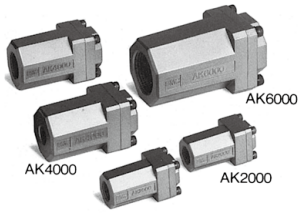
# Check Valve
# *AK Series*

RoHS

**Large flow capacity**

**Low cracking pressure: 0.02 MPa**

**A wide variation of models**



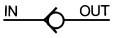

## Model

| Model | Port size | Sonic conductance dm³/(s·bar) | Critical pressure ratio | Weight (g) |
|---|---|---|---|---|
| **AK2000-01** | 1/8 | 5 | 0.25 | 105 |
| **AK2000-02** | 1/4 | 5.5 | | 100 |
| **AK4000-02** | 1/4 | 9.4 | | 155 |
| **AK4000-03** | 3/8 | 17 | | 150 |
| **AK4000-04** | 1/2 | 19 | | 140 |
| **AK6000-06** | 3/4 | 40 | | 345 |
| **AK6000-10** | 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) |

**Symbol**




## How to Order

**AK** [2] **000** – [ ] [02]

**Standard size**

| | |
|---|---|
| **2** | 1/4 |
| **4** | 1/2 |
| **6** | 1 |

**Thread type**

| | |
|---|---|
| **Nil** | Rc |
| **N** | NPT |
| **F** | G |

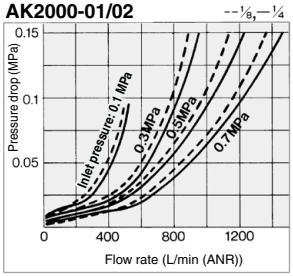
**Port size**

| Port size | | Applicable series |
|---|---|---|
| **01** | 1/8 | AK2000 |
| **02** | 1/4 | AK2000, 4000 |
| **03** | 3/8 | AK4000 |
| **04** | 1/2 | AK4000 |
| **06** | 3/4 | AK6000 |
| **10** | 1 | AK6000 |

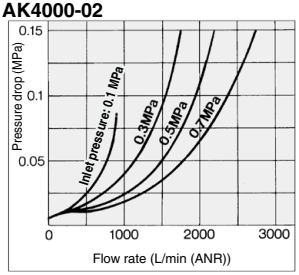
## Flow Rate Characteristics

Note) The flow rate characteristics are representative values.

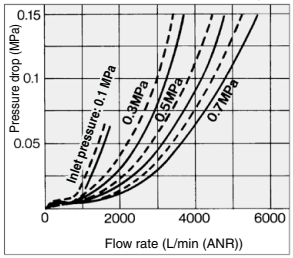
**AK2000-01/02** --1/8, —1/4



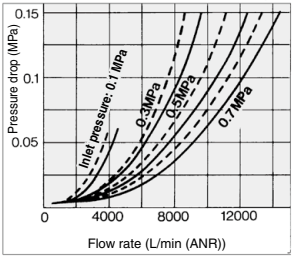

**AK4000-02**




**AK4000-03/04** --3/8, —1/2




**AK6000-06/10** --3/4, —1

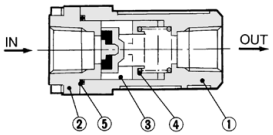




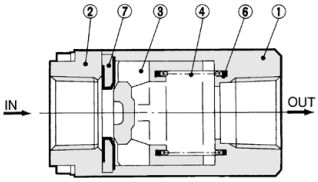

SMC

## Construction

**AK2000**




**AK4000/6000**




### Component Parts

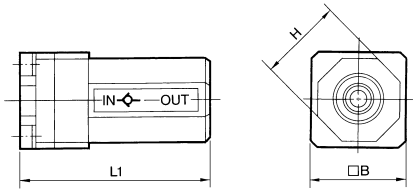
| No. | Description | Material |
|---|---|---|
| 1 | **Body** | Aluminum die-casted |
| 2 | **Cover** | Aluminum die-casted Note 1) |

