



Filter and regulator Flame-resistant series

# W3000/W4000/W8000-G4 Series

New Series of 5 µm element for dust removal, and 0.3 µm element for tar removal.

● Port size: 1/4 to 1

JIS symbol



## Specifications

Descriptions	W3000-G4	W4000-G4	W8000-G4
Working fluid	Compressed air		
Max. working pressure MPa	1.0 (≈150 psi, 10 bar) (*1, *2)		
Proof pressure MPa	1.5 (≈220 psi, 15 bar)		
Ambient / fluid temperatures °C	5 (41°F) to 60 (140°F)		
Filtration rating µm	5 or 0.3		
Set pressure MPa	0.05 (≈7.3 psi, 0.5 bar) to 0.85 (≈120 psi, 8.5 bar)		
Pressure relief	With relief mechanism		
Drain capacity cm <sup>3</sup>	45	80	80 (*3)
Port size Rc,NPT,G	1/4, 3/8 (1/2 uses an adaptor)	1/4, 3/8, 1/2 (3/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adaptor)
Weight kg	0.72	1.08	2.16
Standard specifications	Exterior: Flame-resistant material, metal bowl		

\*1: In the case of "F" with auto-drain, the min. working pressure of auto-drain is 0.1 MPa.

Air is purged with initial drainage until pressure reaches 0.1 MPa.

\*2: In the case of "F1" with auto-drain, the min. working pressure of auto-drain is 0.15 MPa.

\*3: Up to 170 cm<sup>3</sup> is stored with the manual drain cock only.

## Option weight

\* Add to the weight of the standard accessories.

Unit: kg

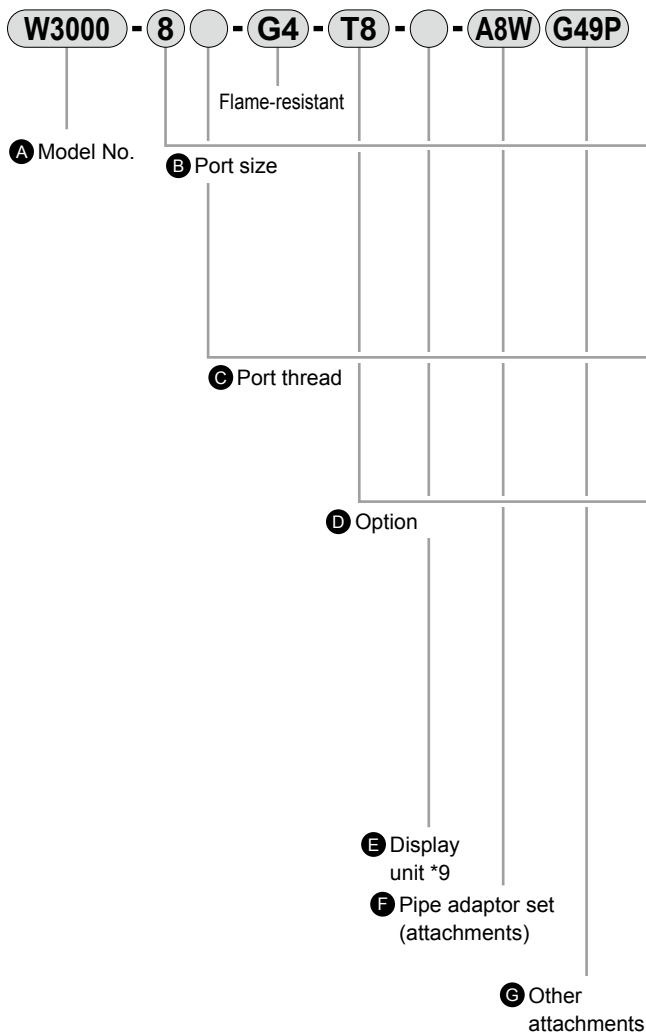
Code	Drain discharge				Bowl material	Press.gauge	Pipe adaptor set						
	F	F1	FF	FF1			M	T*	A8*W	A10*W	A15*W	A20*W	A25*W
W3000-G4	0.02	0.02			0	0	0.16	0.16	0.16				
W4000-G4	0.02	0.02			0	0	0.16	0.16	0.16	0.16			
W8000-G4	0.02	0.02	0.02	0.02	0	0				0.53	0.53	0.53	

Code	Attachment			
	BW	B3W	G49P	G59P
W3000-G4	0.17	0.07	0.086	0.115
W4000-G4	0.21	0.11	0.086	0.115
W8000-G4	0.36		0.086	0.115

# Filter/Regulator Series

How to order

## How to order



\* Refer to page 28 for the explanation of the option.

**A** Model No.

W3000 W4000 W8000

Code		Content	W3000	W4000	W8000
<b>B Port size</b>					
8	1/4		●	●	
10	3/8		●	●	
15	1/2			●	
20	3/4				●
25	1				●
<b>C Port thread</b> *1					
Blank	Rc thread		●	●	●
N	NPT thread		●	●	●
G	G thread		●	●	●
<b>D Option</b> *2					
Drain discharge	Blank	Manual drain cock	●	●	●
	F	Auto-drain, man OVRD (NO: no press→Exhaust)	●	●	●
	F1	Auto-drain, man OVRD (NC: no press→no exhaust)	●	●	●
	FF	Large auto-drain, man OVRD (NO: no press→Exhaust)			●
*3	FF1	Large auto-drain, man OVRD (NC: no press→no exhaust)			●
	Blank	Metal bowl (resin cock)	●	●	●
Bowl material	M	Metal bowl (metal cock)	●	●	●
	Blank	5 μm	●	●	●
Element	Y	0.3 μm (submicron)	*4	●	●
	Blank	0.05 to 0.85 MPa	●	●	●
Pressure range	L	0.05 to 0.35 MPa	*5	●	●
	Blank	With relief mechanism	●	●	●
Pressure relief	N	Non-relief	●	●	●
	T	No pressure gauge (gauge port (1/4) is assembled sealed)	●	●	●
Pressure gauge	T8	Pressure gauge ready (gauge port (1/4) is left open)	●	●	●
	Blank	Standard flow (left → right)	●	●	●
Flow direction	X1	Reverse flow (right → left)	●	●	●
	<b>E Display unit</b>				
Blank	MPa display, Rc thread		●	●	●
J1	MPa display, NPT, G thread		●	●	●
<b>F Pipe adaptor set (attachments)</b> *6 Page 270					
Blank	Not attached		●	●	●
A8*W	1/4 pipe adaptor set (white)		●	●	
A10*W	3/8 pipe adaptor set (white)		●	●	
A15*W	1/2 pipe adaptor set (white)		●	●	
A20*W	3/4 pipe adaptor set (white)			●	●
A25*W	1 pipe adaptor set (white)				●
A32*W	1 1/4 pipe adaptor set (white)				●
<b>* Adaptor thread</b>					
Blank	Rc thread		●	●	●
N	NPT thread		●	●	●
G	G thread		●	●	●
<b>G Other attachments</b> *8 Pages 267, 289					
Blank	Not attached		●	●	●
BW	C type bracket (silver)		●	●	●
B3W	*7 L type bracket (silver)		●	●	
G49P	G49D-8-P10(L:G49D-8-P04)		●	●	●
G59P	G59D-8-P10(L:G59D-8-P10)		●	●	●

### ⚠ Precautions for model No. selection

- \*1: G threads and NPT threads are available for IN, OUT, gauge port and drain outlet (metal bowl (metal cock) with auto-drain).
- \*2: Select options for the drainage, bowl material, element, and regulator.  
When selecting options for several items, list options in order from the top.
- \*3: Refer to page 280 for the auto-drain usage conditions.
- \*4: Refer to page 194 for max. processing flow rate when option "Y" is selected.
- \*5: The pressure gauge's indication range is 0 to 0.4 MPa for the option "L".
- \*6: The pipe adaptor set and C type bracket cannot be used together.
- \*7: For details on mounting the L type bracket, refer to (2. Regulator) of "⚠ Cautions and Installation & Adjustment" (page 283).
- \*8: If NPT is selected for (C) Port thread, an NPT pressure gauge is supplied. If Rc or G thread is selected, an R thread pressure gauge is supplied.
- \*9: Display unit options when selecting NPT threads: If Blank is selected, the pressure unit is psi and the temperature display unit is °F.  
When G thread and Blank display unit option are selected, the pressure unit will be bar and the temperature display unit will be °C.  
When NPT/G thread and "J1" display unit option are selected, the pressure unit will be MPa and the temperature display unit will be °C.

