

Membrane Air Dryer Series *IDG*

Dew point indicator visually confirms air drying

(Except IDG)
(Optional on IDG3, IDG5, IDG3H, IDG5H)

- Compact
- Lightweight
- Space-saving

Type with fitting to purge air is also available.

When purge air discharge is undesirable in the area around the membrane air dryer, it can be discharged to atmosphere via tubing (option).

Discharged air noise reduced with built-in silencer

(Except IDG1, IDG3, IDG3H, IDG5, IDG5H, IDG30, IDG30H, IDG30L, IDG50, IDG50H, IDG50L)

IDG1 Flexible piping is possible

Low flow rate type tube configuration
Outlet air flow: 10 l/min (ANR)



Dew point indicator



Fitting to exhaust purge air for dew point checker



Purge air discharge fitting for dehumidification

Environmentally friendly (non-freon)

Power supply not required

No power supply is necessary. Wiring labor is not required and there is no need to consider electrical standards, etc.

No vibration or heat discharge

There are no mechanical moving parts as in the case of refrigeration equipment.

Compatible with low dew points

Outlet air atmospheric pressure dew point: -40°C
(IDG30L, IDG50L, IDG60L, IDG75L, IDG100L)

Outlet air atmospheric pressure dew point: -60°C
(IDG60S, IDG75S, IDG100S)

Unit type Integrated prefilter and regulator



Type M

Mist separator + Micro mist separator + IDG
Micro mist separator with prefilter + IDG

Type V

Mist separator + Micro mist separator + IDG + Regulator
Micro mist separator with prefilter + IDG + Regulator

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Dehumidification principle



The membrane air dryer uses hollow fibers composed of a macro molecular membrane through which moisture passes easily, but is difficult for air (oxygen and nitrogen) to pass through.

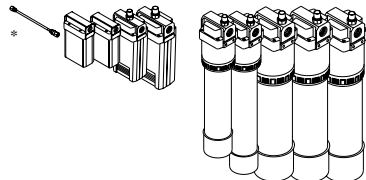
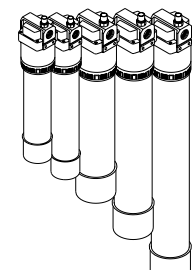
When humid, compressed air is supplied to the inside of the hollow fibers, only moisture permeates the membrane and moves to the outside due to the pressure difference between the moisture inside and outside of the fibers. The compressed air becomes dry air and continues out of the dryer. Part of the dry air from the outlet side is passed through a very small orifice to reduce the pressure and purge the outside of the hollow fibers. The moisture which permeated to the outside of the hollow fibers is discharged to the atmosphere by this purge air. In this way, the partial pressure outside of the hollow fibers remains low and dehumidification is continuously performed.

Application example

- Machine tools (air bearings, lasers, etc.)
- Precision measuring equipment (3-D measuring machines)
- Semiconductor manufacturing equipment
- Semiconductor inspection equipment
- Dental equipment
- Chemical analysis equipment
- Ozonizers, Hydrogen gas generating equipment
- Packaging machines, Paper making machines, Food processing machines
- Printed circuit board IC mounting machines
- Fine particle drying, Transfer equipment
- Electrostatic and high grade coating
- Drying and cleaning of precision parts
- Condensation prevention in control panels
- General pneumatic equipment and pneumatic tools

Series Variations

Meets a wide variety of flow rates (10 to 1000 ℓ/min (ANR)) and dew points (Atmospheric pressure dew point: -15°C to -60°C)

Standard dew point: -20°C ^{Note)} Standard purge Note) Standard purge rate: 20%	Standard dew point: -15°C ^{Note)} Low purge Note) Standard purge rate: 10%	Standard dew point: -40°C ^{Note)} Low dew point Note) Standard purge rate: 25%	Standard dew point: -60°C ^{Note)} Low dew point Note) Standard purge rate: 35%
			
<small>* IDG1 is not available with standard dew point -15°C.</small>			

Single Unit Type	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))
		IDG1	10	IDG3H	25			
	IDG3	25	IDG5H	50				
	IDG5	50	IDG10H	100				
	IDG10	100	IDG20H	200				
	IDG20	200	IDG30H	300				
	IDG30	300	IDG50H	500	IDG30L	75		
	IDG50	500	IDG60H	600	IDG50L	110		
	IDG60	600	IDG75H	750	IDG60L	170	IDG60S	50
	IDG75	750	IDG100H	1000	IDG75L	240	IDG75S	100
	IDG100	1000			IDG100L	300	IDG100S	150

Type M

A mist separator, micro mist separator, or micro mist separator with prefilter combined with a single unit

Unit Type	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))
		IDG3M	25	IDG3HM	25			
	IDG5M	50	IDG5HM	50				
	IDG10M	100	IDG10HM	100				
	IDG20M	200	IDG20HM	200				
	IDG30M	300	IDG30HM	300	IDG30LM	75		
	IDG50M	500	IDG50HM	500	IDG50LM	110		
	IDG60M	600	IDG60HM	600	IDG60LM	170	IDG60SM	50
	IDG75M	750	IDG75HM	750	IDG75LM	240	IDG75SM	100
	IDG100M	1000	IDG100HM	1000	IDG100LM	300	IDG100SM	150

Type V

A regulator combined with the type M

Unit Type	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))	Series	Outlet air flow rate ^{Note)} (ℓ/min (ANR))
		IDG3V	25	IDG3HV	25			
	IDG5V	50	IDG5HV	50				
	IDG10V	100	IDG10HV	100				
	IDG20V	200	IDG20HV	200				
	IDG30V	300	IDG30HV	300	IDG30LV	75		
	IDG50V	500	IDG50HV	500	IDG50LV	110		
	IDG60V	600	IDG60HV	600	IDG60LV	170	IDG60SV	50
	IDG75V	750	IDG75HV	750	IDG75LV	240	IDG75SV	100
	IDG100V	1000	IDG100HV	1000	IDG100LV	300	IDG100SV	150

Note) Standard dew point : Outlet air atmospheric pressure dew point under standard performance conditions

Standard purge rate : Ratio of purge air flow rate to inlet air flow rate under standard performance conditions

Outlet air flow rate : Values under standard performance conditions

⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 14-21-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and pages 14-14-6 to 14-14-8 for Precautions on every series.

Caution on Design

⚠ Warning

1. Depending on the model and operating conditions, the oxygen ratio of the outlet air may drop below the prescribed standard.

Do not use standard dew point -40°C (symbol L) type, standard dew point -60°C (symbol S) type and IDG30, 50, 30H, 50H for dehumidifying breathing air. Do not use only outlet air (dried air) in a closed room.

⚠ Caution

1. Devise a layout which considers the position of purge air discharge ports.

Purge air is humid air. Devise a layout in which purge air will not cause trouble such as corrosion or malfunction of peripheral equipment.

2. When very clean air is required

(supply to air bearings, blowing of semiconductor parts, etc.)
Install a micro mist separator or super mist separator on the outlet side (end terminal) of the membrane air dryer (unit). Grease is applied inside a regulator used in the unit (V type). When air with high purity is required, please either mount the above separator on the outlet side or use a made-to-order product (refer to page 14-19-50), which is provided with a micro mist separator (Series AWD) instead of a regulator.

3. Time to reach the rated dew point

A certain amount of time is required to achieve the rated dew point after the air begins flowing into the membrane air dryer. Using the times below as a guide, begin operating outlet side equipment after the rated dew point is achieved.

Standard dew point -20°C , -15°C : about 10 min.

Standard dew point -40°C : about 30 min. *

Standard dew point -60°C : about 120 min. *

* This time can be shortened as described below.

- 1) Provide a valve on the outlet side of the membrane air dryer.
- 2) Supply air with the valve closed. Only purge air flows into the membrane air dryer.
- 3) After 15 minutes or more, open the valve and let air flow to the outlet side equipment.

4. Dehumidification performance when inlet air temperature changes

Drying performance shows the case at an inlet air temperature of 25°C . In other cases, please refer to "How to Select a Model" (page 14-19-10) for proper selection.

Selection

⚠ Caution

1. Consider the purge air flow rate.

Find the purge air flow rate from the charts and calculate the "required outlet air flow rate + purge air flow rate". The air supply capacity must be at least equal to the calculated flow or the required outlet air flow rate cannot be obtained.

2. Selection for a compressed air line in which a mist separator or micro mist separator is already installed

Verify the operating air flow rate and air pressure, and select a membrane air dryer in accordance with the model selection method (page 14-19-10). If a membrane air dryer is selected using the port size of the equipment that is already installed as a reference, it could result in the selection of a model that is too small and has an insufficient dehumidification capacity.

3. With fittings for purge air discharge (Option: P)

The dehumidification capacity decreases in proportion to the length of the tube for discharging purge air. Use a tube of the specified size and keep its length within 5 m. For the outlet air atmospheric pressure dew point in relation to the length of the tube for discharging purge air, refer to the table "Outlet Dew Point at Atmospheric Pressure to Tube for Exhaust of Purge Air" on page 14-19-25.

4. Auto-drain selection for the unit style

When the compressor in use is for 2.2 kW {300 l/min (ANR)} or less, please use an N.C. auto drain (symbol: C). If an N.O. auto drain (symbol: D) is used when the compressor is for 2.2 kW or less, pressure inside the mist separator may not increase and remain in the state of blowing off. Auto drain with differential pressure type can be used in 2.2 kW or less.

Mounting

⚠ Caution

1. Do not obstruct the purge air discharge ports.

If purge air back pressure becomes too high or purge air stops flowing, dehumidification performance will decrease or may become impossible.

2. Be sure to install a mist separator and micro mist separator or a micro mist separator with prefilter on the inlet side of the membrane air dryer.

If the inlet air contains oil or water drops, etc., performance will be reduced. (A mist separator and micro mist separator or a micro mist separator with prefilter are already installed on the unit types.)

3. Install a regulator on the outlet side of the membrane air dryer.

If it is installed on the inlet side, dehumidification performance will be reduced.

4. Take sufficient care in handling.

There is a danger of damage if dropped.

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⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 14-21-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and pages 14-14-6 to 14-14-8 for Precautions on every series.

Piping

⚠ Warning

1. Confirm locking of case and body.

When using in a unit, be sure to set the air pressure to zero before using a mist separator or micro mist separator with modular connections. Also, confirm that the body and case are locked together with a click before starting the flow of compressed air.

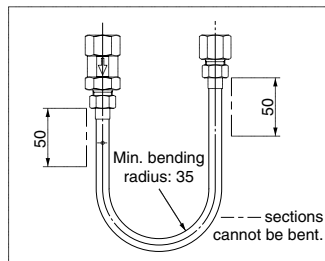
2. Confirm tightening of the holder.

(for IDG30 to IDG100, IDG30H to IDG100H, IDG30L to IDG100L and IDG60S to IDG100S)

Before starting the flow of compressed air, turn the membrane air dryer's holder in its tightening direction, confirming that it is completely tightened and that the case will not come off.

3. Minimum bending radius (for IDG1)

When installing piping for the membrane air dryer, maintain a minimum bending radius of 35 mm or more. Furthermore, do not bend the sections that are within 50 mm of the ends of the membrane module.



4. With fittings for purge air discharge (Option: P)

The piping of purge air for dehumidification and for the dew point checker can be combined, but do not merge these with compressed air lines or drain piping, etc., as this can cause damage.

Piping

⚠ Caution

1. Use of tools

Hold the upper portion of the body (die-cast aluminum section) with a spanner or adjustable angle wrench. Do not turn it while holding the case section.

2. Drain piping for separators

When installing drain piping for mist separators or micro mist separators, use a tube of the prescribed size and keep the length within 5 meters or less. Also, be sure that the tube does not rise up or become folded over.

3. Piping materials for low dew point air

If air of a low dew point (-40°C or less) is required, do not use a nylon tube piping for the outlet side of the membrane air dryer. Due to the nature of the nylon tube, it could be affected by the ambient air, and it might not be possible to achieve the prescribed low dew point at the end of the tube. Therefore, for low dew point air, use a stainless steel or fluoropolymer piping.

4. With fittings for purge air discharge (Option: P)

(for IDG60 to IDG100, IDG60H to IDG100H, IDG60L to IDG100L and IDG60S to IDG100S)

To install piping for dehumidification purge air discharge, attach tubing of the prescribed size to the hose nipple section and then secure it with tubing bands.

Air Supply

⚠ Caution

1. Compressed air supply capacity

An air source that has a supply capacity that is larger than the "necessary outlet air flow rate (dry air flow rate) + purge air flow rate" is required. Verify the purge air flow rate in the Purge Air Flow Characteristics. (page 14-19-14)

Operating Environment

⚠ Caution

1. Do not use at temperatures (fluid or ambient temperatures) higher than the prescribed operating conditions.

Resin is used in the membrane module, and it can be damaged by operation at high temperatures. Especially when installed immediately after a reciprocating type air compressor, confirm that the fluid temperature does not exceed the range of operating conditions during use.

2. Keep the inlet air temperature lower than the ambient temperature.

If the membrane air dryer's body is cooled by the surrounding air, water drops may accumulate inside and reduce its dehumidification capacity.

⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 14-21-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and pages 14-14-6 to 14-14-8 for Precautions on every series.

Maintenance

⚠ Warning

- Do not remove the orifice (plug) when in a pressurized state.**

Never remove the orifice (plug) while under pressure, as it can fly out causing a hazard.

⚠ Caution

- Confirming the dehumidification function with the dew point indicator**

Observe the color of the dew point indicator to confirm whether the membrane air dryer is functioning normally.

[When dew point indicator color is blue: Functioning normally]

[When the color of the dew point indicator is pink: Dew point temperature is high. (Outlet air is humid.) Note: Atmospheric pressure dew point approximately -10°C minimum.]

If humid air flowing in turns the color pink. If dry air then enters, the color turns back to blue.

It takes about 1 hour from the start of air flow for the dew point indicator color to change.

- Dew point indicator replacement period**

The absorbent is used in the dew point indicator. It absorbs the gasified oil in the compressed air and/or the gaseous elements other than the air, and then may turn brown.

When it turned brown, replace the dew point indicator.

Besides, in the event of replacing them periodically, carry out after two-year operation as a guideline. (For the part number of the dew point indicator, refer to page 14-19-28 to 29.)

- Element replacement period**

Refer to the following guide when replacing the elements in the mist separator and in the micro mist separator, or micro mist separator with prefilter that are installed on the inlet side of the membrane air dryer.

- When two years have passed since installation.
- When the unit's pressure drop reaches 0.2 MPa, even before the two year period is reached.
- When the red portion of the dew point indicator reaches the upper limit. (With micro-mist separator with pre-filter) [IDG60M to IDG100M, IDG60HM to IDG100HM, IDG60V to IDG100V, IDG60HV to IDG100HV] ^{Note 1)}

Note 1) For other models as well, they are available with the dewpoint indicator under made-to-order. Refer to page 14-19-48.

- Membrane module replacement period**

Replace the membrane module when the color of the dew point indicator turns white or pink.

As a guideline, unit should be replaced after approximately 10 years of use (10 hours/day operation). Replace it when the color of the dew point indicator turns white or pink, even if it is within the period.

- Tightening torque for installing the membrane module and the case**

(for IDG5/10/20/5H/10H/20H)

Use caution not to tighten excessively.

It may result in a breakdown of membrane module, case and mounting screws or insufficient sealing.

(Verify the tightening torque range in the instruction manual.)

- Installing a pressure gauge**

A pressure gauge should be installed on the inlet and outlet sides of the membrane air dryer (unit) for the maintenance and inspection purposes.

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Series IDG Model Selection

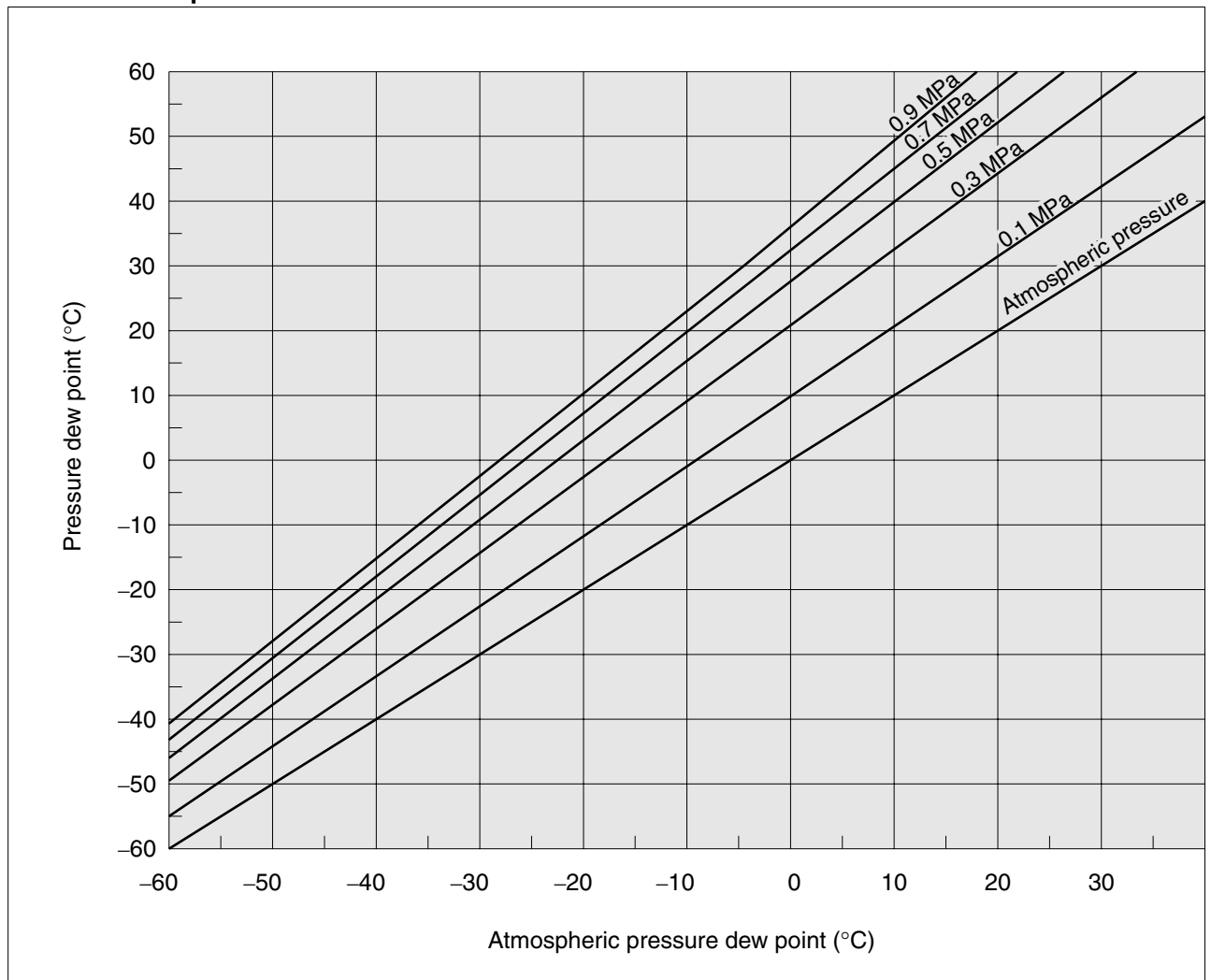
Model Selection

Step 1 Confirmation of operating conditions

Outlet air flow rate	[ℓ/min (ANR)]
Outlet air atmospheric pressure dew point [°C]	(When it is necessary to convert from the pressurized dew point, refer to the conversion diagram for dew point temperature below.)
Inlet air pressure	[MPa]
Inlet air temperature	[°C]
Allowable pressure drop ΔP	[MPa]
Compressed air supply capacity Q	[ℓ/min (ANR)]

[Example]	
Outlet air flow rate	150 [ℓ/min (ANR)]
Outlet air dew point	-15 [°C]
Inlet air pressure	0.5 [MPa]
Inlet air temperature	35 [°C]
Allowable pressure drop	0.03 [MPa]
Compressed air supply capacity	300 [ℓ/min (ANR)]

Dew Point Temperature Conversion Chart



Step 2 Correction of the outlet air flow rate influenced by the inlet air temperature.

(When the inlet air temperature is 25°C, refer to Step 4)

When the inlet air temperature is not the same temperature (25°C) on the performance charts, calculate the correction factor for the outlet air flow rate from the chart below to compensate the outlet air flow rate.

Example
 Inlet air temperature 35°C
 Outlet air flow 150 ℓ/min (ANR)

From table below (Inlet Air Temperature) – Correction Factor for Outlet Air Flow rate
 Correction factor for outlet air flow rate is
 0.40 for Type A products group
 0.86 for Type B products group

Therefore, corrected outlet air flow rate can be determined.
 [Type A products group] 150 ÷ 0.4 = 375 ℓ/min (ANR)
 [Type B products group] 150 ÷ 0.86 = 175 ℓ/min (ANR)

Inlet Air Temperature — Correction Factor for Outlet Air Flow Rate

Inlet air temperature (°C)	Type A products group	Type B products group
	Standard dew point –20°C In the case of –15°C (symbol H) type (but, except IDG30, 50, 30H, 50H)	Standard dew point –40°C In the case of –40°C (symbol L) type and IDG30, 50, 30H, 50H
10	3.00	1.35
15	2.17	1.22
20	1.52	1.10
25	1.00	1.00
30	0.65	0.92
35	0.40	0.86
40	0.25	0.80
45	0.19	0.75
50	0.14	0.70

(Note) Correction factors between the products A group and the products B group are different from each other, because the module characteristics are different.

Step 3 Model selection based on corrected outlet flow rate

Select a model based on the corrected outlet air flow rate calculated by Step 2 on the flow characteristics charts on pages 14-19-17, 18, 21, 22, 25, and 27.

Example
 Corrected outlet air flow 375 ℓ/min (ANR)
 Corrected outlet air flow 175 ℓ/min (ANR)
 Inlet air pressure 0.5 MPa
 Outlet air dew point –15°C

With the conditions of the corrected outlet air flow and the inlet air pressure mentioned to the left, the outlet air atmospheric pressure dew point is found to be –15°C or below. When selecting a model
 [Type A product group] IDG60
 [Type B product group] IDG30, IDG50H

Step 4 Confirmation of purged air flow rate

Read out from the graph on the purged air flow rate (page 14-19-14).

Example
 Inlet air pressure 0.5 MPa
 Model selection IDG30
 IDG50H
 IDG60

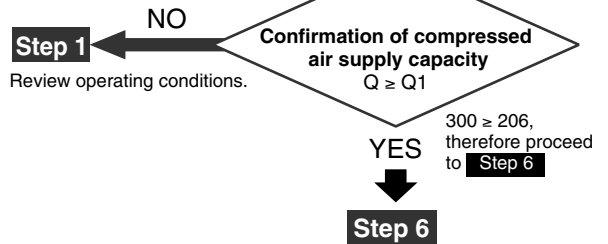
In the case of IDG30 56 ℓ/min (ANR)
 In the case of IDG50H 45 ℓ/min (ANR)
 In the case of IDG60 94 ℓ/min (ANR)

Step 5 Calculation of inlet air flow rate Q1, and confirmation of compressed air supply capacity.

Inlet air flow rate Q1 [ℓ/min (ANR)] =
 Outlet air flow rate [ℓ/min (ANR)] + Purge air flow rate [ℓ/min (ANR)]

Example: Assuming that IDG30 is chosen by Step 4
 Outlet air flow rate 150 ℓ/min (ANR)
 Purge air flow rate 56 ℓ/min (ANR)
 Compressed air supply capacity Q 300 ℓ/min (ANR)

The inlet air flow rate Q1 = 150 + 56 = 206 ℓ/min (ANR)

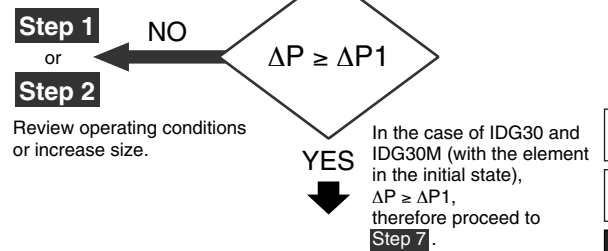


Step 6 Confirmation of pressure drop ΔP1 [MPa]

Single unit (Refer to pages 14-19-12 and 13.)
 Unit (Refer to pages 14-19-37 and 38.)

Example: Model to be selected in case of IDG30
 Inlet air pressure 0.5 MPa
 Inlet air flow 206 ℓ/min (ANR)
 Allowable pressure drop ΔP 0.03 MPa

Single unit IDG30 on the flow characteristics (page 14-19-12)
 ΔP1 = 0.006 MPa
 Unit IDG30M
 ΔP1 = 0.01 MPa (Element initial state)
 ΔP1 = 0.055 MPa (Element saturated state)



Step 7 The way of discharging drain (in the case of unit), accessories and optional specifications

Example
 In the case of IDG30
 With Accessories: Bracket
 Option specifications: None
 In the case of IDG30M
 The way of discharging drain: N.O. auto-drain
 Option specifications: None

Single unit (Refer to pages 14-19-16, 20, 24, and 26.)
 Unit (Refer to page 14-19-32.)

Refer to "Selection" in Specific Product Precautions on page 14-19-7.

