



Filter/regulator Standard White Series

W1000/W2000/W3000/W4000/W8000-W Series

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

● Port size: 1/8 to 1

JIS symbol



Specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item	W1000-W	W2000-W	W3000-W	W4000-W	W8000-W
Appearance					
Working fluid	Compressed air				
Max. working pressure MPa	1.0 (≈150 psi, 10 bar) *1, 2, 3				
Proof pressure MPa	1.5 (≈220 psi, 15 bar) *1				
Ambient / fluid temperatures °C	5 (41°F) to 60 (140°F) *4				
Filtration rating µm	5		5 or 0.3		
Set pressure MPa	0.05 to 0.85 *1	0.05 (≈7.3 psi, 0.5 bar) to 0.85 (≈120 psi, 8.5 bar)			
Pressure relief	With relief mechanism				
Drain capacity cm ³	12	25	45	80	80 (*5)
Port size Rc,NPT,G	1/8, 1/4 (3/8 uses an adaptor)	1/4, 3/8 (1/2 uses an adaptor)	1/4, 3/8, 1/2	1/4, 3/8, 1/2 (3/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adaptor)
Weight kg	0.175	0.40	0.6	0.9	2.0
Standard accessories	Pressure gauge and bowl guard				

- *1: When using W1000-W Series "F1" with auto-drain, the min. working pressure is 0.2 MPa, the max. working pressure is 0.7 MPa and the proof pressure is 1.05 MPa. For the max. working flow rate, refer to the max. working flow rate table of F1000-W-F1 with auto-drain (page 106). Set the working flow rate to less than or equal to the max. working flow rate.
- *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 drainage 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: The ambient / fluid temperatures for "RN" or "RP" (pressure switch with display PPR is mounted) and "R2" (digital pressure sensor PPX is attached) is 5 to 50°C.
- *5: Up to 170 cm³ is stored with the manual drain cock only.
- *6: W2000-W Series with "F1" (with auto-drain) must be used at equal to or less than the max. working flow rate. (Refer to the F2000-W section on page 106 for max. flow rate.)

Option weight

* Add to the weight of the standard accessories.

Unit: kg

Code	Drain discharge				Bowl material		Pressure gauge		Pipe adaptor set			
	F	F1	FF	FF1	M	M1	T*	RN/RP	A6*W	A8*W	A10*W	A15*W
W1000		0.007					0	0.04	0.09	0.09	0.09	
W2000		0.02				0.1	0			0.16	0.16	0.16
W3000	0.02	0.02			0.1	0.1	0	0.04		0.16	0.16	0.16
W4000	0.02	0.02			0.1	0.1	0	0.04		0.16	0.16	0.16
W8000	0.02	0.02	0.02	0.02	0.1	0.1	0	0.04				

Code	Pipe adaptor set			Attachment							
	A20*W	A25*W	A32*W	BW	B3W	G45P	G49P	G59P	G40P	G52P	R2
W1000				0.1	0.04	0.074	0.086	0.115	0.085	0.15	0.04
W2000				0.15	0.06	0.074	0.086		0.085	0.15	0.04
W3000				0.17	0.07	0.074	0.086	0.115	0.085	0.15	0.04
W4000	0.16			0.21	0.11	0.074	0.086	0.115	0.085	0.15	0.04
W8000	0.53	0.53	0.53	0.36		0.074	0.086	0.115	0.085	0.15	0.04

Ozone-proof specs (Ending Page 10) **Clean-room specs** (Catalog No. CB-033SA) **Specs for rechargeable battery** (Catalog No. CC-1226A)