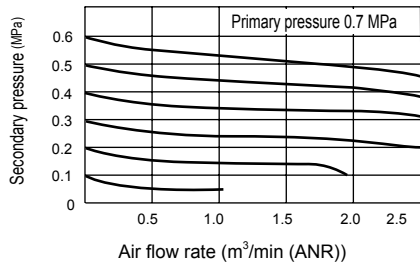
- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/ PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/ other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/ Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

# Filter/Regulator Series

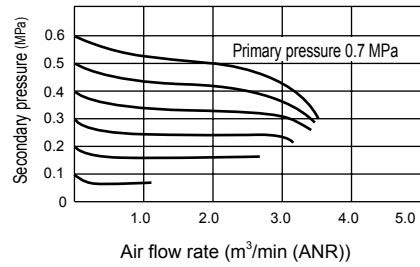
## F.R.L Flow characteristics

- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

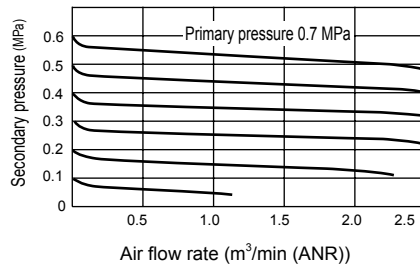
● W3000-8-G4



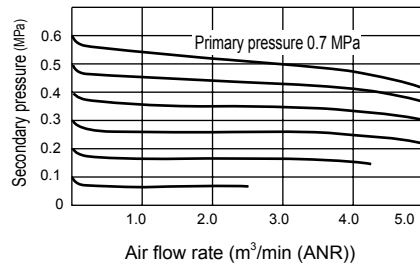
● W3000-10-G4



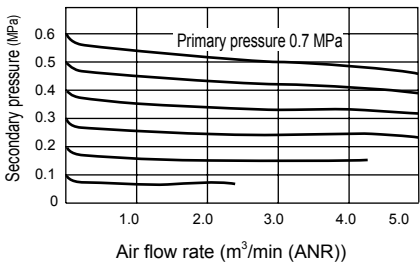
● W4000-8-G4



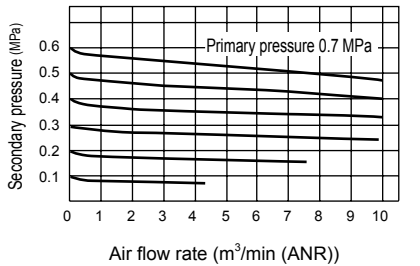
● W4000-10-G4



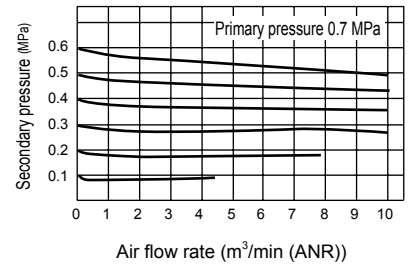
● W4000-15-G4



● W8000-20-G4

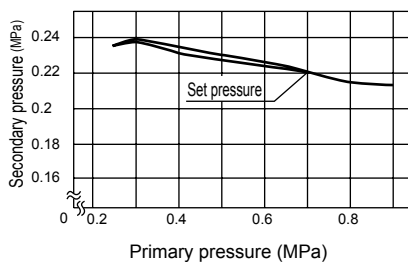


● W8000-25-G4

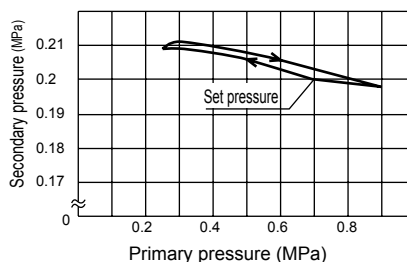


## Pressure characteristics

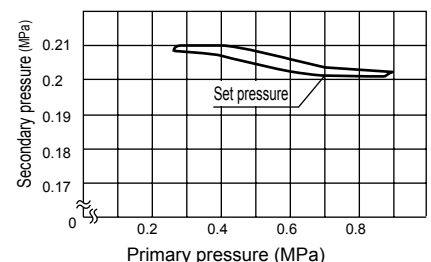
● W3000-G4



● W4000-G4



● W8000-G4

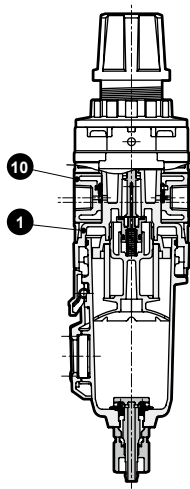
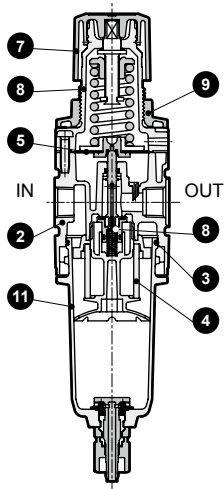


# Filter/Regulator Series

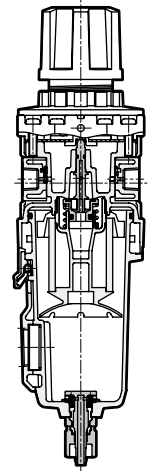
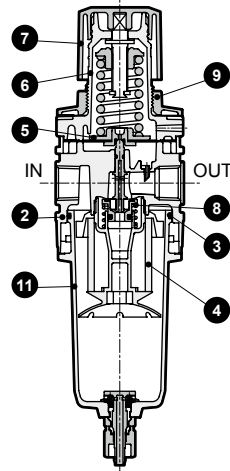
Internal structure and parts list

## Internal structure and parts list

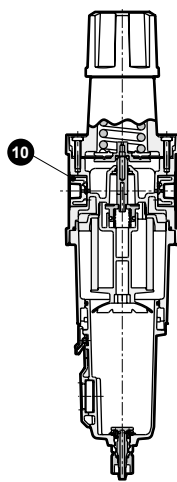
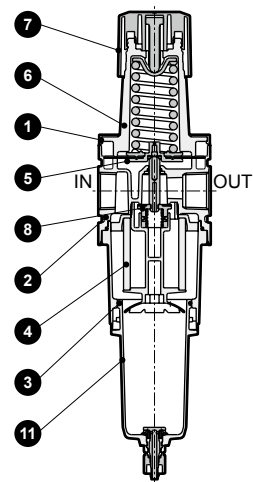
● W3000-G4



● W4000-G4



● W8000-G4



No.	Part name	Material		
		W3000-G4	W4000-G4	W8000-G4
1	Plate cover	ABS resin (*1)		
2	Body	Aluminum alloy die-casting		
3	O-ring	Special nitrile rubber		
4	Element	Polypropylene		
5	Diaphragm assembly	Zinc alloy die-casting/nitrile rubber		
6	Cover	Aluminum alloy die-casting		
7	Knob	PBT resin (*1)		
8	Valve assembly	Copper alloy, hydrogenated nitrile rubber (polyacetal resin: W3000, 4000)		
9	Mounting nut	PBT resin (*1)		-
10	Gauge plug assembly	Polyamide resin (*1), nitrile rubber, steel		
11	Bowl assembly	Aluminum alloy die-casting, PBT resin (*1), glass, nitrile rubber, steel, polyacetal resin, urethane resin		

