

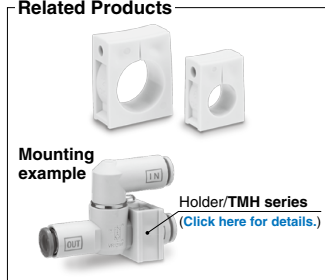
# Transmitters: Shuttle Valve with One-touch Fittings **VR1210F/1220F Series**

RoHS

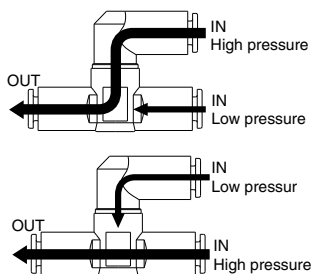
## Relay valves for controlling pneumatic signal lines



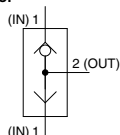
### Related Products



When the difference in input air pressure between two IN sides is 0.05 MPa or more, the air with higher pressure constantly flows to the OUT side.



### Symbol



## Model

Model	Applicable tubing O.D.									
	Metric size					Inch size				
	3.2	4	6	8	10	1/8"	5/32"	1/4"	5/16"	3/8"
VR1210F	●	●	●	●	●	●	●	●	●	●
VR1220F			●	●	●			●	●	●

## Specifications

Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa
Min. operating pressure	0.05 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Applicable tubing material <sup>(1)</sup>	Nylon, Soft nylon, Polyurethane

Note 1) Use caution about the maximum operating pressure when soft nylon and polyurethane is used. (Refer to Best Pneumatics No. 7.)

Note 2) Brass components are all electrolless nickel plated as standard. (Copper-free and fluorine-free)

## Flow rate characteristics

Model	VR1210F				VR1220F			
	Metric size	ø3.2	ø4	ø6	ø6	ø8	ø8	ø10
Applicable tubing O.D.	Inch size	ø1/8"	ø5/32"	ø1/4"	ø5/16"	ø1/4"	ø5/16"	ø3/8"
Flow rate characteristics	C[dm <sup>3</sup> /(s·bar)]	0.5	0.7	1.3	1.5	1.4	2.1	3.1
	b	0.25	0.25	0.25	0.25	0.25	0.25	0.25

## How to Order

VR 12 **1** 0 F - **06**

- Body size**

1	1/8 standard
2	1/4 standard
- Shuttle valve**
- Applicable tubing O.D.**

Metric size	Inch size
23	ø3.2*
04	ø4
06	ø6
08	ø8
10	ø10
01	ø1/8"
03	ø5/32"
07	ø1/4"
09	ø5/16"
11	ø3/8"

With One-touch fittings

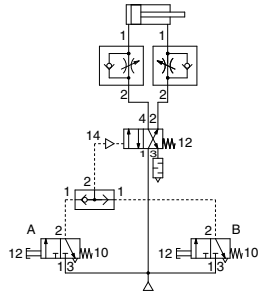
\* For ø3.2, use ø1/8" tubing.

# Transmitters: Shuttle Valve with One-touch Fittings **VR1210F/1220F Series**

## Example of Operating Circuit

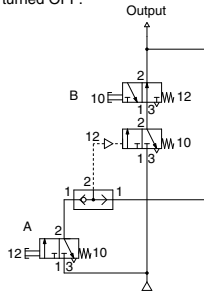
### OR circuit

- If either A or B is turned ON, cylinder is actuated.



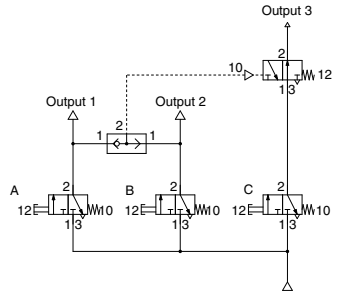
### Self-hold circuit

1. If A is turned ON, the output turns ON.
2. Even though A is turned OFF, the output remains in ON state.
3. If B is turned ON in 2. state, the output is turned OFF.

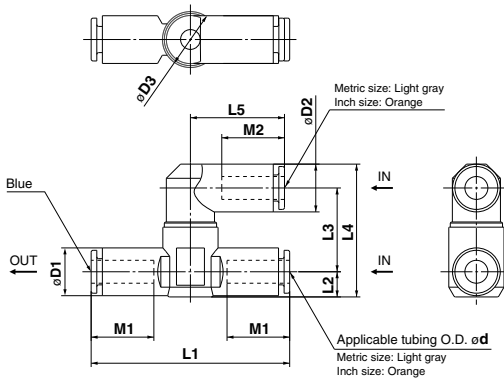


### Interlock circuit

- When either A or B is turned ON, even though C turns ON, the output 3 will not be turned ON.
- Only when both A and B are in OFF state, if C turns ON, the output 3 is turned ON.