Model selected

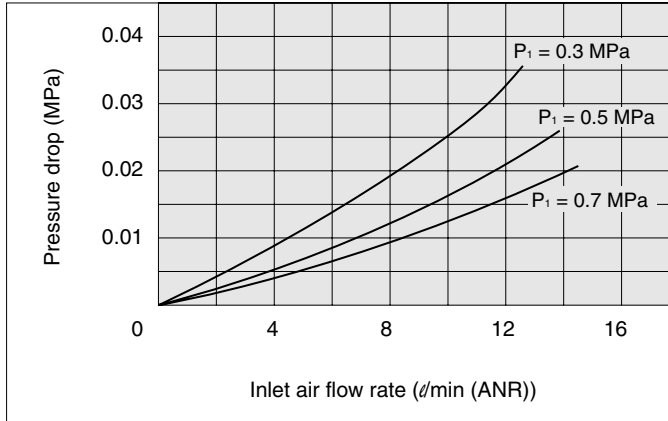
<In the case of single unit type>
IDG30-03B
 <In the case of unit type>
IDG30M-03D

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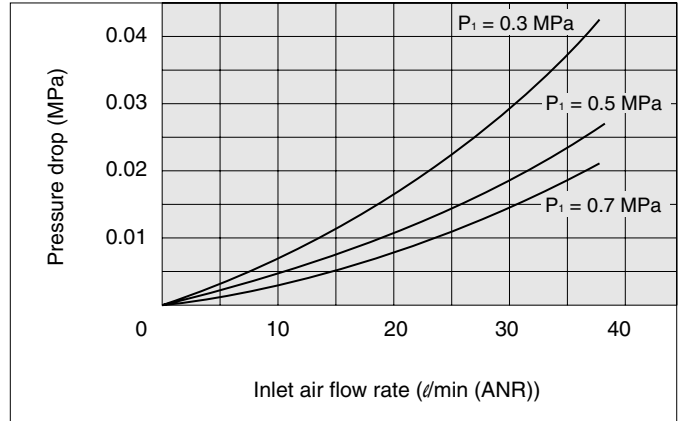
Series IDG

Flow Characteristics

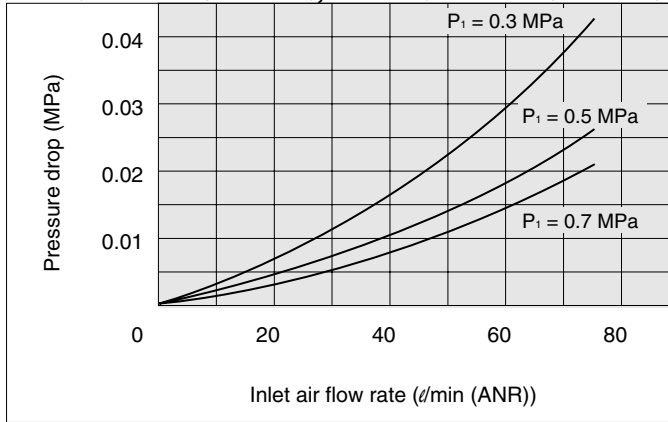
IDG1 (Standard dew point: -20°C)



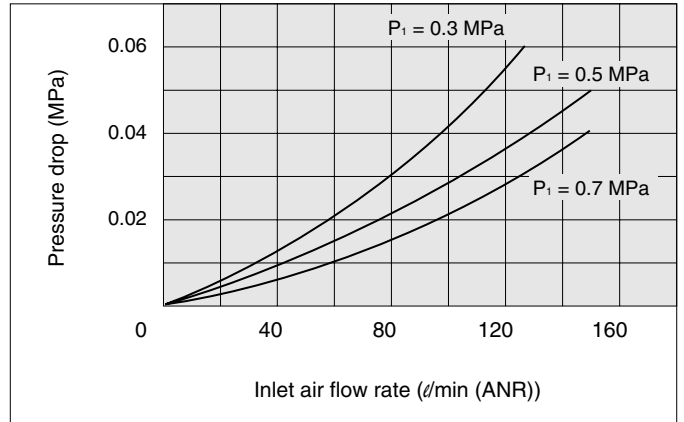
IDG3 (Standard dew point: -20°C), **IDG3H** (Standard dew point: -15°C)



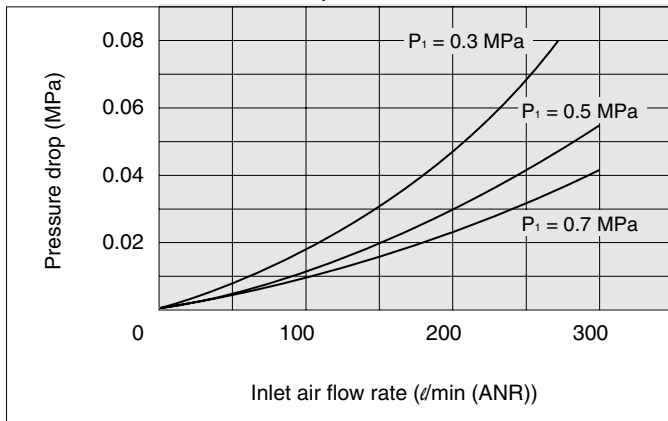
IDG5 (Standard dew point: -20°C), **IDG5H** (Standard dew point: -15°C)



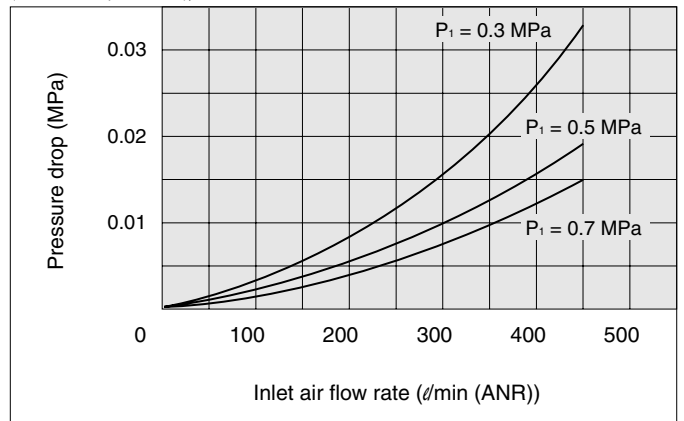
IDG10 (Standard dew point: -20°C), **IDG10H** (Standard dew point: -15°C)



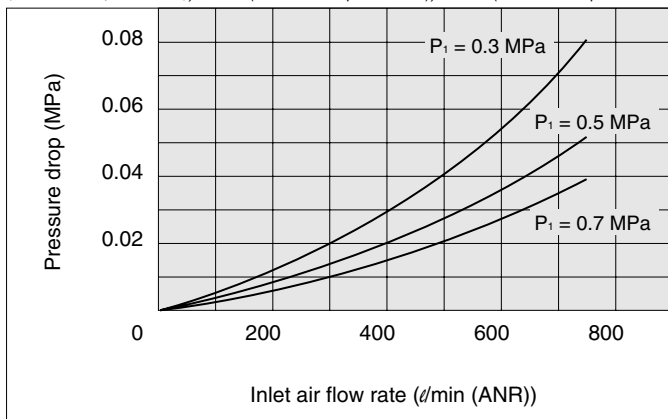
IDG20 (Standard dew point -20°C), **IDG20H** (Standard dew point -15°C)



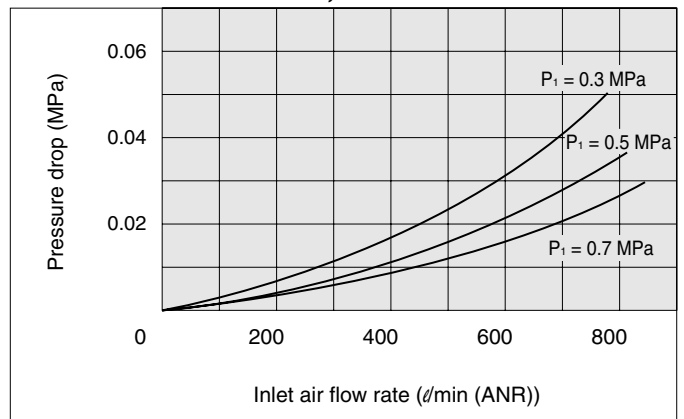
IDG30 (Standard dew point -20°C), **IDG30H** (Standard dew point -15°C), **IDG30L** (Standard dew point -40°C)



IDG50 (Standard dew point: -20°C), **IDG50H** (Standard dew point: -15°C), **IDG50L** (Standard dew point: -40°C)

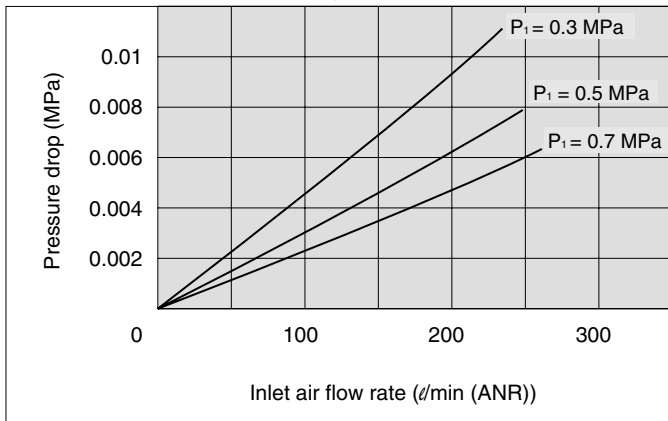


IDG60 (Standard dew point: -20°C), **IDG60H** (Standard dew point: -15°C)

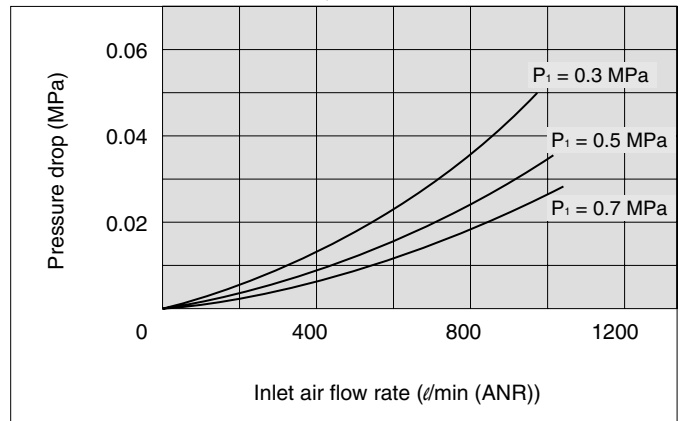


Conditions: Inlet air temperature 25°C, P1: Inlet air pressure

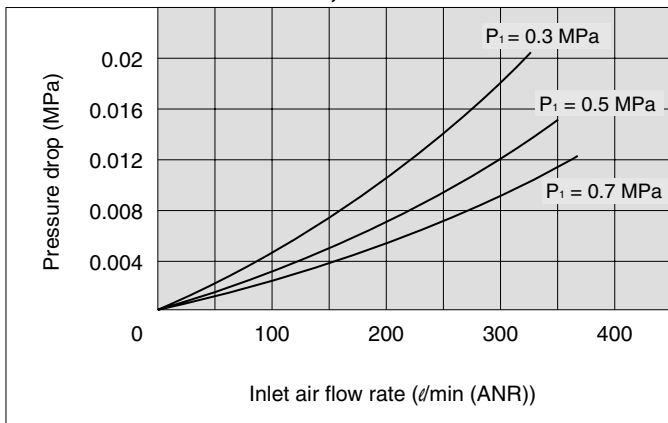
IDG60L (Standard dew point: -40°C), **IDG60S** (Standard dew point: -60°C)



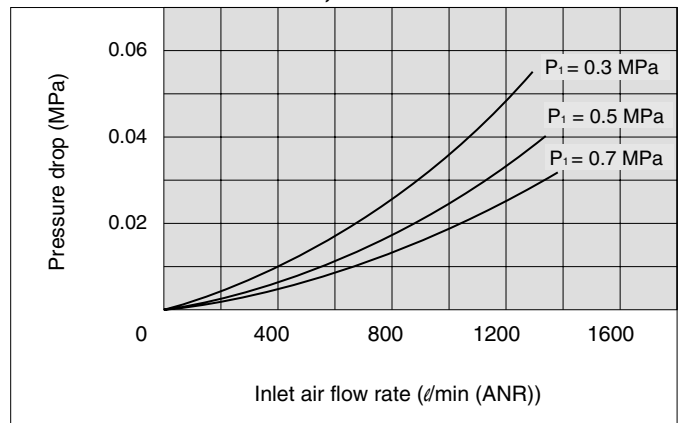
IDG75 (Standard dew point: -20°C), **IDG75H** (Standard dew point: -15°C)



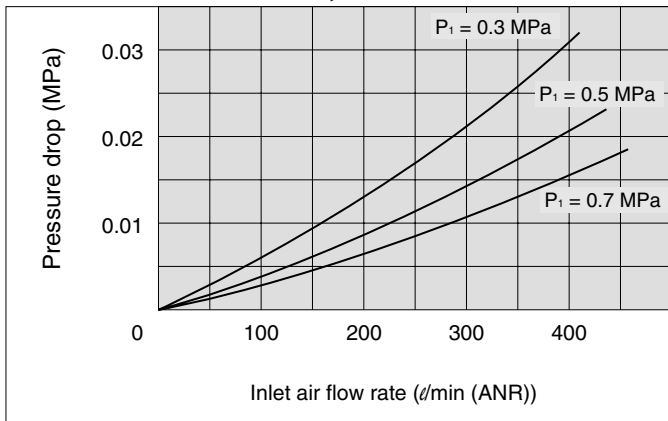
IDG75L (Standard dew point: -40°C), **IDG75S** (Standard dew point: -60°C)



IDG100 (Standard dew point: -20°C), **IDG100H** (Standard dew point: -15°C)



IDG100L (Standard dew point: -40°C), **IDG100S** (Standard dew point: -60°C)



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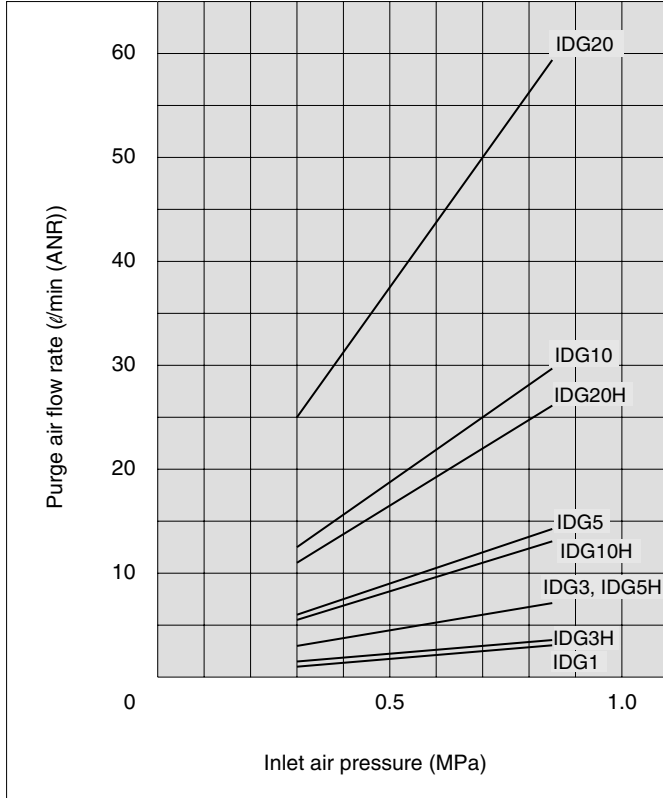
Series IDG

Purge Air Flow Characteristics

Conditions: Inlet air temperature 25°C

IDG1/3/5/10/20 (Standard dew point: -20°C)

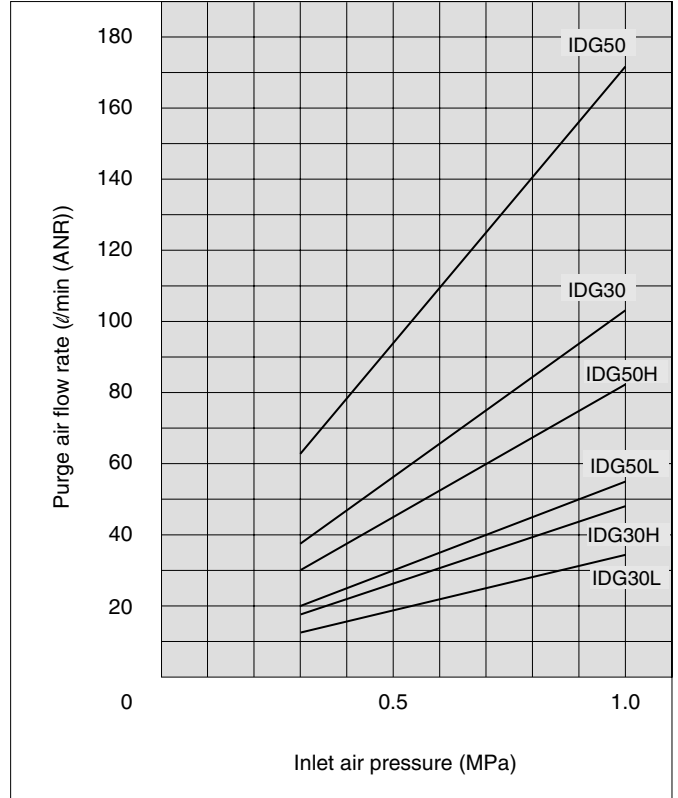
IDG3H/5H/10H/20H (Standard dew point: -15°C)



IDG30/50 (Standard dew point: -20°C)

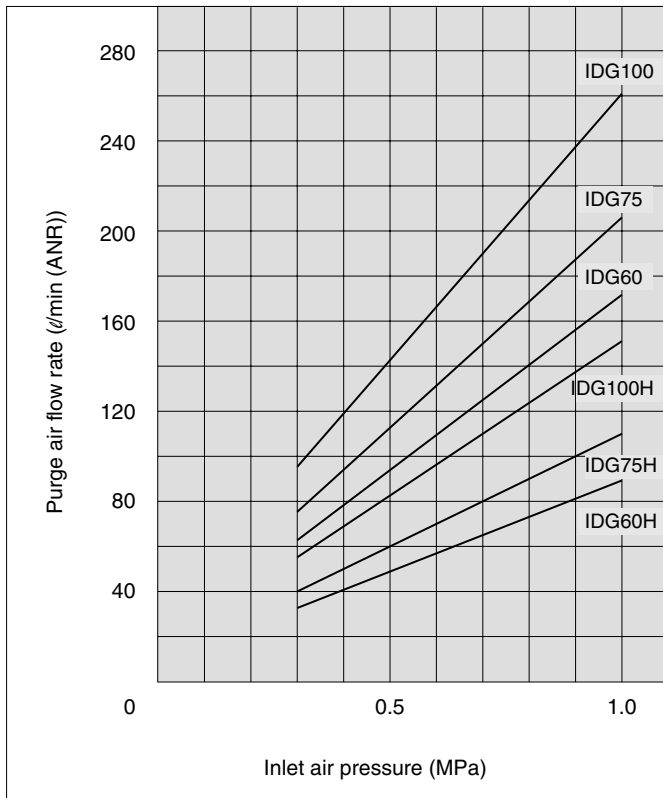
IDG30H/50H (Standard dew point: -15°C)

IDG30L/50L (Standard dew point: -40°C)



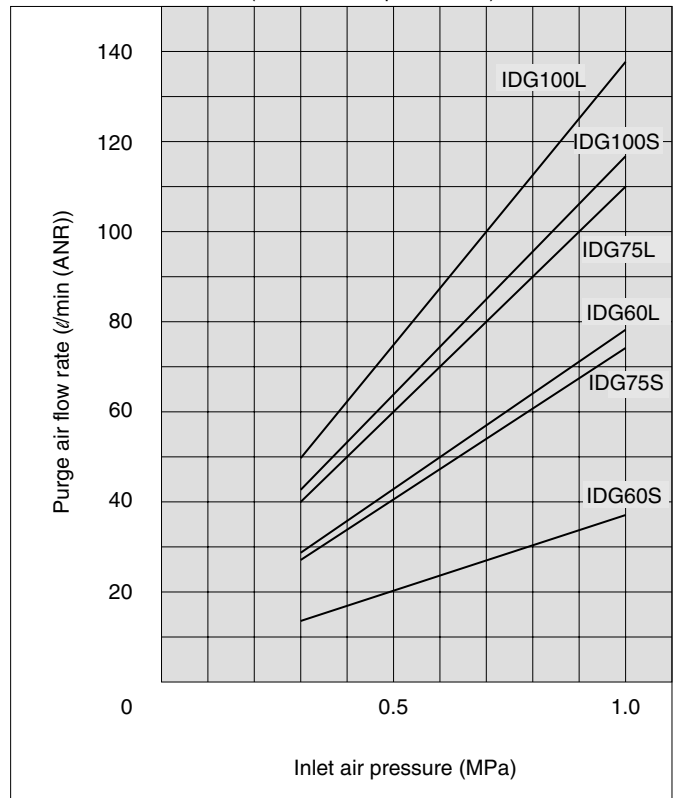
IDG60/75/100 (Standard dew point: -20°C)

IDG60H/75H/100H (Standard dew point: -15°C)



IDG60L/75L/100L (Standard dew point: -40°C)

IDG60S/75S/100S (Standard dew point: -60°C)



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Misc.

Membrane Air Dryer Single Unit Type Series *IDG*

Single Unit/Standard Dew Point -20°C Specifications

How to Order

IDG 10 — **03** —

Flow rate by size

Size	Outlet air flow rate Purge air flow rate	ℓ/min (ANR)
1	10/2.5	
3	25/6	
5	50/12	
10	100/25	
20	200/50	
30	300/75	
50	500/125	
60	600/125	
75	750/150	
100	1000/190	

Thread type

Symbol	Contents
Nil	Rc
N	NPT
F	G

Option

Symbol	Contents	Size									
		1	3	5	10	20	30	50	60	75	100
Nil	None (Standard)	●	●	●	●	●	●	●	●	●	●
P	With fitting for purge air discharge	●	●	●	●	●	●	●	●	●	●
R	Flow direction (Right → Left)	—	●	●	●	●	●	●	●	●	●
S	With dew point indicator	—	●	●	—	—	—	—	—	—	—

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

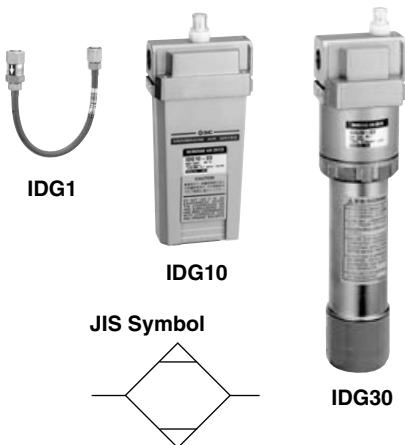
Accessory

Symbol	Contents
Nil	None (Standard)
B	With bracket (Except IDG1)

Note) When symbol B is indicated, a bracket assembly with a part number shown in the table below is included as an accessory.

Port size

Symbol	Bore	Size									
		1	3	5	10	20	30	50	60	75	100
01	1/8	—	●	●	—	—	—	—	—	—	—
02	1/4	●	●	●	●	●	●	—	—	—	—
03	3/8	—	—	—	●	●	●	●	—	—	—
04	1/2	—	—	—	—	—	—	●	●	●	—



Standard Specifications/Single Unit Type (Standard dew point: -20°C)

Model		Standard dew point: -20°C									
		IDG1	IDG3	IDG5	IDG10	IDG20	IDG30	IDG50	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 ($^{\circ}\text{C}$) ⁽¹⁾	-5 to 55					-5 to 50				
	Ambient temperature ($^{\circ}\text{C}$)	-5 to 55					-5 to 50				
Standard performance	Outlet air atmospheric pressure dew point ($^{\circ}\text{C}$)	-20									
Standard performance conditions	Inlet air flow rate (ℓ/min (ANR)) ⁽²⁾	12.5	31	62	125	250	375	625	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)) ⁽³⁾	2.5	6	12	25	50	75	125	125	150	190
	Inlet air pressure (MPa)	0.7									
	Inlet air temperature ($^{\circ}\text{C}$)	25									
	Inlet air saturation temperature ($^{\circ}\text{C}$)	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) (With bracket)		0.11	0.25 (0.31)	0.43 (0.51)	0.66 (0.76)	0.74 (0.87)	0.77 (0.90)	1.50 (1.65)	1.50 (1.65)	1.55 (1.70)	—

Bracket Assembly (Accessory) Part No.

Part no.	Applicable model
BM59	IDG3, 5
BM61	IDG10
BM63	IDG20
BM64	IDG30/50
BM65	IDG60/75/100

* With cap bolts and spring washers

Note 1) No freezing.

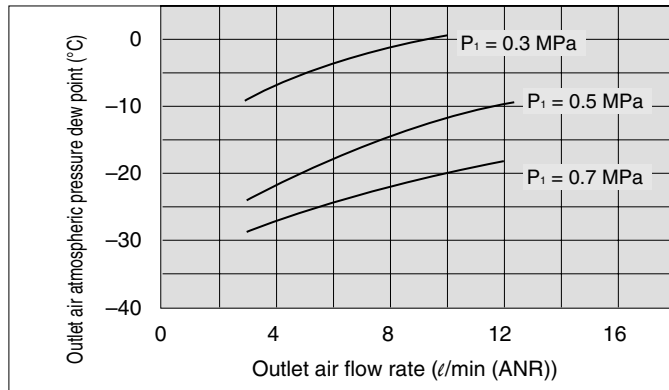
Note 2) ANR indicates the flow rate converted to the value at 20°C under the atmospheric pressure and the state of relative humidity 65%.

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).

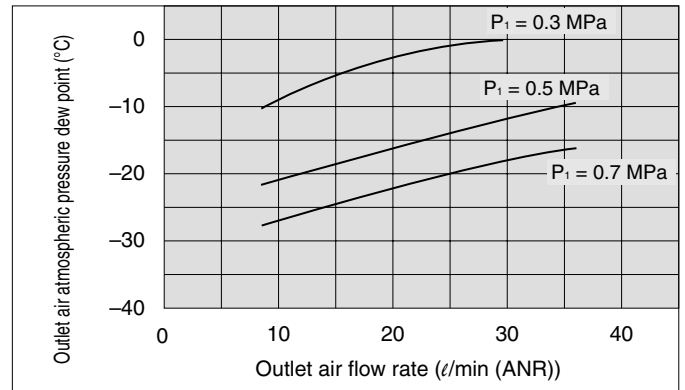
Performance Chart

Conditions: Inlet air temperature 25°C (saturated air), Ambient temperature 25°C, P₁: Inlet air pressure, Tube for purge air discharge (Option: P): None
 Notice: In the case of products with fitting for purge air discharge (Option: P), refer to page 14-19-18.
 Product groups inside parentheses in the graph are classification symbols for selecting a model. (Refer to page 14-19-11.)