\*1: Flame-resistant resin, UL94 Standards V-0 or equivalent

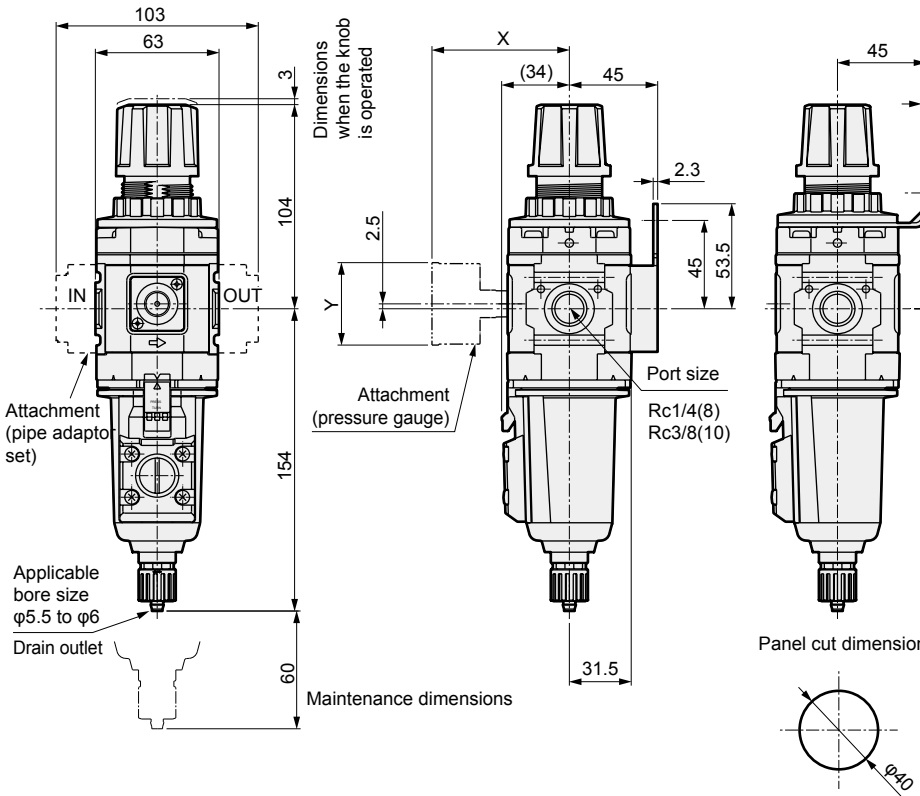
- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/  
PTFE FRL
- Outdrs FR
- F.R.L  
(Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/  
other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/  
ElecPresSw
- ContactSW
- AirSens
- PresSW  
Cool
- AirFloSens/  
Contr
- WaterRtSens
- TotAirSys  
(Total Air)
- TotAirSys  
(Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg  
etc
- Ending

# Filter/Regulator Series

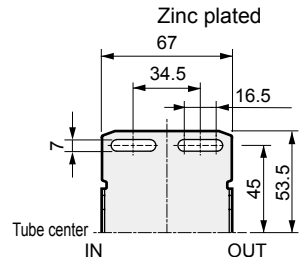


## Dimensions

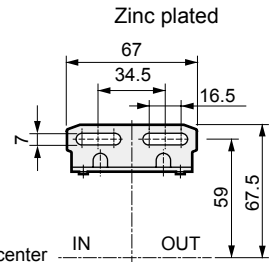
### ● W3000-G4



- Attachment
- C type bracket (-BW)
- Part model No.: B320
- Material: Steel



- L type bracket (-B3W)
- Part model No.: B330
- Material: Steel

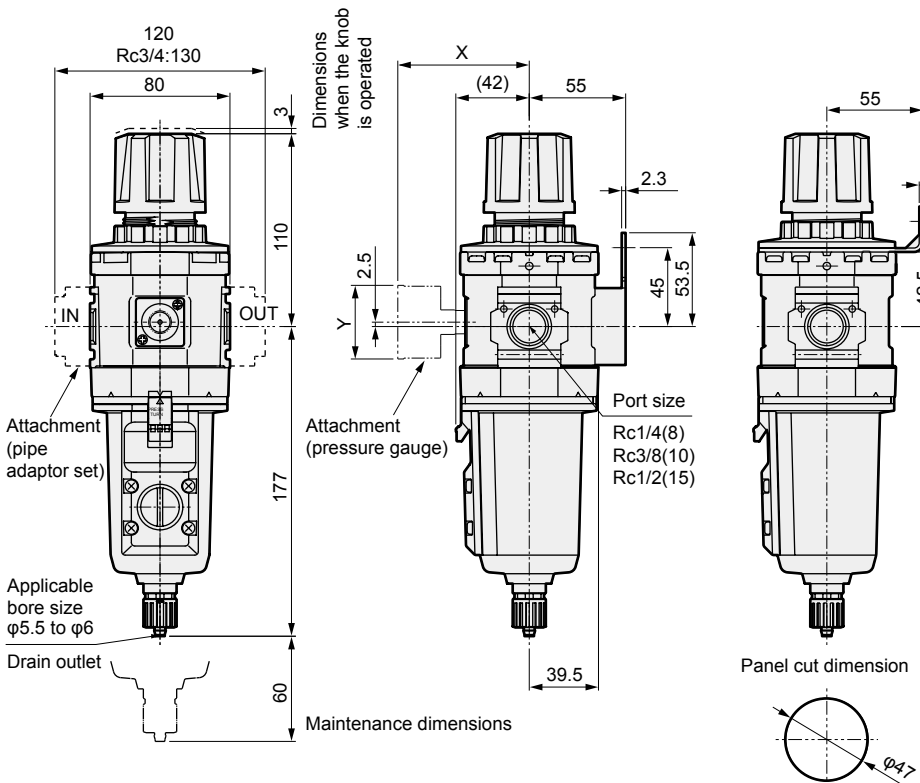


Pressure gauge attached optional dimensions table

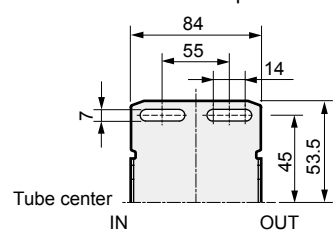
Pressure gauge	X	Y
G49P	(69.5)	φ43.5
G59P	(72)	φ52

· For the metal bowl (resin cock), the dimensions of the manual drain cock and the auto-drain manual override are the same.  
 Note: The C type bracket and pipe adaptor set attachments cannot be used together.