Note 1) AK2000: Zinc alloy

### Replacement Parts

| No. | Description | Material | Part no. | | |
|---|---|---|---|---|---|
| | | | **AK2000** | **AK4000** | **AK6000** |
| 3 | **Valve** | POM | 19033 | 19014 | 19024 |
| 4 | **Spring** | Stainless steel | 19037 | 19015 | 19025 |
| 5 | **O-ring** | NBR | KA00294<br>20 x 17 x 1.5 | — | — |
| 6 | **Ring** | NBR | — | 19016 | 19026 |
| 7 | **Seat ring** | Brass, NBR | — | 19013 | 19023 |

## Dimensions




| Model | Port size | L1 | □B | H |
|---|---|---|---|---|
| **AK2000-01, 02** | 1/8, 1/4 | 50 | 25 | 22 |
| **AK4000-02, 03, 04** | 1/4, 3/8, 1/2 | 67 | 36 | 36 |
| **AK6000-06, 10** | 3/4, 1 | 95 | 50 | 50 |

## ⚠ Specific Product Precautions

**Be sure to read this before handling the products.**
**Refer to back page 50 for Safety Instructions and pages 543 to 546 for Flow Control Equipment Precautions.**

**Design/Selection**

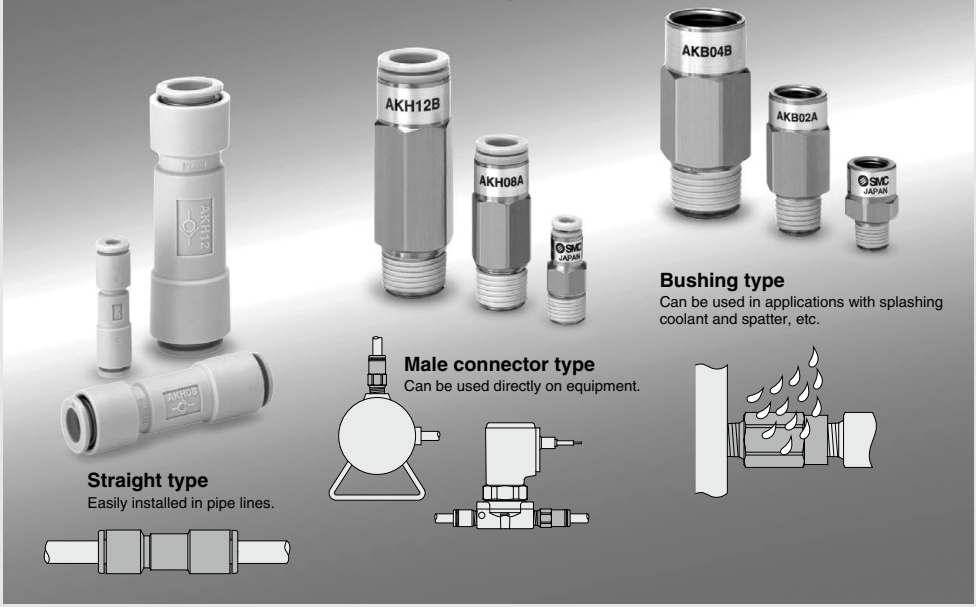
## ⚠Caution

1. Even when using with the specification range listed in the catalog, when the IN side of the check valve is throttled, it may fail to open all the way and may generate vibration.
2. The minimum operating pressure is the pressure when the valve begins to open, and not the pressure when the valve is fully open.
3. The check valve has a construction, in which it is closed by the differential pressure generated when the inlet pressure (IN side) or outlet pressure (OUT side) solenoid valve is switched. Be aware that the check valve does not close completely and the outlet pressure (OUT side) may drop when the inlet pressure (IN side) drops gently and the differential pressure becomes smaller than the minimum operating pressure or cracking pressure.

RoHS



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

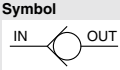



**Straight type**
Easily installed in pipe lines.

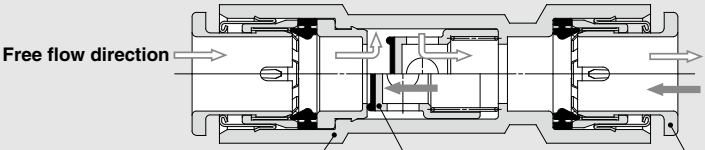
**Male connector type**
Can be used directly on equipment.