W*000 - ... - W - ... -

P11

● Anti-dust generation structure for use in cleanrooms

● Structure compatible with rechargeable battery manufacturing process

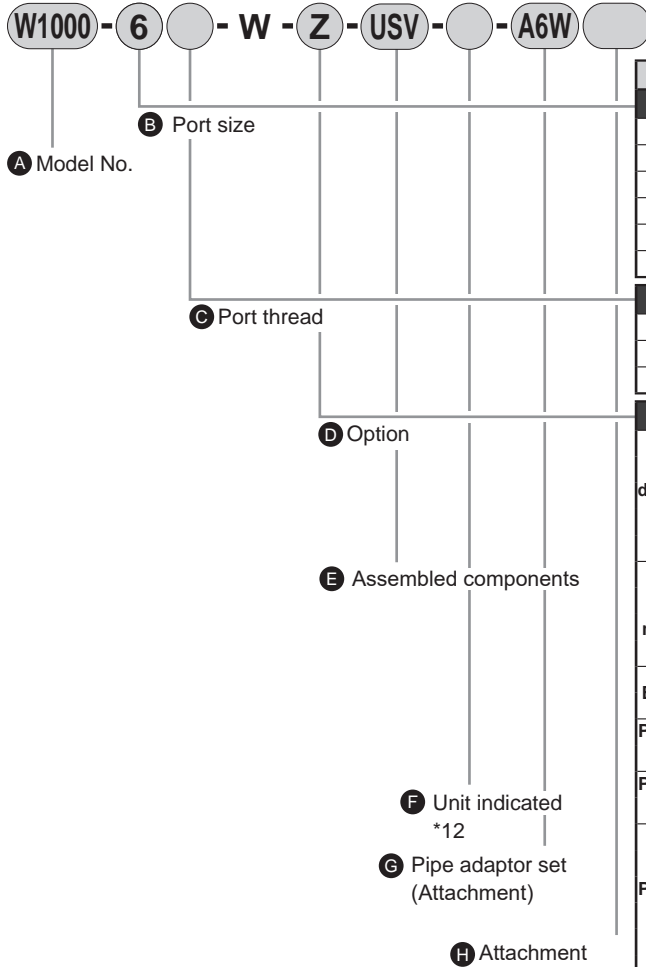
W*000 - -

P7*

W*000 - -

P4*

How to order



* Refer to page 30 for the explanation of the option.

⚠ Precautions for model No. selection

- *1: G threads and NPT threads are available for IN, OUT, gauge port and drain discharge port (metal bowl with auto-drain).
- *2: Select options for drainage, bowl material, element, and regulator sections. When selecting options for several items, list options in order from the top.
- *3: Refer to page 354 for the auto-drain usage conditions.
- *4: Refer to page 108 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: When the option "T6" is selected, only "Blank" or "R2" can be selected for **G** Other attachments. The digital pressure sensor PPX mounting port (Rc1/8) is left open.
- *7: Mounting position for assembled components

Code	Installation position for attachments	Compatibility
S	W+(S)	W1000-W to W4000-W
V	W+(V)	W1000-W to W4000-W
SV	W+(S)+(V)	W1000-W to W4000-W

- *8: The pipe adaptor set and C-bracket cannot be used together.
- *9: The joiner set is enclosed with the pipe adaptor set.
- *10: The pressure gauge and digital pressure sensor (included) can be selected only when **C** Port thread is Rc thread.
- *11: For details on mounting the L-bracket, refer to (2. Regulator) of "⚠ Cautions and Installation & Adjustment" (page 357).
- *12: 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.
- *13: Assembled components can be selected only with port size and drain discharge options. When selecting other options, they are handled as customized combinations.

