

# Manual Air Dryer

## 4001 / 4002

### ■ Main Line Components / Desiccant Air Dryer

#### Overview

Desiccant is used in this air dryer. The desiccant does not have a self-regenerating function, but can be used at low pressures of 0.1 MPa or less. Since there is a limit to the moisture absorption capacity, it should be used for small flow rate applications (280 L/min or less).

#### Features

- (1) Atmospheric dew point down to  $-72^{\circ}\text{C}$  is possible
- (2) Easy Desiccant Replacement
- (3) Just mount it, no power source needed



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Manual Air Dryer (desiccant)

# 4001 / 4002 Series

Stable supply of ultra-dry air with atmospheric dew point  $-72^{\circ}\text{C}$ .

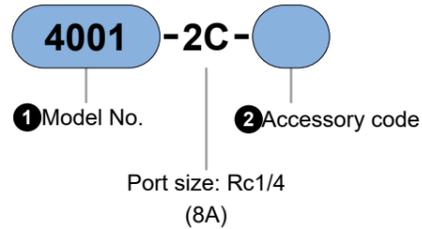
● Processing air flow rate: 280 L/min (ANR) or less



# 4001 / 4002 Series

Functions / Dimensions

## Model No. Notation



1 Model No.	
Code	Description
4001	1 station
4002	2 stations

2 Accessory code	
Code	Description
Blank	Without accessory
U	For low dew point
X	For oil removal

## Specifications

Item	4001-2C	4002-2C
Max. Working Pressure, MPa	1.0 (*1)	
Proof pressure MPa	1.5	
Inlet air temperature range $^{\circ}\text{C}$	5 to 32	
Ambient temperature $^{\circ}\text{C}$	5 to 65	
Atmospheric dew point $^{\circ}\text{C}$	-43	
Max. flow rate L/min (ANR)	280 (at 0.7MPa) (*2, *3)	
Desiccant	Silica gel	
Port size Rc	1/4	1/4
Weight kg	4.6	10

\*1: 4002-2C only has a working pressure of 0.2 MPa to 1.0 MPa.

\*2: The max. flow rate at 0.7 MPa inlet air pressure calculated with atmospheric pressure conversion.

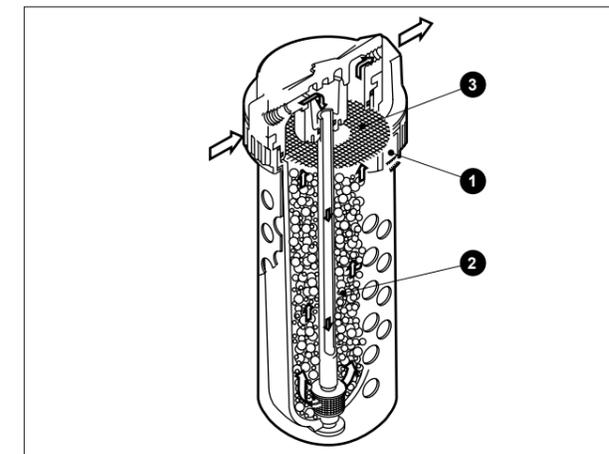
\*3: 4002-2C only requires the min. flow rate 30 L/min (ANR).

## Performance list

Model No.	Atmospheric dew point	Max. inlet air temperature	Max. flow rate	Desiccant	Desiccant No.	Remarks
4001-2C 4002-2C	$-43^{\circ}\text{C}$	$32^{\circ}\text{C}$	280 L/min (ANR)	Silica gel	4001-SILICA-GEL	Non-regenerable
4001-2C-U 4002-2C-U	$-72^{\circ}\text{C}$	$32^{\circ}\text{C}$	280 L/min (ANR)	4AM.S.	85-060	Non-regenerable
4001-2C-X 4002-2C-X	Oil removal 24 PPM $\frac{w}{w}$	$32^{\circ}\text{C}$	280 L/min (ANR)	13XM.S.	85-061	Non-regenerable

Note: M.S. means molecular sieves.

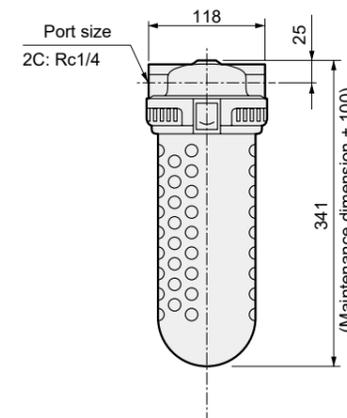
## Functions



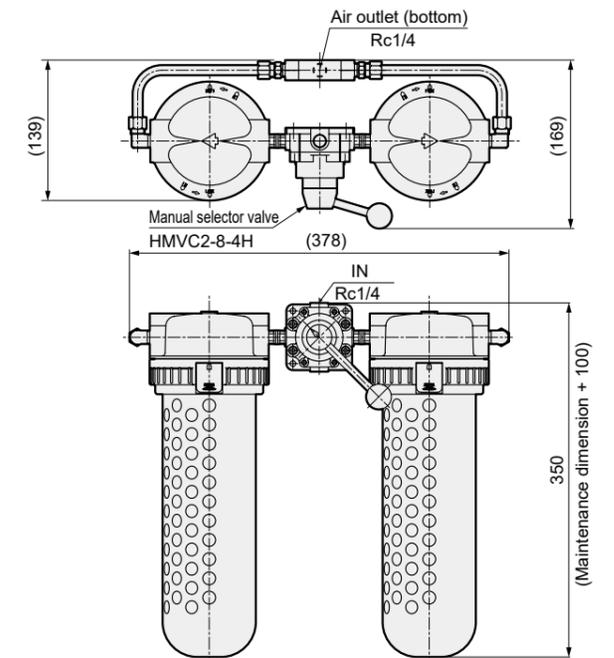
- (1) Clamp ring  
A push-in clamp ring system allows easy replacement of desiccant.
- (2) Desiccant  
Molecular Sieves (atmospheric dew point  $-72^{\circ}\text{C}$ ) as well as silica gel (atmospheric dew point  $-43^{\circ}\text{C}$ ) are available as desiccants. These desiccants dry compressed air by adsorbing water vapor in the compressed air as it passes through the desiccant by capillary action caused by the desiccant's microscopic pores.
- (3) Screen  
Desiccant prevents scattering due to air flow.

## Dimensions

●4001-2C



●4002-2C



For maintenance parts, refer to the CKD Components Product site

Refer to (<https://www.ckd.co.jp/kiki/en/>) → "Model No." → Maintenance Parts

## ⚠ Safety Precautions

- Fill the bowl with desiccant up to just below the screen (approximately 0.8 kg) Be careful not to allow any desiccant to enter the tube.
- Keep the max. flow rate below 280 L/min. Replace the desiccant (silica gel) if it has changed from green to orange. Adsorbs approx. 100 g of moisture. (Contains about 0.8 kg of desiccant.)
- Use 4001-2C-U if the atmospheric dew point of  $-72^{\circ}\text{C}$  is required. As the color does not change even when moisture is suctioned, attach a moisture indicator (6119-2C) after 4001-2C-U or 4002-2C-U. The desiccant life can be checked.
- To remove oil of the compressed air, use 4001-2C-X or 4002-2C-X. The color will change from yellowish brown to blackish brown when oil is suctioned. Replace when the color changes. 113 g of oil content is suctioned by the time of replacement.
- Avoid direct exposure to sunlight.
- Installing an air filter is recommended to obtain cleaner air.
- Carefully prevent water drops from entering the inside. Otherwise heat generation may occur.

Main Line Components

Refrigeration Dryers

Desiccant Dryers

High Polymer Membrane Dryers

Main Line Filters

Drain discharger, etc.

Main Line Components

Refrigeration Dryers

Desiccant Dryers

High Polymer Membrane Dryers

Main Line Filters

Drain discharger, etc.

Ending

Ending