a href="#">VTC3031P-2</a>	
	Turtle Pump, VC303 2EA installed, Vacuum Filter, Plug	<a href="#">VTC3032P-2</a>	
	Turtle Pump, VCL303 1EA installed, Vacuum Filter, Plug	<a href="#">VTCL3031P-2</a>	
	Turtle Pump, VCL303 2EA installed, Vacuum Filter, Plug	<a href="#">VTCL3032P-2</a>	
	Turtle Pump, VC303 4EA installed, Vacuum Filter, Silencer	<a href="#">VTC3134-2</a>	
	Turtle Pump, VC303 3EA installed, Vacuum Filter, Silencer	<a href="#">VTC3133-2</a>	
	Turtle Pump, VC303 2EA installed, Vacuum Filter, Silencer	<a href="#">VTC3132-2</a>	
	Turtle Pump, VC302 4EA installed, Vacuum Filter, Silencer	<a href="#">VTC3124-2</a>	
	Turtle Pump, VC302 3EA installed, Vacuum Filter, Silencer	<a href="#">VTC3123-2</a>	
	Turtle Pump, VC302 2EA installed, Vacuum Filter, Silencer	<a href="#">VTC3122-2</a>	
	Turtle Pump, VCL303 4EA installed, Vacuum Filter, Silencer	<a href="#">VTCL3134-2</a>	
	Turtle Pump, VCL303 3EA installed, Vacuum Filter, Silencer	<a href="#">VTCL3133-2</a>	
	Turtle Pump, VCL303 2EA installed, Vacuum Filter, Silencer	<a href="#">VTCL3132-2</a>	
	Turtle Pump, VCL302 4EA installed, Vacuum Filter, Silencer	<a href="#">VTCL3124-2</a>	
	Turtle Pump, VCL302 3EA installed, Vacuum Filter, Silencer	<a href="#">VTCL3123-2</a>	
	Turtle Pump, VCL302 2EA installed, Vacuum Filter, Silencer	<a href="#">VTCL3122-2</a>	
2. Digital Vacuum Switch Output	Description	Ordering No.	ETC
	ECO-Control Pump, NPN Type	<a href="#">EC</a>	
	ECO-Control Pump, PNP Type	<a href="#">ECP</a>	
3. Air Port Size	Description	Ordering No.	ETC
	G1/4" Port	<a href="#">14</a>	
	Ø10 one-touch hose fitting type	<a href="#">10</a>	

## Build an Ordering No.

4. QR Valve	Description	Ordering No.	ETC
	No QR Valve	Blank	
	QR Valve	Q	

5. Sealing Material	Description	Ordering No.	ETC
	NBR	Blank	
	VITON	V	
	EPDM	E	

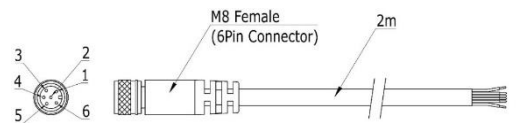
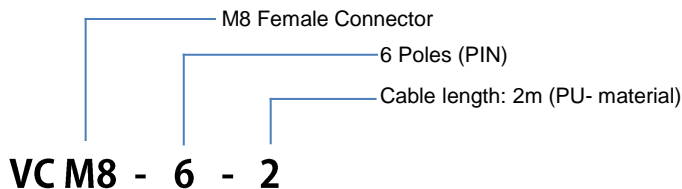
## Build an Ordering No. (spare for Eco Turtle Pump)



1. Air Port Size	Description	Ordering No.	ETC
	G1/4" Port	14	
	Ø10 one-touch hose fitting type	10	

2. Digital Switch Output	Description	Ordering No.	ETC
	ECU, NPN Type	EC	
	ECU, PNP Type	ECP	

## Build an Ordering No. (Connection cable for Eco Turtle Pump)



Model	Description	Ordering No.	ETC
VCM8-6-2	Connection cable, M8 Female, 6 Poles (PIN), 2M length	VCM8-6-2	