		A Model No.				
		W1000	W2000	W3000	W4000	W8000
Code	Description					
B Port size						
6	1/8	●				
8	1/4	●	●	●	●	
10	3/8		●	●	●	
15	1/2			●	●	
20	3/4					●
25	1					●
C Port thread *1						
Blank	Rc thread	●	●	●	●	●
N	NPT thread	●	●	●	●	●
G	G thread	●	●	●	●	●
D Option *2						
Drain discharge *3	Blank	Manual drain cock	●	●	●	●
	F	Auto-drain with manual override (NO: Exhaust when not pressurized)			●	●
	F1	Auto-drain with manual override (NC: No exhaust when not pressurized)	●	●	●	●
	FF	Large auto-drain with manual override (NO: Exhaust when not pressurized)				●
FF1	Large auto-drain with manual override (NC: No exhaust when not pressurized)					●
Bowl material	Blank	Polycarbonate bowl	●	●	●	●
	Z	Nylon bowl		●	●	●
	M	Metal bowl			●	●
M1	Metal bowl with manual drain cock			●	●	
Element	Blank	5 μm	●	●	●	●
	Y	0.3 μm (submicron) *4			●	●
Pressure range	Blank	0.05 to 0.85 MPa	●	●	●	●
	L	0.05 to 0.35 MPa *5	●	●	●	●
Pressure relief	Blank	With relief mechanism	●	●	●	●
	N	Non-relief	●	●	●	●
Pressure gauge	Blank	With standard pressure gauge (G401-W)	●	●	●	●
	T	No pressure gauge (gauge port (1/4) is assembled sealed)	●	●	●	●
	T8	Pressure gauge ready (gauge port (1/4) is left open)	●	●	●	●
	T6	Digital pressure sensor PPX attachment option *6	●	●	●	●
	RN	Pressure switch with display, PPR assembled (NPN output 1 point)	●		●	●
RP	Pressure switch with display, PPR assembled (PNP output 1 point)	●		●	●	
Flow direction	Blank	Standard flow (left → right)	●	●	●	●
	X1	Reverse flow (right → left)	●	●	●	●
E Assembled components						
Assembled components	U	*13 Assembled component type *7	●	●	●	●
	S	Pressure switch (P1100-W, P4100-W)	●	●	●	●
	V	Residual pressure exhaust valve (V1000-W, V3000-W)	●	●	●	●
	SV	Pressure switch (P1100-W, P4100-W) + Residual pressure exhaust valve (V1000-W, V3000-W)	●	●	●	●
F Unit indicated						
Blank	MPa display (Rc thread), psi display (NPT thread), bar display (G thread)	●	●	●	●	●
J1	MPa display (NPT, G threads)	●	●	●	●	●
G Pipe adaptor set (attachments) Page 350 *8, *9						
Blank	Not included	●	●	●	●	●
A6*W	1/8 pipe adaptor set	●				
A8*W	1/4 pipe adaptor set	●	●	●	●	
A10*W	3/8 pipe adaptor set	●	●	●	●	
A15*W	1/2 pipe adaptor set			●	●	
A20*W	3/4 pipe adaptor set					●
A25*W	1 pipe adaptor set					●
A32*W	1 1/4 pipe adaptor set					●
* Adaptor thread						
Blank	Rc thread	●	●	●	●	●
N	NPT thread	●	●	●	●	●
G	G thread	●	●	●	●	●
H Attachment Pages 346 and 363 *10						
Blank	Not included	●	●	●	●	●
BW	C-bracket	●	●	●	●	●
B3W	L-bracket *11	●	●	●	●	●
G45P	G45D-8-P10 (L: G45D-8-P04)	●	●	●	●	●
G49P	G49D-8-P10(L:G49D-8-P04)	●	●	●	●	●
G59P	G59D-8-P10(L:G59D-8-P04)	●	●	●	●	●
G40P	G40D-8-P10(L:G40D-8-P04)	●	●	●	●	●
G52P	G52D-8-P10(L:G52D-8-P10)	●	●	●	●	●
R2 *6	Digital pressure sensor: PPX-R10N-6M	●	●	●	●	●

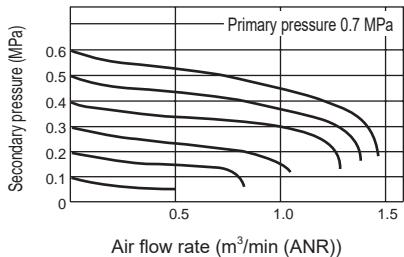
F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdris FRL
Adapter Joiner Press Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRSens
TotAirSys (Total Air)
TotAirSys (Gamma) Gas generator
RefrDry
DesiccDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