**Bushing type**
Can be used in applications with splashing coolant and spatter, etc.

**Symbol**




**Can be used for vacuum (–100 kPa)**




**Compact & lightweight**
**Outside diameter: ø11.6 mm**
**Overall length: 37.1 mm**
**Weight: 5 g**
(for AKH06-00)

**Valve**
**Low cracking pressure: 0.005 MPa**

**With One-touch fitting**
**Reduces piping labor**
Release bushing color
Metric size: White
Inch size: Orange

# Bushing Type Check Valve with One-touch Fittings

# *AKH/AKB* Series

RoHS

## How to Order

**Straight type** **AKH 04 – 00**

**Male connector type** **AKH 04 A – □ 01 S**

**With seal (Standard)**
* M5 and 10-32 UNF types are not required.

**Applicable tubing O.D.**

| Metric size | | Inch size | |
|---|---|---|---|
| 04 | ø4 | 03 | ø5/32 |
| 06 | ø6 | 07 | ø1/4 |
| 08 | ø8 | 09 | ø5/16 |
| 10 | ø10 | 11 | ø3/8 |
| 12 | ø12 | 13 | ø1/2 |

**Port size**

| | |
|---|---|
| M5 | M5 x 0.8 |
| U10/32 | 10-32 UNF |
| 01 | 1/8 |
| 02 | 1/4 |
| 03 | 3/8 |
| 04 | 1/2 |

**Thread type**

| | |
|---|---|
| Nil | Metric thread (M5) |
| | Unified thread (10-32 UNF) |
| | R |
| N | NPT |

**Check valve free flow direction**

| | | |
|---|---|---|
| A | From male thread to One-touch fitting |  |
| 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 | | | | ● | ● |

**Inch size**

| Model | Applicable tubing O.D. | NPT thread | | | | |
|---|---|---|---|---|---|---|
| | | 10-32 UNF | 1/8 | 1/4 | 3/8 | 1/2 |
| AKH03□ | ø5/32 | ● | ● | | | |
| AKH07□ | ø1/4 | ● | ● | ● | | |
| AKH09□ | ø5/16 | | ● | ● | ● | |
| AKH11□ | ø3/8 | | | ● | ● | ● |
| AKH13□ | ø1/2 | | | | ● | ● |

**Bushing type** **AKB 01 A – □ 01 S**

**With seal (Standard)**

**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 |
| N | NPT |

**Check valve free flow direction**

| | | |
|---|---|---|
| A | From male to female thread |  |
| 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 | | | | ● |

**NPT thread**

| Model | Female thread NPT | Male thread NPT | | | |
|---|---|---|---|---|---|
| | | 1/8 | 1/4 | 3/8 | 1/2 |
| AKB01□ | 1/8 | ● | | | |
| AKB02□ | 1/4 | | ● | | |
| AKB03□ | 3/8 | | | ● | |
| AKB04□ | 1/2 | | | | ● |



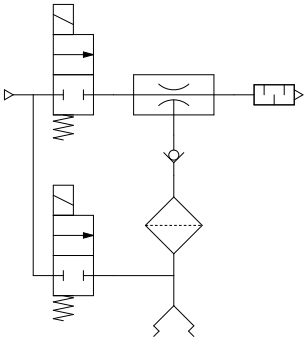

### Specifications

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

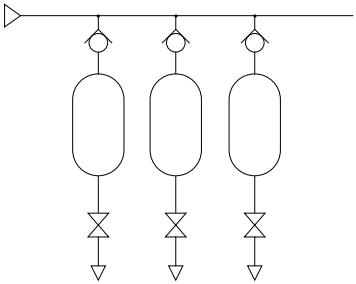
Note 1) The valve does not open fully at this pressure level.
Note 2) Use caution regarding the max. operating pressure when soft nylon or polyurethane tubing is used.
(Refer to pages 464 and 465 for details.)