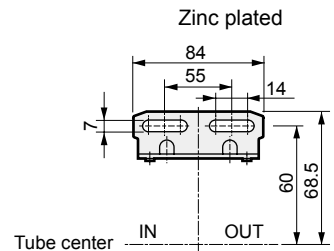
### ● W4000-G4



- Attachment
- C type bracket (-BW)
- Part model No.: B420
- Material: Steel



- L type bracket (-B3W)
- Part model No.: B430
- Material: Steel



Pressure gauge attached optional dimensions table

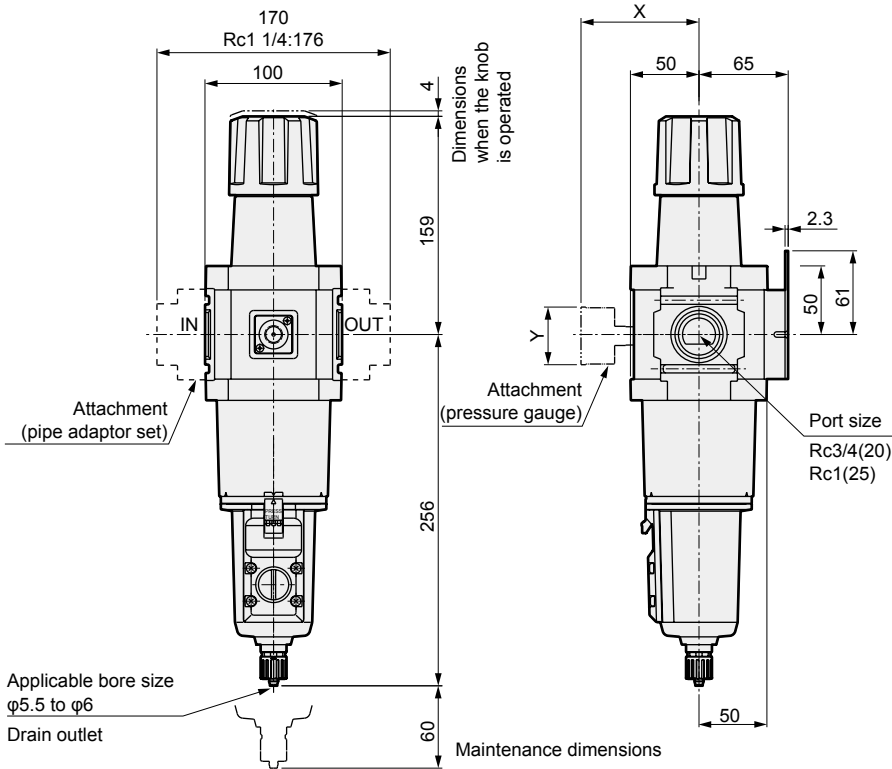
Pressure gauge	X	Y
G49P	(74.5)	φ43.5
G59P	(77)	φ52

· For the metal bowl (resin cock), the dimensions of the manual drain cock and the auto-drain manual override are the same.  
 Note: The C type bracket and pipe adaptor set attachments cannot be used together.

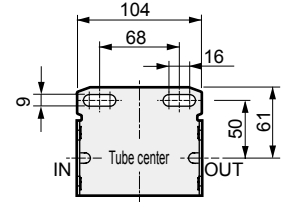
### Dimensions



#### ● W8000-G4



- Attachment  
C type bracket (-BW)  
Part model No.: B820
- Material: Steel  
Zinc plated



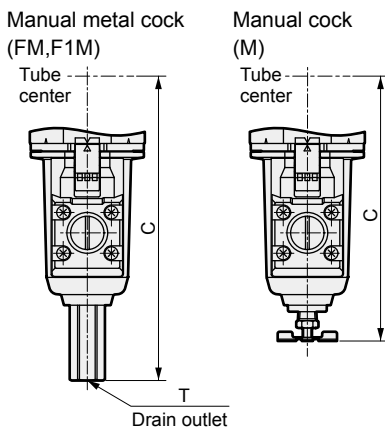
· For the metal bowl (resin cock), the dimensions of the manual drain cock and the auto-drain manual override are the same.  
Note: The C type bracket and pipe adaptor set attachments cannot be used together.

Pressure gauge attached optional dimensions table

Pressure gauge	X	Y
G49P	(84.5)	φ43.5
G59P	(87)	φ52

### Optional dimensions

#### ● Metal bowl (metal cock) W3000/4000/8000-G4



Dimensions table

Model No.	With auto-drain		Manual cock
	C	T	C
W3000-G4	164	Rc1/4	143.5
W4000-G4	187	Rc1/4	166.5
W8000-G4	266	Rc1/4	245.5

- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/ PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrescR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/ other
- Jnt/tube
- AirUnt
- PresCompn
- Mech/ ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/ Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending



Reverse filter and regulator Flame-resistant series

# W3100/W4100/W8100-G4 Series

Introducing the 5 µm dust removing element and 0.3 µm tar removing element with reverse flow function to the lineup.

● Port size: 1/4 to 1

JIS symbol



## Specifications

Descriptions	W3100-G4	W4100-G4	W8100-G4
Working fluid	Compressed air		
Max. working pressure MPa	1.0 (≈150 psi, 10 bar) (*2, *3)		
Proof pressure MPa	1.5 (≈220 psi, 15 bar)		
Ambient / fluid temperatures °C	5 (41°F) to 60 (140°F)		
Filtration rating µm	5 or 0.3		
Set pressure (*1) MPa	0.05 (≈7.3 psi, 0.5 bar) to 0.85 (≈120 psi, 8.5 bar)		
Pressure relief	With relief mechanism		
Drain capacity cm <sup>3</sup>	45	80	80 (*4)
Port size Rc,NPT,G	1/4, 3/8 (1/2 uses an adaptor)	1/4, 3/8, 1/2 (3/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adaptor)
Weight kg	0.72	1.08	2.16
Standard specifications	Exterior: Flame-resistant material, metal bowl		

\*1: Refer to the set pressure range for the back pressure given on page 186 when selecting the model.

\*2: In the case of "F" with auto-drain, the min. working pressure of auto-drain is 0.1 MPa.

Air is purged with initial drain until pressure reaches 0.1 MPa.

\*3: In the case of "F1" with auto-drain, the min. working pressure of auto-drain is 0.15 MPa.

\*4: Up to 170m<sup>3</sup> is stored with the manual drain cock only.

\*5: Check that the primary pressure is at least 0.05 MPa more than the secondary pressure.

## Option weight

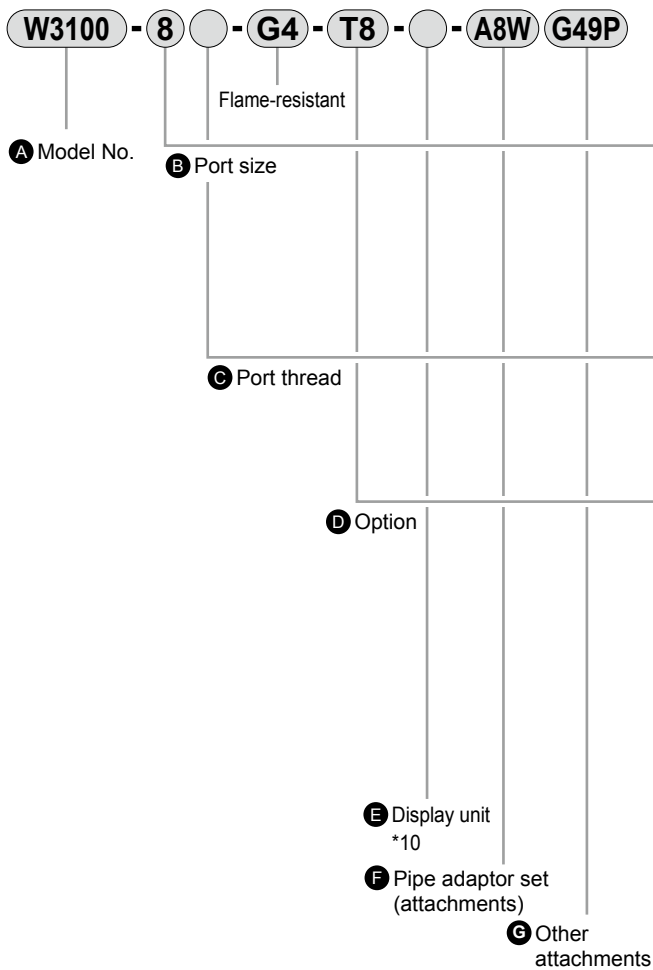
\* Add to the weight of the standard accessories.

