



Automatic drain

DT3000-W/DT4000-W Series

Lightweight and compact automatic drain discharger.

● Compatible compressor: 0.75 kW to 75 kW

JIS symbol



Specifications

Descriptions	DT3000-W	DT4000-W	DT3010-W	DT4010-W
Type	Normally open (*1)		Normally closed	
Working fluid	Drain contained in the compressed air (water or oil)			
Proof pressure MPa	1.5			
Working pressure range MPa	0.1 to 1		0.15 to 1	
Operating ambient temperature range °C	5 to 60			
Port size Rc,NPT,G	3/8, 1/2			
Drain outlet	Barbed nipple (soft nylon tube of $\phi 5.7$ to $\phi 6$ bore size can be connected directly)			
Weight kg	0.3	0.45	0.3	0.45

*1: If capacity of the air compressor used is less than 0.75 kW (0.09 m³/min or less air supply rate), use the NC.

How to order

DT3000 - 10 - (White) - Z - BW

A Model No.

B Port size

C Port thread

D Option

E Attachment
*2

Code	Content	
A Model No.		
DT3000	Normally open auto-drain	
DT3010	Normally closed auto-drain	
DT4000	Normally open auto-drain	
DT4010	Normally closed auto-drain	
B Port size		
10	3/8	
15	1/2	
C Port thread		
Blank	Rc thread	
N	NPT thread	
G	G thread	
D Option		
Bowl material	Blank	Polycarbonate bowl
	Z	Nylon bowl
	M *1	Metal bowl (with gauge) drain port Rc1/8
	M2 *1	Metal bowl (with gauge) drain port Rc1/4
	Cock included	Blank
	C *1	With drain cock (without pipe plug)
E Attachment		
Blank	Not attached	
BW	C bracket	

⚠ Precautions for model No. selection

*1: A drain cock is included.

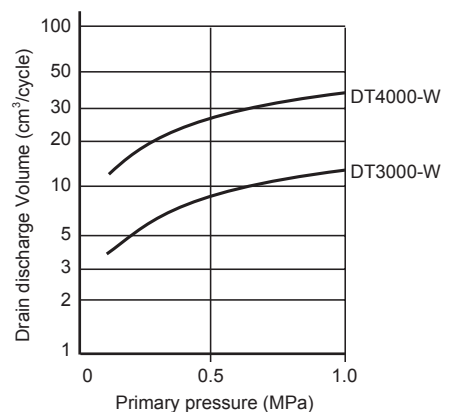
*2: C bracket model No. DT3000-W.....B320
DT4000-W.....B420

*3: A masking plug matching the port size is attached.

Bowl type and shape

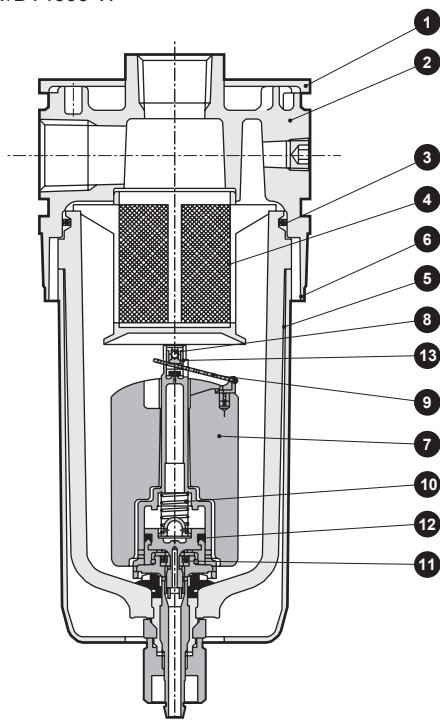
Type		Normally open (open at no pressure) DT3000-W/DT4000-W	Normally closed (closed at no pressure) DT3010-W/DT4010-W
DT3000-W DT4000-W	Plastic	● With manual cock 	● With manual cock
	Metal	● Without manual cock [M, M2] Rc1/8(M) Rc1/4(M2)	● Without manual cock [M, M2] Rc1/8(M) Rc1/4(M2)

Automatic drain performance curve

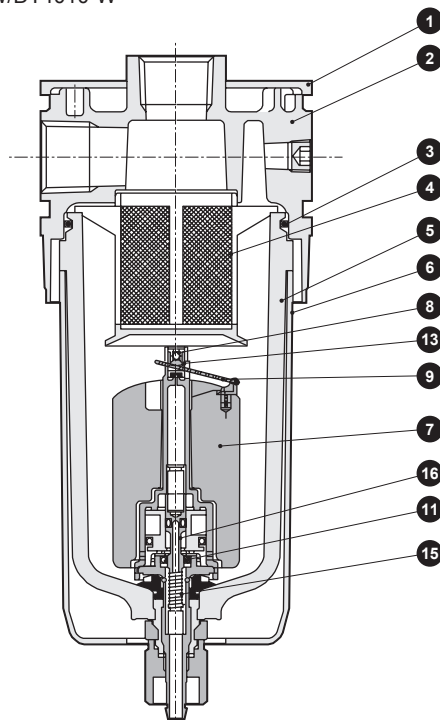


Internal structure and parts list

- Normally open (open at no pressure)
DT3000-W/DT4000-W



- Normally closed (closed at no pressure)
DT3010-W/DT4010-W



When pressure is not applied inside the bowl, the ⑩ spring pushes down the ⑫ valve, keeping it away from the ⑪ stem packing. When 0.1 MPa or higher pressure is applied inside the bowl, the pressure applied to the ⑫ valve becomes larger than the force of the ⑩ spring and pushes up the ⑫ valve, sealing it with the ⑪ stem packing.

When drain accumulates in the bowl, the ⑦ float moves up and the ⑨ float level arm pushes up the ⑬ orifice spring.

Then the ⑬ orifice spring snaps open the ③ orifice seat assembly and leads the compressed air into the upper chamber of the ⑫ valve, making it pressurized. When the ⑫ valve is pushed down apart from the ⑪ stem packing, drain is discharged to air. After drain is discharged, the ⑦ float moves down and the ⑨ float level arm closes the ③ orifice seat assembly. The compressed air that has kept the upper chamber of the ⑫ valve pressurized passes through the orifice of the ⑫ valve to be discharged to air. Then the pressure applied to the ⑫ valve from below becomes larger than the force of the ⑩ spring and pushes up the ⑫ valve, sealing it with the ⑪ stem packing.

When pressure is not applied inside the bowl, the ⑮ spring pushes up the ⑮ valve, keeping it sealed with the ⑪ stem packing. When 0.15 MPa or higher pressure is applied inside the bowl and drain accumulates, the ⑦ float moves up and the ⑨ float level arm pushes up the ⑬ orifice spring.

Then the ⑬ orifice spring snaps open the ③ orifice seat assembly and leads the compressed air into the upper chamber of the ⑮ valve, making it pressurized. When the ⑮ valve is pushed down apart from the ⑪ stem packing, drain is discharged to air.

After drain is discharged, the ⑦ float moves down and the ⑨ float level arm closes the ③ orifice seat assembly. The compressed air that has kept the upper chamber of the ⑮ valve pressurized passes through the orifice of the ⑮ valve to be discharged to air. Then the force of the ⑮ spring pushes up the ⑮ valve from below, sealing it with the ⑪ stem packing.

No.	Part name	Material	Model No.			
			DT3000-W	DT3010-W	DT4000-W	DT4010-W
1	Plate cover	ABS resin	-	-	-	-
2	Body	Aluminum alloy die-casting	-	-	-	-
3	O-ring	Special nitrile rubber	F3000-ORING	F3000-ORING	F4000-ORING	F4000-ORING
4	Screen	Polyacetal resin, polyester	DT3000-SCREEN	DT3000-SCREEN	DT4000-SCREEN	DT4000-SCREEN
5	Bowl assembly (including O-ring)	-	DT3000-W-BOWL	DT3010-W-BOWL	DT4000-W-BOWL	DT4010-W-BOWL
6	Bowl guard	Polyamide resin, steel	DT3000-W-BOWL-GUARD	DT3000-W-BOWL-GUARD	DT4000-W-BOWL-GUARD	DT4000-W-BOWL-GUARD

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Precautions

Dryer
system list

Refrigeration
dryer

Desiccant
dryer

High polymer
membrane dryer

Air filter

Drain discharger,
etc.

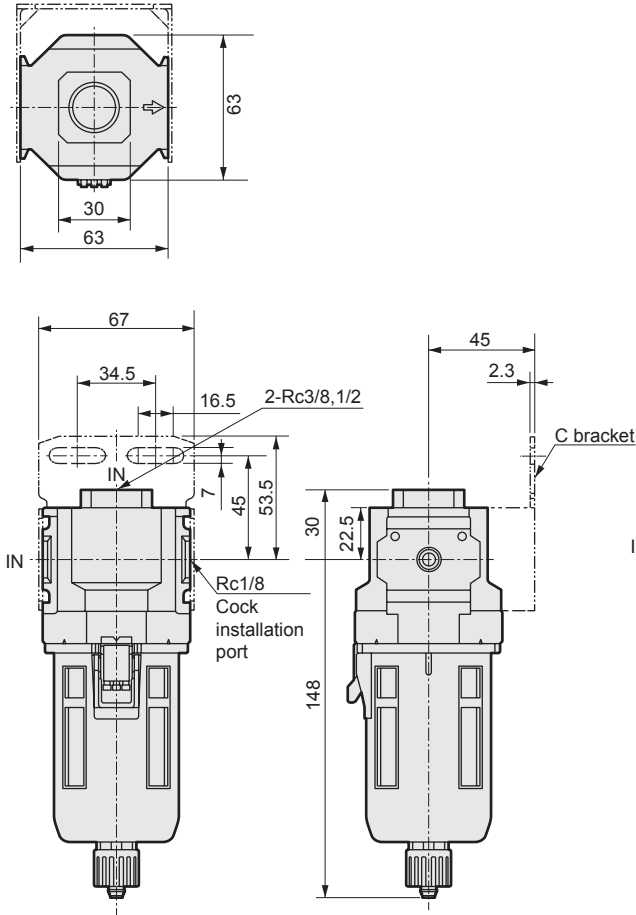
Flow rate sensor

DT3000-W/DT4000-W Series

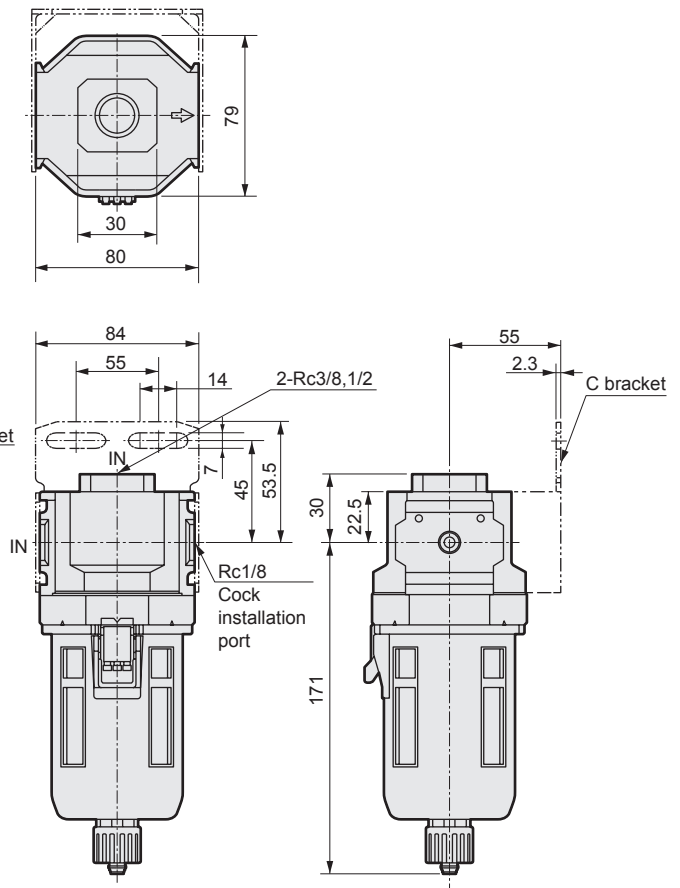
Dimensions



● DT3000-W/DT3010-W



● DT4000-W/DT4010-W

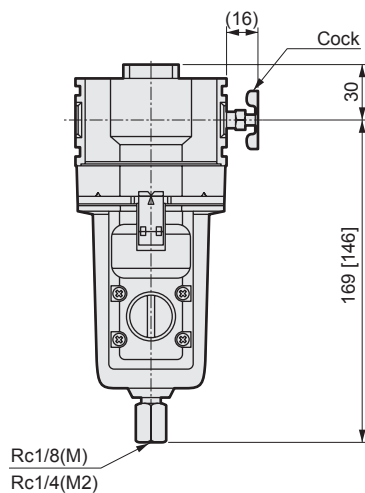


Note: A soft nylon tube of $\phi 5.7$ to $\phi 6$ bore size can be directly connected to the drain outlet.

Note: Keep 60 mm and over space below the bowl for maintenance.

Metal bowl specifications

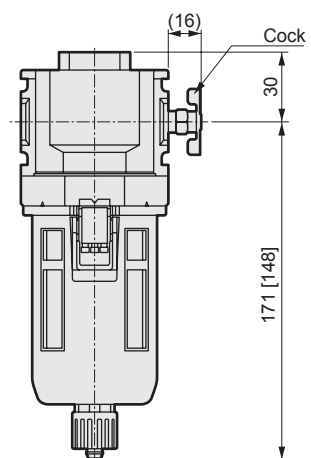
● Option [M, M2]



Note: Dimensions shown in [] are for DT3000-W.

Cock specifications

● Option [C]



Note: Dimensions shown in [] are for DT3000-W.