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

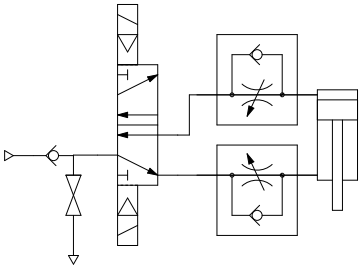
**Prevention of reverse flow to vacuum source ∗ (Simple vacuum holding)**



**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.

## ⚠ Specific Product Precautions

**Be sure to read this before handling the products. Refer to back page 50 for Safety Instructions and pages 543 to 546 for Flow Control Equipment Precautions.**

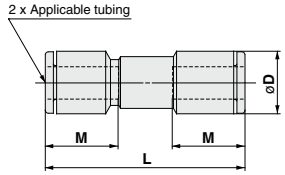
**Design/Selection**

## ⚠ Caution

1. Even when using with the specification range listed in the catalog, when the IN side of the check valve is throttled, it may fail to open all the way and may generate vibration.
2. The cracking pressure is the pressure when the valve begins to open, and not the pressure when the valve is fully open.
3. The check valve has a construction, in which it is closed by the differential pressure generated when the inlet pressure (IN side) or outlet pressure (OUT side) solenoid valve is switched. Be aware that the check valve does not close completely and the outlet pressure (OUT side) may drop when the inlet pressure (IN side) drops gently and the differential pressure becomes smaller than the minimum operating pressure or cracking pressure.

## Dimensions

### Straight type: AKH




**Metric Size**

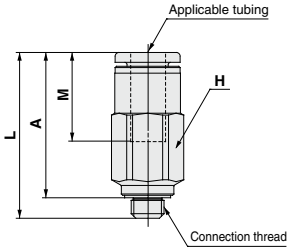
| Applicable tubing O.D. | Model | øD | L | M | Sonic conductance dm³/(s·bar) | Critical pressure ratio | Weight (g) |
|---|---|---|---|---|---|---|---|
| 4 | **AKH04-00** | 9.3 | 33.5 | 12.7 | 0.56 | 0.35 | 3 |
| 6 | **AKH06-00** | 11.6 | 37.1 | 13.5 | 1.3 | | 5 |
| 8 | **AKH08-00** | 15.2 | 53.3 | 18.5 | 2.8 | 0.5 | 10 |
| 10 | **AKH10-00** | 18.5 | 63.6 | 21 | 4.8 | | 17 |
| 12 | **AKH12-00** | 21.7 | 70.2 | 22 | 6.8 | | 25 |

**Inch Size**

| Applicable tubing O.D. | Model | øD | L | M | Sonic conductance dm³/(s·bar) | Critical pressure ratio | Weight (g) |
|---|---|---|---|---|---|---|---|
| 5/32 | **AKH03-00** | 9.3 | 33.5 | 12.7 | 0.56 | 0.35 | 3 |
| 1/4 | **AKH07-00** | 12 | 39 | 13.6 | 1.3 | | 6 |
| 5/16 | **AKH09-00** | 15.2 | 53.3 | 18.5 | 2.8 | 0.5 | 10 |
| 3/8 | **AKH11-00** | 18.5 | 63.6 | 21 | 4.8 | | 17 |
| 1/2 | **AKH13-00** | 21.7 | 70.2 | 22 | 6.8 | | 24 |

### Male connector type: AKH

**<For M5, UNF10-32>**

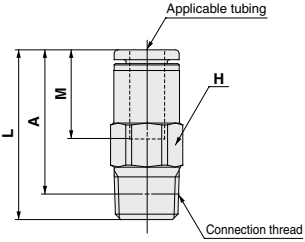



**Metric Size**

| Applicable tubing O.D. | Connection thread R | Model | H (Hexagon width across flats) | L | A* | M | Sonic conductance dm³/(s·bar) | Critical pressure ratio | Weight (g) |
|---|---|---|---|---|---|---|---|---|---|
| 4 | M5 x 0.8 | **AKH04□-M5** | 8 | 24.3 | 21.2 | 12.7 | 0.56 | 0.35 | 5 |
| | 1/8 | **AKH04□-01S** | 10 | 24.6 | 20.6 | | | | 10 |
| 6 | M5 x 0.8 | **AKH06□-M5** | 10 | 25.8 | 22.2 | 13.5 | 0.56 | | 8 |
| | 1/8 | **AKH06□-01S** | | 26.9 | 22.9 | | 1.3 | | |
| | 1/4 | **AKH06□-02S** | 14 | 30 | 24 | 17 | 1.3 | | 22 |
| 8 | 1/8 | **AKH08□-01S** | 14 | 31.7 | 27.7 | 18.5 | 1.3 | | 16 |
| | 1/4 | **AKH08□-02S** | | 42 | 36 | | 2.8 | | 24 |
| | 3/8 | **AKH08□-03S** | 17 | | 35.5 | | | | 43 |
| 10 | 1/4 | **AKH10□-02S** | 17 | 54.3 | 48.3 | 21 | 4.8 | 0.5 | 45 |
| | 3/8 | **AKH10□-03S** | | 47.3 | 40.8 | | | | 39 |
| | 1/2 | **AKH10□-04S** | 22 | 49.3 | 41.3 | | | | 80 |
| 12 | 3/8 | **AKH12□-03S** | 19 | 60.5 | 54 | 22 | 6.8 | | 62 |
| | 1/2 | **AKH12□-04S** | 22 | 54.5 | 46.5 | | | | 80 |