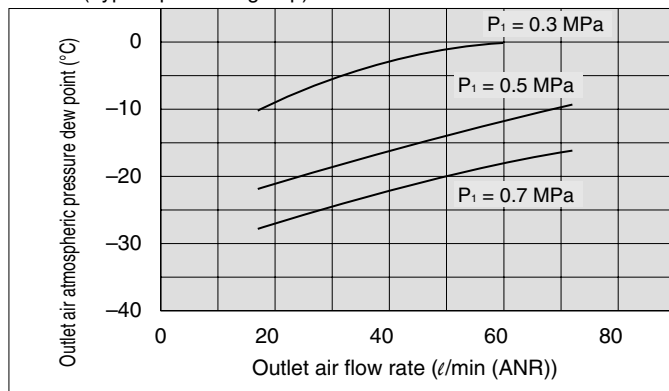
IDG1 (Type A products group)



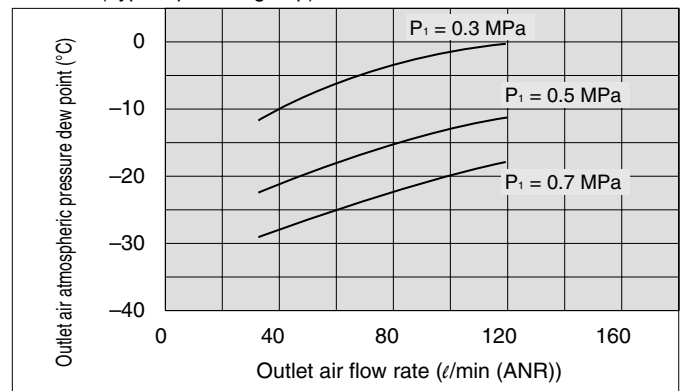
IDG3 (Type A products group)



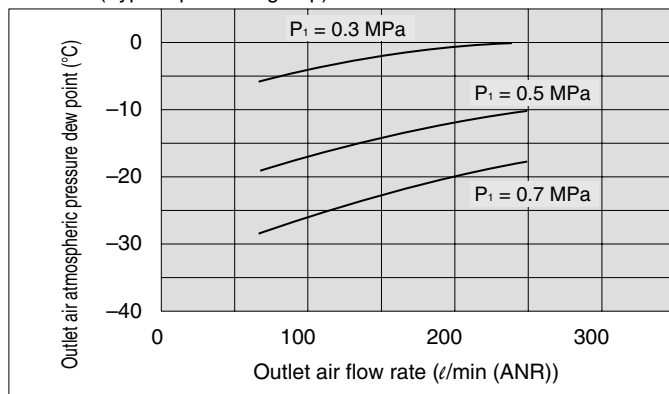
IDG5 (Type A products group)



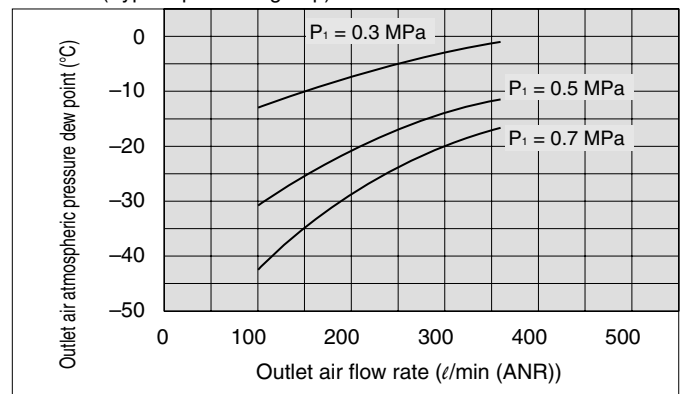
IDG10 (Type A product group)



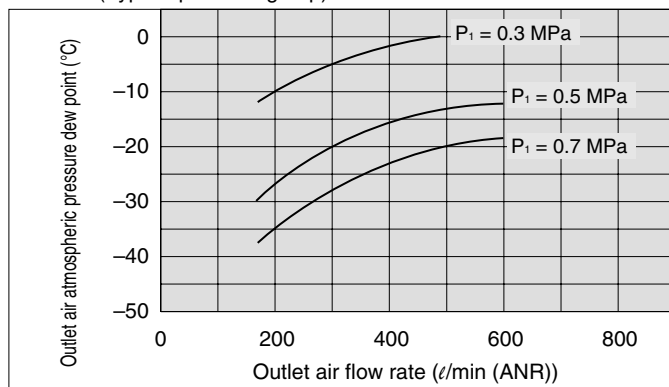
IDG20 (Type A products group)



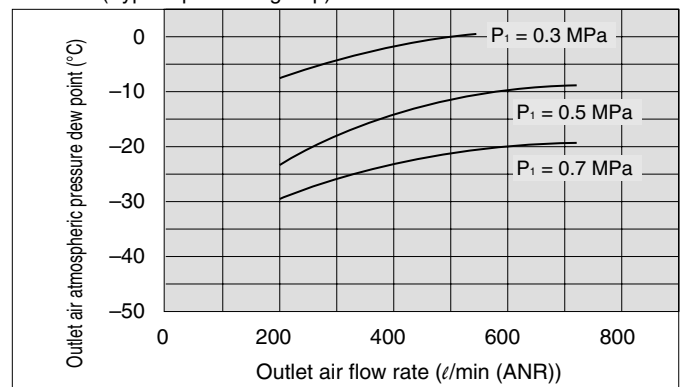
IDG30 (Type B products group)



IDG50 (Type B products group)



IDG60 (Type A products group)



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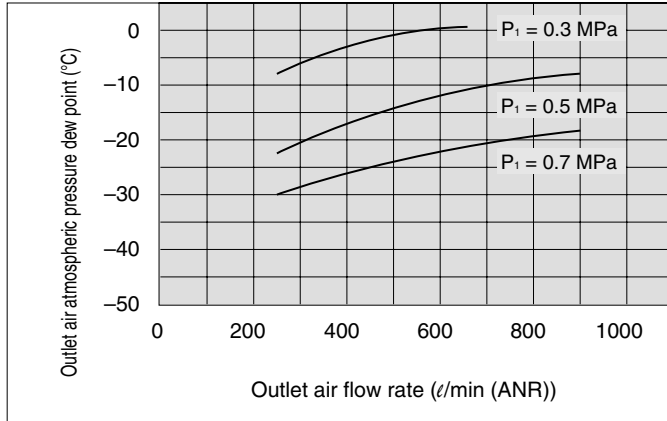
Misc.

Series IDG

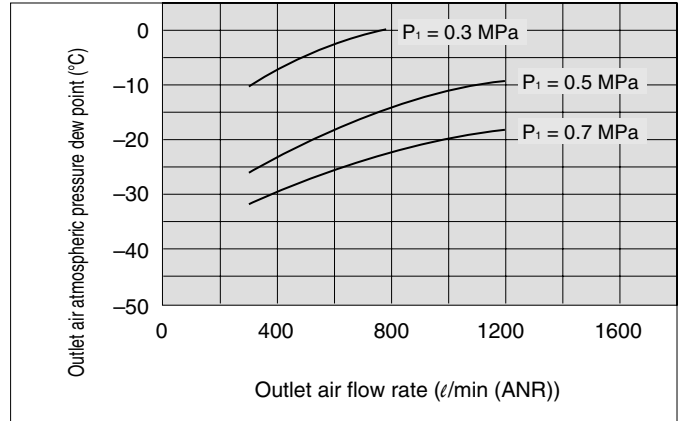
Performance Chart

Conditions: Inlet air temperature 25°C (saturated air), Ambient temperature 25°C, P1: Inlet air pressure

IDG75 (Type A products group)



IDG100 (Type A products group)



With fittings for purge air discharge (Option: P)

As the length of tubing for purge air discharge becomes longer, the outlet air atmospheric pressure dew point becomes higher. Refer to the table below.

Outlet Air at the Atmospheric Pressure Dew point in Compliance with the Tube Length for Discharging the Purged Air (°C)

Tube length	Model	IDG30	IDG50
0 m		-20	
1 m		-19	
3 m		-17	
5 m		-16	

Note) In cases other than above model numbers, if the tube length is 5 m or less, an increase of the outlet air at the atmospheric pressure dew point will be 1°C or less.

Conditions

- Inlet air temperature : 25°C (Saturated)
- Ambient temperature : 25°C
- Inlet air pressure : 0.7 MPa
- Outlet air flow rate : Flow gained under conditions of the standard performance. (Refer to page 14-19-16.)
- Tubing size (O.D. x I.D.) mm: ø12 x ø9

Construction

Refer to pages 14-19-28 to 29.

Dimensions

Refer to pages 14-19-30 to 31.

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Misc.

Single Unit/Standard Dew Point -15°C Specifications

How to Order

IDG 10 H — **03** —

Flow rate by size

Size	Outlet air flow rate Purge air flow rate	ℓ/min(ANR)
3	25/3	
5	50/6	
10	100/11	
20	200/22	
30	300/35	
50	500/60	
60	600/65	
75	750/80	
100	1000/110	

Standard dew point temperature

Symbol	Standard dew point (°C)
H	-15

Thread type

Nil	Rc
N	NPT
F	G

Option

Symbol	Contents	Size									
		3	5	10	20	30	50	60	75	100	
Nil	None (Standard)	●	●	●	●	●	●	●	●	●	
P	With fitting for purge air discharge	●	●	●	●	●	●	●	●	●	
R	Flow direction (Right → Left)	●	●	●	●	●	●	●	●	●	
S	With dew point indicator	●	●								

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

Accessory

Nil	None (Standard)
B	With bracket

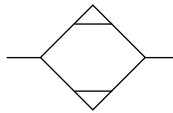
Note) When symbol B is indicated, a bracket assembly with a part number shown in the table below is included as an accessory.

Port size

Symbol	Bore	Size									
		3	5	10	20	30	50	60	75	100	
01	1/8	●	●	—	—	—	—	—	—	—	
02	1/4	●	●	●	●	●	●	—	—	—	
03	3/8	—	—	●	●	●	●	●	—	—	
04	1/2	—	—	—	—	—	—	●	●	●	



JIS Symbol



Standard Specifications/Single Unit Type (Standard dew point: -15°C)

Model		Standard dew point -15°C								
		IDG3H	IDG5H	IDG10H	IDG20H	IDG30H	IDG50H	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) ⁽¹⁾	-5 to 55				-5 to 50				
	Ambient temperature (°C)	-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)) ⁽²⁾	28	56	111	222	335	560	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)) ⁽³⁾	3	6	11	22	35	60	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 the 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) (With bracket)	0.25 (0.31)	0.43 (0.51)	0.66 (0.76)	0.74 (0.87)	0.77 (0.90)	1.50 (1.65)	1.50 (1.65)	1.55 (1.70)	

Note 1) No freezing.

Note 2) ANR indicates the flow rate converted to the value at 20°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).

Bracket Assembly (Accessory) Part No.

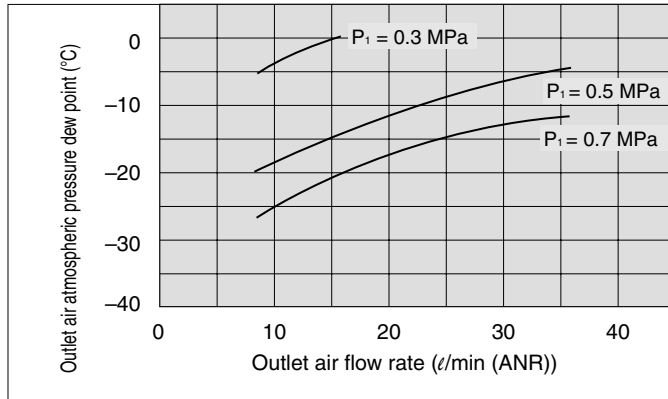
Part no.	Applicable model
BM59	IDG3H/5H
BM61	IDG10H
BM63	IDG20H
BM64	IDG30H/50H
BM65	IDG60H/75H/100H

* With cap bolts and spring washers

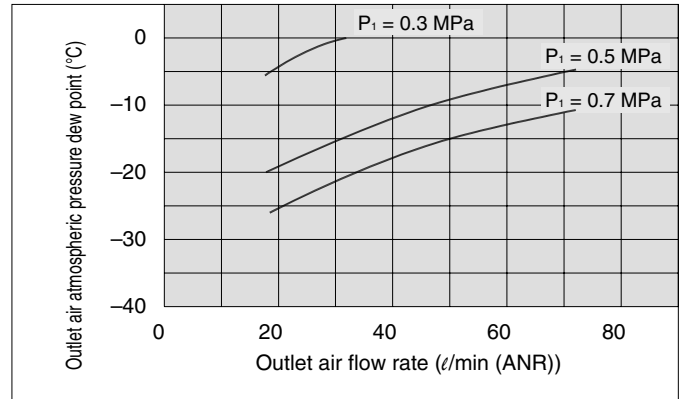
Performance Chart

Conditions: Inlet air temperature 25°C (saturated air), Ambient temperature 25°C, P1: Inlet air pressure, Tube for purge air discharge (Option: P): None
 Notice: When using product with fittings for purge air discharge (Option: P) and if the tube length is 5 m or less, an increase of the outlet air dew point is 1°C or less.
 Product groups inside parentheses in the graph are classification symbols for selecting a model. (Refer to page 14-19-11.)

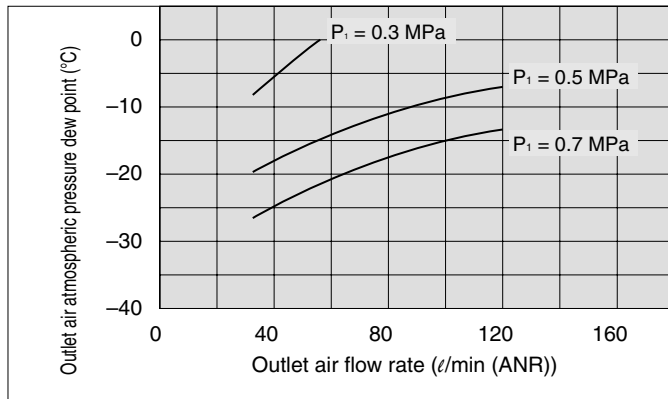
IDG3H (Type A products group)



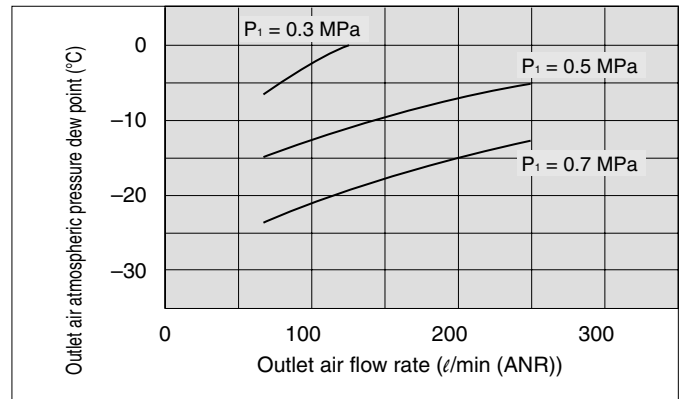
IDG5H (Type A products group)



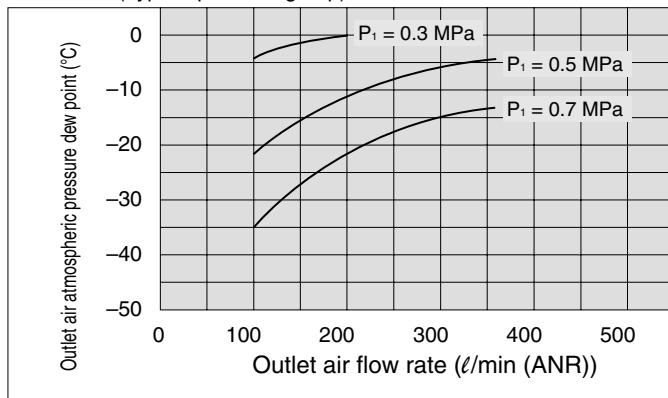
IDG10H (Type A products group)



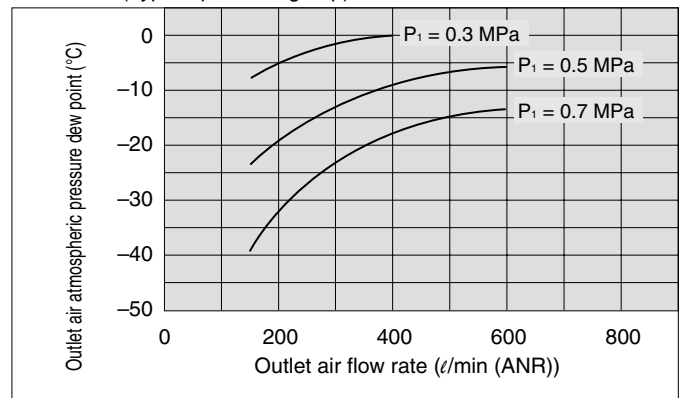
IDG20H (Type A products group)



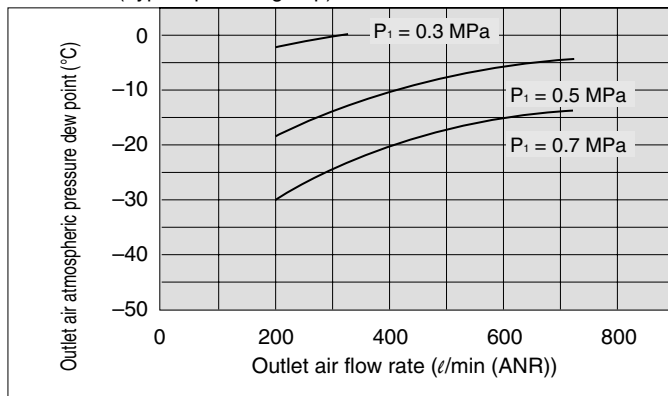
IDG30H (Type B products group)



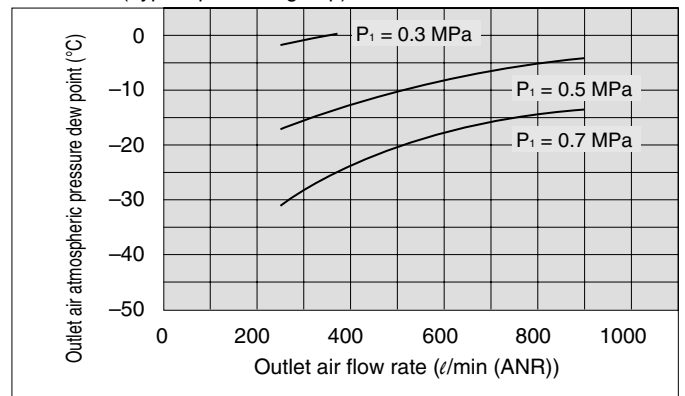
IDG50H (Type B products group)



IDG60H (Type A product group)



IDG75H (Type A products group)



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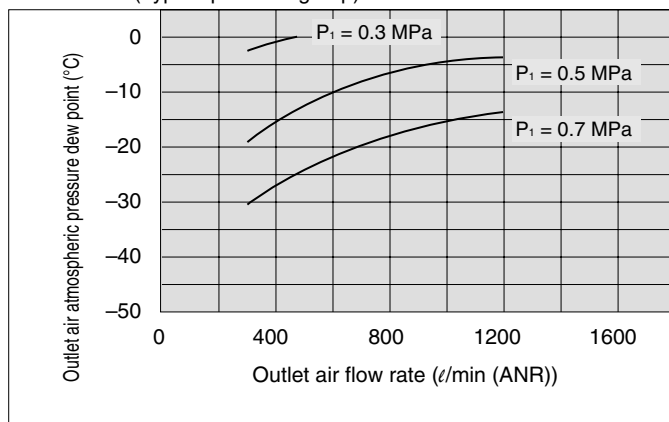
Misc.

Series IDG

Performance Chart

Conditions: Inlet air temperature 25°C (saturated air), Ambient temperature 25°C, P₁: Inlet air pressure, Tube for purge air discharge (Option: P): None
Notice: When using products with fitting for purge air discharge (Option: P) and if the tube length is 5 m or less, an increase of the outlet air dew point is 1°C or less.

IDG100H (Type A products group)



Construction

Refer to pages 14-19-28 to 29.

Dimensions

Refer to pages 14-19-30 to 31.

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Misc.

Single Unit/Standard Dew Point -40°C Specifications

How to Order

IDG **50** L — **03** —

Flow rate by size

Size	Outlet air flow rate Purge air flow rate ($\ell/\text{min}(\text{ANR})$)
30	75/25
50	110/40
60	170/57
75	240/80
100	300/100

Standard dew point temperature

Symbol	Standard dew point (N)
L	-40

Thread type

Nil	Rc
N	NPT
F	G

Port size

Symbol	Bore	Size				
		30	50	60	75	100
02	1/4	●	●	—	—	—
03	3/8	●	●	●	●	●
04	1/2	—	—	●	●	●

Option

Nil	None (Standard)
P	With fitting for purge air discharge
R	Flow direction (Right \rightarrow Left)

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

Accessory

Nil	None (Standard)
B	With bracket

Note) When symbol B is indicated, a bracket assembly with a part number shown in the table below is included as an accessory.

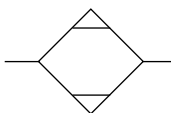


IDG30L



IDG60L

JIS Symbol



Bracket Assembly (Accessory) Part No.

Part no.	Applicable model
BM64	IDG30L/50L
BM65	IDG60L/75L/100L

* With cap bolts and spring washers

Standard Specifications/Single Unit Type (Standard dew point: -40°C)

Model		Standard dew point: -40°C				
		IDG30L	IDG50L	IDG60L	IDG75L	IDG100L
Range of operating conditions	Fluid	Compressed air				
	Inlet air pressure (MPa)	0.3 to 1.0				
	Inlet air temperature ($^{\circ}\text{C}$) ⁽¹⁾	-5 to 50				
	Ambient temperature ($^{\circ}\text{C}$)	-5 to 50				
Standard performance	Outlet air atmospheric pressure dew point ($^{\circ}\text{C}$)	-40				
	Inlet air flowrate ($\ell/\text{min}(\text{ANR})$) ⁽²⁾	100	150	227	320	400
Standard performance conditions	Outlet air flowrate ($\ell/\text{min}(\text{ANR})$)	75	110	170	240	300
	Purge air flowrate ($\ell/\text{min}(\text{ANR})$) ⁽³⁾	25	40	57	80	100
	Inlet air pressure (MPa)	0.7				
	Inlet air temperature ($^{\circ}\text{C}$)	25				
	Inlet air saturation temperature ($^{\circ}\text{C}$)	25				
	Ambient temperature ($^{\circ}\text{C}$)	25				
Dew point indicator purge air flow rate		1 ℓ/min (ANR) {In the case of Inlet air pressure 0.7 MPa}				
Port size (Nominal size B)		1/4, 3/8		3/8, 1/2		
Weight (kg) (With bracket)		0.74 (0.87)	0.77 (0.90)	1.50 (1.65)	1.65 (1.80)	1.80 (1.95)

Note 1) No freezing.

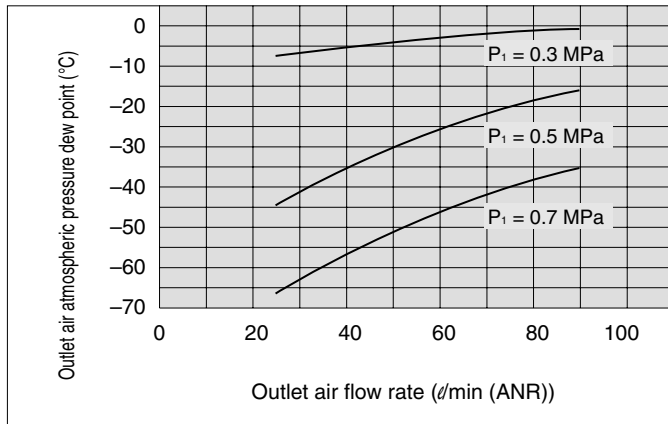
Note 2) ANR indicates the flow rate converted to the value at 20°C under the atmospheric pressure and the state of relative humidity 65%.

Note 3) Includes 1 ℓ/min (ANR) of purge air flow (at 0.7 MPa inlet air pressure) for the dew point indicator.

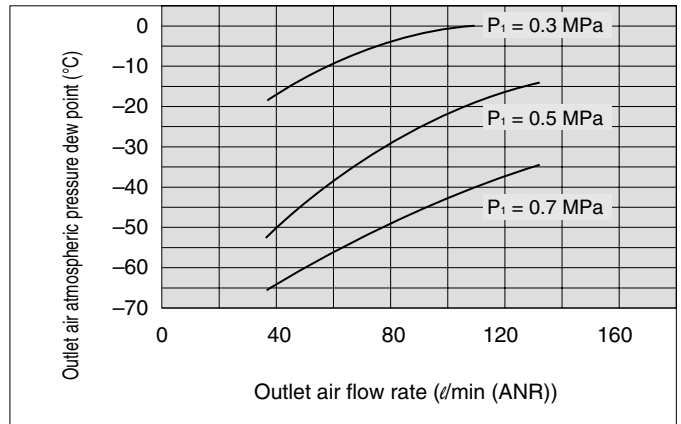
Performance Chart

Conditions: Inlet air temperature 25°C (saturated air), Ambient temperature 25°C P_i: Inlet air pressure, Tube for purge air discharge (Option: P): None
Product groups inside parentheses in the graph are classification symbols for selecting a model. (Refer to page 14-19-11.)