Unit: kg

Code	Drain discharge				Bowl material	Press.gauge	Pipe adaptor set						
	F	F1	FF	FF1			M	T*	A8*W	A10*W	A15*W	A20*W	A25*W
W3100-G4	0.02	0.02			0	0	0.16	0.16	0.16				
W4100-G4	0.02	0.02			0	0	0.16	0.16	0.16	0.16			
W8100-G4	0.02	0.02	0.02	0.02	0	0				0.53	0.53	0.53	

Code	Attachment			
	BW	B3W	G49P	G59P
W3100-G4	0.17	0.07	0.086	0.115
W4100-G4	0.21	0.11	0.086	0.115
W8100-G4	0.36		0.086	0.115

### How to order



\* Refer to page 28 for the explanation of the option.

**A** Model No.

W3100	W4100	W8100
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Code		Content		W3100	W4100	W8100
<b>B Port size</b>						
<b>8</b>	1/4	●	●			
<b>10</b>	3/8	●	●			
<b>15</b>	1/2		●			
<b>20</b>	3/4					●
<b>25</b>	1					●
<b>C Port thread</b> *1						
<b>Blank</b>	Rc thread	●	●	●		
<b>N</b>	NPT thread	●	●	●		
<b>G</b>	G thread	●	●	●		
<b>D Option</b> *2, *3						
Drain discharge	<b>Blank</b>	Manual drain cock		●	●	●
	<b>F</b>	Auto-drain, man OVRD (NO: no press→Exhaust)		●	●	●
	<b>F1</b>	Auto-drain, man OVRD (NC: no press→no exhaust)		●	●	●
	<b>FF</b>	Large auto-drain, man OVRD (NO: no press→Exhaust)				●
*4	<b>FF1</b>	Large auto-drain, man OVRD (NC: no press→no exhaust)				●
	<b>Blank</b>	Metal bowl (resin cock)		●	●	●
Bowl material	<b>M</b>	Metal bowl (metal cock)		●	●	●
	<b>Blank</b>	5 μm		●	●	●
Element	<b>Y</b>	0.3 μm (submicron)	*5	●	●	●
	<b>Blank</b>	0.05 to 0.85 MPa		●	●	●
Pressure range	<b>L</b>	0.05 to 0.35 MPa	*6	●	●	●
	<b>Blank</b>	With relief mechanism		●	●	●
Pressure relief	<b>N</b>	Non-relief		●	●	●
	<b>T</b>	No pressure gauge (gauge port (1/4) is assembled sealed)		●	●	●
Pressure gauge	<b>T8</b>	Pressure gauge ready (gauge port (1/4) is left open)		●	●	●
	<b>Blank</b>	Standard flow (left → right)		●	●	●
Flow direction	<b>X1</b>	Reverse flow (right → left)		●	●	●
	<b>E Display unit</b>					
<b>Blank</b>	MPa display, Rc thread			●	●	●
<b>J1</b>	MPa display, NPT, G thread			●	●	●
<b>F Pipe adaptor set (attachments)</b> Page 270 *7						
<b>Blank</b>	Not attached			●	●	●
<b>A8*W</b>	1/4 pipe adaptor set (white)			●	●	
<b>A10*W</b>	3/8 pipe adaptor set (white)			●	●	
<b>A15*W</b>	1/2 pipe adaptor set (white)			●	●	
<b>A20*W</b>	3/4 pipe adaptor set (white)				●	●
<b>A25*W</b>	1 pipe adaptor set (white)					●
<b>A32*W</b>	1 1/4 pipe adaptor set (white)					●
<b>* Adaptor thread</b>						
<b>Blank</b>	Rc thread			●	●	●
<b>N</b>	NPT thread			●	●	●
<b>G</b>	G thread			●	●	●
<b>G Other attachments</b> Pages 267, 289 *9						
<b>Blank</b>	Not attached			●	●	●
<b>BW</b>	C type bracket (silver)			●	●	●
<b>B3W</b>	*8 L type bracket (silver)			●	●	
<b>G49P</b>	G49D-8-P10(L:G49D-8-P04)			●	●	●
<b>G59P</b>	G59D-8-P10(L:G59D-8-P04)			●	●	●

### ⚠️ Precautions for model No. selection

- \*1: G threads and NPT threads are available for IN, OUT, gauge port and drain outlet (metal bowl (metal cock) with auto-drain).
- \*2: Select options for the drainage, bowl material, element, and regulator.  
When selecting options for several items, list options in order from the top.
- \*3: **Positions of check valve and pressure gauge cannot be changed.**  
**If the IN and OUT direction must be reversed, indicate "X1" at the end of the option field.**
- \*4: Refer to page 280 for the auto-drain usage conditions.
- \*5: Refer to page 194 for max. processing flow rate when option "Y" is selected.
- \*6: The pressure gauge's indication range is 0 to 0.4 MPa for the option "L".
- \*7: The pipe adaptor set and C type bracket cannot be used together.
- \*8: For details on mounting the L type bracket, refer to (2. Regulator) of "⚠️ Cautions and Installation & Adjustment" (page 283).
- \*9: If NPT is selected for (C) Port thread, an NPT pressure gauge is supplied. If Rc or G thread is selected, an R thread pressure gauge is supplied.
- \*10: Display unit options when selecting NPT threads: If Blank is selected, the pressure unit is psi and the temperature display unit is °F.  
When G thread and Blank display unit option are selected, the pressure unit will be bar and the temperature display unit will be °C.  
When NPT/G thread and "J1" display unit option are selected, the pressure unit will be MPa and the temperature display unit will be °C.

F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/other
Jnt/tube
AirUnt
PrecsCompn
Mech/ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/Contr
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

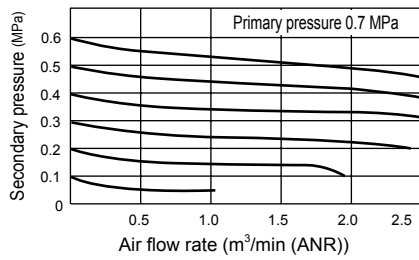


# Filter/Regulator Series

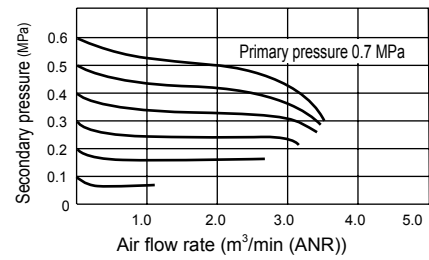
## F.R.L Flow characteristics

- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacFR
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

