

# Check Valve AK Series

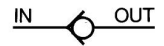


## AK Series

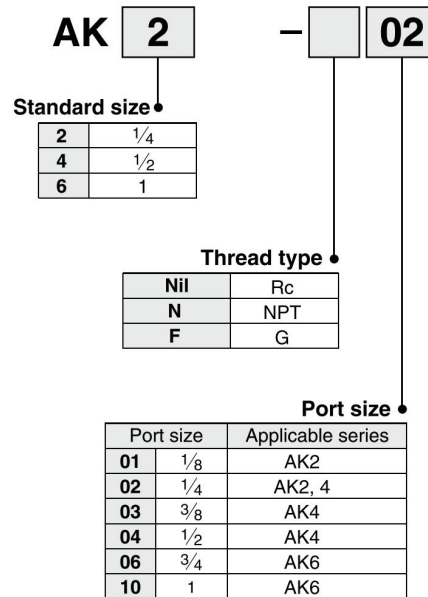
# Check Valve

Standard : JIS

Symbol



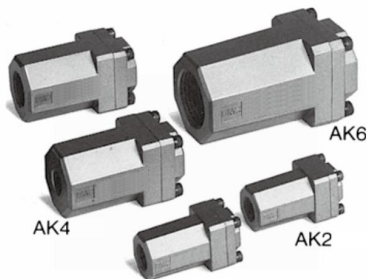
### How to Order



**Large flow capacity**

**Low cracking pressure: 0.02 MPa**

**A wide variation of models**



### Model

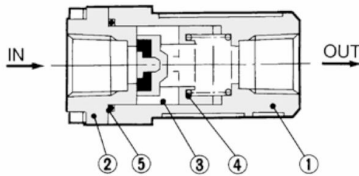
Model	Port size	Sonic conductance dm <sup>3</sup> /(s-bar)	Critical pressure ratio	Weight (g)
AK2-01	1/8	5	0.25	105
AK2-02	1/4	5.5		100
AK4-02	1/4	9.4		155
AK4-03	3/8	17		150
AK4-04	1/2	19		140
AK6-06	3/4	40		345
AK6-10	1	46		315

### Specifications

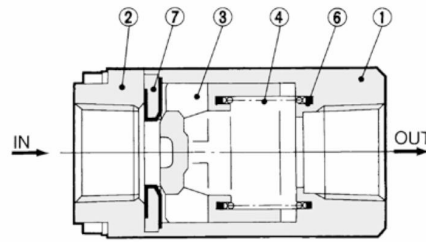
Fluid	Air
Proof pressure	1.5 MPa
Maximum operating pressure	1 MPa
Minimum operating pressure	0.02 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)

## Construction

### AK2



### AK4/6



## Component Parts

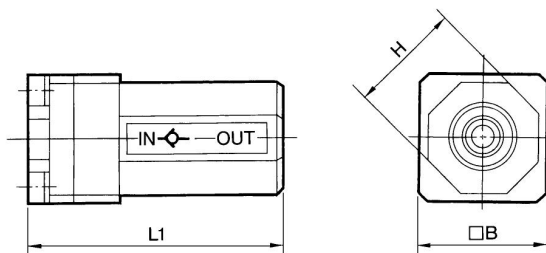
No.	Description	Material
1	<b>Body</b>	Aluminum die-casted
2	<b>Cover</b>	Aluminum die-casted <sup>Note 1)</sup>

Note 1) AK2000: Zinc alloy

## Replacement Parts

No.	Description	Material	Part no.		
			AK2	AK4	AK6
3	<b>Valve</b>	POM	19033	19014	19024
4	<b>Spring</b>	Stainless steel	19037	19015	19025
5	<b>O-ring</b>	NBR	KA00294 20 x 17 x 1.5	—	—
6	<b>Ring</b>	NBR	—	19016	19026
7	<b>Seat ring</b>	Brass, NBR	—	19013	19023