∗ Reference dimensions of R thread after installation.

**<For R, NPT>**

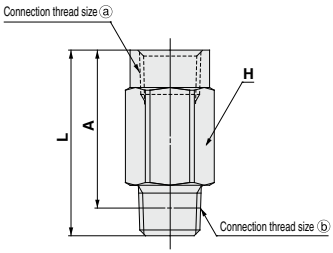



**Inch Size**

| Applicable tubing O.D. | Connection thread NPT | Model | H (Hexagon width across flats) | L | A* | M | Sonic conductance dm³/(s·bar) | Critical pressure ratio | Weight (g) |
|---|---|---|---|---|---|---|---|---|---|
| 5/32 | 10-32 UNF | **AKH03□-U10/32** | 8 | 24.3 | 21.2 | 12.7 | 0.56 | 0.35 | 5 |
| | 1/8 | **AKH03□-N01S** | 11.11 | 24.6 | 20.6 | | | | 10 |
| 1/4 | 10-32 UNF | **AKH07□-U10/32** | 11.11 | 25.8 | 22.7 | 13.6 | 0.56 | | 10 |
| | 1/8 | **AKH07□-N01S** | | 26.9 | 22.9 | | 1.3 | | 11 |
| | 1/4 | **AKH07□-N02S** | 14.29 | 31 | 25 | 17 | 1.3 | | 18 |
| 5/16 | 1/8 | **AKH09□-N01S** | 14.29 | 31.7 | 27.7 | 18.5 | 1.3 | | 16 |
| | 1/4 | **AKH09□-N02S** | | 42 | 36 | | 2.8 | | 24 |
| | 3/8 | **AKH09□-N03S** | 17.46 | | 35.5 | | | | 43 |
| 3/8 | 1/4 | **AKH11□-N02S** | 17.46 | 54.2 | 48.3 | 21 | 4.8 | 0.5 | 47 |
| | 3/8 | **AKH11□-N03S** | | 47.2 | 40.7 | | | | 40 |
| | 1/2 | **AKH11□-N04S** | 22.23 | 49.2 | 41.2 | | | | 79 |
| 1/2 | 3/8 | **AKH13□-N03S** | 22.23 | 60.5 | 54 | 22 | 6.8 | | 87 |
| | 1/2 | **AKH13□-N04S** | | 54.5 | 46.5 | | | | 85 |

∗ Reference dimensions of NPT thread after installation.

### Bushing type: AKB




**Metric Size**

| Connection thread size R | | Model | H | L | A* | Sonic conductance dm³/(s·bar) | Critical pressure ratio | Weight (g) |
|---|---|---|---|---|---|---|---|---|
| ⓐ | ⓑ | | | | | | | |
| 1/8 | 1/8 | **AKB01□-01S** | 14 | 23.7 | 19.7 | 1.3 | 0.35 | 18 |
| 1/4 | 1/4 | **AKB02□-02S** | 17 | 39.8 | 33.8 | 2.8 | 0.5 | 44 |
| 3/8 | 3/8 | **AKB03□-03S** | 22 | 45.2 | 38.7 | 4.8 | | 86 |
| 1/2 | 1/2 | **AKB04□-04S** | 24 | 56.2 | 48.2 | 6.8 | | 113 |

∗ Reference dimensions of R thread after installation.

**Inch Size**

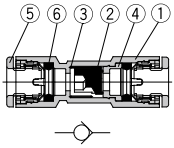
| Connection thread size NPT | | Model | H | L | A* | Sonic conductance dm³/(s·bar) | Critical pressure ratio | Weight (g) |
|---|---|---|---|---|---|---|---|---|
| ⓐ | ⓑ | | | | | | | |
| 1/8 | 1/8 | **AKB01□-N01S** | 14.29 | 24.2 | 20.2 | 1.3 | 0.35 | 18 |
| 1/4 | 1/4 | **AKB02□-N02S** | 17.46 | 40 | 34 | 2.8 | 0.5 | 44 |
| 3/8 | 3/8 | **AKB03□-N03S** | 22.23 | 44.9 | 38.4 | 4.8 | | 86 |
| 1/2 | 1/2 | **AKB04□-N04S** | 23.81 | 55.5 | 47.5 | 6.8 | | 113 |

∗ Reference dimensions of NPT thread after installation.

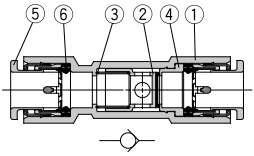
## Construction

### Straight type: AKH

**ø4, ø6**
**ø5/32, ø1/4**



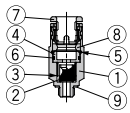
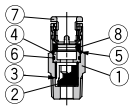
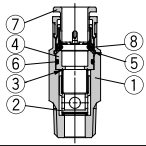
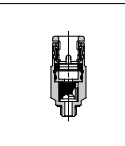
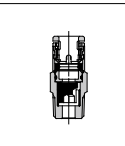
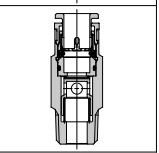

**ø8, ø10, ø12**
**ø5/16, ø3/8, ø1/2**




#### 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 | |

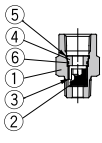
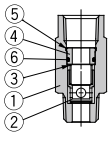
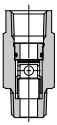
### Male connector type: AKH

| | M5 type<br>U10/32 | ø4, ø6<br>ø8 x R1/8<br>ø5/32, ø1/4<br>ø5/16 x NPT1/8 | ø8, ø10, ø12<br>ø5/16, ø3/8, ø1/2 |
|---|---|---|---|
| **Free flow**<br>One-touch fitting<br>↑<br>Male thread |  |  |  |
| **Free flow**<br>One-touch fitting<br>↓<br>Male thread |  |  |  |

#### 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

| | R1/8<br>NPT1/8 | R1/4, 3/8, 1/2<br>NPT1/4, 3/8, 1/2 |
|---|---|---|
| **Free flow**<br>Female thread<br>↑<br>Male thread |  |  |
| **Free flow**<br>Female thread<br>↓<br>Male thread |  |  |

#### 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 | |

# Check Valves For Air/Water
# Made to Order Specifications

Please contact SMC for detailed dimensions, specifications and lead times.

Made to Order

■**Body material: Brass/Stainless steel (Main parts: Stainless steel)**

■**Low cracking pressure: 0.01 MPa**

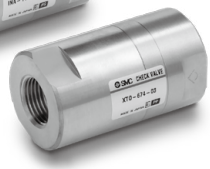
■**High temperature: 80°C**

**Low temperature: –30°C**

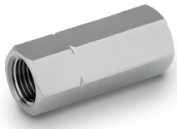
■**Rubber material: NBR/FKM/CR**



**INA-14-□**



**XTO-674-□□**



**INA-14-290**

**Specifications/Models**

| Model | Port size | Specifications: Body Brass | Specifications: All stainless steel | Specifications: Low cracking pressure 0.01 MPa | Specifications: Main parts: Stainless steel | Specifications: Rubber material | Fluid | Operating temperature range (°C) | Minimum operating pressure (MPa) | Application |
|---|---|---|---|---|---|---|---|---|---|---|
| **INA-14-290** | **01**: Rc 1/8 | ● | | | ● | NBR | Air/Water | –5 to 60 | 0.02 | |
| **INA-14-47-□** | **02**: Rc 1/4<br>**03**: Rc 3/8<br>**04**: Rc 1/2 | | ● | | | NBR | Air/Water | –5 to 60 | 0.05 | Anti-corrosion |
| **INA-14-85-□** | | | ● | | | FKM | Air/Water | –5 to 80 | 0.05 | Anti-corrosion |
| **XTO-674-□** | | ● | | | | NBR | Air | –5 to 60 | 0.05 | Basic type |
| **XTO-674-□A** | | ● | | | ● | NBR | Air/Water | –5 to 60 | 0.05 | For water |
| **XTO-674-□E** | | ● | | ● | | NBR | Air | –5 to 60 | 0.01 | For vacuum, oscillation measures |
| **XTO-674-□H** | | ● | | | | FKM | Air | –5 to 80 | 0.05 | For high temperature |
| **XTO-674-□L** | | ● | | | | CR | Air | –30 to 60 | 0.05 | For low temperature |
| **XTO-674-□AE** | | ● | | ● | ● | NBR | Air/Water | –5 to 60 | 0.01 | |
| **XTO-674-□AH** | | ● | | | ● | FKM | Air/Water | –5 to 80 | 0.05 | |
| **XTO-674-□AL** | | ● | | | ● | CR | Air | –30 to 60 | 0.05 | |
| **XTO-674-□EH** | | ● | | ● | | FKM | Air | –5 to 80 | 0.01 | |
| **XTO-674-□EL** | | ● | | ● | | CR | Air | –30 to 60 | 0.01 | |
| **XTO-674-□AEH** | | ● | | ● | ● | FKM | Air/Water | –5 to 80 | 0.01 | |
| **XTO-674-□AEL** | | ● | | ● | ● | CR | Air | –30 to 60 | 0.01 | |

## INA-14-290 (Body material: Brass)



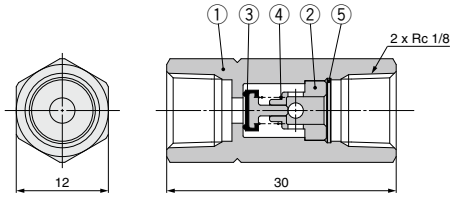
### Specifications

| | |
|---|---|
| **Fluid** | Air/Water |
| **Proof pressure** | 1.5 MPa |
| **Operating pressure range** | 0.02 to 1 MPa |
| **Ambient and fluid temperature** | –5 to 60°C (No freezing) |
| **Port size** | 2 x Rc 1/8 |
| **Sonic conductance** | 1.25 dm³/(s·bar) |
| **Critical pressure ratio** | 0.45 |

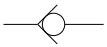
### How to Order

**INA – 14 – 290**

### Construction/Dimensions




**Symbol**



**Weight: 20 g**

### Component Parts

| No. | Description | Material | Note |
|---|---|---|---|
| 1 | **Body** | Brass | Electroless nickel plating |
| 2 | **Guide** | Brass | Electroless nickel plating |
| 3 | **Valve** | Stainless steel 303, NBR | |
| 4 | **Spring** | Stainless steel 304 | |
| 5 | **Basic internal retaining ring** | Stainless steel 304 | |

## INA-14-□ (All stainless steel)



### Specifications

| Model | | INA-14-47 | INA-14-85 |
|---|---|---|---|
| **Fluid** | | Air/Water | |
| **Operating pressure range** | | 0.05 to 1 MPa | |
| **Proof pressure** | | 1.5 MPa | |
| **Ambient and fluid temperature** | | –5 to 60°C (No freezing) | –5 to 80°C (No freezing) |
| **Valve seal material** | | NBR | FKM |
| **Port size** | | Rc 1/4, Rc 3/8, Rc 1/2 | |
| **Sonic conductance** | Rc 1/4 | 9.5 dm³/(s·bar) | |
| | Rc 3/8, Rc 1/2 | 10.5 dm³/(s·bar) | |
| **Critical pressure ratio** | | 0.45 | |

### How to Order

**INA – 14 – 47 – 02**

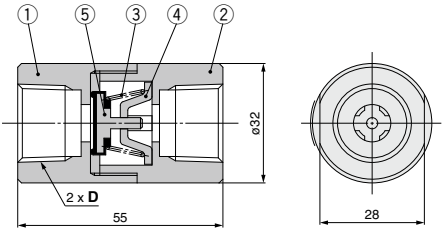
**Series**

| | |
|---|---|
| **47** | Seal material: NBR |
| **85** | Seal material: FKM |

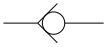
**Port size**

| | |
|---|---|
| **02** | Rc 1/4 |
| **03** | Rc 3/8 |
| **04** | Rc 1/2 |

### Construction/Dimensions




**Symbol**



| Part no. | | D | Weight (g) |
|---|---|---|---|
| **INA-14-47-02** | **INA-14-85-02** | Rc 1/4 | 260 |
| **INA-14-47-03** | **INA-14-85-03** | Rc 3/8 | 240 |
| **INA-14-47-04** | **INA-14-85-04** | Rc 1/2 | 210 |