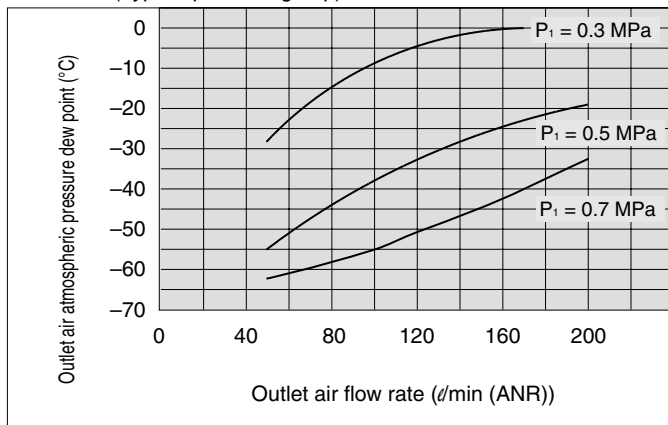
IDG30L (Type B products group)



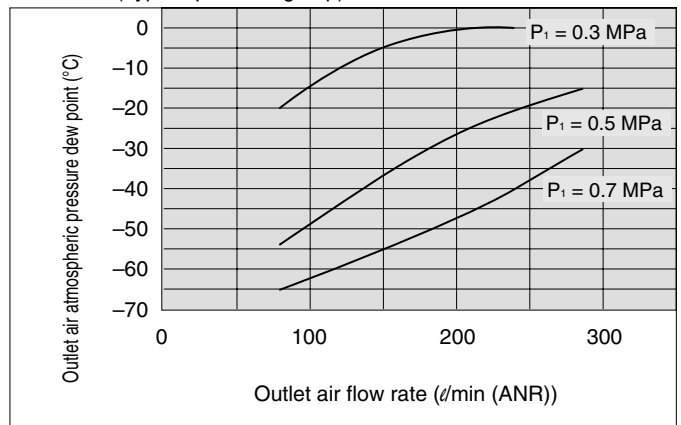
IDG50L (Type B products group)



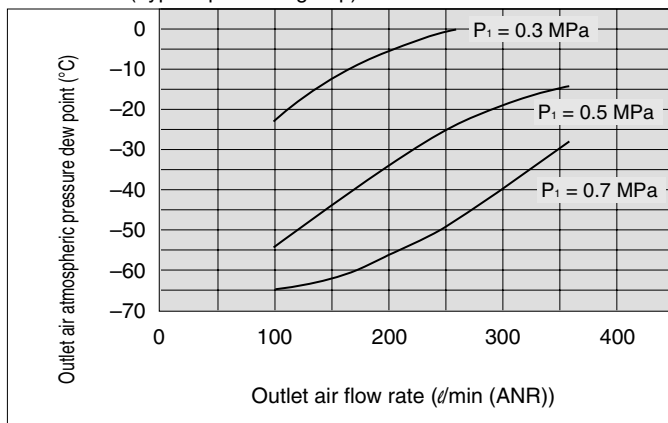
IDG60L (Type B products group)



IDG75L (Type B products group)



IDG100L (Type B products group)



Construction

Refer to pages 14-19-28 to 29.

Dimensions

Refer to pages 14-19-30 to 31.

With fitting for purge air discharge (Option: P)

As the length of tubing for purge air discharge becomes longer, the outlet air atmospheric pressure dew point becomes higher. Refer to the table below.

Outlet Air at the Atmospheric Pressure Dew point in Compliance with the Tube Length for Discharging the Purged Air (°C)

Tube length	Model	IDG30L	IDG50L
0 m		-40	
1 m		-39	
3 m		-38	
5 m			

Note) In cases other than above model numbers, if the tube length is 5 m or less, an increase of the outlet air at the atmospheric pressure dew point will be 1°C or less.

■ Conditions

Inlet air temperature : 25°C (Saturated)
Ambient temperature : 25°C
Inlet air pressure : 0.7 MPa
Outlet air flow rate : Flow gained under conditions of the standard performance. (Refer to page 14-19-24.)
Tubing size (O.D. x I.D.) mm: ø12 x ø9

HA

AT

ID

AMG

AFF

AM

Misc.

Single Unit/Standard Dew Point –60°C Specifications

How to Order

IDG 60 S — 03 B

Flow rate by size

Size	Outlet air flow rate Purge air flow rate (#/min(ANR))
60	50/27
75	100/54
100	150/85

Standard dew point temperature

Symbol	Standard dew point (°C)
S	-60

Thread type

Nil	Rc
N	NPT
F	G

Port size

Symbol	Bore	Size		
		60	75	100
03	3/8	●	●	●
04	1/2	●	●	●

Option

Nil	None (Standard)
P	With fitting for purge air discharge
R	Flow direction (Right → Left)

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

Accessory

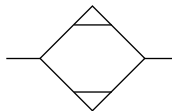
Nil	None (Standard)
B	With bracket

Note) When symbol B is indicated, a bracket assembly with a part number shown in the table below is included as an accessory.



IDG60S

JIS Symbol



Bracket Assembly (Accessory) Part No.

Part no.	Applicable model
BM65	IDG60S/75S/100S

* With cap bolts and spring washers

Standard Specifications/Single Unit Type (Standard dew point: –60°C)

Model		Standard dew point: –60°C		
		IDG60S	IDG75S	IDG100S
Range of operating conditions	Fluid	Compressed air		
	Inlet air pressure (MPa)	0.3 to 1.0		
	Inlet air temperature (°C) ⁽¹⁾	– 5 to 50		
	Ambient temperature (°C)	– 5 to 50		
Standard performance	Outlet air atmospheric pressure dew point (°C)	– 60		
Standard performance conditions	Inlet air flow rate (#/min(ANR)) ⁽²⁾	77	154	235
	Outlet air flow rate (#/min(ANR))	50	100	150
	Purge air flow rate (#/min(ANR)) ⁽³⁾	27	54	85
	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 the case of Inlet air pressure 0.7 MPa}		
Port size (Nominal size B)		3/8, 1/2		
Weight (kg) (With bracket)		1.50 (1.65)	1.65 (1.80)	1.80 (1.95)

Note 1) No freezing.

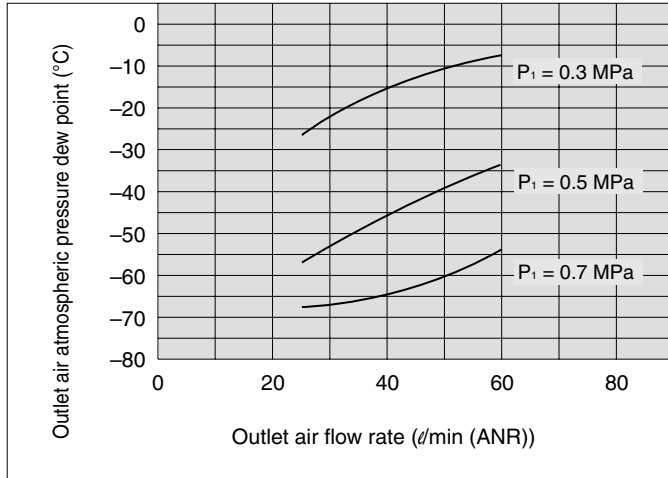
Note 2) ANR indicates the flow rate converted to the value at 20°C under the atmospheric pressure and the state of relative humidity 65%.

Note 3) Includes 1 ℓ/min (ANR) of purge air flow (at 0.7 MPa inlet air pressure) for the dew point indicator.

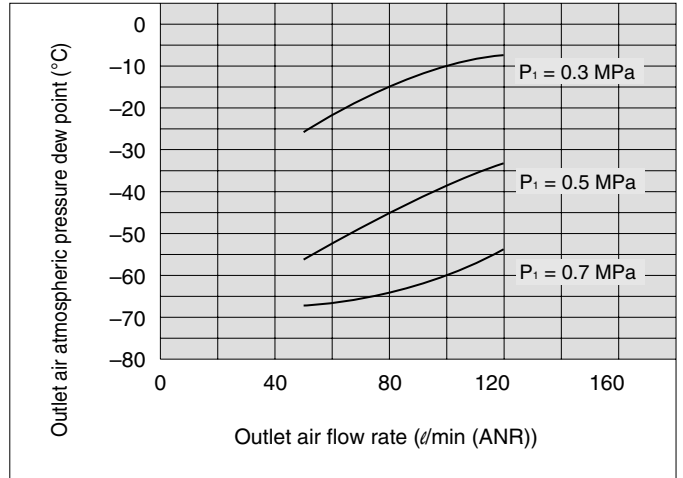
Performance Chart

Conditions: Inlet air temperature 25°C (saturated air), Ambient temperature 25°C, P1: Inlet air pressure, Tube for purge air discharge (Option: P): None
 Notice: When using products with fitting for purge air discharge (Option: P) and if the tube length is 5 m or less, an increase of the outlet air dew point is 1°C or less. Product groups inside parentheses in the graph are classification symbols for selecting a model. (Refer to page 14-19-11.)

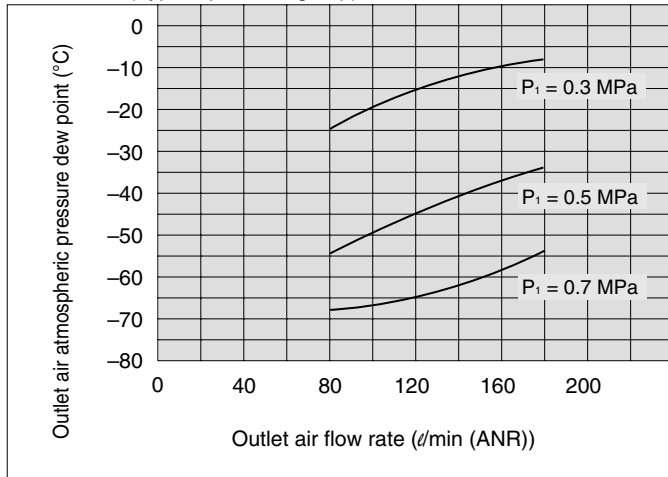
IDG60S (Type B products group)



IDG75S (Type B products group)



IDG100S (Type B products group)

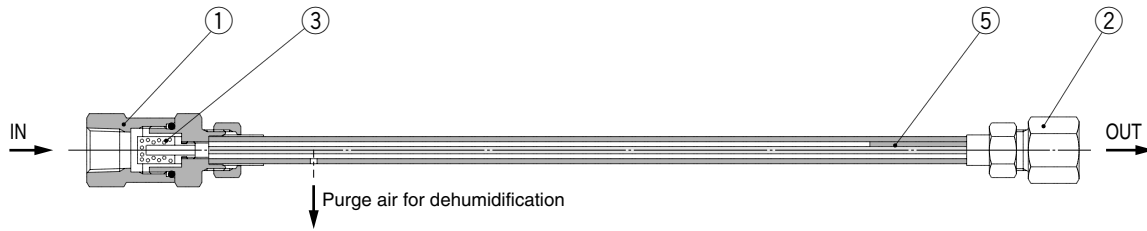


- HA
- AT
- ID**
- AMG
- AFF
- AM
- Misc.

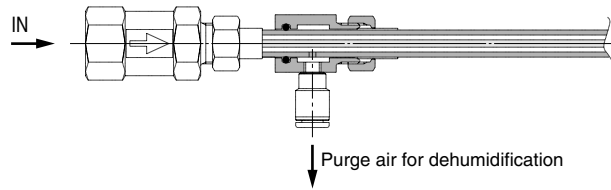
Series IDG

Construction

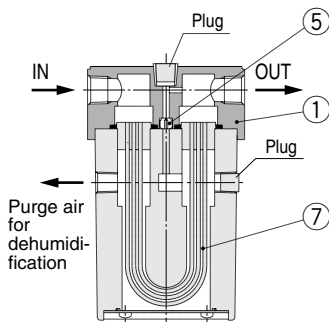
IDG1



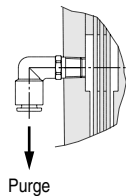
Option specifications With fitting for purge air discharge (Option: P)



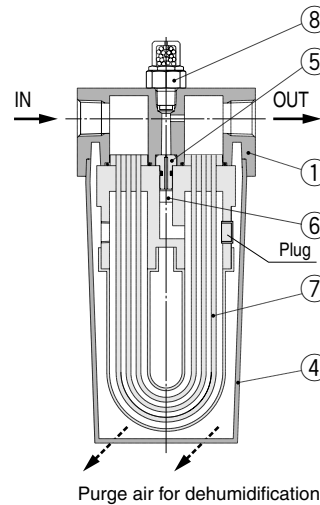
IDG3/5 IDG3H/5H



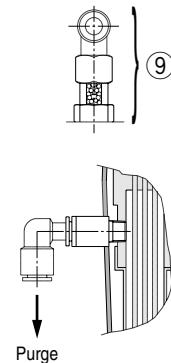
Option specifications With fitting for purge air discharge (Option: P)



IDG10/20 IDG10H/20H



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



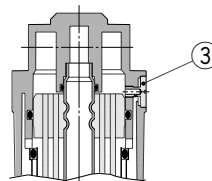
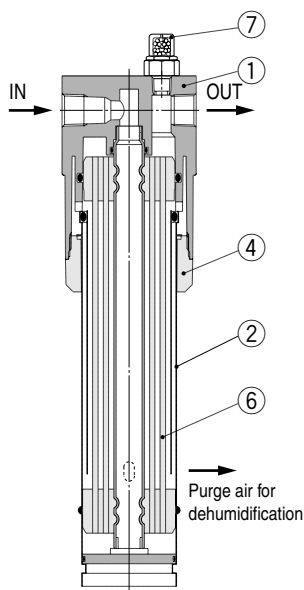
Component Parts

No.	Description	Material					Note
		IDG1	IDG3/3H	IDG5/5H	IDG10/10H	IDG20/20H	
①	Body	Copper alloy	Aluminum alloy			Platinum silver coated (IDG1 is electroless nickel plated.)	
②	Female connector	Copper alloy	—			Electroless nickel plated	
③	Strainer	Copper alloy	—				
④	Case	—	Resin				
⑤	Orifice	Resin	Stainless steel			IDG3H is resin.	
⑥	Silencer	—	Copper alloy				

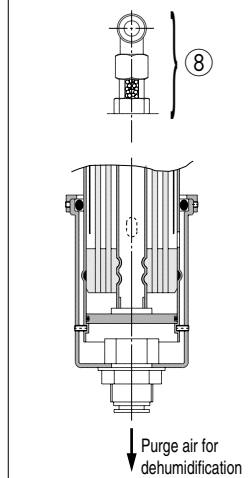
Replacement Parts

No.	Description	Part no.					Note
		IDG1	IDG3/3H	IDG5/5H	IDG10/10H	IDG20/20H	
⑦	Membrane module kit	—	IDG-EL3 IDG-EL3H	IDG-EL5 IDG-EL5H	IDG-EL10 IDG-EL10H	IDG-EL20 IDG-EL20H	
⑧	Dew point indicator kit	—	IDG-DP01 (Option: S)		IDG-DP01		
⑨		—	IDG-DP01-X001 (Option: PS)		IDG-DP01-X001 (Option: P)		

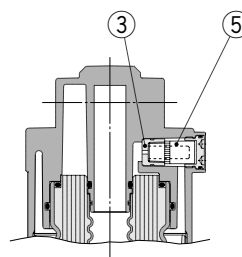
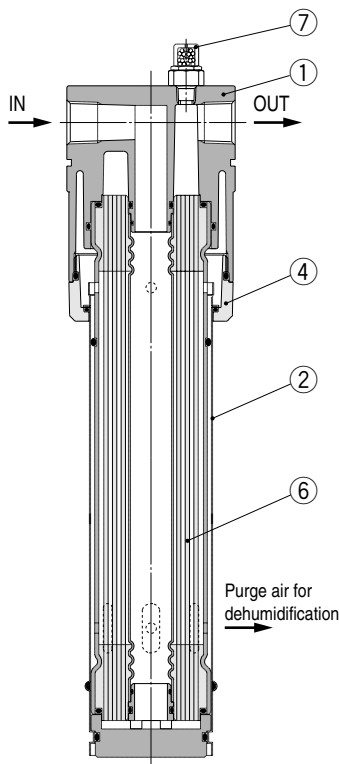
IDG30/50
IDG30H/50H
IDG30L/50L



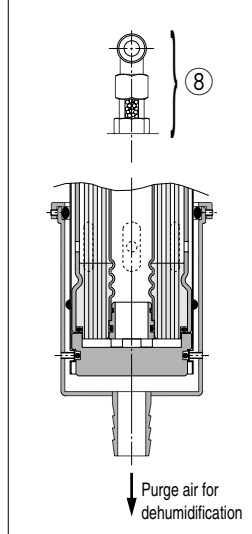
Option specifications
With fitting for purge air discharge
(Option: P)



IDG60/75/100
IDG60H/75H/100H
IDG60L/75L/100L
IDG60S/75S/100S



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



Component Parts

No.	Description	Material					Note
		IDG30/30H/30L	IDG50/50H/50L	IDG60/60H/60L/60S	IDG75/75H/75L/75S	IDG100/100H/100L/100S	
①	Body	Aluminum alloy					Platinum silver coated
②	Case	Stainless steel					
③	Orifice	Stainless steel					
④	Holder	Aluminum alloy		Aluminum			
⑤	Silencer	—		Resin + Copper alloy			

Replacement Parts

No.	Description	Part no.					Note
		IDG30/30H/30L	IDG50/50H/50L	IDG60/60H/60L/60S	IDG75/75H/75L/75S	IDG100/100H/100L/100S	
⑥	Membrane module kit	IDG-EL30	IDG-EL50	IDG-EL60 IDG-EL60L	IDG-EL75 IDG-EL75L	IDG-EL100 IDG-EL100L	
⑦	Dew point indicator kit	IDG-DP01					
⑧		IDG-DP01-X001					Option: P

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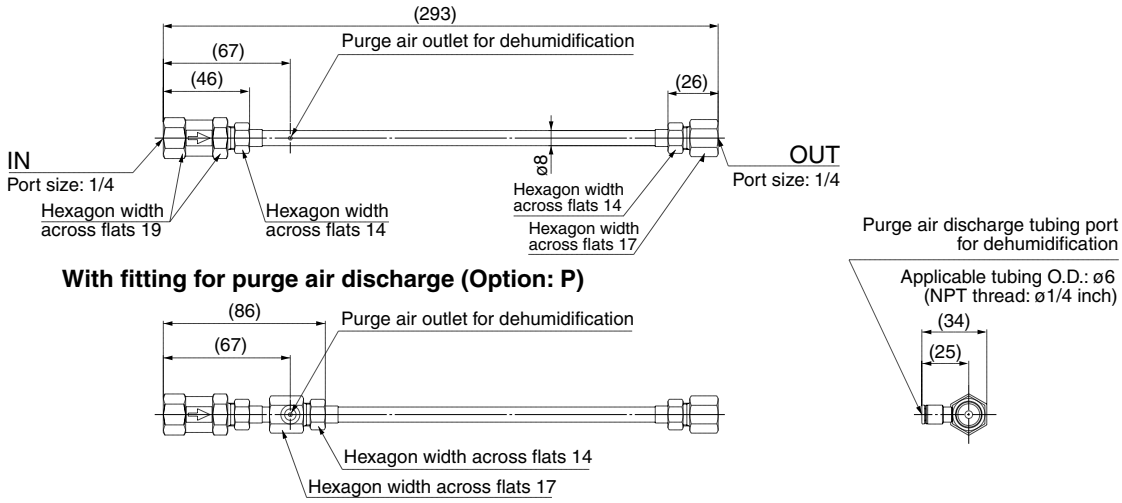
AM

Misc.

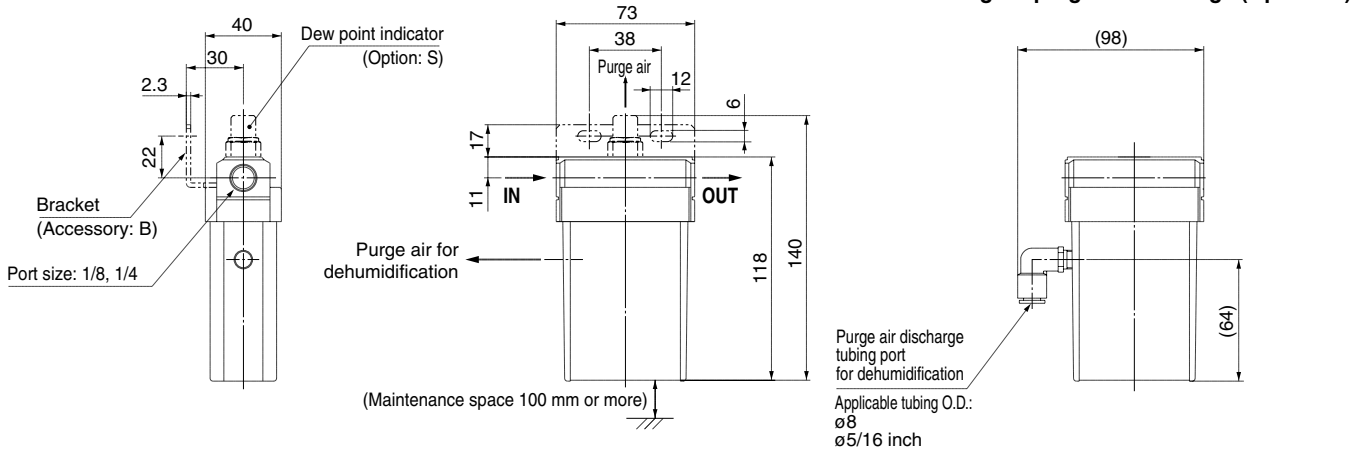
Series IDG

Dimensions

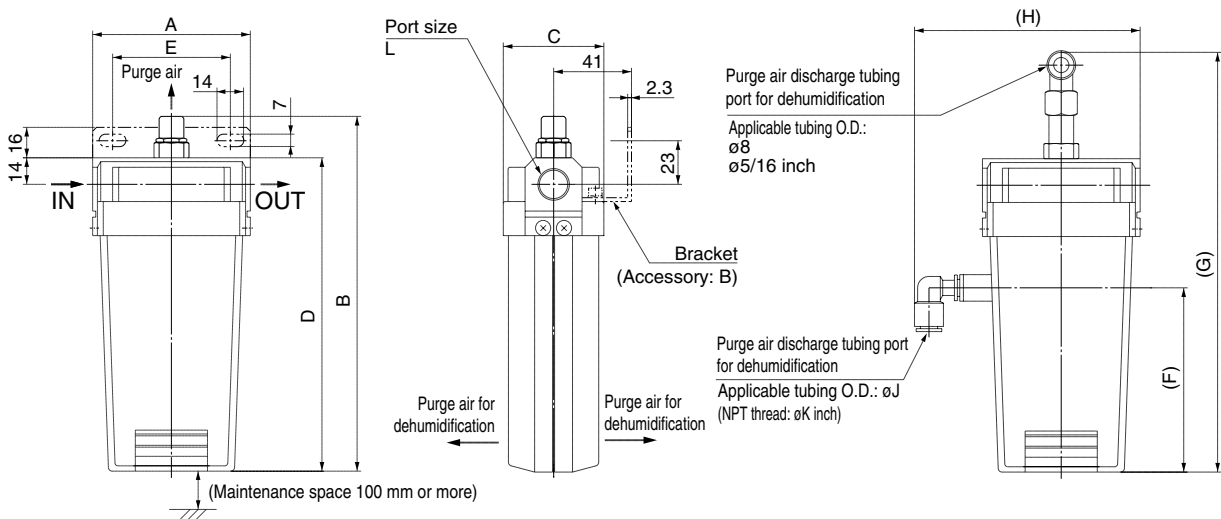
IDG1



IDG3, 5 IDG3H, 5H



IDG10, 20 IDG10H, 20H

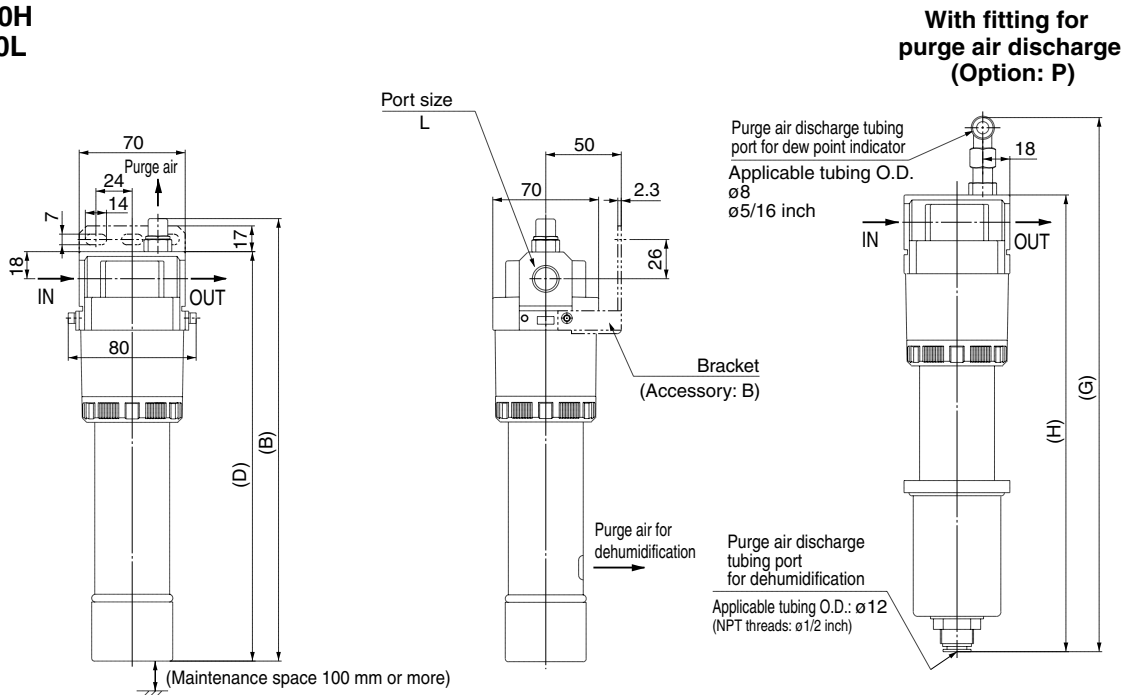


Model	Port size L	A	B	C	D	E	Option: P				
							F	G	H	J	K
IDG10/10H	1/4, 3/8	83	187	53	165	62	97	224	119 [126]	8	5/16
IDG20/20H		113	212	54	190	82	114	249	147 [154]	10	3/8

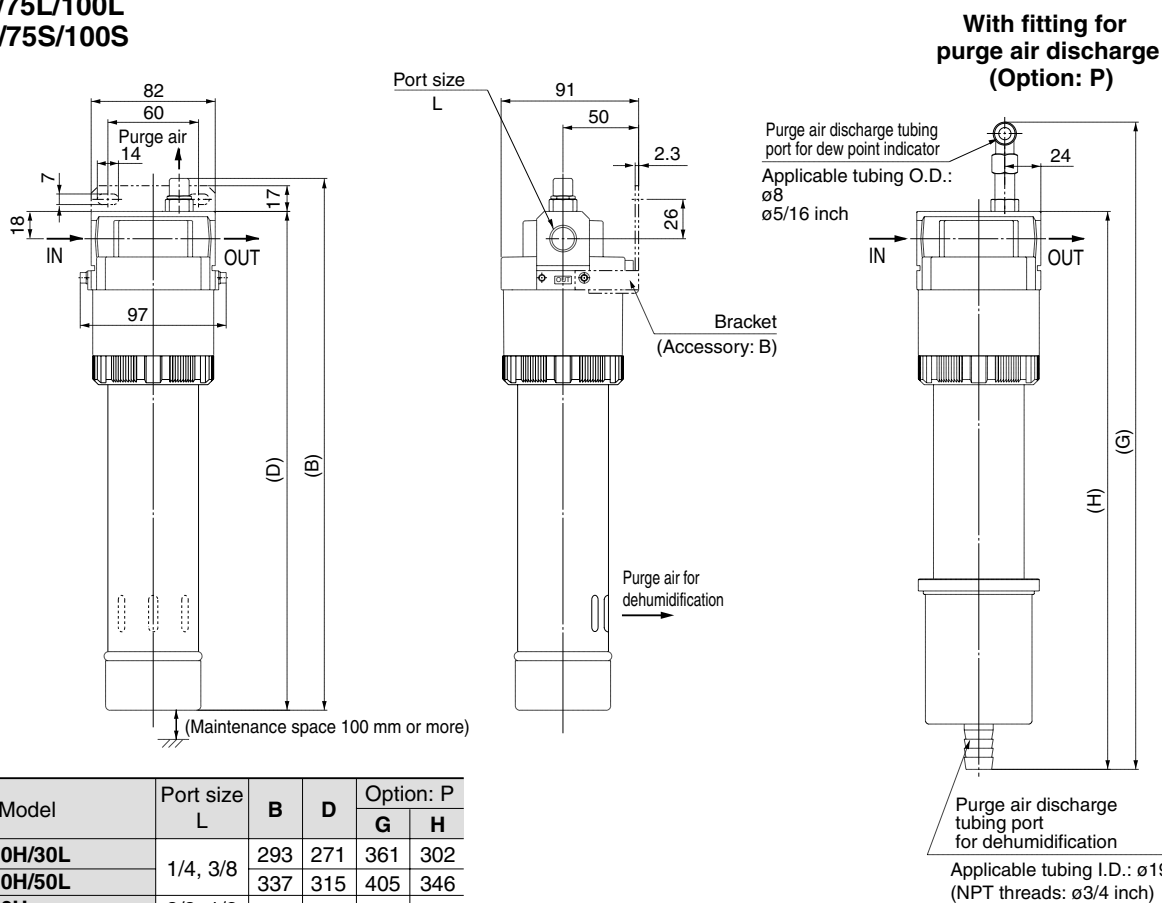
Values inside [] are for NPT threads.