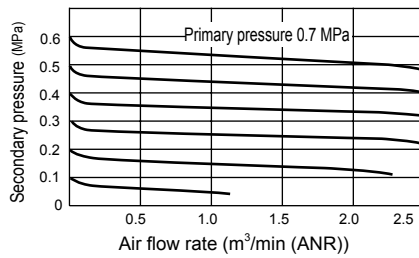
● W3100-8-G4



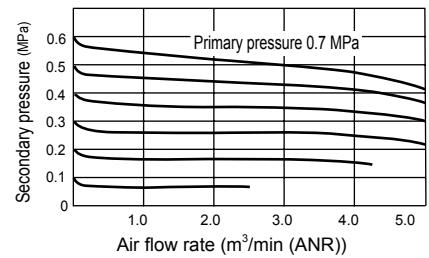
● W3100-10-G4



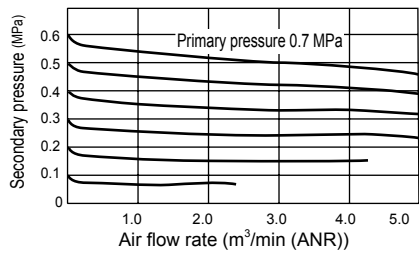
● W4100-8-G4



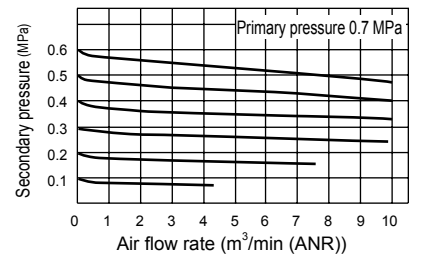
● W4100-10-G4



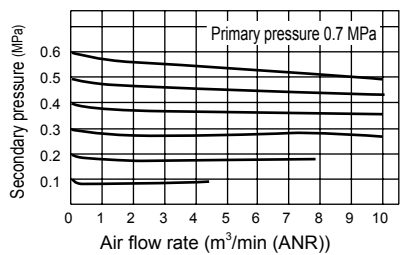
● W4100-15-G4



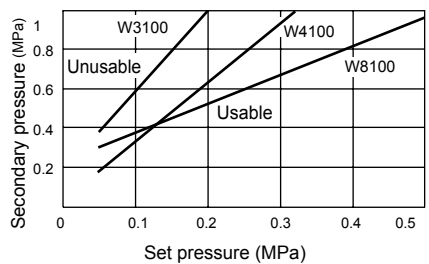
● W8100-20-G4



● W8100-25-G4



● Set pressure range to back pressure

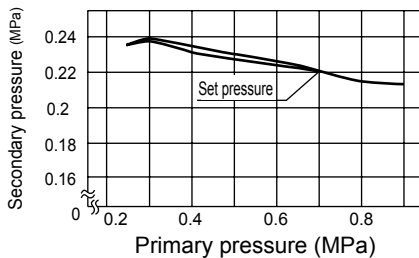


Note: The area above the graph line shows the unusable range and that below the graph line shows the usable range.

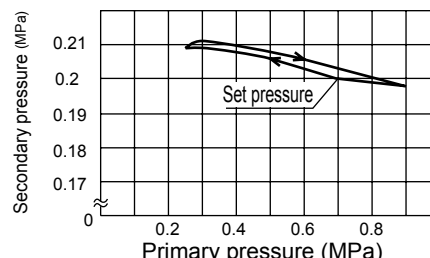
Example: If W4100 is set to set pressure 0.2 MPa and the secondary back pressure is 0.6 MPa or more, the secondary pressure will not be released to the primary side.

## Pressure characteristics

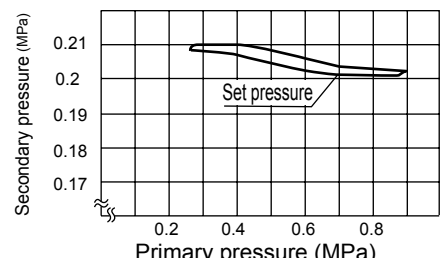
● W3100-G4



● W4100-G4



● W8100-G4

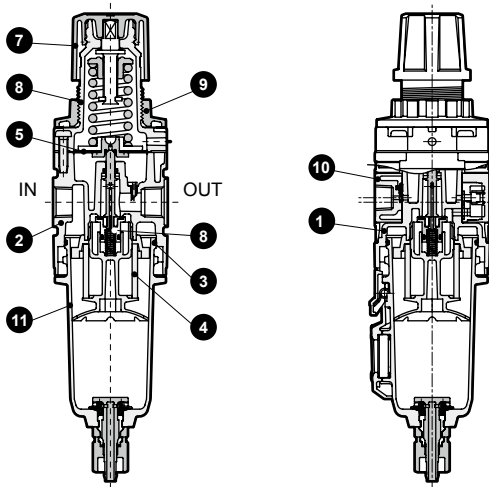


# Filter/Regulator series

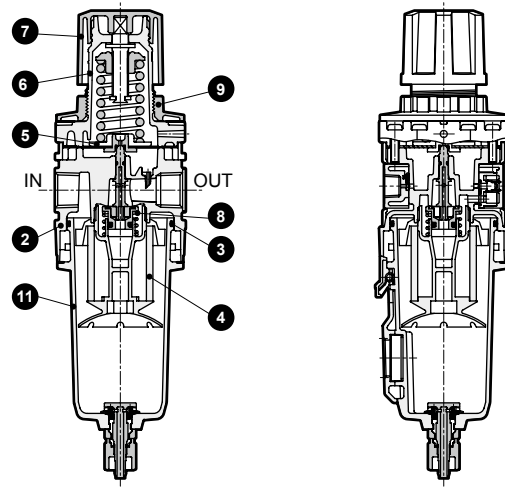
Internal structure and parts list

## Internal structure and parts list

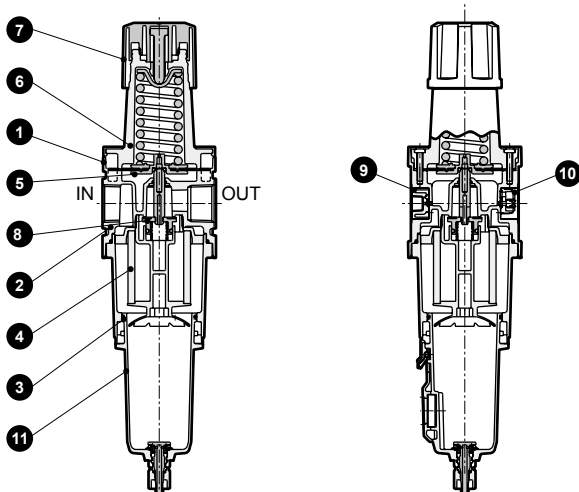
### ● W3100-G4



### ● W4100-G4



### ● W8100-G4



No.	Part name	Material		
		W3100-G4	W4100-G4	W8100-G4
1	Plate cover	ABS resin (*1)		
2	Body	Aluminum alloy die-casting		
3	O-ring	Special nitrile rubber		
4	Element	Polypropylene		
5	Diaphragm assembly	Zinc alloy die-casting, nitrile rubber		
6	Cover	Aluminum alloy die-casting		
7	Knob	PBT resin (*1)		
8	Valve assembly	Copper alloy, hydrogenated nitrile rubber (polyacetal resin: W3100, 4100)		
9	Gauge plug assembly	Polyamide resin (*1), nitrile rubber, steel		
10	Check valve total assembly	PBT resin, nitrile rubber, stainless steel wire, steel, aluminum		
11	Bowl assembly	Al alloy die-cast, PBT resin (*1), glass, nitrile rubber, steel, POM resin, URE resin		
12	Mounting nut	PBT resin (*1)		

\*1 : Flame-resistant resin, UL94 Standards V-0 or equivalent

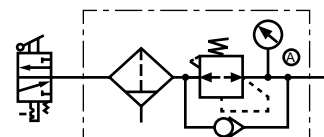
\*2 : Refer to page 190 for repair parts kit model No.

## Functions

When the primary pressure is introduced from the IN side, the check valve functions as a regular regulator because it closes with primary pressure and spring load. When primary pressure is released by a switching valve such as a shut-off valve, the check valve opens with secondary pressure. Pressure in the diaphragm chamber is released and pressure drops. This causes the diaphragm to be pressed down by the pressure adjustment spring. The main valve (valve assembly) opens, and the air on the OUT side is discharged.

Note: When the primary side pressure is released, back pressure A must be equal to or less than the set pressure range of the regulator corresponding to the back pressure shown in the graph. (Refer to page 186 for the graph)

### ● Circuit diagram



When using shut-off valve in front of reverse filter and regulator.

