

# Membrane Air Dryer/Single Unit Type

## Series *IDG*

### How to Order

IDG **10** **02**

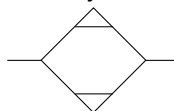
#### Size

|     |
|-----|
| 1   |
| 3   |
| 5   |
| 10  |
| 20  |
| 60  |
| 75  |
| 100 |

#### Standard dew point temperature and air flow rate

| Symbol | Standard dew point (°C) | Flow rate by size |    |    |     |     |                          | Outlet air flow rate (L/min [ANR]) |
|--------|-------------------------|-------------------|----|----|-----|-----|--------------------------|------------------------------------|
|        |                         | 1                 | 3  | 5  | 10  | 20  | 60                       |                                    |
| Nil    | -20                     | 10                | 25 | 50 | 100 | 200 | 600                      | 750 1000                           |
| H      | -15                     | —                 | 25 | 50 | 100 | 200 | 600                      | 750 1000                           |
| L      | -40                     | —                 | —  | —  | —   | —   | Select from Series IDG□A |                                    |
| S      | -60                     | —                 | —  | —  | —   | —   |                          |                                    |

#### JIS Symbol



#### Thread type

| Symbol | Type |
|--------|------|
| Nil    | Rc   |
| N      | NPT  |
| F      | G    |

#### Port size

| Symbol | Port size | Size |   |   |    |    |    |    |     |
|--------|-----------|------|---|---|----|----|----|----|-----|
|        |           | 1    | 3 | 5 | 10 | 20 | 60 | 75 | 100 |
| 01     | 1/8       | —    | ● | ● | —  | —  | —  | —  | —   |
| 02     | 1/4       | ●    | ● | ● | ●  | ●  | —  | —  | —   |
| 03     | 3/8       | —    | — | — | ●  | ●  | ●  | —  | —   |
| 04     | 1/2       | —    | — | — | —  | —  | ●  | ●  | ●   |

#### Option

| Symbol | Contents                             | Size |   |   |                    |    |    |    |     |
|--------|--------------------------------------|------|---|---|--------------------|----|----|----|-----|
|        |                                      | 1    | 3 | 5 | 10                 | 20 | 60 | 75 | 100 |
| Nil    | None (Standard)                      | ●    | ● | ● | ●                  | ●  | ●  | ●  | ●   |
| P      | With fitting for purge air discharge | ●    | ● | ● | ●                  | ●  | ●  | ●  | ●   |
| R      | Flow direction (Right → Left)        | —    | ● | ● | ●                  | ●  | ●  | ●  | ●   |
| S      | With dew point indicator             | —    | ● | ● | Standard equipment |    |    |    |     |

Note) In the case of two or more options, indicate them alphabetically.

#### Bracket Assembly (Accessory) Part No.

| Part no. | Applicable model |
|----------|------------------|
| BM59     | IDG3, 5          |
| BM61     | IDG10            |
| BM63     | IDG20            |
| BM65     | IDG60, 75, 100   |

\* With cap bolts (2 pcs.) and spring washers (2 pcs.)