Membrane Air Dryer Single Unit Type **Series IDG**

**IDG30/50
IDG30H/50H
IDG30L/50L**



**IDG60/75/100
IDG60H/75H/100H
IDG60L/75L/100L
IDG60S/75S/100S**



Model	Port size L	B	D	Option: P	
				G	H
IDG30/30H/30L	1/4, 3/8	293	271	361	302
IDG50/50H/50L		337	315	405	346
IDG60/60H	3/8, 1/2	352	330	428	369
IDG75/75H/100/100H	1/2				
IDG60L/60S	3/8, 1/2	392	370	468	409
IDG75L/75S		472	450	548	489
IDG100L/100S		542	520	618	559

- HA
- AT
- ID
- AMG
- AFF
- AM
- Misc.

Membrane Air Dryer Unit Type Series *IDG*

Units (Type M, Type V)

How to Order

IDG 30 M 03

Size

3
5
10
20
30
50
60
75
100

Option *

Symbol	Contents	Size									
		3	5	10	20	30	50	60	75	100	
Nil	Standard	●	●	●	●	●	●	●	●	●	
P ⁽¹⁾	With fitting for purge air discharge	●	●	●	●	●	●	●	●	●	
R	Flow direction (Right → Left)	●	●	●	●	●	●	●	●	●	
S	With dew point indicator	●	●	Standard equipment							

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

Note 1) Symbol P is only applicable for Type M with either auto-drain or drain-guide. Type V is not applicable because it is equipped with a relief type regulator. (Symbol P is used when it is undesirable for the air to be discharged into the main body of IDG. Therefore, it is not possible to use it in combination with a separator with manual valve, which discharges air around it, or Type V with a relief type regulator.)

Note 2) They are not applicable in case the thread type is N or F. (Because barrel nipples are used for equipment connections.)

Standard dew point temperature and air flow rate

Symbol	Standard dew point (°C)	Flow rate by size								Outlet air flow rate		
		3	5	10	20	30	50	60	75	100	Purge air flow rate	(μ /min(ANR))
Nil	-20	25/6	50/12	100/2	200/5	300/7	500/12	600/12	750/15	1000/19		
H	-15	25/3	50/6	100/1	200/2	300/3	500/6	600/6	750/8	1000/11		
L	-40	—	—	—	—	75/2	110/4	170/5	240/8	300/10		
S	-60	—	—	—	—	—	—	50/27	100/5	150/85		

Drain discharge method *

(Mist separator, Micro mist separator, Micro mist separator with prefilter)

Symbol	Drain discharge method	Size and standard dew point				
		3, 3H 5, 5H	10, 10H 20, 20H	30, 30H, 30L 50, 50H, 50L	60, 60H 75, 75H 100, 100H	60L, 60S 75L, 75S 100L, 100S
Nil	Manual valve	●	●	●	●	●
C ^{Note)}	N.C. auto-drain	●	●	●	—	●
D ^{Note)}	N.O. auto-drain	—	—	●	●	●
J	Drain guide (Bore 1/4 without valve)	—	●	●	●	●

* For the model selection of an auto-drain, refer to "Selection" 4 of Precautions on page 14-19-7.

Note) When the symbol C or D is designated, the same part number of an auto-drain listed on page 14-19-33 will come together.

Component equipment

Symbol	Contents	Description Model	Mist separator	Micro mist separator	Micro mist separator with pre-filter	Membrane air dryer	Regulator
M	With separator	IDG3 to IDG50	●	●	—	●	—
		IDG3H to IDG50H	●	●	—	●	—
		IDG30L, IDG50L	●	●	—	●	—
		IDG60 to IDG100	—	—	●	●	—
		IDG60H to IDG100H	—	—	●	●	—
		IDG60L to IDG100L	●	●	—	●	—
		IDG60S to IDG100S	●	●	—	●	—
V	With separator regulator	IDG3 to IDG50	●	●	—	●	●
		IDG3H to IDG50H	●	●	—	●	●
		IDG30L, IDG50L	●	●	—	●	●
		IDG60 to IDG100	—	—	●	●	●
		IDG60H to IDG100H	—	—	●	●	●
		IDG60L to IDG100L	●	●	—	●	●
		IDG60S to IDG100S	●	●	—	●	●

Note 1) Element service indicator is also available. Refer to "Made to Order Specifications" on page 14-19-48.

Note 2) Specifications with micro mist separator is also available. Refer to "Made to Order Specifications" on page 14-19-50.

Port size

Symbol	Bore	Size								
		3	5	10	20	30	50	60	75	100
01	1/8	●	●	—	—	—	—	—	—	—
02	1/4	●	●	●	●	●	—	—	—	—
03	3/8	—	—	●	●	●	●	●	Note)	Note)
04	1/2	—	—	—	—	—	—	●	●	●

Note) Not applicable in the cases of standard dew point -20°C (Nil), -15°C (symbol H).

Thread type

Nil	Rc
N	NPT
F	G

Standard Specifications/Unit (Type M, Type V) [Standard dew point: -20°C]

Model		Standard dew point: -20°C								
		IDG3M	IDG5M	IDG10M	IDG20M	IDG30M	IDG50M	IDG60M	IDG75M	IDG100M
		IDG3V	IDG5V	IDG10V	IDG20V	IDG30V	IDG50V	IDG60V	IDG75V	IDG100V
Component equipment	Mist separator	AFM20		AFM30		AFM40		—		
	Micro mist separator	AFD20		AFD30		AFD40		—		
	Micro mist separator with prefilter	—		—		—		AMH350	AMH450	
	Regulator (Type V only) ⁽¹⁾	AR20 ⁽²⁾		AR25 ⁽²⁾		AR40 ⁽²⁾				
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)	-5 to 55 ⁽³⁾				-5 to 50 ⁽³⁾		5 to 50		
	Ambient temperature (°C)	-5 to 55				-5 to 50		5 to 50		
Standard performance	Outlet air atmospheric pressure dew point (°C)	-20								
	Standard performance conditions									
Standard performance conditions	Inlet air flow rate (ℓ/min (ANR)) ⁽⁴⁾	31	62	125	250	375	625	725	900	1190
	Outlet air flow rate (ℓ/min (ANR))	25	50	100	200	300	500	600	750	1000
	Purge air flow rate (ℓ/min (ANR)) ⁽⁵⁾	6	12	25	50	75	125	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 the case of Inlet air pressure 0.7 MPa}								
Regulator construction (Type V only)		Relief type								
Port size (Nominal size B)		1/8, 1/4		1/4, 3/8			3/8, 1/2		1/2	
Weight (kg) (With auto-drain)	Type M	0.83 (0.90)		1.21 (1.30)	1.44 (1.53)	2.23 (2.33)	2.26 (2.36)	2.55 (2.65)	3.10 (3.20)	3.15 (3.25)
	Type V	1.28 (1.35)		1.67 (1.76)	1.90 (1.99)	3.34 (3.45)	3.37 (3.48)	3.74 (3.84)	4.29 (4.39)	4.34 (4.44)

Note 1) For flow characteristics and pressure characteristics of regulator, refer to page 14-4-37.

Note 2) It will come with Option E (With square-shaped, embedded type of a pressure regulator). For details on regulators, refer to pages 14-4-35 to 14-4-40.

Note 3) No freezing.

Note 4) ANR indicates the flow rate converted to the value at 20°C under the atmospheric pressure and the state of relative humidity 65%.

Note 5) Includes 1 ℓ/min (ANR) of purge air flow (at 0.7 MPa inlet air pressure) for the dew point indicator (except IDG3M/3V/5M/5V).

Note 6) When highly purified air is required, refer to "Caution on Design" on page 14-19-7.



IDG10V

IDG30V

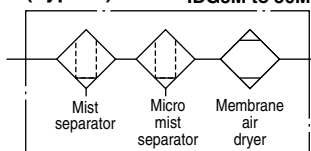


IDG60M

JIS Symbol

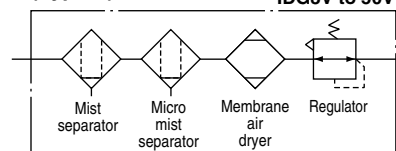
(Type M)

IDG3M to 50M

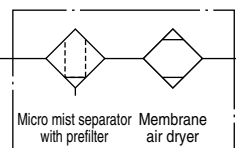


(Type V)

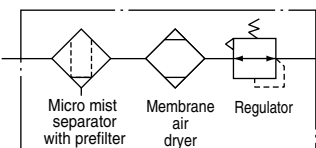
IDG3V to 50V



IDG60M to 100M



IDG60V to 100V



Auto-drain, Bowl Assembly, Pressure Gauge Part No.

Description	Applicable models		IDG3M	IDG5M	IDG10M	IDG20M	IDG30M	IDG50M	IDG60M	IDG75M	IDG100M
	IDG3V	IDG5V	IDG3V	IDG5V	IDG10V	IDG20V	IDG30V	IDG50V	IDG60V	IDG75V	IDG100V
Float type auto-drain	N.C.	AD27		AD37		AD47		—		—	
	N.O.	—		—		AD48		—		—	
Bowl assembly (N.O.)	—		—		—		—		AMH-CA350-D		AMH-CA450-D
Pressure gauge (Type V only)	GC30-10										

Replacement Parts (Mist separator, Micro mist separator, Element for micro mist separator with prefilter)

Description	Model	AFM20	AFD20	AFM30	AFD30	AFM40	AFD40	AMH350	AMH450
Element assembly		630611	63092	630617	63093	630623	63094	AMH-EL350	AMH-EL450

Please refer to pages 14-19-28 to 14-19-29 for the replacement parts of a membrane air dryer.

● For flow characteristics, refer to pages 14-19-37 to 14-19-38, and for external dimensions, refer to pages 14-19-39 to 14-19-47.

Series IDG

Standard Specifications/Unit (Type M, Type V) [Standard dew point: -15°C]

Model		Standard dew point: -15°C									
		IDG3HM	IDG5HM	IDG10HM	IDG20HM	IDG30HM	IDG50HM	IDG60HM	IDG75HM	IDG100HM	
		IDG3HV	IDG5HV	IDG10HV	IDG20HV	IDG30HV	IDG50HV	IDG60HV	IDG75HV	IDG100HV	
Component equipment	Mist separator	AFM20		AFM30		AFM40		—			
	Micro mist separator	AFD20		AFD30		AFD40		—			
	Micro mist separator with prefilter	—		—		—		AMH350	AMH450		
	Regulator (Type V only) ⁽¹⁾	AR20 ⁽²⁾		AR25 ⁽²⁾		AR40 ⁽²⁾					
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)	-5 to 55 ⁽³⁾				-5 to 50 ⁽³⁾		5 to 50			
	Ambient temperature (°C)	-5 to 55				-5 to 50		5 to 50			
Standard performance conditions	Outlet air atmospheric pressure dew point (°C)	-15									
	Inlet air flow rate (ℓ/min (ANR)) ⁽⁴⁾	28	56	111	222	335	560	665	830	1110	
Standard performance conditions	Outlet air flow rate (ℓ/min (ANR))	25	50	100	200	300	500	600	750	1000	
	Purge air flow rate (ℓ/min (ANR)) ⁽⁵⁾	3	6	11	22	35	60	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 the case of Inlet air pressure 0.7 MPa}									
Regulator construction (Type V only)	Relief type										
Port size (Nominal size B)	1/8, 1/4		1/4, 3/8				3/8, 1/2		1/2		
Weight (kg) (With auto-drain)	Type M	0.83 (0.90)		1.21 (1.30)		1.44 (1.53)		2.23 (2.33)		2.26 (2.36)	
	Type V	1.28 (1.35)		1.67 (1.76)		1.90 (1.99)		3.34 (3.45)		3.37 (3.48)	

Note 1) For flow characteristics and pressure characteristics of regulator, refer to page 14-4-37.

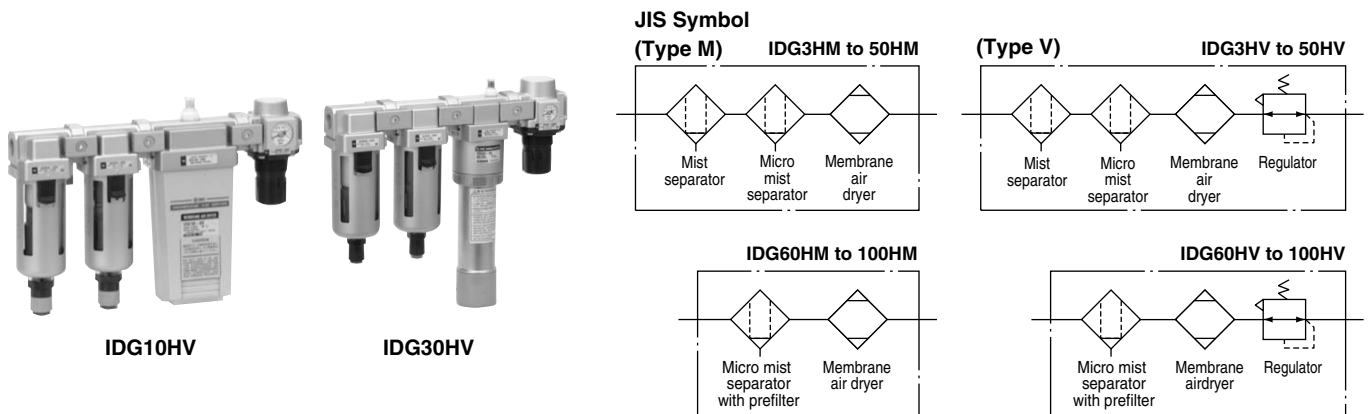
Note 2) It will come with Option E (With square-shaped, embedded type of a pressure regulator). For details on regulators, refer to pages 14-4-35 to 14-4-40.

Note 3) No freezing.

Note 4) ANR indicates the flow rate converted to the value at 20°C under the atmospheric pressure and the state of relative humidity 65%.

Note 5) Includes 1 ℓ/min (ANR) of purge air flow (at 0.7 MPa inlet air pressure) for the dew point indicator (except IDG3HM/3HV/5HM/5HV).

Note 6) When highly purified air is required, refer to "Caution on Design" on page 14-19-7.



Auto-drain, Bowl Assembly, Pressure Gauge Part No.

Applicable model		IDG3HM	IDG5HM	IDG10HM	IDG20HM	IDG30HM	IDG50HM	IDG60HM	IDG75HM	IDG100HM
		IDG3HV	IDG5HV	IDG10HV	IDG20HV	IDG30HV	IDG50HV	IDG60HV	IDG75HV	IDG100HV
Description	Float type auto-drain	N.C.	AD27	AD37	AD47	—	—	—	—	—
		N.O.	—	—	—	AD48	—	—	—	—
Bowl assembly		—	—	—	—	—	—	AMH-CA350-D	AMH-CA450-D	
Pressure gauge (Type V only)		GC30-10								

Replacement Parts (Mist separator, Micro mist separator, Element for micro mist separator with prefilter)

Description	Model	AFM20	AFD20	AFM30	AFD30	AFM40	AFD40	AMH350	AMH450
Element assembly		630611	63092	630617	63093	630623	63094	AMH-EL350	AMH-EL450

Refer to pages 14-19-28 to 14-19-29 for the replacement parts of a membrane air dryer.

● For flow characteristics, refer to pages 14-19-37 to 14-19-38, and for external dimensions, refer to pages 14-19-39 to 14-19-47.

Standard Specifications/Unit (Type M, Type V) [Standard dew point: -40°C]

Model		Standard dew point: -40°C				
		IDG30LM IDG30LV	IDG50LM IDG50LV	IDG60LM IDG60LV	IDG75LM IDG75LV	IDG100LM IDG100LV
Component equipment	Mist separator	AFM40				
	Micro mist separator	AFD40				
	Regulator (Type V only) ⁽¹⁾	AR40 ⁽²⁾				
Range of operating conditions	Fluid	Compressed air				
	Inlet air pressure (MPa)	0.3 to 1.0				
	Inlet air temperature (°C)	-5 to 50 ⁽³⁾				
	Ambient temperature (°C)	-5 to 50				
Standard performance	Outlet air atmospheric pressure dew point (°C)	-40				
Standard performance conditions	Inlet air flow rate (ℓ/min (ANR)) ⁽⁴⁾	100	150	227	320	400
	Outlet air flow rate (ℓ/min (ANR))	75	110	170	240	300
	Purge air flow rate (ℓ/min (ANR)) ⁽⁵⁾	25	40	57	80	100
	Inlet air flow 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 the case of Inlet air pressure 0.7 MPa}				
Regulator construction (Type V only)		Relief type				
Port size (Nominal size B)		1/4, 3/8			3/8, 1/2	
Weight (kg) (With auto-drain)	Type M	2.23 (2.33)	2.26 (2.36)	2.99 (3.09)	3.14 (3.24)	3.29 (3.39)
	Type V	3.34 (3.45)	3.37 (3.48)	4.10 (4.20)	4.25 (4.35)	4.40 (4.50)

Note 1) For flow characteristics and pressure characteristics of regulator, refer to page 14-4-37.

Note 2) It will come with Option E (With square-shaped, embedded type of a pressure regulator). For details on regulators, refer to pages 14-4-35 to 14-4-40.

Note 3) No freezing

Note 4) ANR indicates the flow rate converted to the value at 20°C under the atmospheric pressure and the state of relative humidity 65%.

Note 5) Includes 1 ℓ/min (ANR) of purge air flow (at 0.7 MPa inlet air pressure) for the dew point indicator.

Note 6) When highly purified air is required, refer to "Caution on Design" on page 14-19-7.



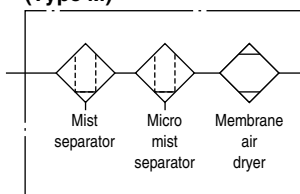
IDG30LV



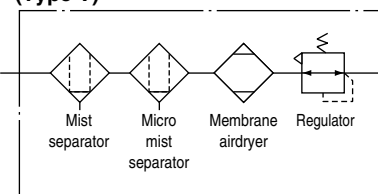
IDG60LV

IDG60LM

JIS Symbol
(Type M)



(Type V)



Auto-drain, Pressure Gauge Part No.

Description		Applicable model				
		IDG30LM IDG30LV	IDG50LM IDG50LV	IDG60LM IDG60LV	IDG75LM IDG75LV	IDG100LM IDG100LV
Float type auto-drain	N.C.	AD47				
	N.O.	AD48				
Pressure gauge		GC30-10				

Replacement Parts (Mist separator, Element for micro mist separator)

Description	Model	AFM40	AFD40
Element assembly		630623	63094

Refer to pages 14-19-28 to 14-19-29 for the replacement parts of a membrane air dryer.

● For flow characteristics, refer to pages 14-19-37 to 14-19-38 for external dimensions, refer to pages 14-19-41, 43, 45, and 47.

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Series IDG

Standard Specifications/Unit (Type M, Type V) [Standard dew point: -60°C]

Model		Standard dew point: -60°C		
		IDG60SM IDG60SV	IDG75SM IDG75SV	IDG100SM IDG100SV
Component equipment	Mist separator	AFM40		
	Micro mist separator	AFD40		
	Regulator (Type V only) ⁽¹⁾	AR40 ⁽²⁾		
Range of operating conditions	Fluid	Compressed air		
	Inlet air pressure (MPa)	0.3 to 1.0		
	Inlet air temperature (°C)	-5 to 50 ⁽³⁾		
	Ambient temperature (°C)	-5 to 50		
Standard performance	Outlet air atmospheric pressure dew point (°C)	-60		
Standard performance conditions	Inlet air flow rate (ℓ/min (ANR)) ⁽⁴⁾	77	154	235
	Outlet air flow rate (ℓ/min (ANR))	50	100	150
	Purge air flow rate (ℓ/min (ANR)) ⁽⁵⁾	27	54	85
	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 the case of Inlet air pressure 0.7 MPa}		
Regulator construction (Type V only)		Relief type		
Port size (Nominal size B)		3/8, 1/2		
Weight (kg) (With auto-drain)	Type M	2.99 (3.09)	3.14 (3.24)	3.29 (3.39)
	Type V	4.10 (4.20)	4.25 (4.35)	4.40 (4.50)

Note 1) For flow characteristics and pressure characteristics of regulator, refer to page 14-4-37.

Note 2) It will come with Option E (With square-shaped, embedded type of a pressure regulator). For details on regulators, refer to pages 14-4-35 to 14-4-40.

Note 3) No freezing.

Note 4) ANR indicates the flow rate converted to the value at 20°C under the atmospheric pressure and the state of relative humidity 65%.

Note 5) Includes 1 ℓ/min (ANR) of purge air flow (at 0.7 MPa inlet air pressure) for the dew point indicator.

Note 6) When highly purified air is required, refer to "Caution on Design" on page 14-19-7.

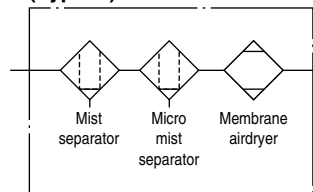


IDG60SV

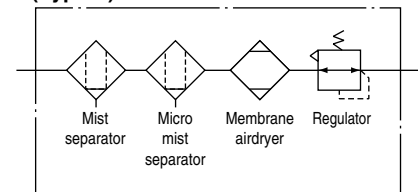


IDG60SM

JIS Symbol (Type M)



(Type V)



Auto-drain, Pressure Gauge Part No.

Description		Applicable model		
		IDG60SM IDG60SV	IDG75SM IDG75SV	IDG100SM IDG100SV
Float type auto-drain	N.C.	AD47		
	N.O.	AD48		
Pressure gauge		GC30-10		

Replacement Parts (Mist separator, Element for micro mist separator)

Description		Model	
		AFM40	AFD40
Element assembly		630623	63094

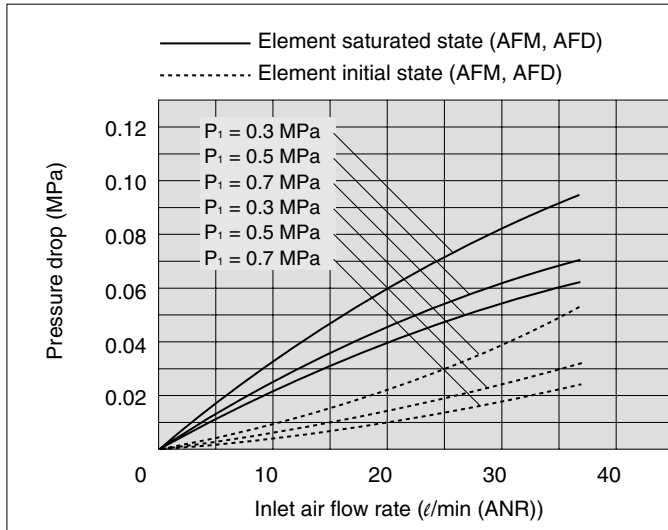
Refer to pages 14-19-28 to 29 for the replacement parts of a membrane air dryer.