Filter/Regulator Series

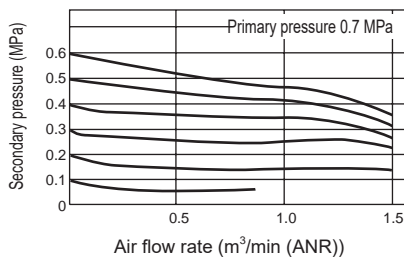
F.R.L. Flow characteristics

- F (Filtr)
- R (Reg)
- L (Lub)
- Drain
- Separ
- Mech
- Press SW
- Res press
- exh valve
- SlowStart
- Anti-bac/Bac-
- remove Filtr
- Film
- Resist FR
- Oil-ProhR
- Med
- Press FR
- No Cu/
- PTFE FRL
- Outdrs FRL
- Adapter
- Joiner
- Press
- Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneR
- AirBoost
- Speed Ctrl
- Silncr
- CheckV/
- other
- Fit/Tube
- Nozzle
- Air Unit
- PrecsCompn
- Electro
- Press SW
- ContactSW
- AirSens
- PresSW
- Cool
- Air Flo
- Sens/Ctrl
- WaterRiSens
- TotAirSys
- (Total Air)
- TotAirSys
- (Gamma)
- Gas
- generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg
- etc
- Ending