Single Unit Type

Unit Type

Model Selection

Made to Order

Specific Product Precautions

## Standard Specifications/Single Unit Type (Standard dew point $-20^{\circ}\text{C}$ , $-15^{\circ}\text{C}$ )

### Standard dew point---- $-20^{\circ}\text{C}$

| Model                           |                                                          | IDG1           | IDG3 | IDG5           | IDG10                                                 | IDG20          | IDG30A         | IDG50A         | IDG60          | IDG75          | IDG100 |
|---------------------------------|----------------------------------------------------------|----------------|------|----------------|-------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|--------|
| Range of operating conditions   | Fluid                                                    | Compressed air |      |                |                                                       |                |                |                |                |                |        |
|                                 | Inlet air pressure (MPa)                                 | 0.3 to 0.85    |      |                |                                                       |                | 0.3 to 1.0     |                |                |                |        |
|                                 | Inlet air temperature (°C) <small>Note 1)</small>        | -5 to 55       |      |                |                                                       |                | -5 to 50       |                |                |                |        |
|                                 | Ambient temperature (°C) <small>Note 1)</small>          | -5 to 55       |      |                |                                                       |                | -5 to 50       |                |                |                |        |
| Standard performance            | Outlet air atmospheric pressure dew point (°C)           | -20            |      |                |                                                       |                |                |                |                |                |        |
|                                 |                                                          |                |      |                |                                                       |                |                |                |                |                |        |
| Standard performance conditions | Inlet air flow rate (L/min [ANR]) <small>Note 2)</small> | 12.5           | 31   | 62             | 125                                                   | 250            | 360            | 586            | 725            | 900            | 1190   |
|                                 | Outlet air flow rate (L/min [ANR])                       | 10             | 25   | 50             | 100                                                   | 200            | 300            | 500            | 600            | 750            | 1000   |
|                                 | Purge air flow rate (L/min [ANR]) <small>Note 3)</small> | 2.5            | 6    | 12             | 25                                                    | 50             | 60             | 86             | 125            | 150            | 190    |
|                                 | Inlet air pressure (MPa)                                 | 0.7            |      |                |                                                       |                |                |                |                |                |        |
|                                 | Inlet air temperature (°C)                               | 25             |      |                |                                                       |                |                |                |                |                |        |
|                                 | Inlet air saturation temperature (°C)                    | 25             |      |                |                                                       |                |                |                |                |                |        |
|                                 | Ambient temperature (°C)                                 | 25             |      |                |                                                       |                |                |                |                |                |        |
|                                 | Dew point indicator purge air flow rate                  | —              |      |                | 1 L/min [ANR] {In case of Inlet air pressure 0.7 MPa} |                |                |                |                |                |        |
| Port size (Nominal size B)      | 1/4                                                      | 1/8, 1/4       |      |                | 1/4, 3/8                                              |                |                | 3/8, 1/2       |                | 1/2            |        |
| Weight (kg)<br>(With bracket)   | 0.11                                                     | 0.25<br>(0.31) |      | 0.43<br>(0.51) | 0.66<br>(0.76)                                        | 0.78<br>(0.91) | 0.81<br>(0.94) | 1.50<br>(1.65) | 1.50<br>(1.65) | 1.55<br>(1.70) |        |

Note 1) When using the product in the temperature range between  $-5^{\circ}\text{C}$  and  $5^{\circ}\text{C}$ , prevent water droplets from entering the inlet port. (No freezing of the fluid)

Note 2) "ANR" indicates the flow rate converted to the value at  $20^{\circ}\text{C}$ , under the atmospheric pressure and the state of relative humidity 65%.

Note 3) Includes 1 L/min [ANR] of purge air flow (at 0.7 MPa inlet air pressure) for the dew point indicator (except IDG1, 3, 5).