Flow Characteristics

Conditions: Inlet air temperature 25°C, P₁: Inlet air pressure

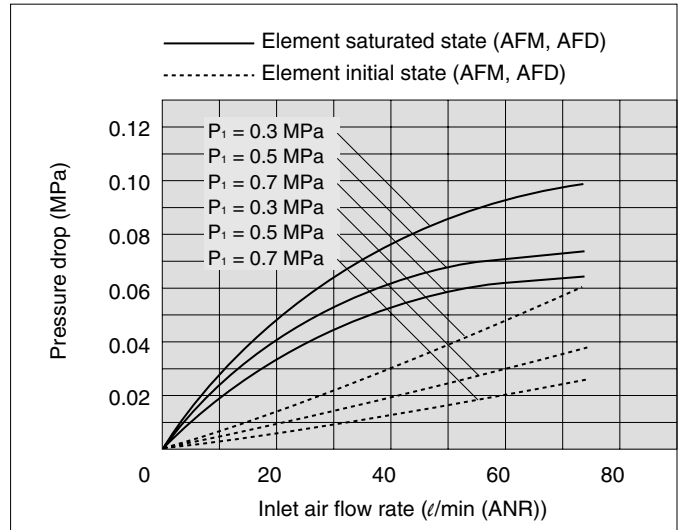
IDG3M/3V (Standard dew point: -20°C)

IDG3HM/3HV (Standard dew point: -15°C)



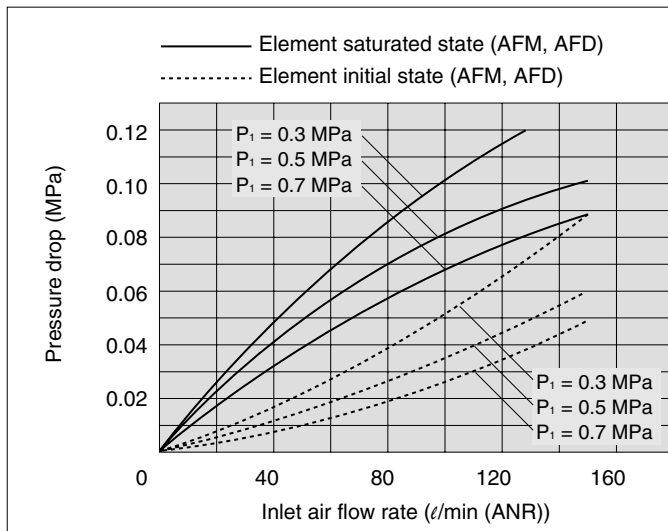
IDG5M/5V (Standard dew point: -20°C)

IDG5HM/5HV (Standard dew point: -15°C)



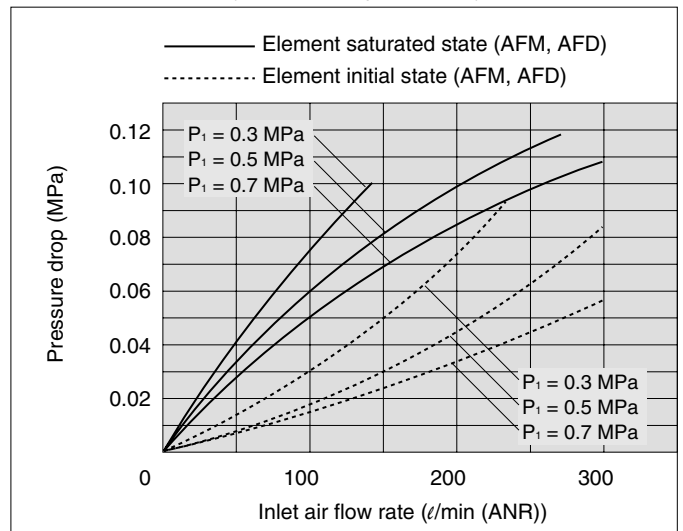
IDG10M/10V (Standard dew point: -20°C)

IDG10HM/10HV (Standard dew point: -15°C)



IDG20M/20V (Standard dew point: -20°C)

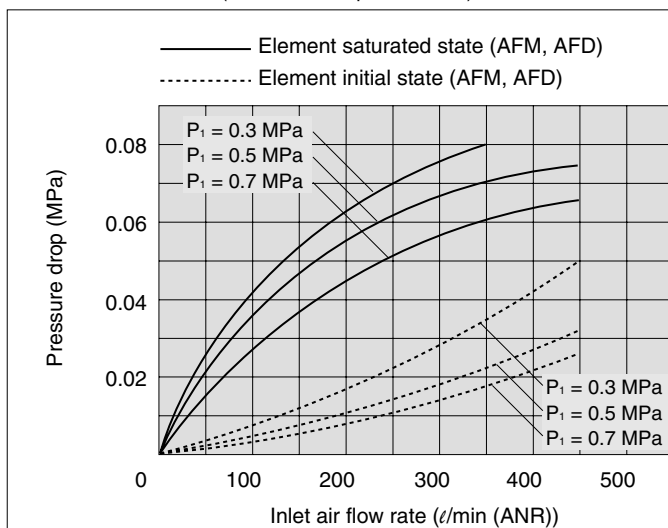
IDG20HM/20HV (Standard dew point: -15°C)



IDG30M/30V (Standard dew point: -20°C)

IDG30HM/30HV (Standard dew point: -15°C)

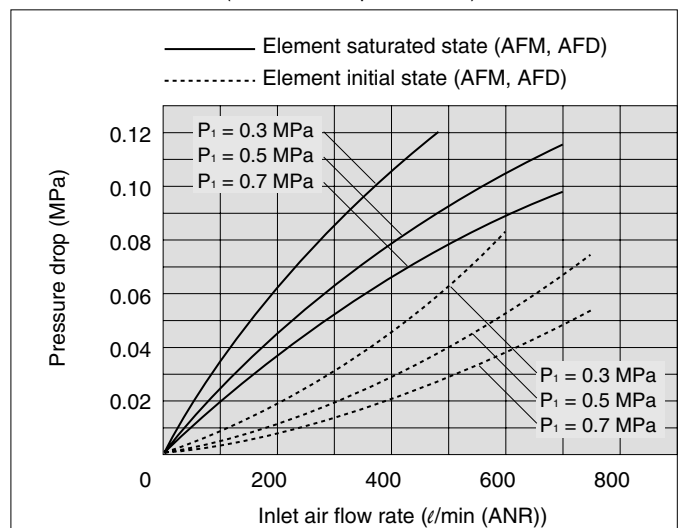
IDG30LM/30LV (Standard dew point: -40°C)



IDG50M/50V (Standard dew point: -20°C)

IDG50HM/50HV (Standard dew point: -15°C)

IDG50LM/50LV (Standard dew point: -40°C)



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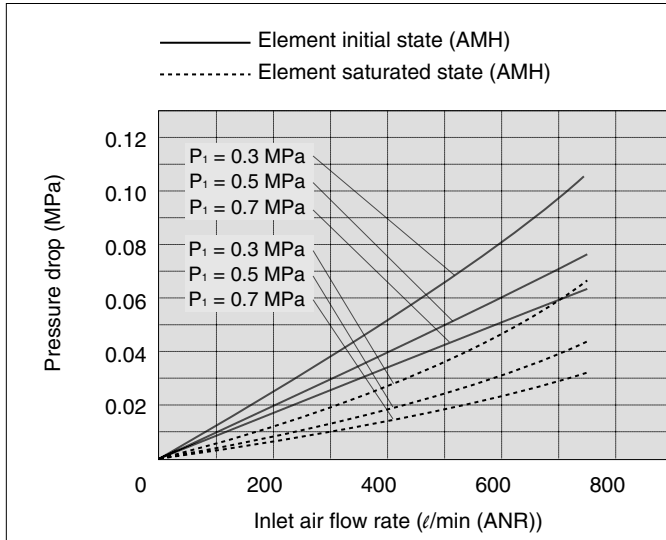
Misc.

Flow Characteristics

Conditions: Inlet air temperature 25°C, P1: Inlet air pressure

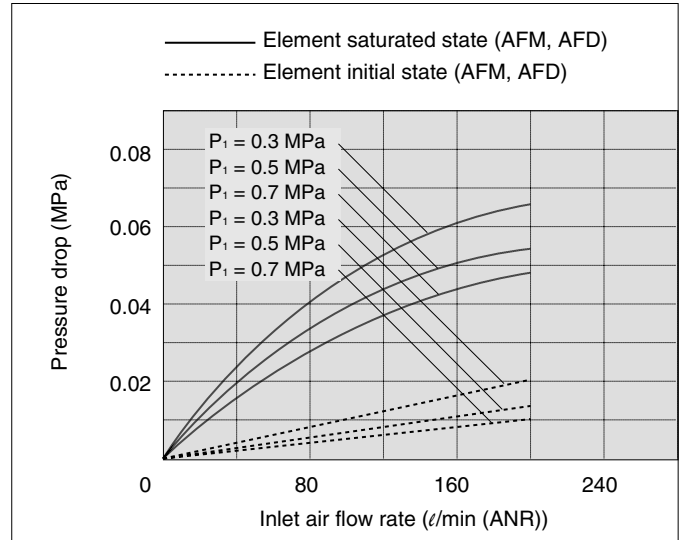
IDG60M/60V (Standard dew point: -20°C)

IDG60HM/60HV (Standard dew point: -15°C)



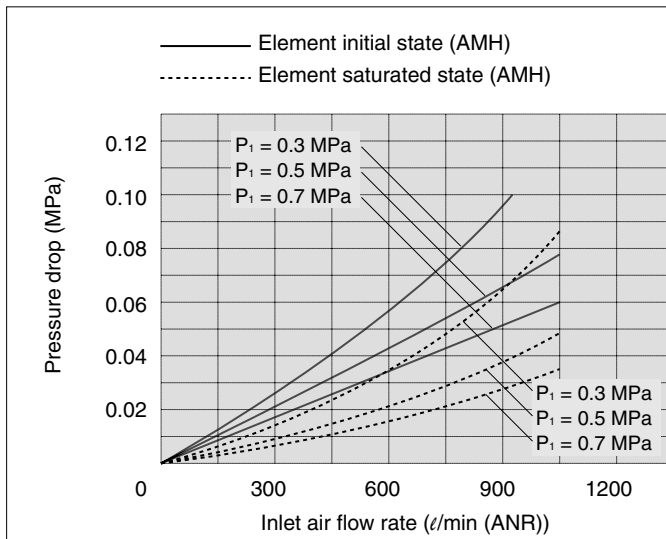
IDG60LM/60LV (Standard dew point: -40°C)

IDG60SM/60SV (Standard dew point: -60°C)



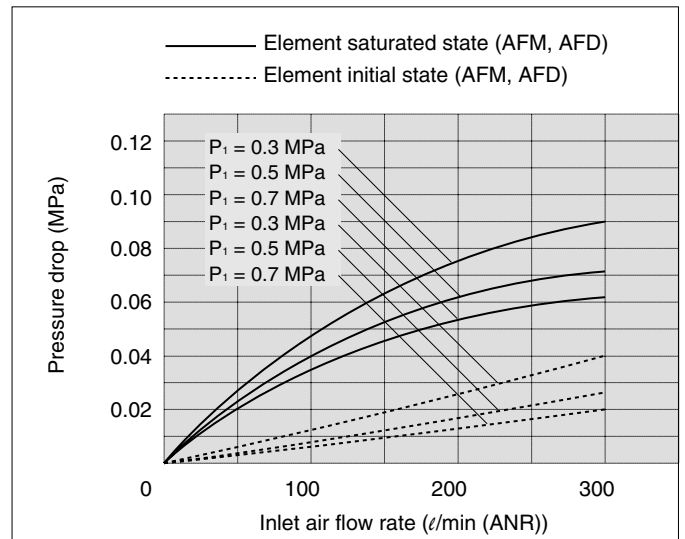
IDG75M/75V (Standard dew point: -20°C)

IDG75HM/75HV (Standard dew point: -15°C)



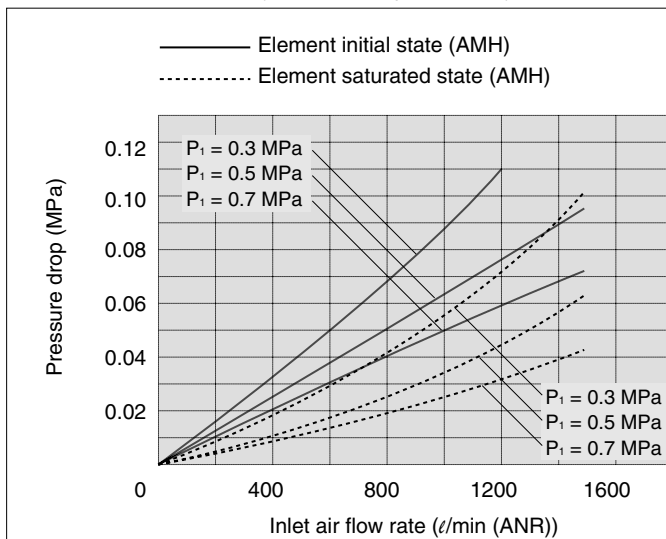
IDG75LM/75LV (Standard dew point: -40°C)

IDG75SM/75SV (Standard dew point: -60°C)



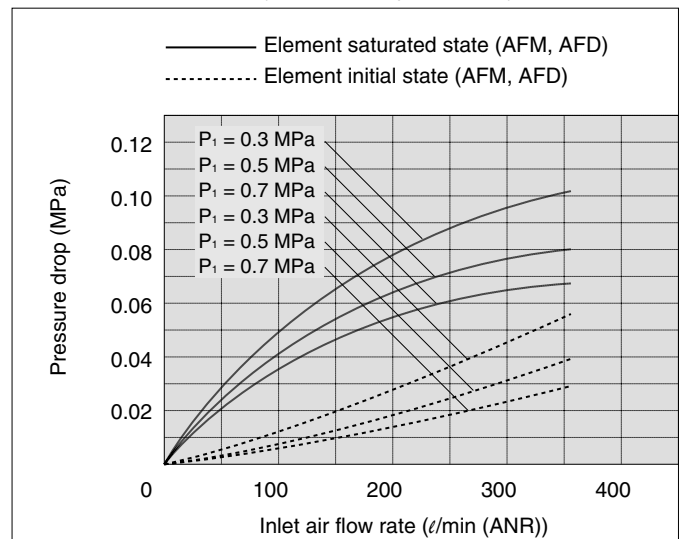
IDG100M/100V (Standard dew point: -20°C)

IDG100HM/100HV (Standard dew point: -15°C)



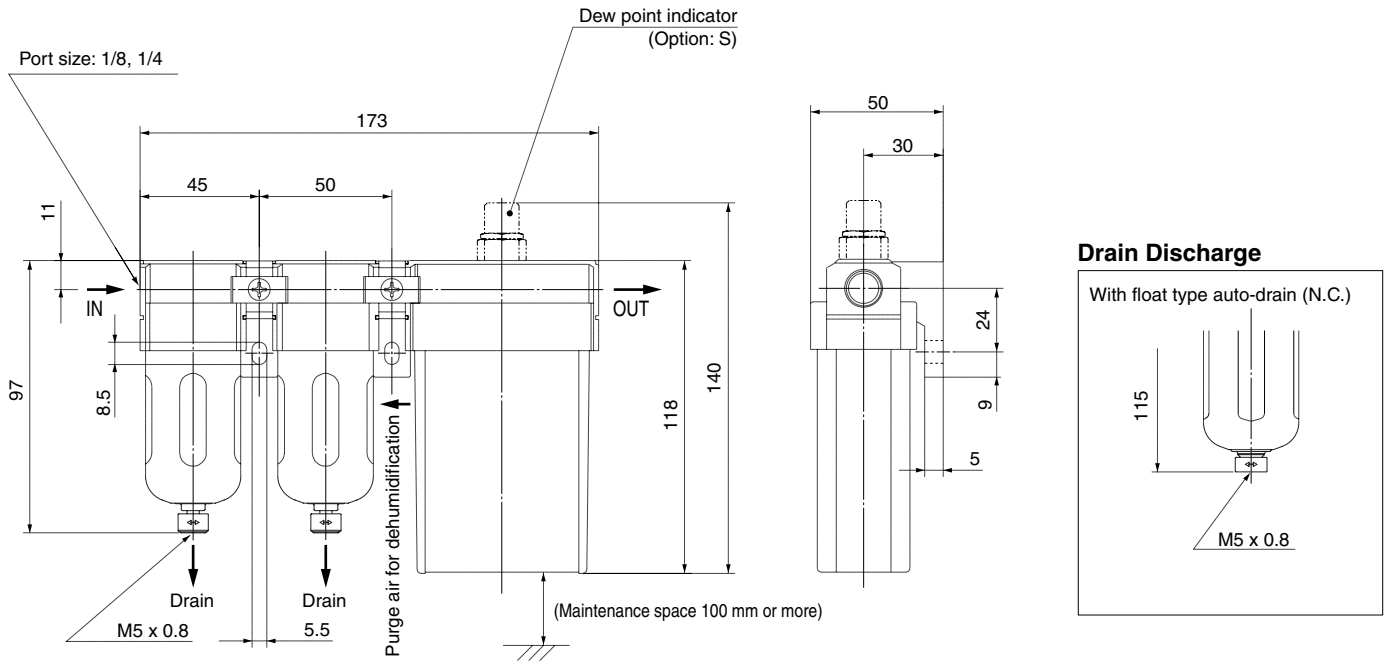
IDG100LM/100LV (Standard dew point: -40°C)

IDG100SM/100SV (Standard dew point: -60°C)

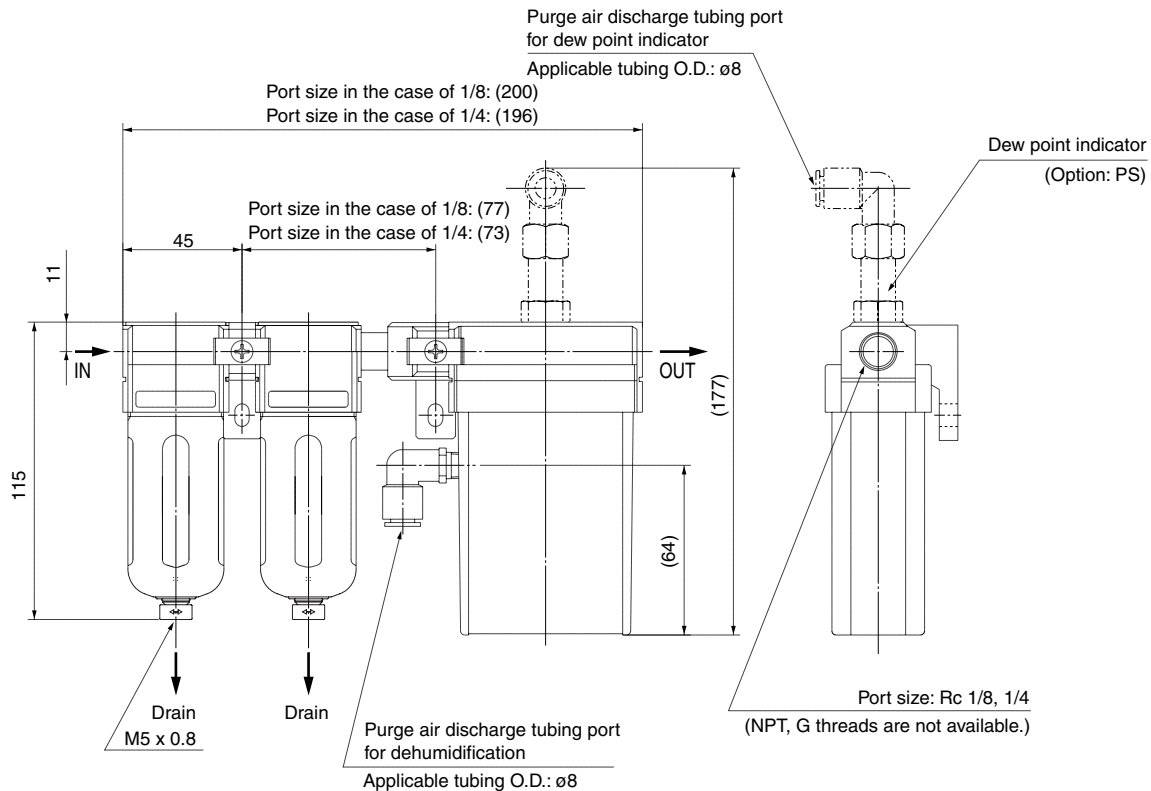


Dimensions (Type M)

IDG3M/5M
IDG3HM/5HM



With fittings for purge air discharge (Option: P)

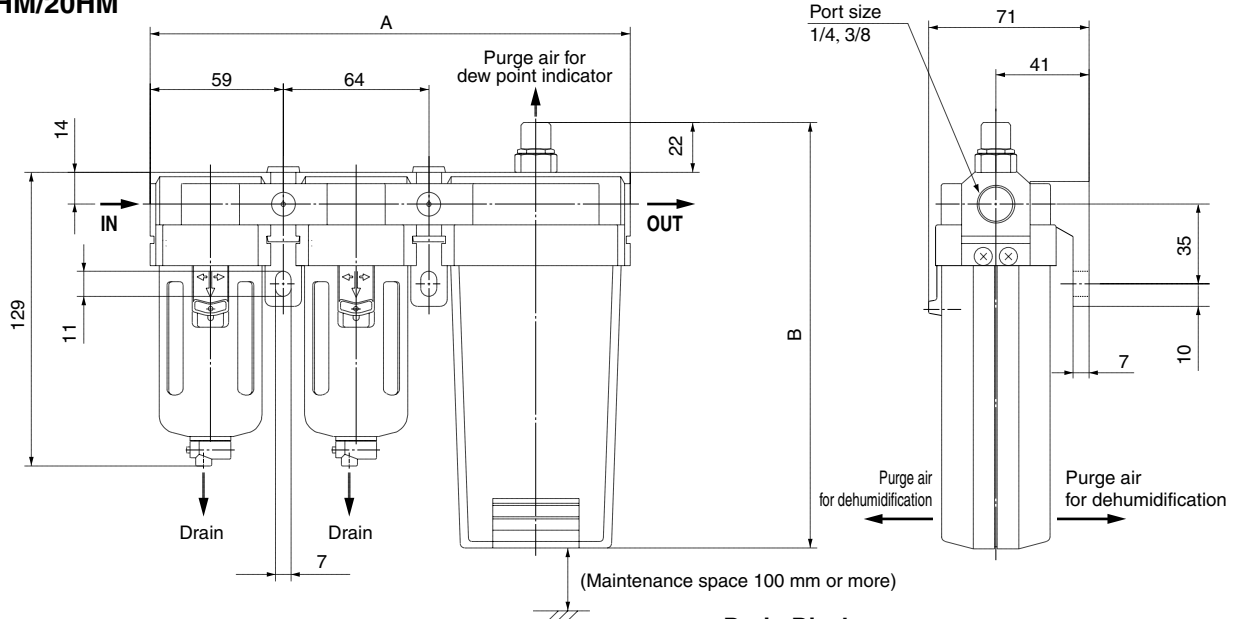


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- AFF
- AM
- Misc.

