

# Small Switching Valves

## Button Type / Toggle Type

# Small Switching Valves

## Actuator Set Type

**Button Type**

**MSHRP** (M5 Connection Type)  
**MSHBP** (Rc1/8 Connection Type)

M5 Type (No.3, No.4) and Rc1/8 Type (No.3, No.4) drawings with dimensions and port configurations (EXH1, EXH2, IN, OUT, P, A, B, C1, C2).

Material: Body: Brass (Surface Treatment: Electroless Nickel Plating), Push Button: SUS303

Button operation is momentary (spring return).

Reference value for button pressure: 11 N (the same for No. 3 and 4)

Part Number Type	No.	Direction	Number of Ports	Pipe Connection Bore Dia.		Number of Positions	Effective Sectional Area (mm <sup>2</sup> )	Mass (g)	Unit Price
				IN, OUT	EX				
MSHRP	3	3	3	M5	1.5	2	1.8	30	
	4	4	5	M5	1.5		1.9	60	
MSHBP	3	3	3	Rc1/8	Rc1/8	2	4.5	130	
	4	4	5	Rc1/8	M5		5.5	160	

**Toggle Type**

**MSHRT** (M5 Connection Type)  
**MSHBT** (Rc1/8 Connection Type)

M5 Type (No.3, No.4) and Rc1/8 Type (No.3, No.4) drawings with dimensions and port configurations (EXH1, EXH2, IN, OUT, P, A, B, C1, C2).

Material: Body: Brass (Surface Treatment: Electroless Nickel Plating), Toggle: SUM24

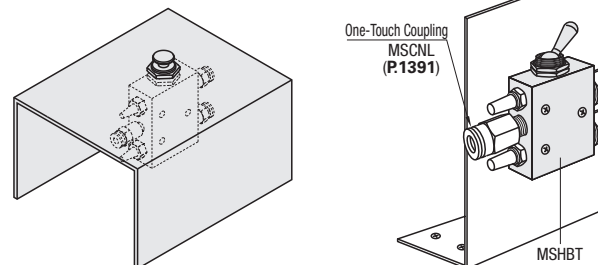
Toggle position is retaining type.

Toggle Type body is same shape / dimension as Button Type. For detailed body dimensions, please see above Button Type (MSHRP, MSHBP) Drawings.

Part Number Type	No.	Direction	Number of Ports	Pipe Connection Bore Dia.		Number of Positions	Effective Sectional Area (mm <sup>2</sup> )	Mass (g)	Unit Price
				IN, OUT	EX				
MSHRT	3	3	3	M5	1.5	2	1.8	30	
	4	4	5	M5	1.5		1.9	60	
MSHBT	3	3	3	Rc1/8	Rc1/8	2	4.5	130	
	4	4	5	Rc1/8	M5		5.5	160	

Ordering Example  
Part Number: MSHRP3, MSHBP4

EX Example



Specifications

Applicable Fluid	Air
Operating Pressure Range	0-0.9MPa
Operating Temp. Range	5-60°C (No Freezing)

**Actuator Set Type**

**MSHRM** (M5 Connection Type)  
**MSHBM** (Rc1/8 Connection Type)

M5 Type (No.3, No.4) and Rc1/8 Type (No.3, No.4) drawings with dimensions and port configurations (EXH1, EXH2, IN, OUT, P, A, B, C1, C2).

Material: Body: Brass (Surface Treatment: Electroless Nickel Plating), Push Button: SUS303

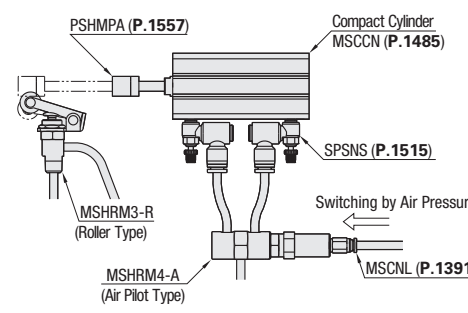
Button operation is momentary (spring return).

Part Number Type	No.	Actuator	Direction	Number of Ports	Pipe Connection Bore Dia.		Number of Positions	Effective Sectional Area (mm <sup>2</sup> )	H				Unit Price			
					IN, OUT	EX			Type F	Type R	Type B	Type A	Type F	Type R	Type B	Type A
MSHRM	3	F (Manual Operation Type)	3	3	M5	1.5	2	1.8	52.3	48.8	47.3	57				
	4	R (Roller Type)	4	5	M5	1.5		1.9	62.2	58.7	57.2	67				
MSHBM	3	B (Ball Type)	3	3	Rc1/8	Rc1/8	2	4.5	60.8	57.3	55.8	65.5				
	4	A (Air Pilot Type)	4	5	Rc1/8	M5		5.5	69.3	65.8	64.3	74				

Ordering Example  
Part Number: MSHRM4, MSHBM4  
Actuator: F, A

Applicable Fluid	Air
Operating Pressure Range	0-0.9MPa
Operating Temp. Range	5-60°C (No Freezing)

EX Example



Various actuators can be mounted on these small user-friendly switching valves, which allows selection of various switching methods.

Actuator	F Type	R Type	B Type	A Type
Structure				
Weight	20g	15g	15g	28g
Operating Force	MSHRM: 3N MSHBM: 7N	4N 11N	10N 23N	0.3MPa 0.3MPa
Features	Can be operated easily by finger force.	Switching is activated by detecting a force in on direction.	Switching is operated by detecting 360° moving of the ball.	Switching is operated by detecting the compressed air on the pilot.

The actuator and the valve will be shipped unassembled.