## Dimensions



### Metric Size

Model	d	D1	D2	D3	L1	L2	L3	L4	L5	M1	M2	Weight (g)	Compatible holder (Note)
VR1210F-23	3.2	11.4	8.4	14.8	52	6.2	19.4	29.8	17.5	12.7	12.9	21.4	TMH-06J
VR1210F-04	4	11	10.4		53	6	20.3	31.5	21.9	16.5	15.8	15.6	—
VR1210F-06	6	12.8	12.8		53.2	6.7	22.5	35.6	25.2	16.8	16.8	23.0	TMH-06
VR1210F-08	8	15.2	15.2		60.4	8		38.2	28.2	18.7	18.7	24.0	TMH-08
VR1220F-06	6	12.8	12.8	19.8	59	7.4	23.9	37.7	25.2	16.8	16.8	27.2	TMH-06
VR1220F-08	8	15.2	15.2		65	8.2		39.7	28.2	18.7	18.7	31.9	TMH-08
VR1220F-10	10	18.5	18.5		71.6	9.8	25.8	44.8	31	20.8	20.8	43.2	TMH-10

### Inch Size

Model	d	D1	D2	D3	L1	L2	L3	L4	L5	M1	M2	Weight (g)	Compatible holder (Note)
VR1210F-01	1/8"	11.4	8.4	14.8	52	6.2	19.4	29.8	17.5	12.7	12.9	21.4	TMH-06J
VR1210F-03	5/32"	11	10.4		53	6	20.3	31.5	21.9	16.5	15.8	15.6	—
VR1210F-07	1/4"	13.2	13.2		54.4	7	22.5	36.2	25.6	16.8	16.8	23.5	TMH-07
VR1210F-09	5/16"	15.2	15.2		60.4	8		38.2	28.2	18.7	18.7	24.0	TMH-09
VR1220F-07	1/4"	13.2	13.2	19.8	59	7.4	23.9	37.9	25.6	16.8	16.8	31.4	TMH-07
VR1220F-09	5/16"	15.2	15.2		65	8.2		39.7	28.2	18.7	18.7	31.9	TMH-09
VR1220F-11	3/8"	17.9	18.5		69.8	9.4	25.8	44.5	31	20.8	20.8	53.0	—

Note) It is possible to use a TMH series holder to secure the VR12. The compatible models and holder models are shown above.

# Shuttle Valve with One-touch Fittings

## VR1210F/1220F-X207

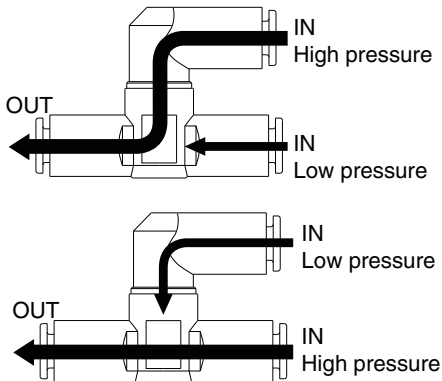
(White Vaseline Specification)

RoHS

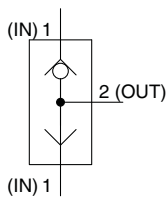
Relay valves for controlling the pneumatic signal lines



When the difference in input air pressure between two IN sides is 0.05 MPa or more, the air with higher pressure constantly flows to the OUT side.



Symbol



### Model

Model	Applicable tubing O.D.									
	Metric size					Inch size				
	3.2	4	6	8	10	1/8"	5/32"	1/4"	5/16"	3/8"
VR1210F	●	●	●	●		●	●	●	●	
VR1220F			●	●	●			●	●	●

### Specifications

Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa
Min. operating pressure	0.05 MPa
Ambient and fluid temperatures	-5 to 60°C (No freezing)
Applicable tubing material <sup>Note 1)</sup>	Nylon, Soft nylon, Polyurethane

Note 1) Use caution about the maximum operating pressure when soft nylon or polyurethane tubing is used. (For details, refer to the [Web Catalog](#).)