Series IDG

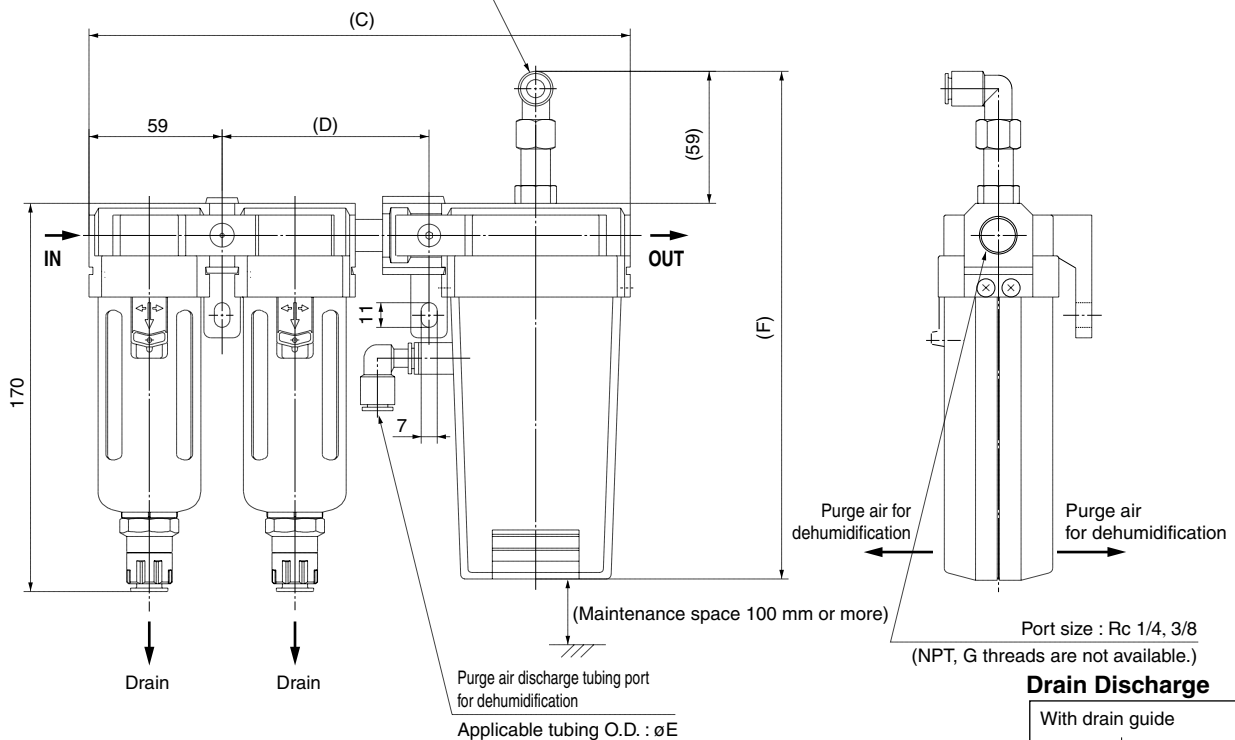
Dimensions (Type M)

IDG10M/20M
IDG10HM/20HM



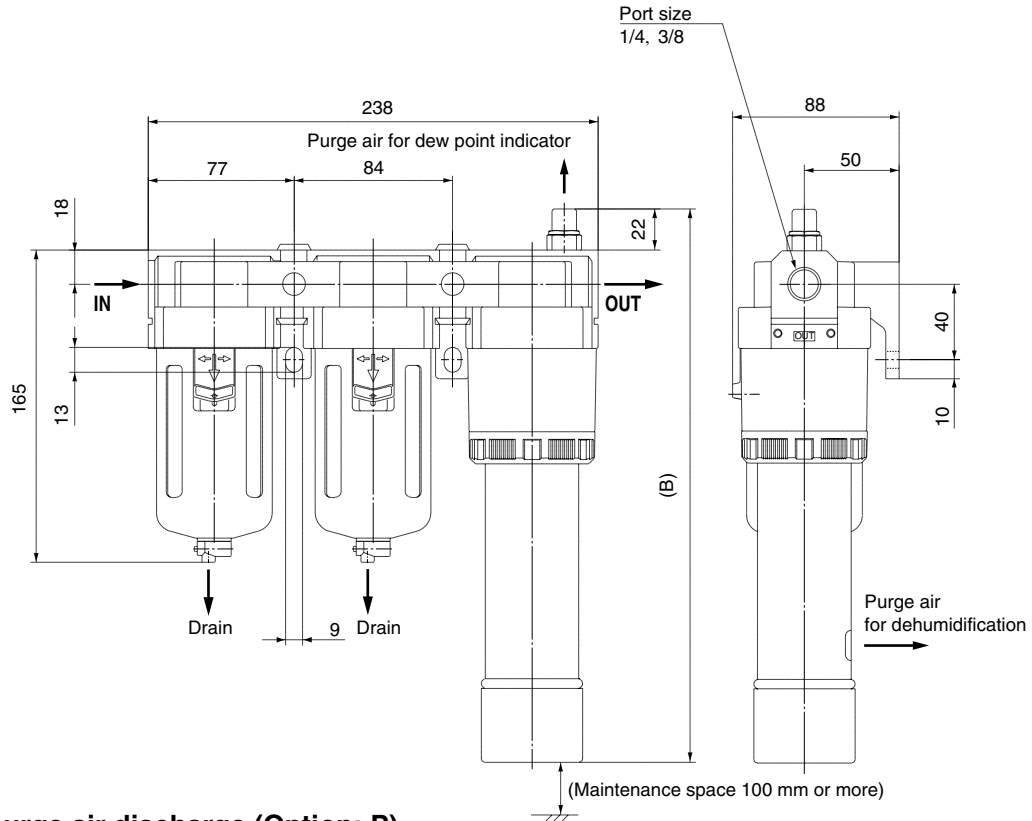
With fitting for purge air discharge (Option: P)

Purge air discharge tubing port
for dew point indicator
Applicable tubing O.D.: $\phi 8$

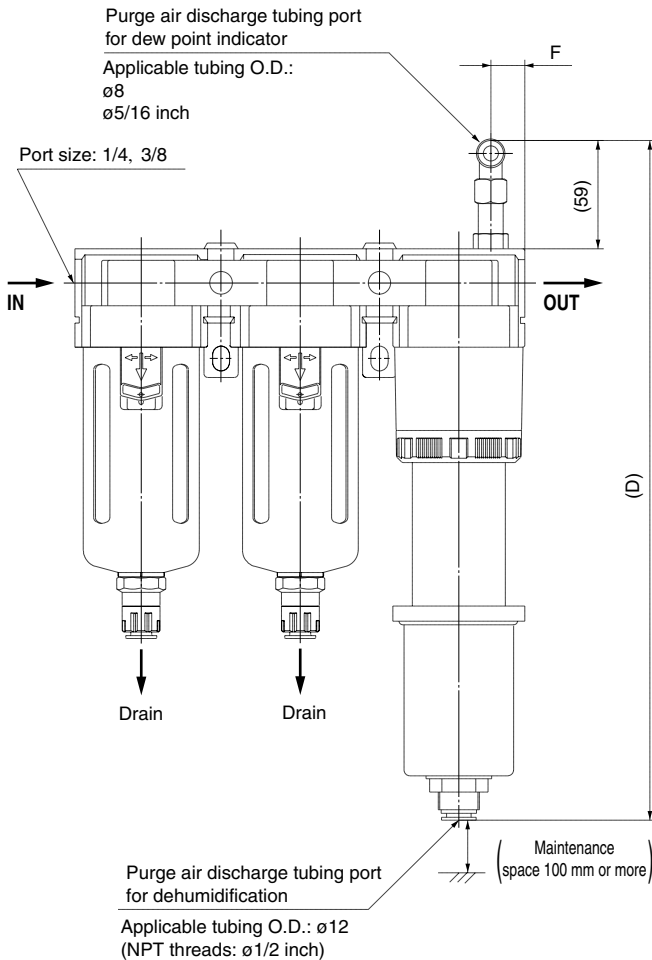


Model	A	B	Option: P				With float type auto-drain	With drain guide		
			C		D				E	F
			Port size: 1/4	Port size: 3/8	Port size: 1/4	Port size: 3/8				
IDG10M/10HM	211	187	236	238	8	224	H	J		
IDG20M/20HM	241	212	266	268	10	249	170	135		

IDG30M/50M
IDG30HM/50HM
IDG30LM/50LM

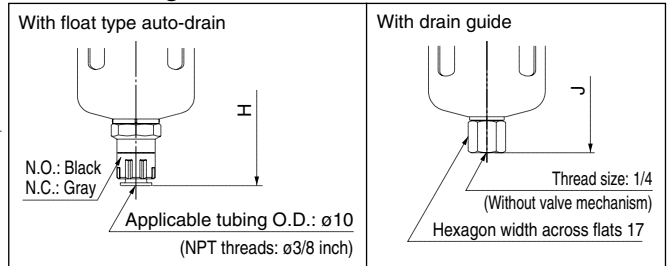


With fitting for purge air discharge (Option: P)



Model	B	Option: P		With float type auto-drain	With drain guide
		D	F	H	J
IDG30M/30HM/30LM	293	361	18	206	171
IDG50M/50HM/50LM	337	405			

Drain Discharge



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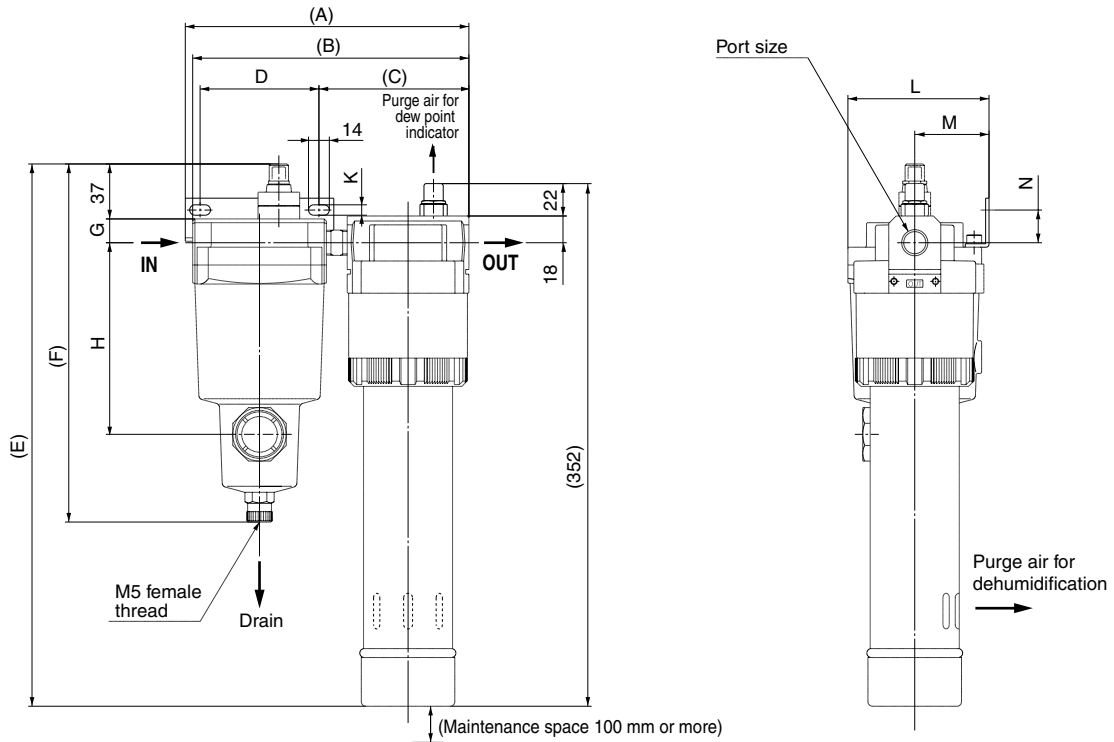
AM

Misc.

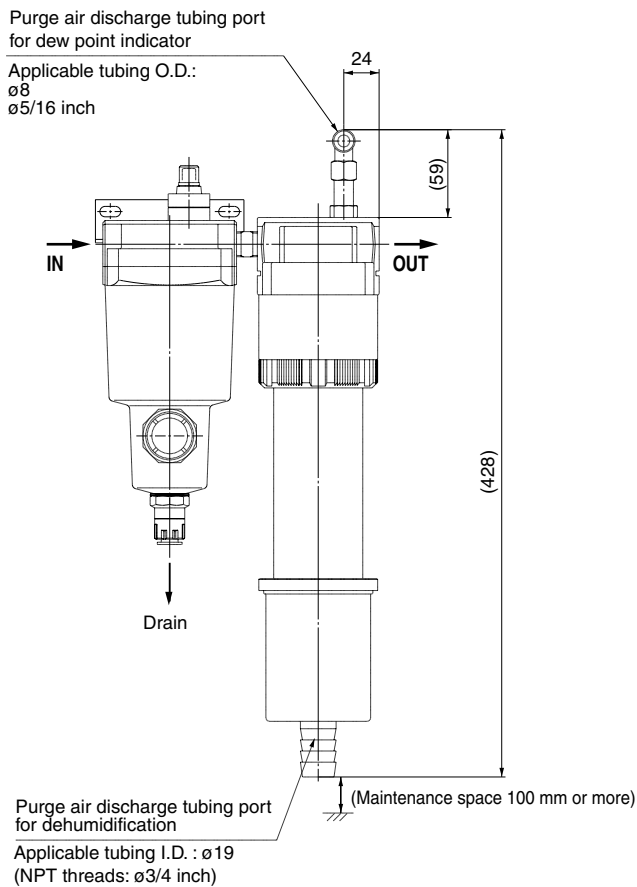
Series IDG

Dimensions (Type M)

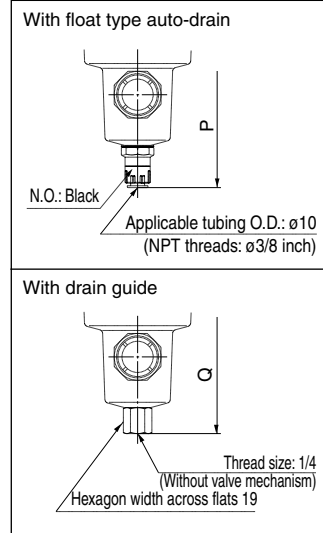
IDG60M/75M/100M
IDG60HM/75HM/100HM



With fitting for purge air discharge (Option: P)

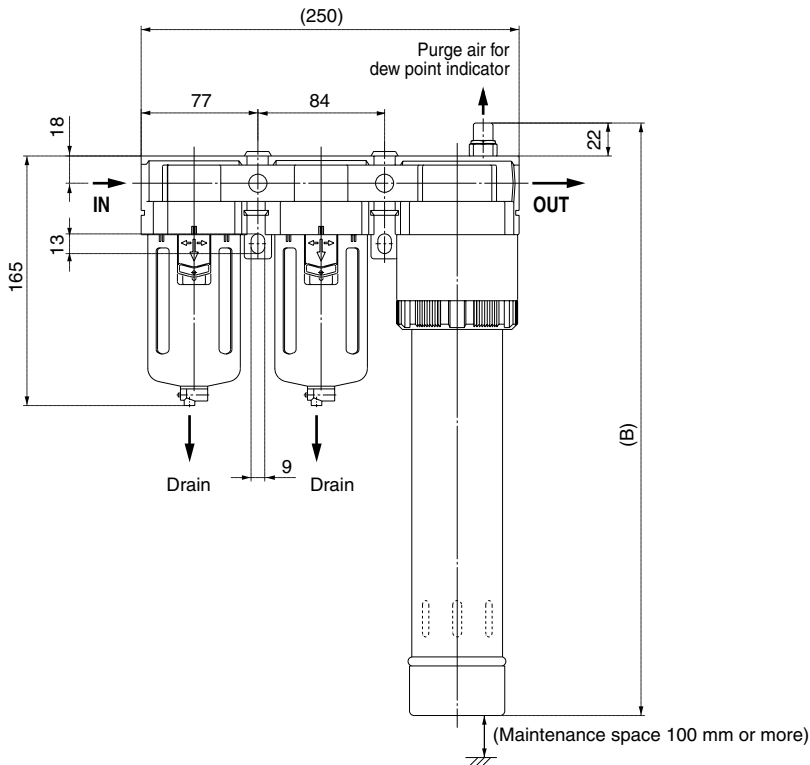


Drain Discharge

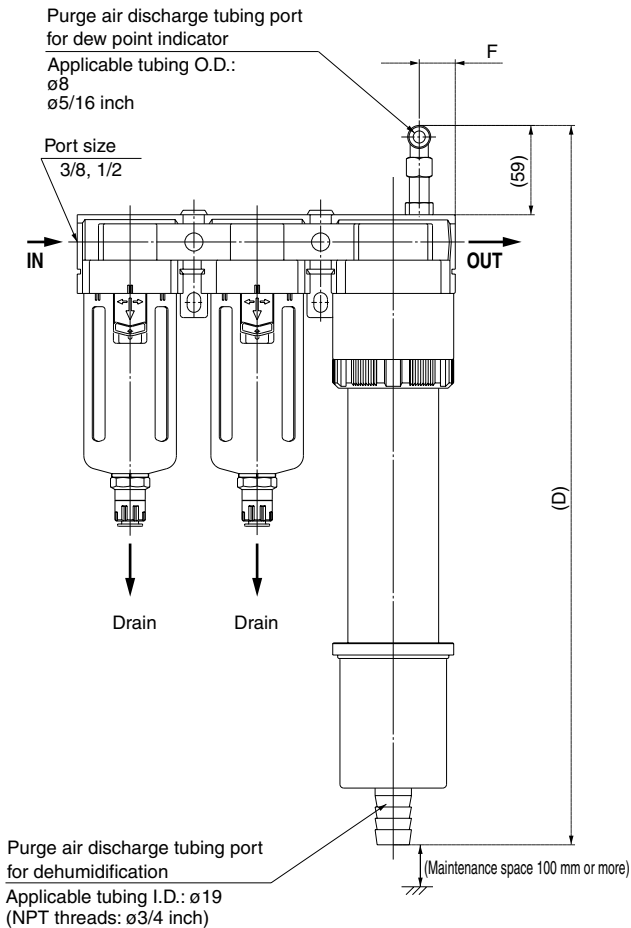


Model	Port size	A	B	C	D	E	F	G	H	K	L	M	N	With float type auto-drain	With drain guide
														P	Q
IDG60M/60HM	3/8, 1/2	191	186	101	80	365	241	16	129	7	95	50	22	255	241
IDG75M/75HM/100M/100HM	1/2	204	202	104	90	368	262	19	147	9	108	55	25	276	262

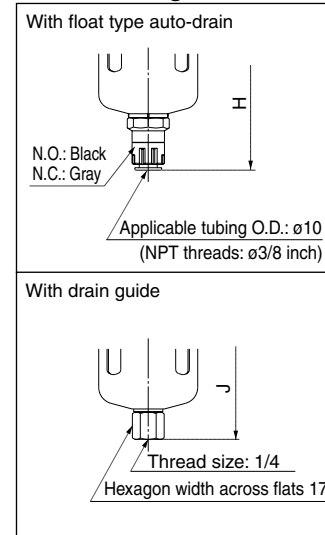
IDG60LM/75LM/100LM
IDG60SM/75SM/100SM



With fitting for purge air discharge (Option: P)



Drain Discharge



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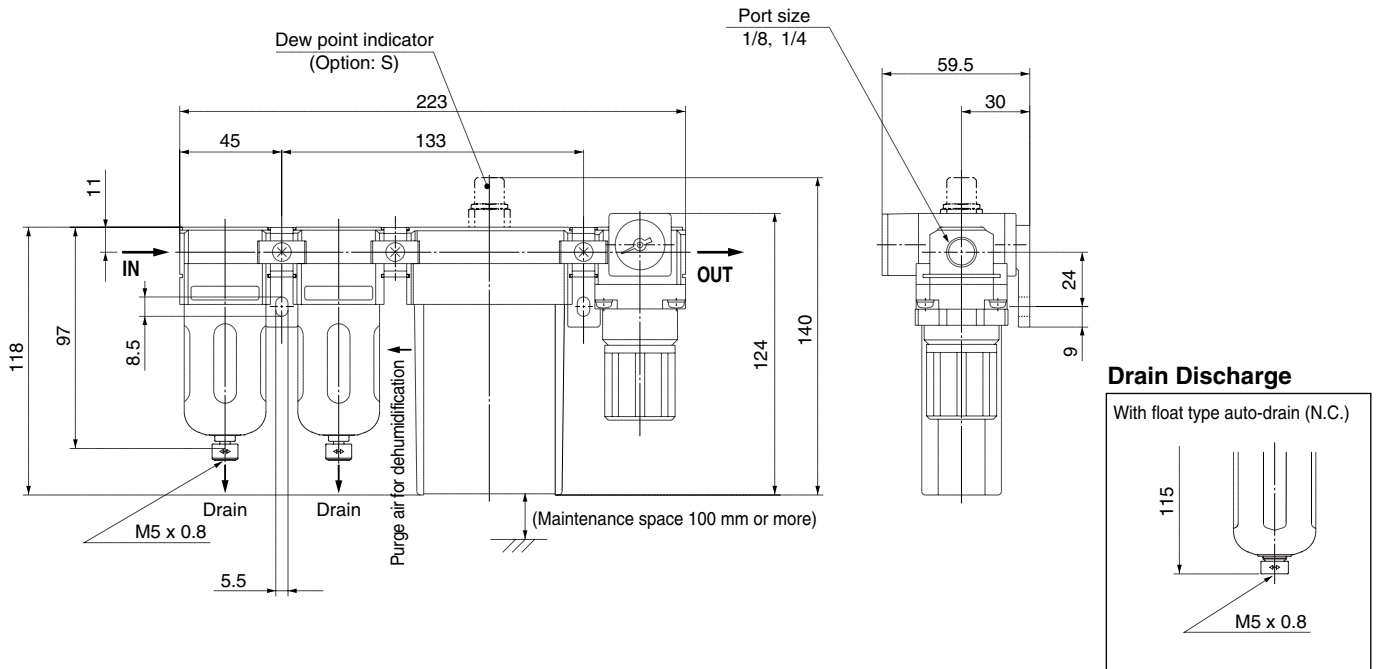
Misc.

Model	B	Option: P		With float type auto-drain	With drain guide
		D	F		
IDG60LM/60SM	392	468	24	206	171
IDG75LM/75SM	472	548			
IDG100LM/100SM	542	618			

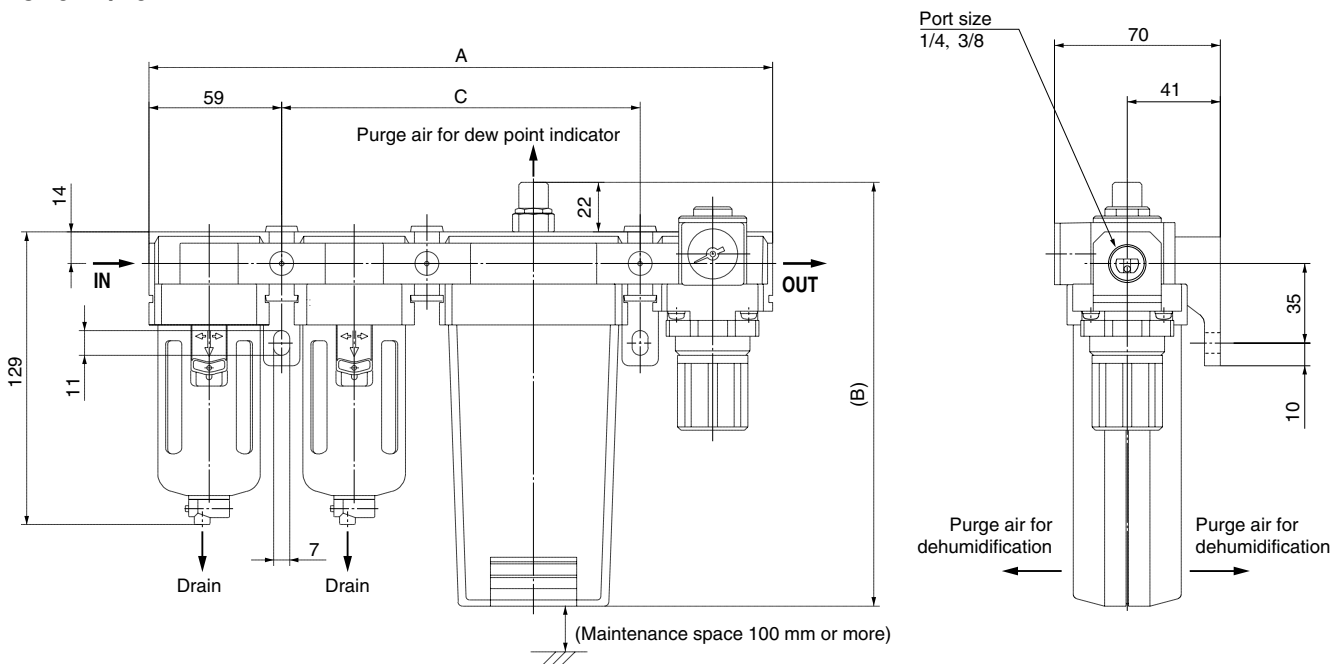
Series IDG

Dimensions (Type V)

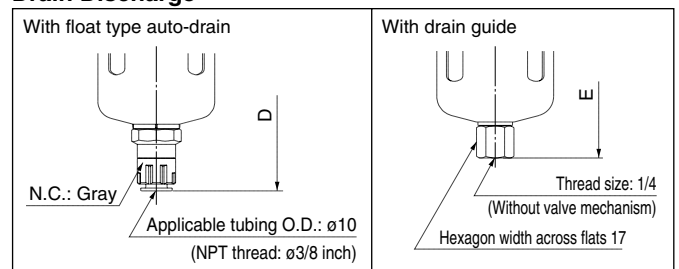
IDG3V/5V
IDG3HV/5HV



IDG10V/20V
IDG10HV/20HV

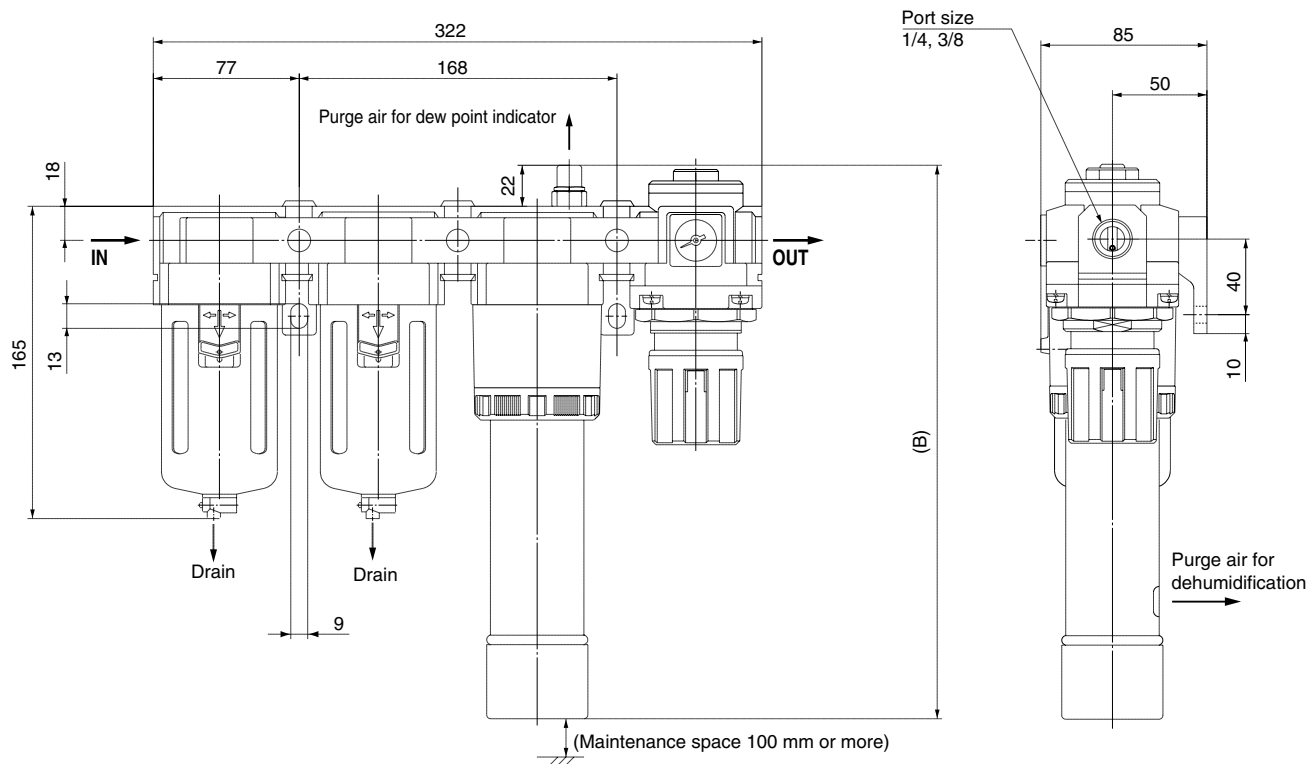


Drain Discharge



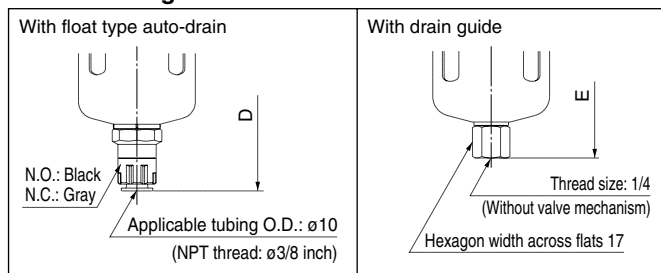
Model	A	B	C	With float type auto-drain	With drain guide
				D	E
IDG10V/10HV	275	187	158	170	135
IDG20V/20HV	305	212	188		