### Standard dew point---- $-15^{\circ}\text{C}$ /Type H

| Model                           |                                                      | IDG3H          | IDG5H | IDG10H                                                | IDG20H         | IDG30HA        | IDG50HA        | IDG60H         | IDG75H         | IDG100H        |  |
|---------------------------------|------------------------------------------------------|----------------|-------|-------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|--|
| Range of operating conditions   | Fluid                                                | Compressed air |       |                                                       |                |                |                |                |                |                |  |
|                                 | Inlet air pressure (MPa)                             | 0.3 to 0.85    |       |                                                       |                | 0.3 to 1.0     |                |                |                |                |  |
|                                 | Inlet air temperature (°C) <sup>Note 1)</sup>        | -5 to 55       |       |                                                       |                | -5 to 50       |                |                |                |                |  |
|                                 | Ambient temperature (°C) <sup>Note 1)</sup>          | -5 to 55       |       |                                                       |                | -5 to 50       |                |                |                |                |  |
| Standard performance            | Outlet air atmospheric pressure dew point (°C)       | -15            |       |                                                       |                |                |                |                |                |                |  |
|                                 |                                                      |                |       |                                                       |                |                |                |                |                |                |  |
| Standard performance conditions | Inlet air flow rate (L/min [ANR]) <sup>Note 2)</sup> | 28             | 56    | 111                                                   | 222            | 329            | 550            | 665            | 830            | 1110           |  |
|                                 | Outlet air flow rate (L/min [ANR])                   | 25             | 50    | 100                                                   | 200            | 300            | 500            | 600            | 750            | 1000           |  |
|                                 | Purge air flow rate (L/min [ANR]) <sup>Note 3)</sup> | 3              | 6     | 11                                                    | 22             | 29             | 50             | 65             | 80             | 110            |  |
|                                 | Inlet air pressure (MPa)                             | 0.7            |       |                                                       |                |                |                |                |                |                |  |
|                                 | Inlet air temperature (°C)                           | 25             |       |                                                       |                |                |                |                |                |                |  |
|                                 | Inlet air saturation temperature (°C)                | 25             |       |                                                       |                |                |                |                |                |                |  |
|                                 | Ambient temperature (°C)                             | 25             |       |                                                       |                |                |                |                |                |                |  |
|                                 | Dew point indicator purge air flow rate              | —              |       | 1 L/min [ANR] {In case of Inlet air pressure 0.7 MPa} |                |                |                |                |                |                |  |
|                                 | Port size (Nominal size B)                           | 1/8, 1/4       |       | 1/4, 3/8                                              |                |                |                | 3/8, 1/2       |                | 1/2            |  |
|                                 | Weight (kg)<br>(With bracket)                        | 0.25<br>(0.31) |       | 0.43<br>(0.51)                                        | 0.66<br>(0.76) | 0.78<br>(0.91) | 0.81<br>(0.94) | 1.50<br>(1.65) | 1.50<br>(1.65) | 1.55<br>(1.70) |  |

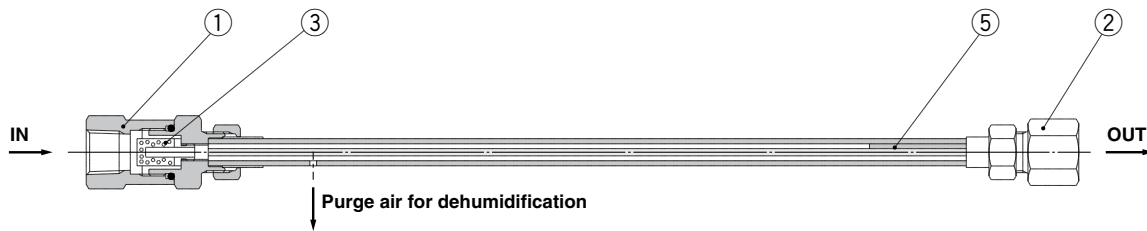
Note 1) When using the product in the temperature range between  $-5^{\circ}\text{C}$  and  $5^{\circ}\text{C}$ , prevent water droplets from entering the inlet port. (No freezing of the fluid)

Note 2) "ANR" indicates the flow rate converted to the value at  $20^{\circ}\text{C}$ , under the atmospheric pressure and the state of relative humidity 65%.

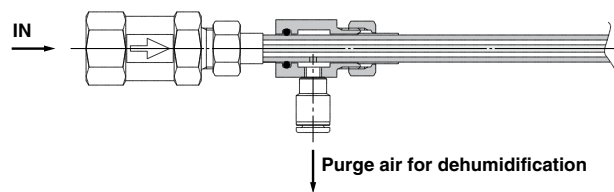
Note 3) Includes 1 L/min [ANR] of purge air flow (at 0.7 MPa inlet air pressure) for the dew point indicator (except IDG3H, 5H).