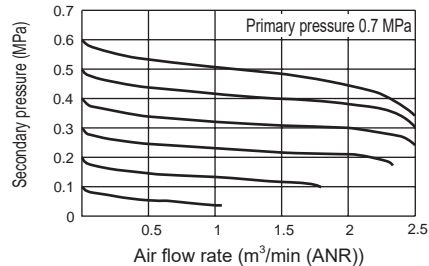
● W1000-6-W



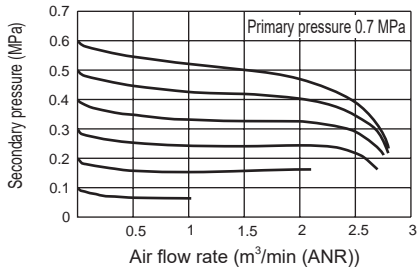
● W1000-8-W



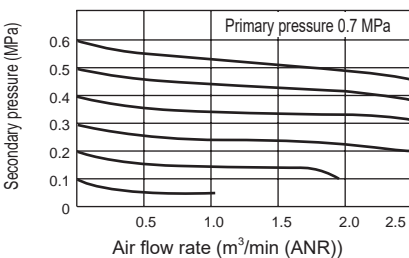
● W2000-8-W



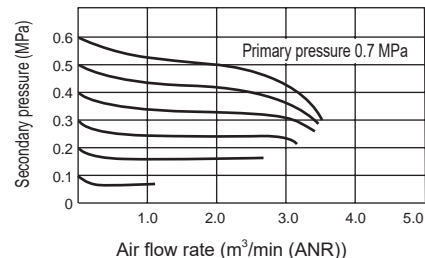
● W2000-10-W



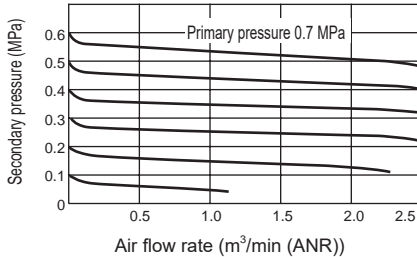
● W3000-8-W



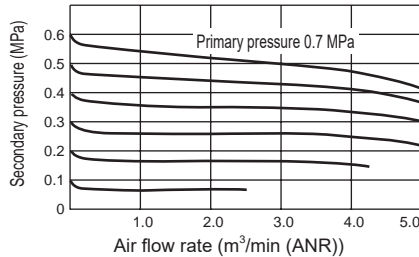
● W3000-10-W/W3000-15-W



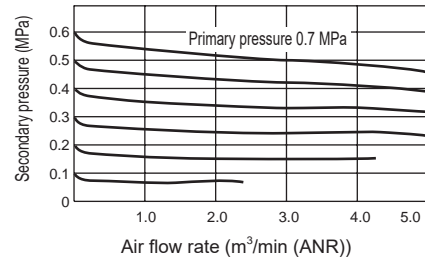
● W4000-8-W



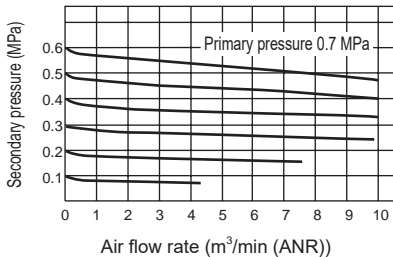
● W4000-10-W



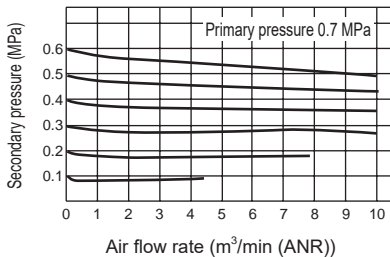
● W4000-15-W



● W8000-20-W

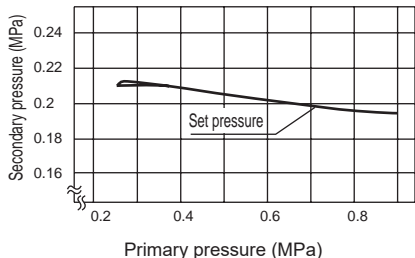


● W8000-25-W

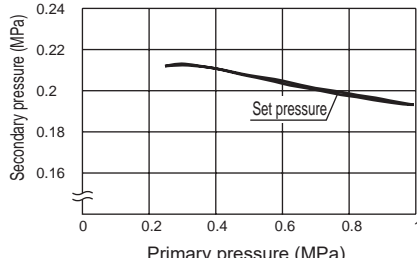


Pressure characteristics

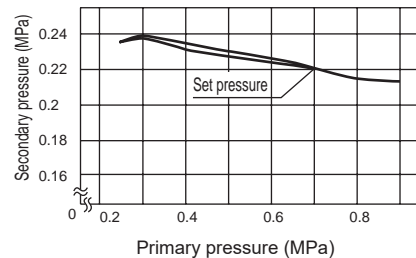
● W1000-W



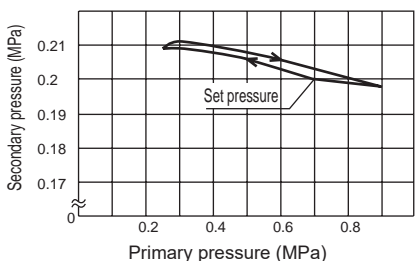
● W2000-W



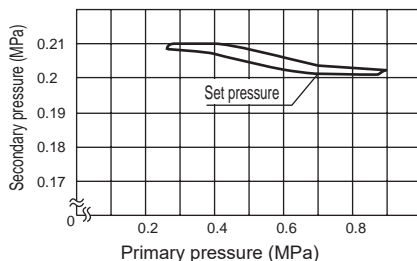
● W3000-W



● W4000-W



● W8000-W

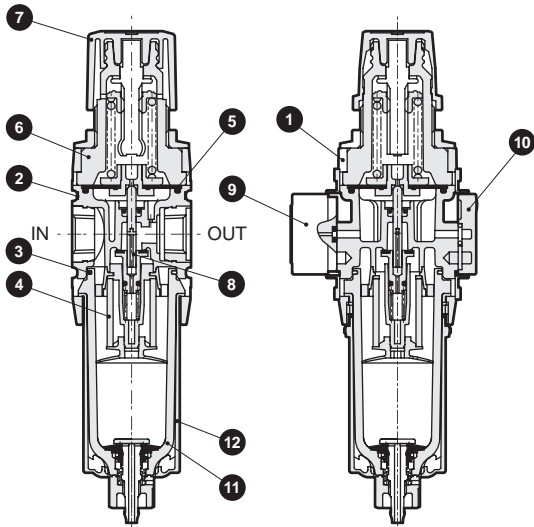


Filter/Regulator Series

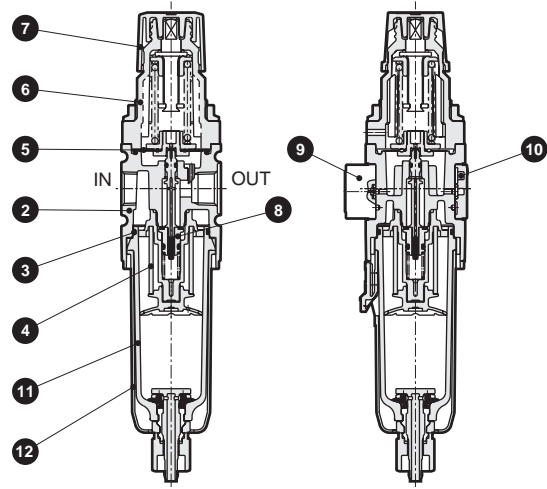
Internal structure and parts list

Internal structure and parts list

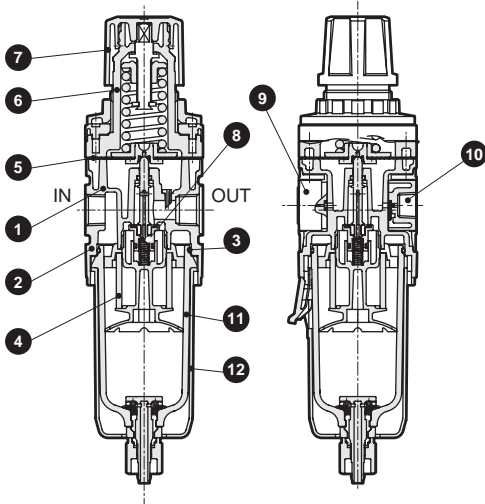
● W1000-W



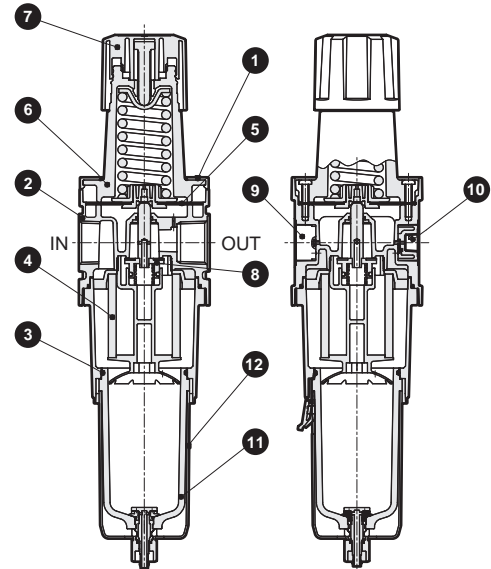