IDG30V/50V
IDG30HV/50HV
IDG30LV/50LV



Model	B	With float type auto-drain	With drain guide
		D	E
IDG30V/30HV/30LV	293	206	171
IDG50V/50HV/50LV	337		

Drain Discharge



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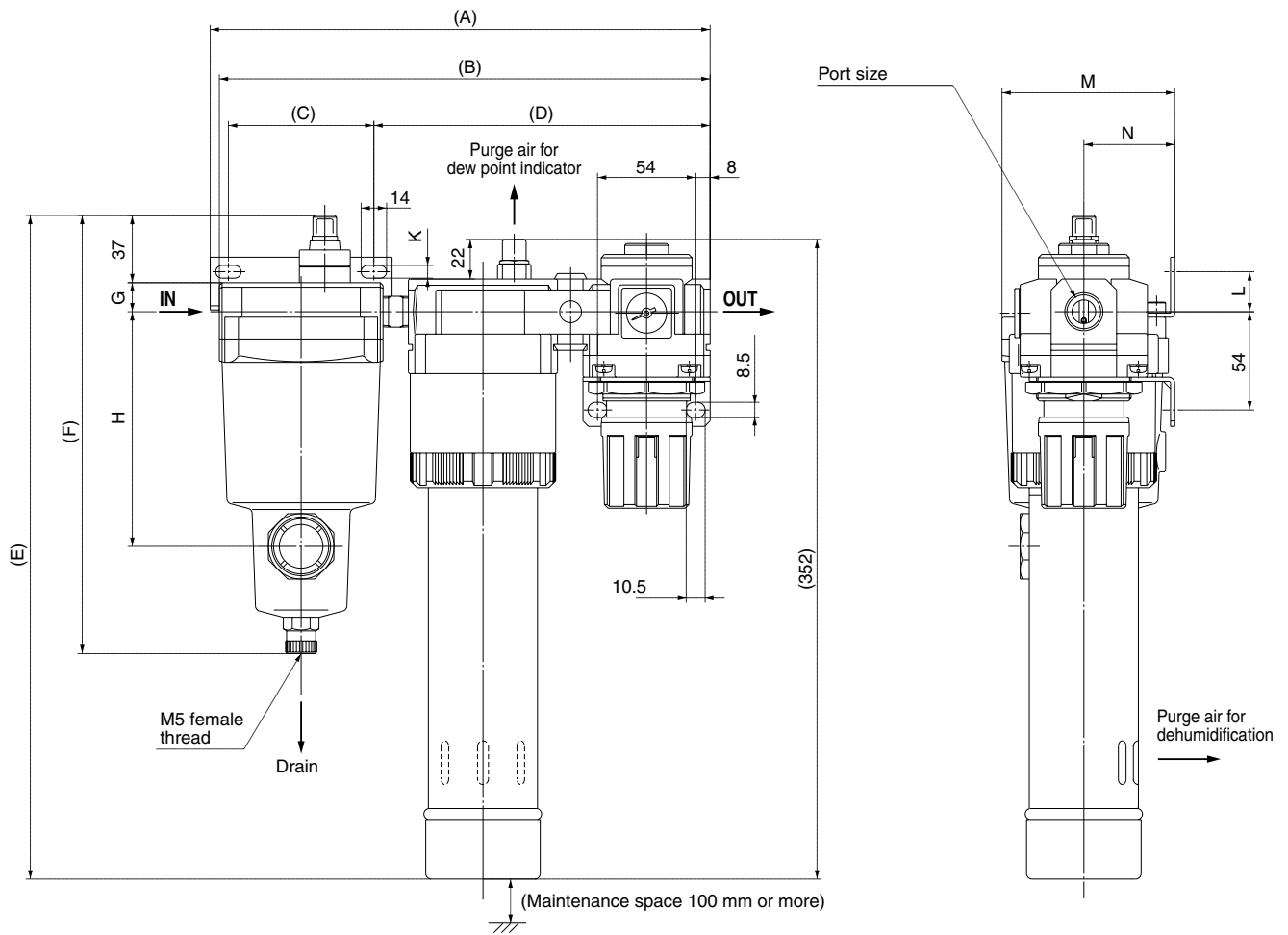
AM

Misc.

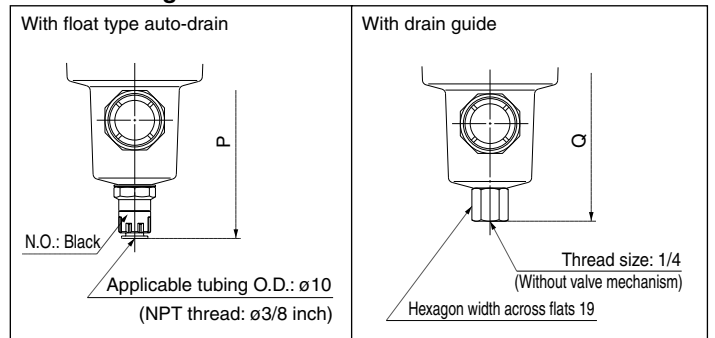
Series IDG

Dimensions (Type V)

IDG60V/75V/100V
IDG60HV/75HV/100HV

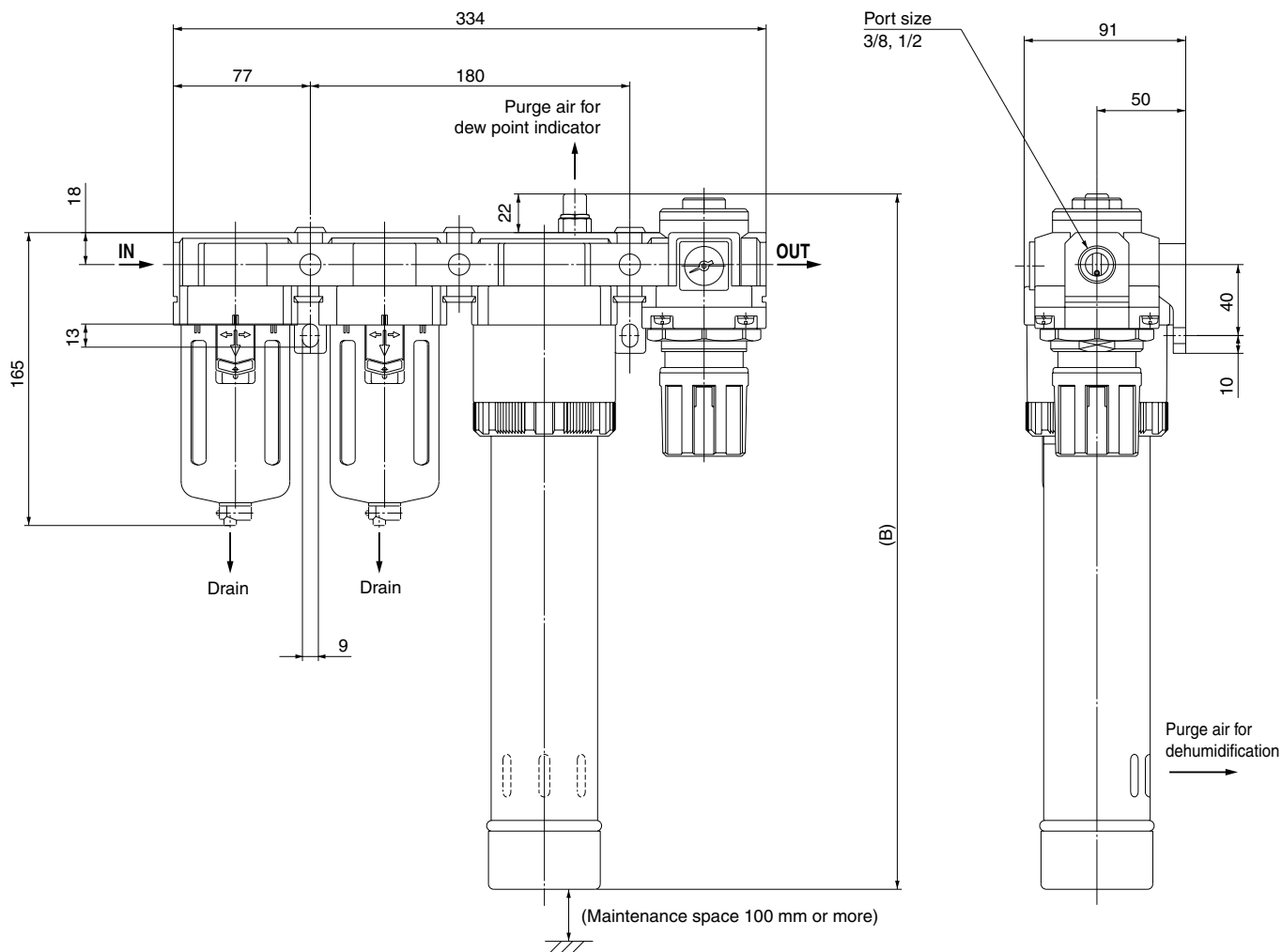


Drain Discharge

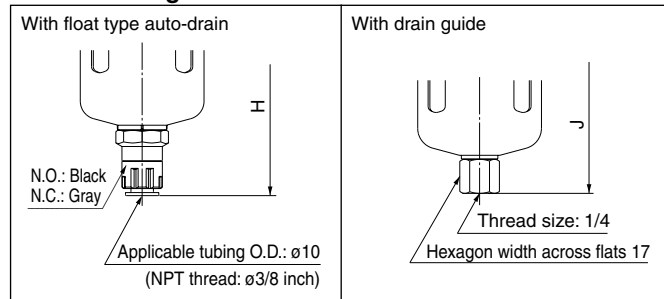


Model	Port size	A	B	C	D	E	F	G	H	K	L	M	N	With float type auto-drain	With drain guide
														P	Q
IDG60V/60HV	3/8, 1/2	275	270	80	185	365	241	16	129	7	22	95	50	255	241
IDG75V/75HV/100V/100HV	1/2	288	286	90	188	368	262	19	147	9	25	108	55	276	262

IDG60LV/75LV/100LV
IDG60SV/75SV/100SV



Drain Discharge



- HA
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- ID
- AMG
- AFF
- AM
- Misc.

Model	B	With float type auto-drain	With drain guide
		H	J
IDG60LV/60SV	392	206	171
IDG75LV/75SV	472		
IDG100LV/100SV	542		

Made to Order Specifications:

Please contact SMC for further details about dimensions, specifications, and delivery.

1 Element Service Indicator

An element service indicator is mounted on the micro mist separator with prefilter (Series AMH) to allow visual management of the element's clogging life. In addition, combination with a micro mist separator with prefilter also provides a spatially compact design.

Applicable Model

Applicable model	IDG3M to IDG50M (Standard dew point: -20°C) IDG3HM to IDG50HM (Standard dew point: -15°C) IDG30LM to IDG50LM (Standard dew point: -40°C)
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How to Order

* Refer to "How to Order" for standard specifications on page 14-19-32.

IDG 10 M 03 X016

Size

3
5
10
20
30
50

Standard dew point *

Option

Symbol	Contents	Size					
		3	5	10	20	30	50
Nil	Standard	●	●	●	●	●	●
R	Flow direction (Right → Left)	●	●	●	●	●	●
S	With dew point indicator	●	●	Standard equipment			

Drain discharge symbol

Drain discharge		Size					
		3	5	10	20	30	50
Nil	Manual valve	●	●	●	●	●	●
C	N.C. auto-drain	●	●	●	●	●	●
D	N.O. auto-drain	●	●	●	●	●	●
J	Drain guide (Aperture 1/4, without valve)	●	●	●	●	●	●

Port size *
Note) IDG50M and 50HM are 03 only.

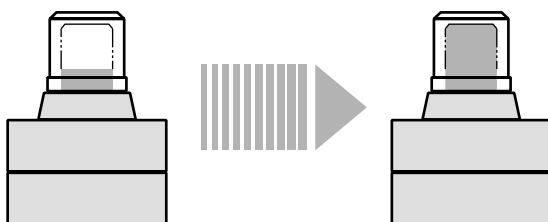
Thread type *

Component equipment

Micro mist separator with prefilter								
Membrane air dryer								

Component equipment	Size and standard dew point							
	3/3H	5/5H	10/10H	20/20H	30/30H	30L	50/50H	50L
Micro mist separator with prefilter	AMH150		AMH250		AMH150	AMH350	AMH150	

Clogging Indication



When the differential air is 0.05 MPa or less
(The tip of the indicator is just visible.)

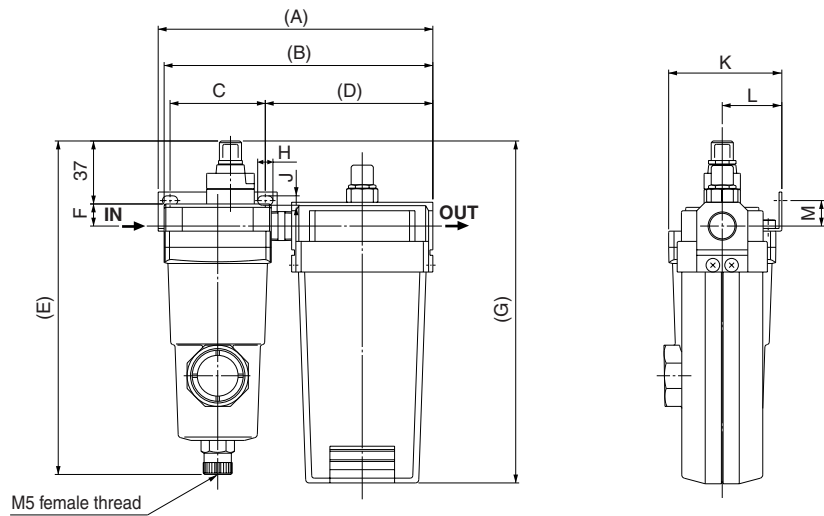
When the differential air is 0.1 MPa or more
(The indicator is completely up to the top.)

Replace the element when the element service indicator's red indication reaches completely to the top. The top of the indication window shows differential pressure of approximately 0.1 MPa. Replace the element after two years of use, even if the element service indicator's red indication does not reach the top.

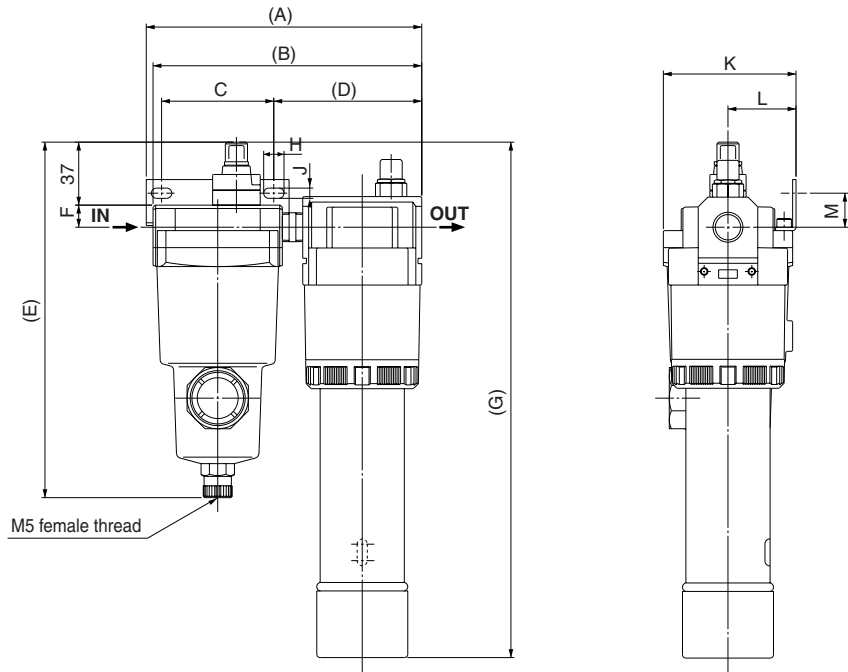
The element service indicator is shipped mounted to the micro mist separator with prefilter, and cannot be retrofitted or used with the single style.

Dimensions/With Element Service Indicator

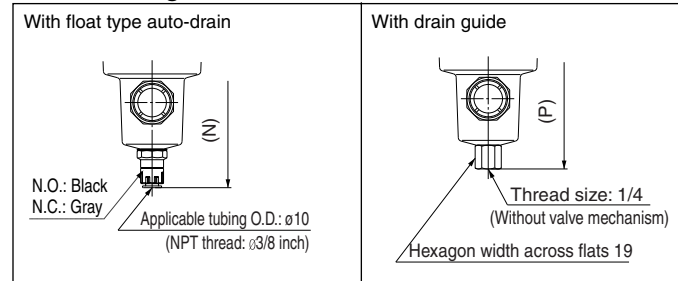
IDG3M/5M/10M/20M
IDG3HM/5HM/10HM/20HM



IDG30M/50M
IDG30HM/50HM
IDG30LM/50LM



Drain Discharge



Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	With float type auto-drain	With drain guide
														N	P
IDG3M/3HM/5M/5HM	1/8, 1/4	150	146	56	87	196	13	157	9	5.5	66.5	35	15	210	196
IDG10M/10HM		162	158		99			201							
IDG20M/20HM	1/4, 3/8	205	201	66	130	209	303	226	12	6	78	40	20	223	209
IDG30M/30HM		162	158		87			226							
IDG30LM			149	145	56	86	196	9	5.5	70	35	15	210	196	
IDG50M/50HM	3/8	177	172	80	87	241	16	350	14	7	95	50	22	255	241
IDG50LM	1/4, 3/8	149	145	56	86	196	13	347	9	5.5	70	35	15	210	196

- HA
- AT
- ID
- AMG
- AFF
- AM
- Misc.

Made to Order Specifications:

Please contact SMC for further details about dimensions, specifications, and delivery.

2 With Micro Mist Separator Regulator (Series AWD)

This can be used when very clean air is required (supply for air bearings, semiconductor parts blow, etc.). Type V regulator (AR) is modified to produce the micro mist separator regulator (AWD).

Specifications

Filtration of outlet air	0.01 μm (95% filtered particle diameter)
Outlet air oil mist concentration	Max. 0.1 mg/m ³ (ANR) (0.08 ppm) ^{Note} (Prior to oil saturated 0.01 mg/m ³ (ANR) or less, (0.008 ppm or less))

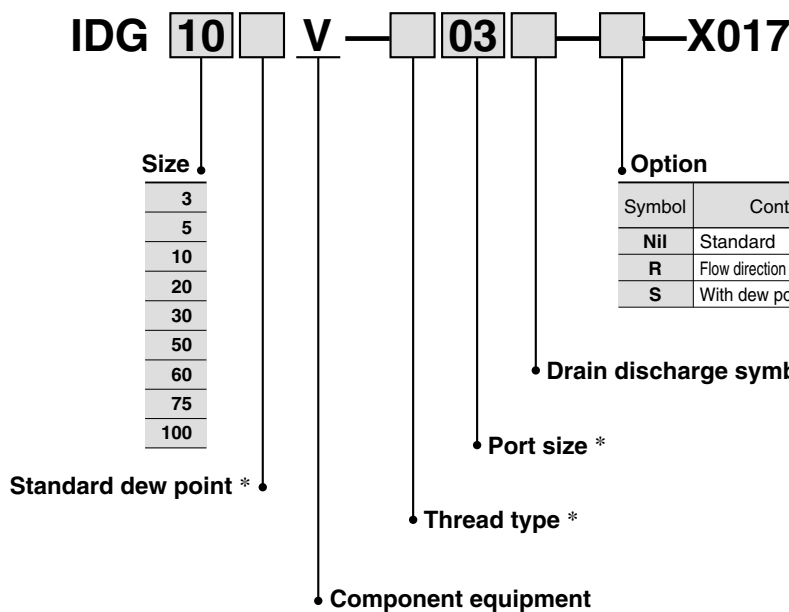
Note) With inlet air oil mist concentration of 30 mg/m³ (ANR) (24 ppm)

Applicable Model

Applicable model	IDG3V to IDG50V (Standard dew point: -20°C) IDG3HV to IDG50HV (Standard dew point: -15°C) IDG30LV to IDG100LV (Standard dew point: -40°C) IDG60SV to IDG100SV (Standard dew point: -60°C)
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How to Order

* Refer to "How to Order" for standard specifications on page 14-19-32.



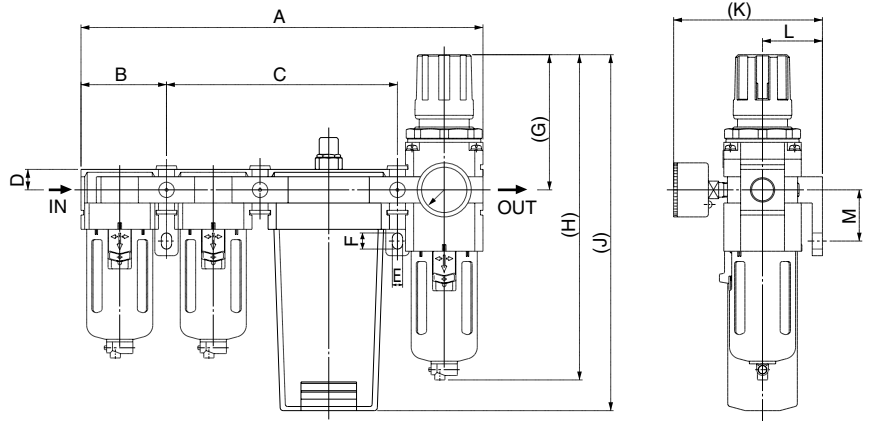
- Mist separator
- Micro mist separator
- Membrane air dryer
- Micro mist separator regulator

Component equipment	Size									
	3	5	10	20	30	50	60 ^{Note)}	75 ^{Note)}	100 ^{Note)}	
Mist separator	AFM20		AFM30		AFM40					
Micro mist separator	AFD20		AFD30		AFD40					
Micro mist separator regulator	AWD20		AWD30		AWD40					

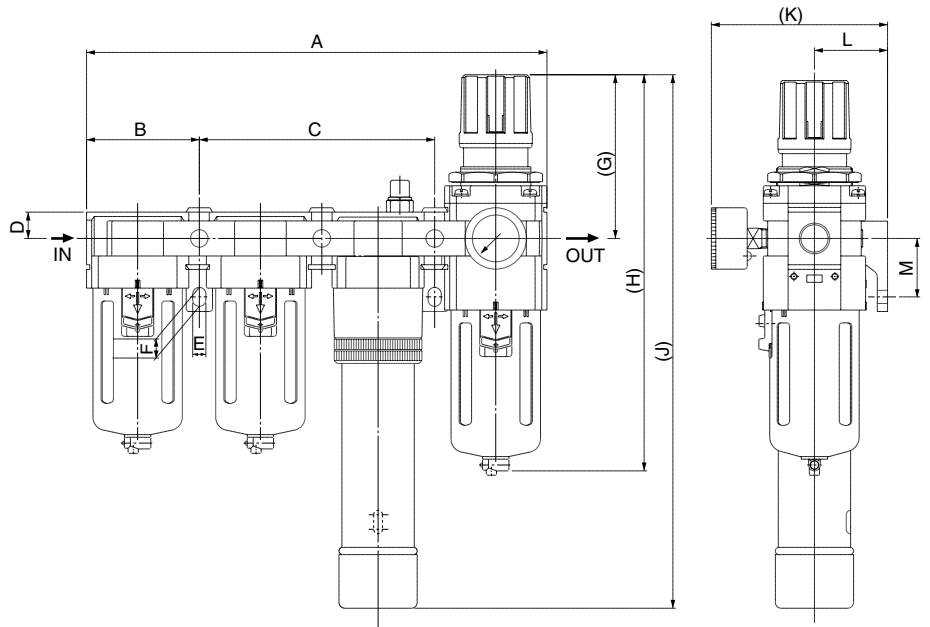
Note) Standard dew point symbols L (-40°C) and S (-60°C) only

Dimensions/With Micro Mist Separator Regulator

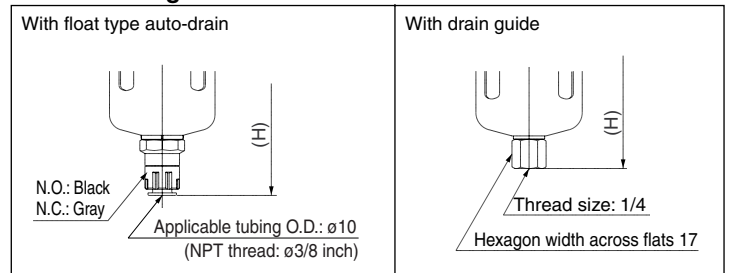
**IDG3V/5V/10V/20V
IDG3HV/5HV/10HV/20HV**



**IDG30V/50V
IDG30HV/50HV
IDG30LV/50LV/60LV/75LV/100LV
IDG60SV/75SV/100SV**



Drain Discharge



- HA
- AT
- ID
- AMG
- AFF
- AM
- Misc.

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	With float type auto-drain	With drain guide
														H	H
IDG3V/3HV/5V/5HV	1/8, 1/4	224	45	133	11	5.5	8.5	78	180	185	87	30	24	192	—
IDG10V/10HV	1/4, 3/8	275	59	158	14	7	11	92.5	201	244	102	41	35	242	208
IDG20V/20HV		269													
IDG30V/30HV		365													
IDG50V/50HV	3/8, 1/2	322	77	168	18	9	13	112	239	409	121	50	40	278	246
IDG60LV/60SV										464					
IDG75LV/75SV		544													
IDG100LV/100SV		614													