F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FimResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PrecsCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

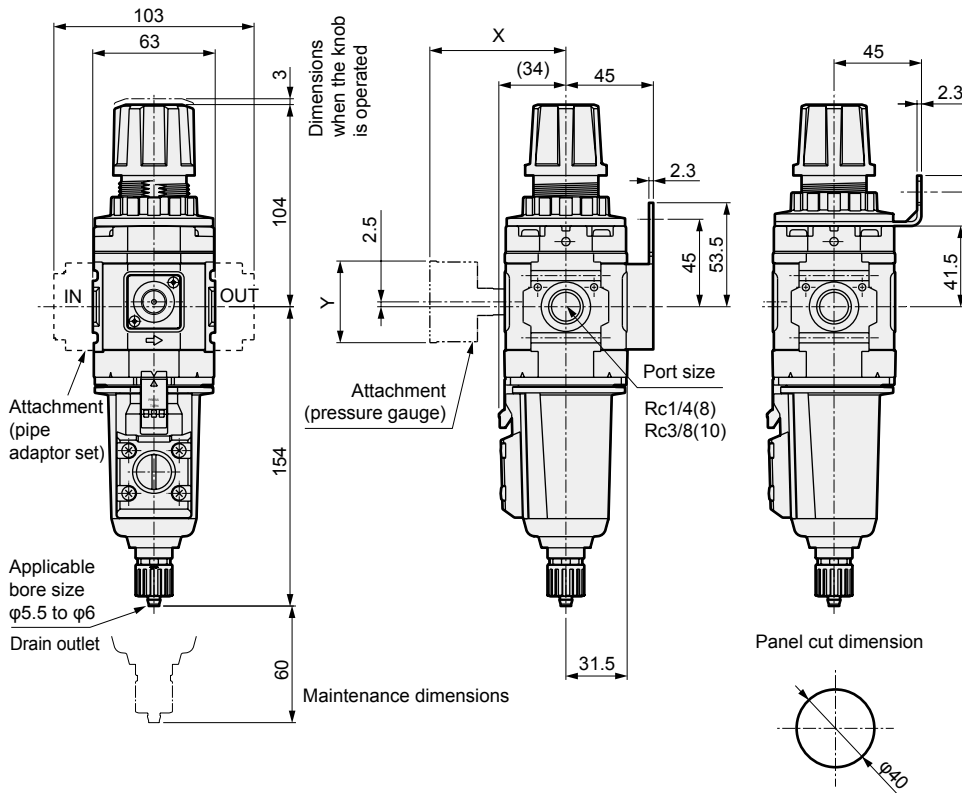
# Filter/Regulator Series



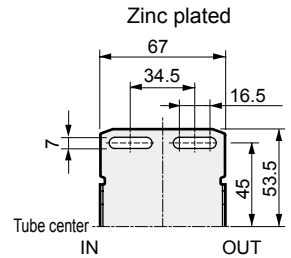
## Dimensions

- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-Prohr
- MedPresFR
- No Cu/ PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/ other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/ Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

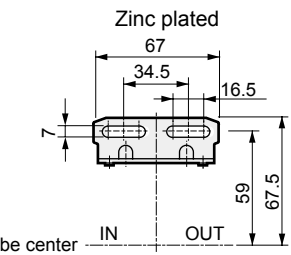
### ● W3100-G4



- Attachment
- C type bracket (-BW)
- Part model No.: B320
- Material: Steel



- L type bracket (-B3W)
- Part model No.: B330
- Material: Steel

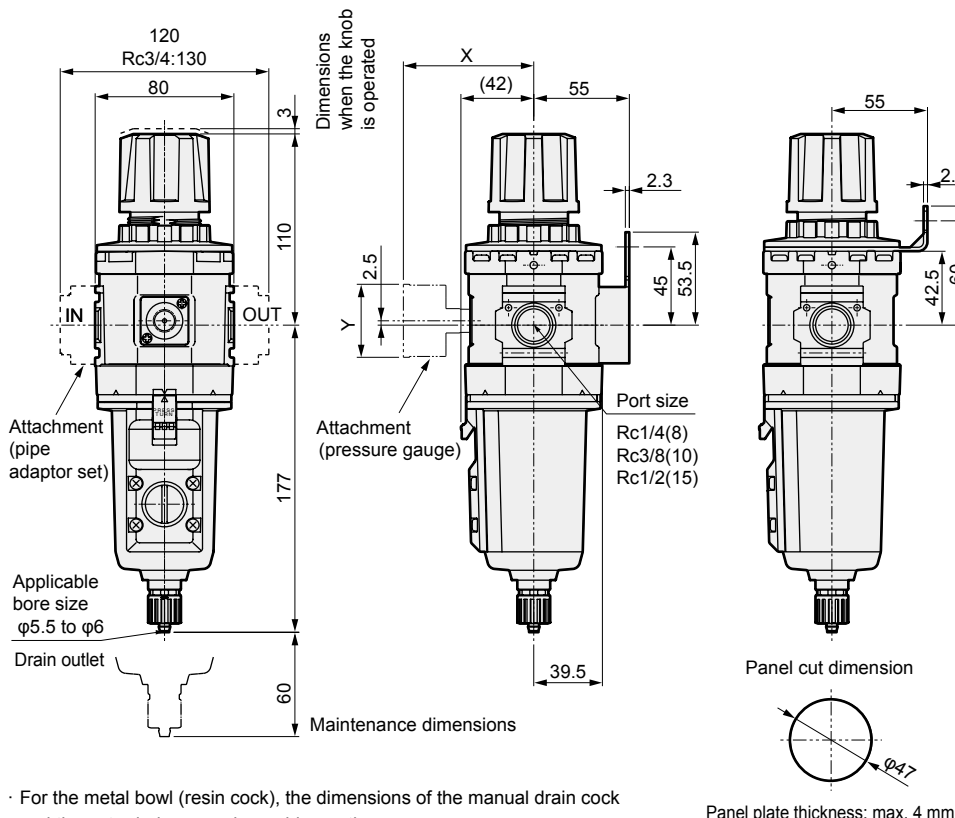


Pressure gauge attached optional dimensions table

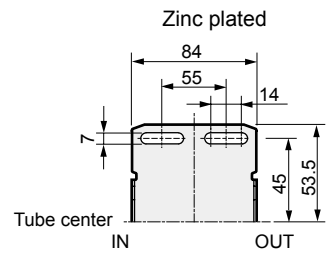
Pressure gauge	X	Y
G49P	(69.5)	φ43.5
G59P	(72)	φ52

· For the metal bowl (resin cock), the dimensions of the manual drain cock and the auto-drain manual override are the same.  
Note: The C type bracket and pipe adaptor set attachments cannot be used together.

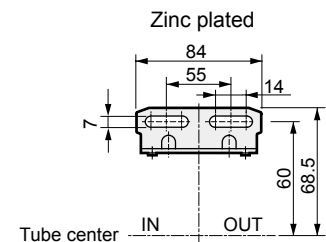
### ● W4100-G4



- Attachment
- C type bracket (-BW)
- Part model No.: B420
- Material: Steel



- L type bracket (-B3W)
- Part model No.: B430
- Material: Steel



Pressure gauge attached optional dimensions table

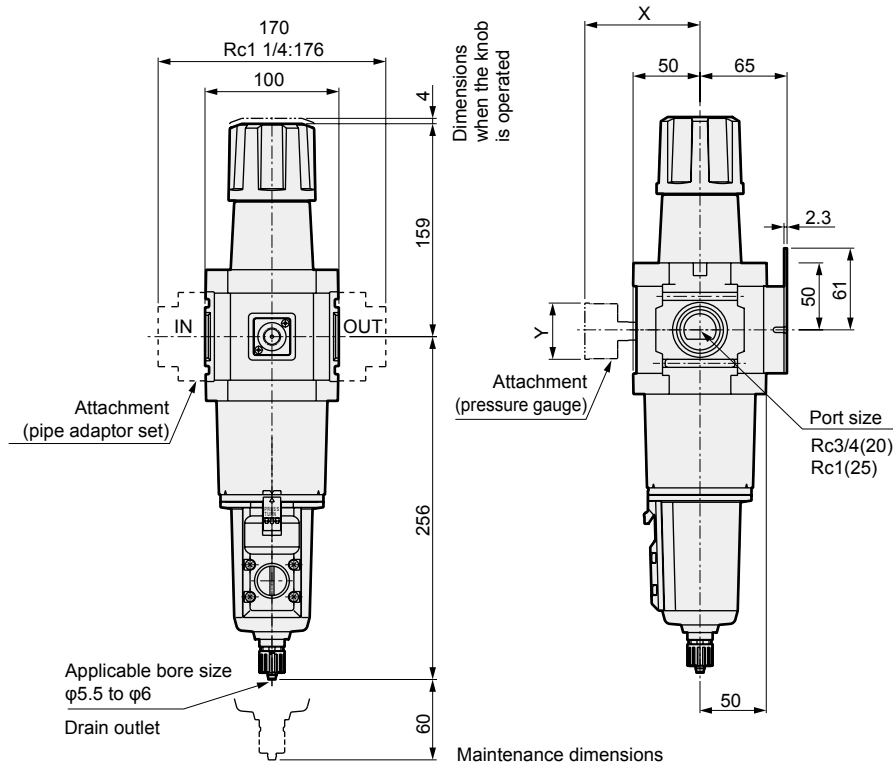
Pressure gauge	X	Y
G49P	(74.5)	φ43.5
G59P	(77)	φ52

