## Features (Diaphragm Type)

#### Reliable operation

Uses diaphragm construction that enables quick and sharp switching peculiar to this type. The valve seat is also reliable.

#### Trouble free structure

An extremely simple structure and a poppet-type seat method ensures freedom from galling, even if a certain amount of dust intrudes inside.

Moreover, it will not stick even after being left unused for long periods.

#### • Can be used without lubrication.

No sliding parts, and lubrication is unnecessary, and no breakdown problems due to inadequate lubrication.

### • Any mounting direction is acceptable.

This structure ensures operations without a hitch, no matter what the mounting direction is.

#### Compact and lightweight

An original compact design, and a light aluminum alloy body.

## Manual valves (push button type)



- Using nuts enables compact installation on panels (125P, 125HO types).
- Can also hold the pressed-down condition (125HO type).
- A vacuum valve with a non-leakage structure is also available.

#### Applications

- ON/OFF for pilot air
- Operation for single acting air cylinders and air grippersFilling or exhausting of air tank
- ON/OFF for air supply (125HO)
- ON/OFF for air jet and air blowing

#### Foot valves



A holding mechanism maintains the unit in an operating condition, which can then be released by pushing a foot-operated latch located back of the pedal (250FL, 250-4FL, 25034FL).

Applications

- Operation for double acting air cylinders and air grippers
- ON/OFF for pilot air (Double air-piloted valve)

## Manual valves (lever-operated type 2-, 3-port)



- Using nuts enables compact installation on panels (125V).
- A vacuum valve with a non-leakage structure is also available.

#### Applications

- ON/OFF for pilot air
- Operation for single acting air cylinders and air gripper
- Filling or exhausting of air tank
- ON/OFF for air supply
- ON/OFF for air jet and air blowing

(lever-operated type 3-position, 5-port)

Manual valves



- Operation of double acting air cylinders and air grippers (In the neutral position, the air cylinder and air gripper are in the free condition, and can be operated manually).
- A vacuum valve with a non-leakage structure is also available.

#### Applications

- Switching of pilot air
- Switching of air supply

#### Manual valves



- Sliding valve construction, and manually switched 4-port valve.
- Rotary type (swing lever) for reliable switching.
- Applications For switching air cylinders

## Mechanical valves (ball-cam type)



- Using nuts enables compact installation on panels (125B).
- A vacuum valve with a non-leakage structure is also available.

#### Applications

- ON/OFF for pilot air
- Operation for single acting air cylinders and air gripper
- Filling or exhausting of air tank
- ON/OFF for air jet and air blowing

# Mechanical valves (roller-cam type)

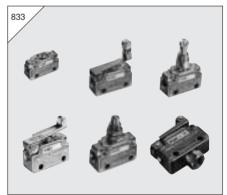


 Sturdy structure capable of withstanding harsh operation.

#### Applications

- ON/OFF for pilot air
- Operation for single acting air cylinders and air gripper
- Filling or exhausting of air tank
- ON/OFF for air jet

## Micro valves



- Both normally closed and normally open types are available for 2-port and 3-port valves, to ensure applications of using every type of pneumatic signal.
- Virtually no change in operational force from low to high pressure range.
- No neutral position means smooth switching between the A port and R port.

#### Applications

- Confirms operations in pneumatic control circuits.
- Switches air pressure signals.
- Operation of air cylinder
- Filling or exhausting of air tank

Offers smooth pilot air switching.

# **FOOT VALVES**

2-, 3-port

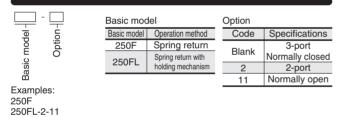
## Symbols

<u> </u>							
Spring return				Spring return with holding mechanism			
2-port		3-port		2-port		3-port	
NC (Normally closed)	NO (Normally open)	NC (Normally closed)	NO (Normally open)	NC (Normally closed)	NO (Normally open)	NC (Normally closed)	NO (Normally open)
2(A)		2(A)	2(A)			2(A)	2(A) 1(P) 3(R)
250F-2	250F-2-11	250F	250F-11	250FL-2	250FL-2-11	250FL	250FL-11

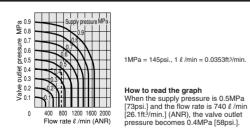
# Specifications

Operation type	Spring return	Spring return with holding mechanism		
Item Basic model	250F	250FL		
Port size	Rc1/4	Rc1/4		
Media	Air			
Operating pressure range MPa {kgf/cm <sup>2</sup> } [psi.]	0~0.9 {0~9.2} [0~131]			
Proof pressure MPa {kgf/cm <sup>2</sup> } [psi.]	1.35 {13.8} [196]			
Operating temperature range (atmosphere and media) °C [°F]	5~60 [4	1~140]		
Effective area mm <sup>2</sup>	1	5		
Flow coefficient Cv	0.	76		
Valve stroke mm [in.]	1.6 [0	0.063]		
Lubrication	Not required			
Mass kg [lb.]	1.0 [2.2]	1.6 [3.5]		
Options ······Order codes	2-port ····-2 Normally open ·-11			

# Order Codes



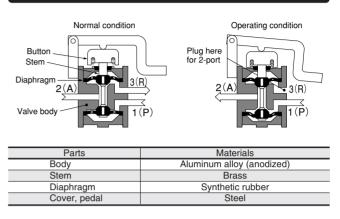
# **Flow Rate**



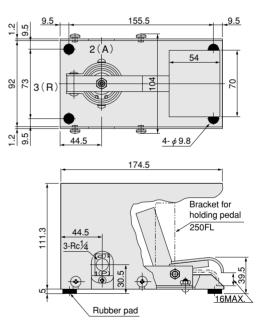
## **Pedal Pushing Down Force**

N [I								
Main pressure Model MPa [psi.]		0 [0]	0.2 [29]	0.4 [58]	0.6 [87]	0.8 [116]		
250F 250FL	Normally closed	5.9 [1.33]	9.8 [2.20]	13.7 [3.08]	18.6 [4.18]	25.5 [5.73]		
	Normally open	5.9 [1.33]	8.8 [1.98]	11.8 [2.65]	14.7 [3.30]	18.6 [4.18]		

# Inner Construction, Major Parts and Materials



# Dimensions (mm)



Note: In the cases of 250F and 250FL normally open,  $1(P)\ \text{port}\ \text{and}\ 2(A)\ \text{port}\ \text{are}\ on\ the\ opposite\ side.}$