## Dimensions

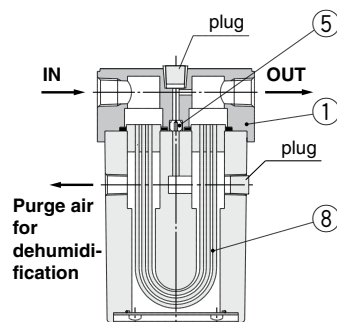
### IDG1



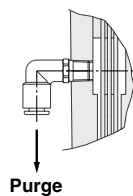
#### Option With fitting for purge air discharge (Option: P)



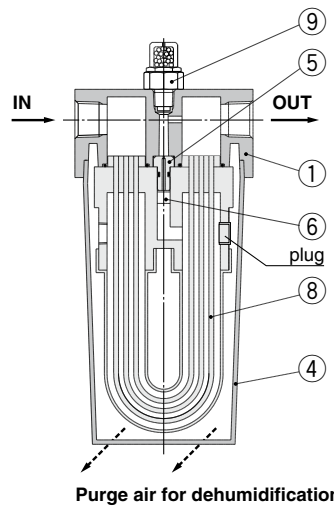
### IDG3, 5 IDG3H, 5H



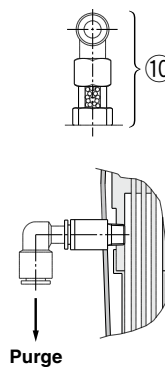
#### Option With fitting for purge air discharge (Option: P)



### IDG10, 20 IDG10H, 20H



#### Option With fitting for purge air discharge (Option: P)



## Component Parts

| No. | Description      | Material |                 |          |            |                                                             | Note |
|-----|------------------|----------|-----------------|----------|------------|-------------------------------------------------------------|------|
|     |                  | IDG1     | IDG3, 3H        | IDG5, 5H | IDG10, 10H | IDG20, 20H                                                  |      |
| 1   | Body             | Brass    | Aluminum alloy  |          |            | Platinum silver coated (IDG1 is electroless nickel plated.) |      |
| 2   | Female connector | Brass    | —               |          |            |                                                             |      |
| 3   | Strainer         | Brass    | —               |          |            | Electroless nickel plated                                   |      |
| 4   | Case             | —        | —               |          | Resin      |                                                             |      |
| 5   | Orifice          | Resin    | Stainless steel |          |            |                                                             |      |
| 6   | Silencer         | —        | —               |          | Brass      |                                                             |      |

## Replacement Parts

| No. | Description             | Part no. |                                                       |          |         |          |                                                         |           |          |           |  |
|-----|-------------------------|----------|-------------------------------------------------------|----------|---------|----------|---------------------------------------------------------|-----------|----------|-----------|--|
|     |                         | IDG1     | IDG3                                                  | IDG3H    | IDG5    | IDG5H    | IDG10                                                   | IDG10H    | IDG20    | IDG20H    |  |
| 8   | Membrane module kit     | —        | IDG-EL3                                               | IDG-EL3H | IDG-EL5 | IDG-EL5H | IDG-EL10                                                | IDG-EL10H | IDG-EL20 | IDG-EL20H |  |
|     |                         |          | With Orifice (1 pc.), O-ring (3 pcs.), Gasket (1 pc.) |          |         |          | With Orifice (1 pc.), Silencer (1 pc.), O-ring (4 pcs.) |           |          |           |  |
| 9   | Dew point indicator kit | —        | IDG-DP01 (Option: S)                                  |          |         |          | IDG-DP01                                                |           |          |           |  |
|     |                         |          |                                                       |          |         |          | With O-ring (1 pc.)                                     |           |          |           |  |
| 10  |                         | —        | IDG-DP01-X001 (Option: PS)                            |          |         |          | IDG-DP01-X001 (Option: P)                               |           |          |           |  |
|     |                         |          |                                                       |          |         |          | With O-ring (1 pc.)                                     |           |          |           |  |