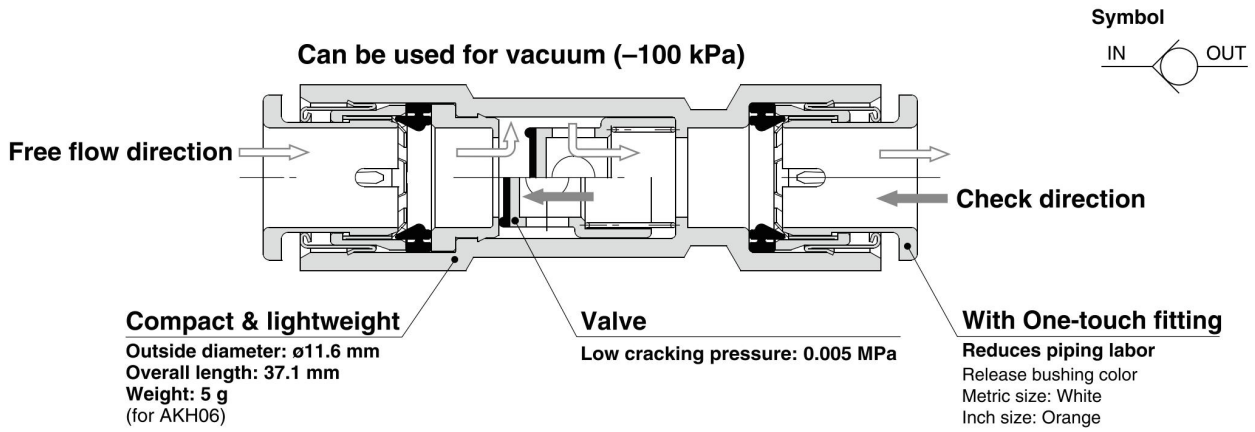
## Dimensions



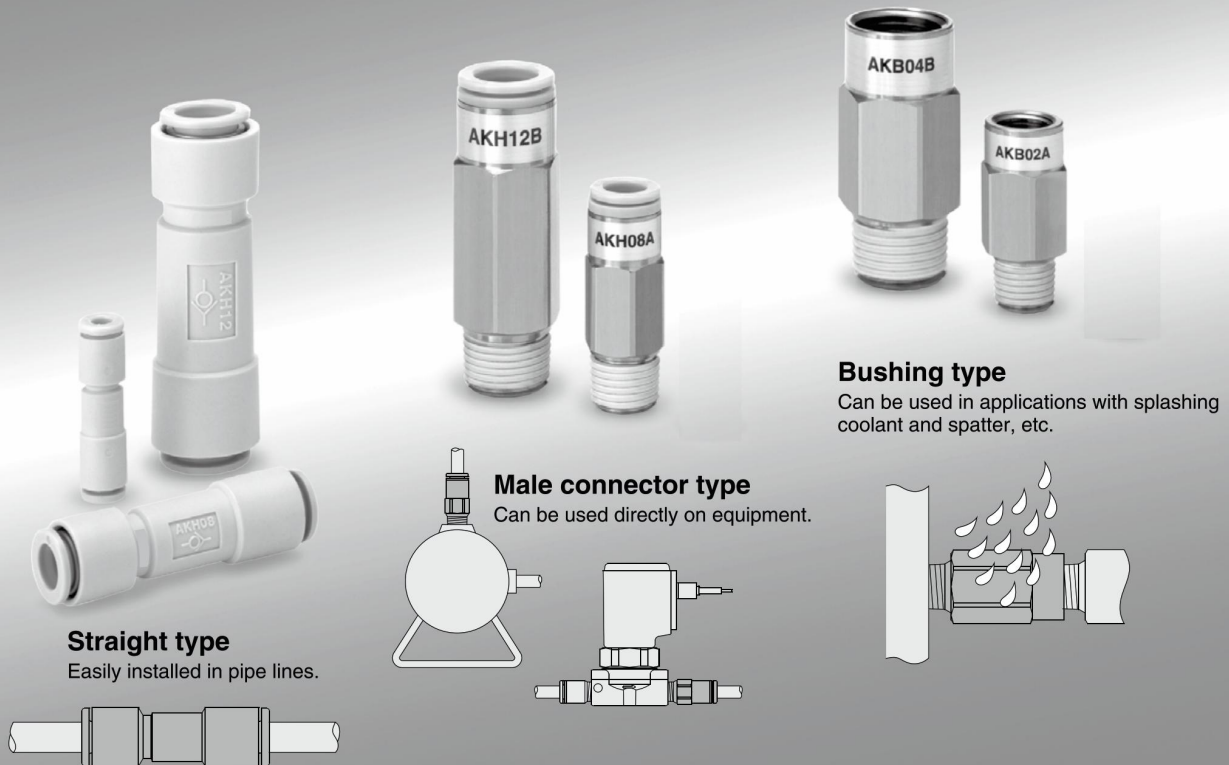
Model	Port size	L1	B	H
AK2-01, 02	1/8, 1/4	50	25	22
AK4-02, 03, 04	1/4, 3/8, 1/2	67	36	36
AK6-06, 10	3/4, 1	95	50	50

# Bushing Type Check Valve with One-touch Fittings

## AKH/AKB Series



**3 configurations provide design solutions based on the operating conditions.**



## AKH Series

# Check Valve with One Touch Fitting

Standard : JIS

### How to Order

#### Straight type



AKH **04**

Applicable tubing O.D.

Metric size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

#### Male connector type



With seal (Standard)

AKH **04** **A** - **01**

Applicable tubing O.D.

Metric size

04	ø4
06	ø6
08	ø8
10	ø10
12	ø12

Thread type

Nil	Metric thread (M5)
	R

Port size

M5	M5 x 0.8
01	1/8
02	1/4
03	3/8
04	1/2

Check valve free flow direction

<b>A</b>	From male thread to One-touch fitting	
<b>B</b>	From One-touch fitting to male thread	

#### Applicable Tubing O.D./Port Size Combinations

Metric size

Model	Applicable tubing O.D.	R thread				
		M5	1/8	1/4	3/8	1/2
AKH04□	ø4	●	●			
AKH06□	ø6	●	●	●		
AKH08□	ø8		●	●	●	
AKH10□	ø10			●	●	●
AKH12□	ø12				●	●

## AKB Series

# Bushing Type Check Valve

Standard : JIS

### How to Order

#### Bushing type



With seal (Standard)

AKB 01 A - 01

Body size

01	1/8
02	1/4
03	3/8
04	1/2

Port size

01	1/8
02	1/4
03	3/8
04	1/2

Thread type

Nil	R
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Check valve free flow direction

<b>A</b>	From male to female thread	
<b>B</b>	From female to male thread	

### Female/Male Threads Combinations

R thread

Model	Female thread Rc	Male thread R			
		1/8	1/4	3/8	1/2
AKB01□	1/8	●			
AKB02□	1/4		●		
AKB03□	3/8			●	
AKB04□	1/2				●



## Specifications

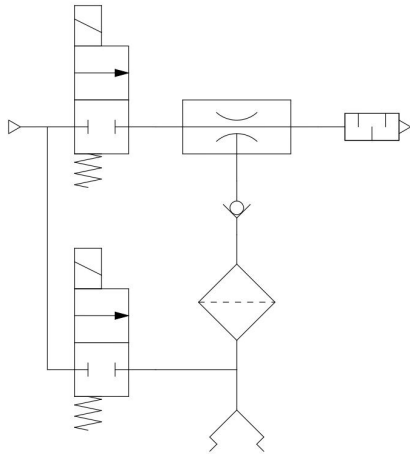
<b>Fluid</b>	Air
<b>Proof pressure</b>	1.5 MPa
<b>Operating pressure range</b>	-100 kPa to 1 MPa
<b>Cracking pressure</b>	0.005 MPa <small>Note 1)</small>
<b>Ambient temperature and operating fluid temperature</b>	-5 to 60°C (No freezing)
<b>Applicable tubing material</b> <small>Note 2)</small>	Nylon, Soft nylon, Polyurethane

Note 1) The valve does not open fully at this pressure level.

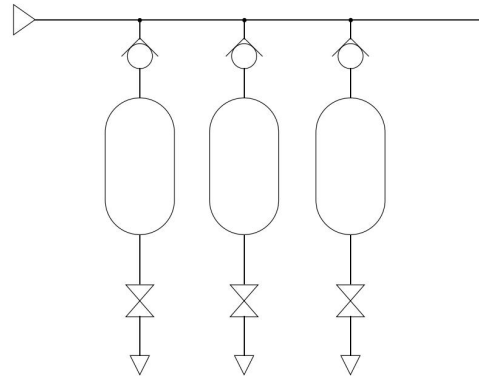
Note 2) Use caution regarding the max. operating pressure when soft nylon or polyurethane tubing is used.

## Application Example for Bushing Type Check Valve with One-touch Fittings

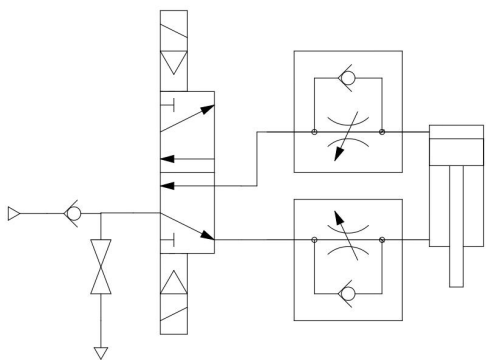
### Prevention of reverse flow to vacuum source \* (Simple vacuum holding)



### Tank pressure reverse flow prevention



### Drop prevention \*



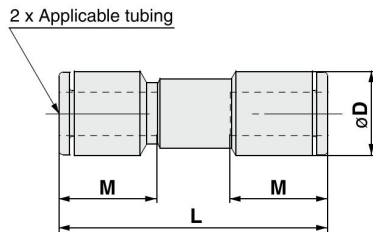
\* A certain amount of leakage is allowed in the specifications of this product.  
Please note that it is not suitable for holding over an extended period of time.

# AKH/AKB Series Check Valve

# KATIX

## Dimensions

### Straight type: AKH

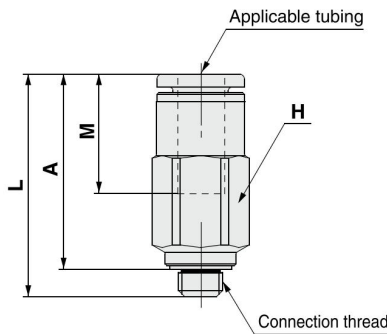


#### Metric Size

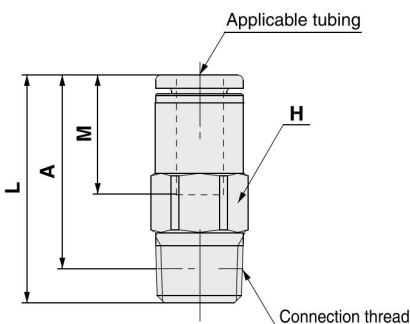
Applicable tubing O.D.	Model	øD	L	M	Sonic conductance dm <sup>3</sup> /(s·bar)	Critical pressure ratio	Weight (g)
4	<b>AKH04</b>	9.3	33.5	12.7	0.56	0.35	3
6	<b>AKH06</b>	11.6	37.1	13.5	1.3		5
8	<b>AKH08</b>	15.2	53.3	18.5	2.8	0.5	10
10	<b>AKH10</b>	18.5	63.6	21	4.8		17
12	<b>AKH12</b>	21.7	70.2	22	6.8		25

### Male connector type: AKH

<For M5>



<For R>



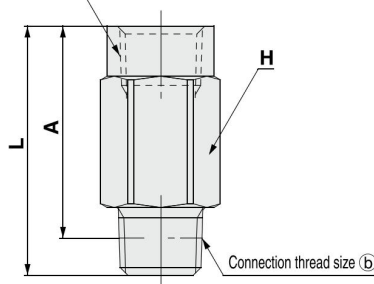
#### Metric Size

Applicable tubing O.D.	Connection thread R	Model	H (Hexagon width across flats)	L	A *	M	Sonic conductance dm <sup>3</sup> /(s·bar)	Critical pressure ratio	Weight (g)
4	M5 x 0.8	<b>AKH04□-M5</b>	8	24.3	21.2	12.7	0.56	0.35	5
	1/8	<b>AKH04□-01</b>	10	24.6	20.6				10
6	M5 x 0.8	<b>AKH06□-M5</b>	10	25.8	22.2	13.5	0.56		8
	1/8	<b>AKH06□-01</b>		26.9	22.9		1.3		22
8	1/4	<b>AKH08□-02</b>	14	30	24	17	1.3	16	
	1/8	<b>AKH08□-01</b>	14	31.7	27.7		18.5	1.3	24
	3/8	<b>AKH08□-03</b>		42	35.5				43
10	1/4	<b>AKH10□-02</b>	17	54.3	48.3	21	4.8	0.5	45
	3/8	<b>AKH10□-03</b>		47.3	40.8				39
	1/2	<b>AKH10□-04</b>		22	49.3				41.3
12	3/8	<b>AKH12□-03</b>	19	60.5	54	22	6.8		62
	1/2	<b>AKH12□-04</b>	22	54.5	46.5				80

\* Reference dimensions of R thread after installation.

### Bushing type: AKB

Connection thread size (a)



#### Metric Size

Connection thread size R		Model	H	L	A *	Sonic conductance dm <sup>3</sup> /(s·bar)	Critical pressure ratio	Weight (g)
(a)	(b)							
1/8	1/8	<b>AKB01□-01</b>	14	23.7	19.7	1.3	0.35	18
1/4	1/4	<b>AKB02□-02</b>	17	39.8	33.8	2.8		44
3/8	3/8	<b>AKB03□-03</b>	22	45.2	38.7	4.8	0.5	86
1/2	1/2	<b>AKB04□-04</b>	24	56.2	48.2	6.8		113

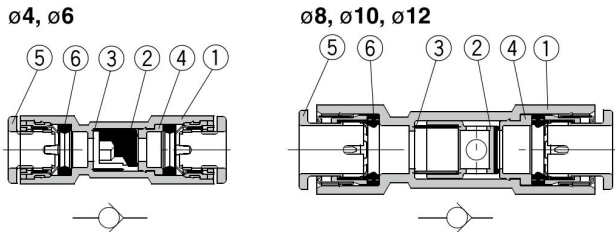
\* Reference dimensions of R thread after installation.

# AKH/AKB Series Check Valve

# KATIX

## Construction

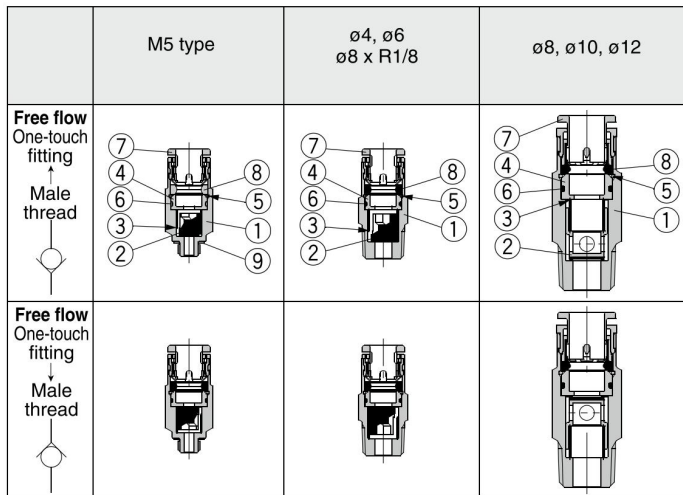
### Straight type: AKH



### Component Parts

No.	Description	Material	Note
1	Body	PBT	
2	Valve	NBR, Aluminum alloy	
3	Spring	Stainless steel	
4	Spacer	Brass	Electroless nickel plated
5	Cassette	—	
6	Seal	NBR	

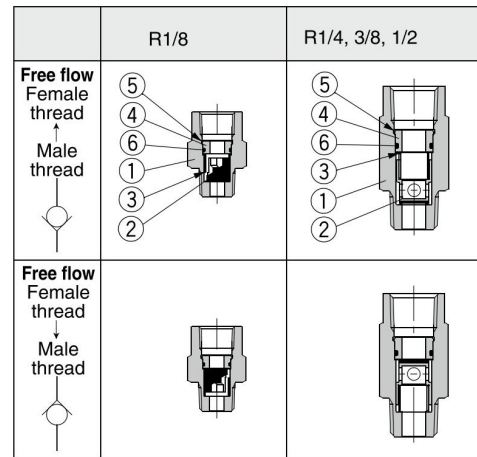
### Male connector type: AKH



### Component Parts

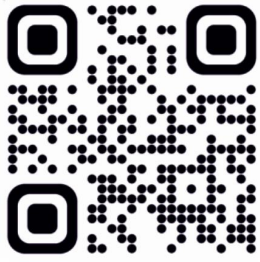
No.	Description	Material	Note
1	Body	Brass	Electroless nickel plated
2	Valve	NBR, Aluminum alloy	
3	Spring	Stainless steel	
4	Spacer	Brass	Electroless nickel plated
5	Stopper	Stainless steel	
6	O-ring	NBR	
7	Cassette	—	
8	Seal	NBR	
9	Gasket	Stainless steel + NBR	

### Bushing type: AKB



### Component Parts

No.	Description	Material	Note
1	Body	Brass	Electroless nickel plated
2	Valve	NBR, Aluminum alloy	
3	Spring	Stainless steel	
4	Spacer	Brass	Electroless nickel plated
5	Stopper	Stainless steel	
6	O-ring	NBR	



Contact us for more details

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