Note 2) Brass components are all electroless nickel plated as standard. (Copper-free and fluorine-free)

### Flow rate characteristics

Model		VR1210F-X207				VR1220F-X207		
Applicable tubing O.D.	Metric size	ø3.2	ø4	ø6	ø8	ø6	ø8	ø10
	Inch size	ø1/8"	ø5/32"	ø1/4"	ø5/16"	ø1/4"	ø5/16"	ø3/8"
Flow rate characteristics	C [dm <sup>3</sup> /(s·bar)]	0.5	0.7	1.3	1.5	1.4	2.1	3.1
	b	0.25	0.25	0.25	0.25	0.25	0.25	0.25

### How to Order

VR 12 **1** 0 F - **06** - X207

White vaseline

Body size

1	1/8 standard
2	1/4 standard

Shuttle valve

With One-touch fittings

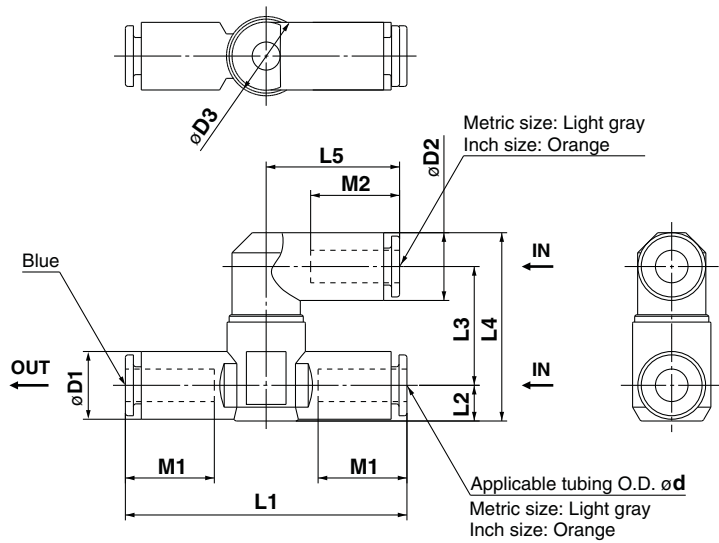
Applicable tubing O.D.

Metric size		Inch size	
23	ø3.2*	01	ø1/8"
04	ø4	03	ø5/32"
06	ø6	07	ø1/4"
08	ø8	09	ø5/16"
10	ø10	11	ø3/8"

\* For ø3.2, use ø1/8" tubing.

# VR1210F/1220F-X207

## Dimensions



### Metric Size

Model	d	D1	D2	D3	L1	L2	L3	L4	L5	M1	M2	Weight (g)
VR1210F-23-X207	3.2	11.4	8.4	14.8	52	6.2	19.4	29.8	17.5	12.7	12.9	21.4
VR1210F-04-X207	4	11	10.4		53	6	20.3	31.5	21.9	16.5	15.8	15.6
VR1210F-06-X207	6	12.8	12.8		53.2	6.8	22.5	35.6	25.2	16.8	16.8	23.0
VR1210F-08-X207	8	15.2	15.2		60.4	8.1		38.2	28.2	18.7	18.7	24.0
VR1220F-06-X207	6	12.8	12.8	19.8	59	7.4	23.9	37.7	25.2	16.8	16.8	27.2
VR1220F-08-X207	8	15.2	15.2		65	8.2		39.7	28.2	18.7	18.7	31.9
VR1220F-10-X207	10	18.5	18.5		71.6	9.8	25.8	44.8	31	20.8	20.8	43.2

### Inch Size

Model	d	D1	D2	D3	L1	L2	L3	L4	L5	M1	M2	Weight (g)
VR1210F-01-X207	1/8"	11.4	8.4	14.8	52	6.2	19.4	29.8	17.5	12.7	12.9	21.4
VR1210F-03-X207	5/32"	11	10.4		53	6	20.3	31.5	21.9	16.5	15.8	15.6
VR1210F-07-X207	1/4"	13.2	13.2		54.4	7.1	22.5	36.2	25.6	16.8	16.8	23.5
VR1210F-09-X207	5/16"	15.2	15.2		60.4	8.1		38.2	28.2	18.7	18.7	24.0
VR1220F-07-X207	1/4"	13.2	13.2	19.8	59	7.4	23.9	37.9	25.6	16.8	16.8	31.4
VR1220F-09-X207	5/16"	15.2	15.2		65	8.2		39.7	28.2	18.7	18.7	31.9
VR1220F-11-X207	3/8"	17.9	18.5		69.8	9.5	25.8	44.5	31	20.8	20.8	53.0