· For the metal bowl (resin cock), the dimensions of the manual drain cock and the auto-drain manual override are the same.  
Note: The C type bracket and pipe adaptor set attachments cannot be used together.

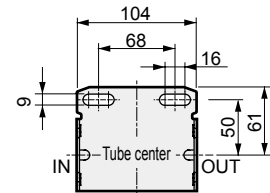
### Dimensions



#### ● W8100-G4



- Attachment C type bracket (-BW)  
Part model No.: B820
- Material: Steel  
Zinc plated



For the metal bowl (resin cock), the dimensions of the manual drain cock and the auto-drain manual override are the same.  
Note: The C type bracket and pipe adaptor set attachments cannot be used together.

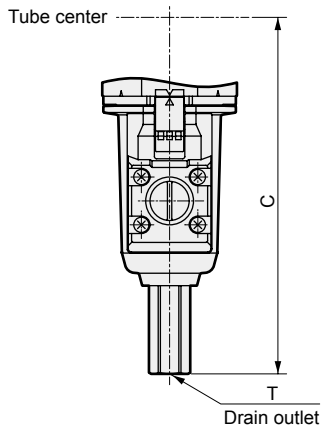
Pressure gauge attached optional dimensions table

Pressure gauge	X	Y
G49P	(84.5)	$\phi 43.5$
G59P	(87)	$\phi 52$

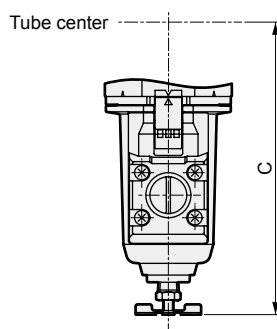
### Optional dimensions

#### ● Metal bowl (metal cock) W3100-G4/W4100-G4/W8100-G4

Manual metal cock (FM, F1M)



Manual cock (M)



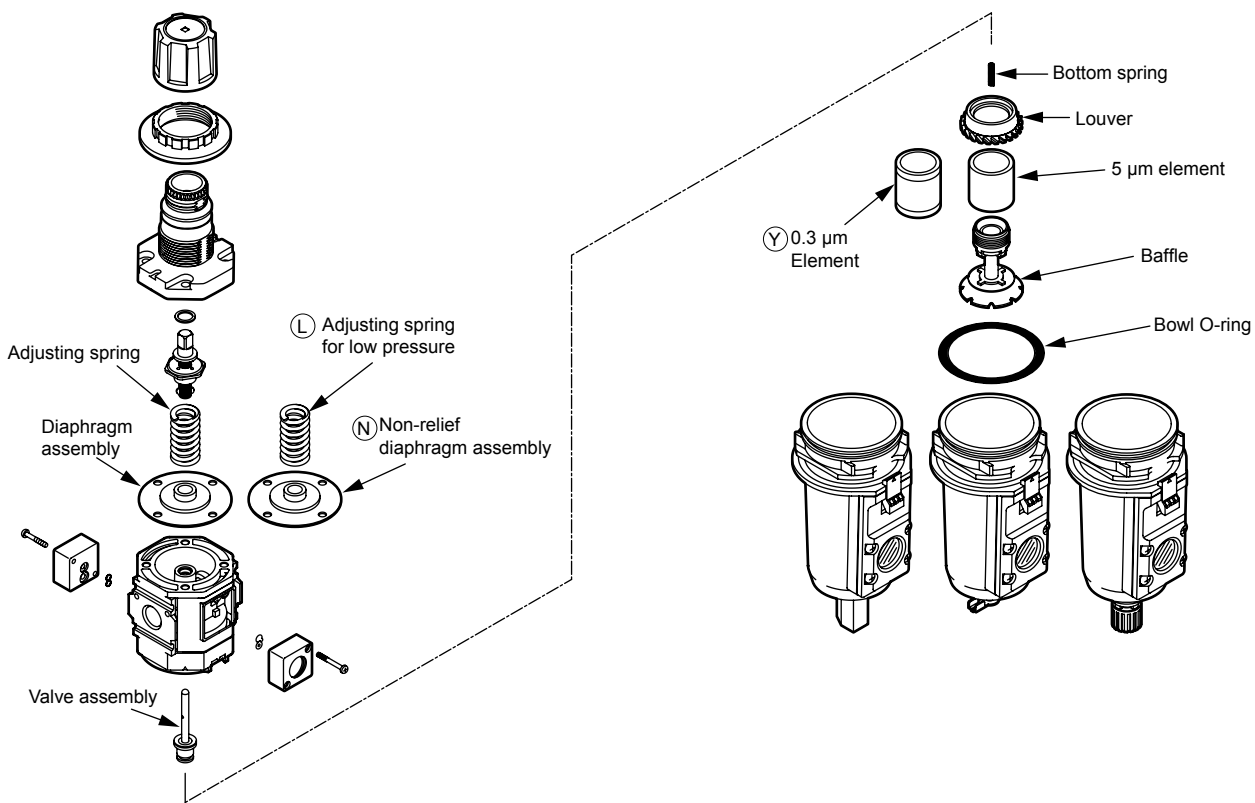
Dimensions table

Model No.	With auto-drain		Manual cock
	C	T	C
W3100-G4	164	Rc1/4	143.5
W4100-G4	187	Rc1/4	166.5
W8100-G4	266	Rc1/4	245.5

- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/ PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/ other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/ Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

# Filter/Regulator Series

## F.R.L Optional parts diagram



### Repair parts kit (set of diaphragm assembly, valve assembly, bottom spring, louver, element, baffle, bowl O-ring)

Repair parts kits model No.	Relief diaphragm	Non-relief diaphragm	Relief diaphragm	Non-relief diaphragm
Model	5 µm element (blank)	5 µm element (N)	0.3 µm element (Y)	0.3 µm element (NY)
W3000-G4,W3100-G4	W3000-KIT	W3000-KIT-N	W3000-KIT-Y	W3000-KIT-NY
W4000-G4,W4100-G4	W4000-KIT	W4000-KIT-N	W4000-KIT-Y	W4000-KIT-NY
W8000-G4,W8100-G4	W8000-KIT	W8000-KIT-N	W8000-KIT-Y	W8000-KIT-NY

### Valve assembly (set of valve assembly and bottom spring)

Model	Valve assembly model No.
W3000-G4,W3100-G4	W3000-VALVE-ASSY
W4000-G4,W4100-G4	W4000-VALVE-ASSY
W8000-G4,W8100-G4	W8000-VALVE-ASSY

\* Refer to the regulator options and parts table (page 212) for details on the adjusting spring, diaphragm, check valve assembly for reverse regulator, and gauge plug assembly. Refer to the air filter options and parts table (page 198) for details on the element and bowl assembly.

- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/ PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/ other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/ Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending