



## 1. SAFETY RECOMMENDATION

### ⚠ General Information

- Please ensure to read and understand the manual before installation and maintenance of the products.
- The manual should be passed to the End-User.
- When the product is not used within its description range, it may cause the product to malfunction so please follow the product manual instructions.

### ⚠ Handling Precautions

- Do not install, operate or maintain without being fully trained and qualified in Valve and accessory installation.
- When exceeding the permitted air pressure range, it may cause injury or property damage due to compressed air explosion. So it is very important to carefully read, understand and follow all of the contents of the relevant product manual.

### ⚠ User Environment

- When used in environments that are a higher temperature than the specified temperature range, it may cause a lower life cycle of the product. So please ensure to use within the specified temperature range.

## 2. LIMITED WARRANTY AND DISCLAIMER

- The manufacturer warranty period of the product is 18 months after the product is shipped from TISSIN in Korea.
- For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided. This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
- Using the device in a manner that does not fall within the scope of its intended use, disregarding this manual, using under unqualified personnel, or making unauthorized alterations releases the manufacturer from liability for any resulting damage. This renders the manufacturer's warranty null and void.

## 3. DESCRIPTION

The pneumatic lock up valve TS200 series shuts off the signal pressure line either when the air supply falls below an adjusted value or upon complete air supply failure. This causes the actuator to remain in its last position.

## 4. FEATURES

- Quick Response and High Precision.
- Easy set-up of lock up air pressure.
- When the signal pressure is more than the set pressure, it opens the air pressure line automatically.
- Small size and light weight allow the Lock Up Valve to be installed in the direct pipe fitting line without bracket.
- Options available

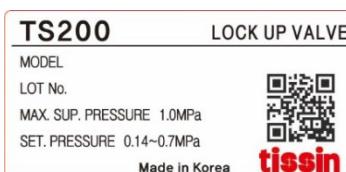
## 5. SPECIFICATION

Model	TS200	TS210	TS205	TS215
Max Supply Pressure		1 MPa		
Signal Pressure		0.14~0.7 MPa		
Max Lock Up Pressure		0.7 MPa		
Differential Pressure		Below 0.01 MPa		
Flow Capacity (CV)	0.9	1.8	0.9	1.8
In/Out Connection	PT(NPT) 1/4	PT(NPT) 3/8	PT(NPT) 1/4	PT(NPT) 3/8
Signal Connection		PT(NPT) 1/4		
Operating Temperature		-20°C ~70°C (Standard type)		
Material	Aluminum Die Casting		Stainless steel316	
Weight	Single	0.5kg	1.2kg	1.2kg
	Double	0.6kg	2.1kg	3.3kg

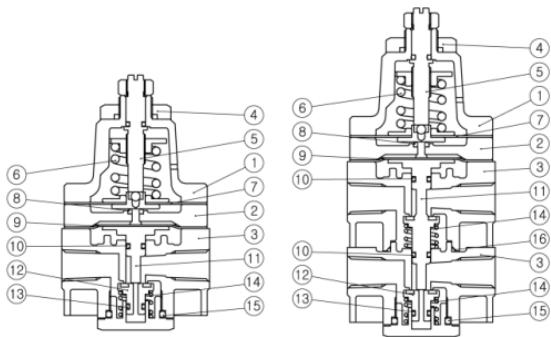
## 6. PRODUCT CODE

Model	TS2				
In/Output port size	1/4"	0			
	3/8"	1			
Material	Aluminum	0			
	Stainless steel 316	5			
Acting Type	Single		S		
	Double		D		
Air connection	PT		P		
	NPT		N		
Ambient Temp.	-20°C~70°C		S		
	-20°C~120°C		H		
	-40°C~70°C		L		
	-60°C~70°C		U		

## 7. LABEL



## 8. MATERIALS OF CONSTRUCTION

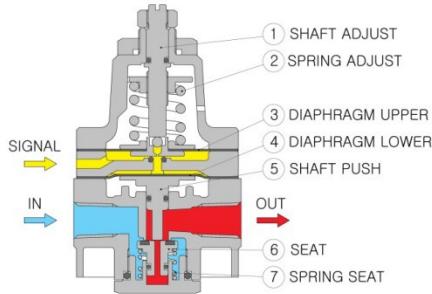


TS200S/TS205S

TS200D / TS215D

NO	TITLE	MATERIAL	
		TS200 / TS210	TS205 / TS215
1	COVER	ALDC12	SCS14
2	RING	ALDC12	STS316
3	BODY	ALDC12	STS316
4	MOUNTING NUT	STS304	STS304
5	SHAFT ADJUST	STS304	STS316
6	SPRING ADJUST	HSW3	HSW3
7	ASS'Y DIAPHRAGM	STS303 / NBR	STS316 / NBR
8	O-RING	NBR/SILICONE	NBR/SILICONE
9	DIAPHRAGM LOWER	NBR/SILICONE	NBR/SILICONE
10	O-RING	NBR/SILICONE	NBR/SILICONE
11	SHAFT PUSH	STS304	STS316
12	SEAT	C3604BD	STS316
13	O-RING	NBR/SILICONE	NBR/SILICONE
14	SPRING SEAT	STS304	STS304
15	O-RING	NBR/SILICONE	NBR/SILICONE
16	O-RING	NBR/SILICONE	NBR/SILICONE

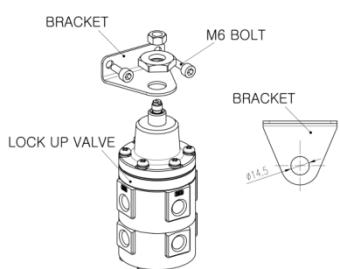
## 9. PRINCIPLE OF OPERATION



When signal pressure is greater than setting pressure level, upper diaphragm(3) moves upward, the exhaust valve is closed, the signal pressure pushes the lower diaphragm(4), lower diaphragm(4) pushes shaft push(5) and shaft push(5) pushes seat(6), and the flow can go from IN to OUT. When signal pressure is less than setting pressure level, upper diaphragm(3) is being pushed downward and the pressure of lower pressure diaphragm is exhausted from the exhaust valve. Therefore, the valve is closed by spring force and air circuit is shut down. The spring(2) force can be adjusted by shaft adjust(1).

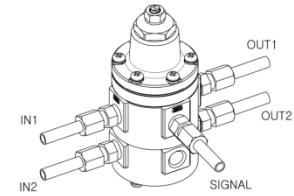
## 10. BRACKET INSTALLATION

If you need to install bracket, you can make the bracket by referring to product dimension drawings, and please install it as below.



## 11. PNEUMATIC CONNECTION

- ① Connect the Positioner's Output Port with the Lock Up Valve's IN Port.
- ② Connect the Lock Up Valve's OUT port with the Actuator.
- ③ Connect Lock Up Valve's SIGNAL port with the signal port that want to detect.

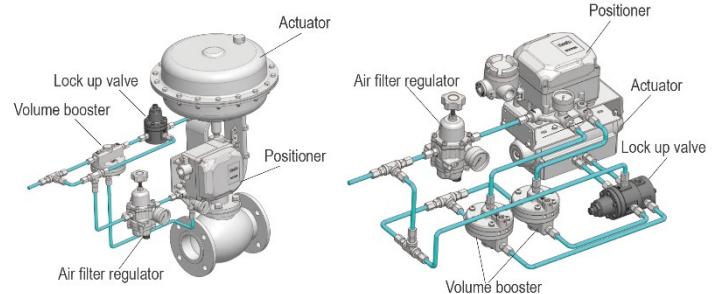


## 12. SIGNAL PRESSURE SETTING

- ① Through the regulator equipped with the pressure gauge, supply the 0.14~0.7MPa air pressure that you want to set to the signal port.
- ② When supply 0.14~0.7MPa air pressure to IN port, it is released to OUT port. So please regulate Shaft Adjust, then stop regulation at the point when OUT port air discharge stops.

Note: The factory setting signal pressure is 0.3Mpa.

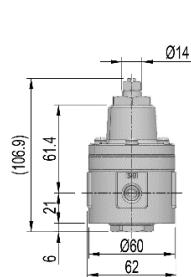
## 13. INSTALLATION EXAMPLE



<Single Acting Linear Actuator>

<Double Acting Rotary Actuator>

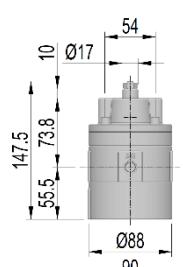
## 14. DIMENSION (Unit : mm)



TS200S / TS205S



TS200D / TS200D



TS210S / TS215S



TS210D / TS215D

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