### Component Parts

| No. | Description | | Material |
|---|---|---|---|
| 1 | **Body A** | | Stainless steel 303 |
| 2 | **Body B** | | Stainless steel 303 |
| 3 | **Check valve spring** | | Stainless steel 304 |
| 4 | **Stopper** | | Stainless steel 304 |
| 5 | **Valve** | **INA-14-47 type** | Stainless steel 303, NBR |
| | | **INA-14-85 type** | Stainless steel 303, FKM |

# XTO-674-□□ (Body material: Brass)



## Specifications

| Model | | XTO-674-□ | XTO-674-□A | XTO-674-□E | XTO-674-□H | XTO-674-□L |
|---|---|---|---|---|---|---|
| **Fluid** | | Air | Air/Water | Air | | |
| **Proof pressure** | | 1.5 MPa | | | | |
| **Operating pressure range** | | 0.05 to 1 MPa | | 0.01 to 1 MPa | 0.05 to 1 MPa | |
| **Ambient and fluid temperature** | | –5 to 60°C (No freezing) | | | –5 to 80°C (No freezing) | –30 to 60°C (No freezing) |
| **Port size** | | Rc 1/4, Rc 3/8, Rc 1/2 | | | | |
| **Sonic conductance** | Rc 1/4 | 9.5 dm³/(s·bar) | | | | |
| | Rc 3/8, Rc 1/2 | 10.5 dm³/(s·bar) | | | | |
| **Critical pressure ratio** | | 0.45 | | | | |

Note) Refer to "Specifications/Models" on page 790 for combinations of each option.

## How to Order

**XTO – 674 – 02 □**

**Port size**

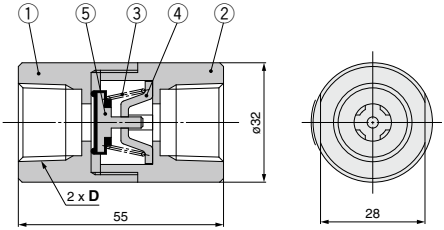
| | |
|---|---|
| **02** | Rc 1/4 |
| **03** | Rc 3/8 |
| **04** | Rc 1/2 |

**Option**

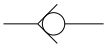
| Symbol | Specifications | Operating temperature range | Minimum operating pressure |
|---|---|---|---|
| **Nil** | Basic type | –5 to 60°C | 0.05 MPa |
| **A** | Main parts: Stainless steel (For water) | –5 to 60°C | 0.05 MPa |
| **E** | Low cracking pressure | –5 to 60°C | 0.01 MPa |
| **H** | High temperature | –5 to 80°C | 0.05 MPa |
| **L** | Low temperature | –30 to 60°C | 0.05 MPa |

Note 1) A combination of H and L is not possible.
Note 2) Refer to "Specifications/Models" on page 790 for combinations of each option.

## Construction/Dimensions




**Symbol**



| Part no. | D | Weight (g) |
|---|---|---|
| **XTO-674-02□** | Rc 1/4 | 280 |
| **XTO-674-03□** | Rc 3/8 | 255 |
| **XTO-674-04□** | Rc 1/2 | 225 |

## Component Parts

| No. | Description | | Material | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Option symbol | | Basic type | A | E | H | L | AE | AH | AL | EH | EL | AEH | AEL |
| 1 | **Body A** | | Brass | | | | | | | | | | | |
| 2 | **Body B** | | Brass | | | | | | | | | | | |
| 3 | **Check valve spring** | | Stainless steel 304 | | | | | | | | | | | |
| 4 | **Stopper** | | Steel | Stainless steel 304 | Steel | | | Stainless steel 304 | | | Steel | | Stainless steel 304 | |
| 5 | **Valve** | **Bracket** | | Stainless steel 303 | | | | Stainless steel 303 | | | | | Stainless steel 303 | |
| | | **Rubber lining** | NBR | | | FKM | CR | NBR | FKM | CR | FKM | CR | FKM | CR |