● W2000-W



● W3000-W/W4000-W



● W8000-W



No.	Part name	Material				
		W1000-W	W2000-W	W3000-W	W4000-W	W8000-W
1	Plate cover	ABS resin	-	ABS resin		
2	Body	Polyamide resin, steel		Aluminum alloy die-casting		
3	O-ring *2	Special nitrile rubber				
4	Element *1	Polyacetal resin polypropylene		Polypropylene		
5	Diaphragm assembly	Polyacetal resin polypropylene	Polyacetal resin, nitrile rubber	Zinc alloy die-casting/nitrile rubber		
6	Cover	Polyamide resin	PBT resin		Aluminum alloy die-casting	
7	Knob	Polyacetal resin				
8	Valve assembly	Copper alloy, hydrogenated nitrile rubber (polyacetal resin: W2000-W, W3000-W and W4000-W only)				
9	Pressure gauge assembly	PBT resin, polyacetal resin, polycarbonate resin, nitrile rubber, copper alloy, steel				
10	Gauge plug assembly	-		Polyamide resin, nitrile rubber, steel		
	Blanking plug assembly	PBT resin, nitrile rubber, steel		-		
11	Bowl assembly	Polycarbonate resin, polyacetal resin, urethane resin				
12	Bowl guard	Polyamide resin	Polyamide resin			

*1: The W1000-W has an assembled element.

*2: The O-ring of the W1000-W has a special shape.

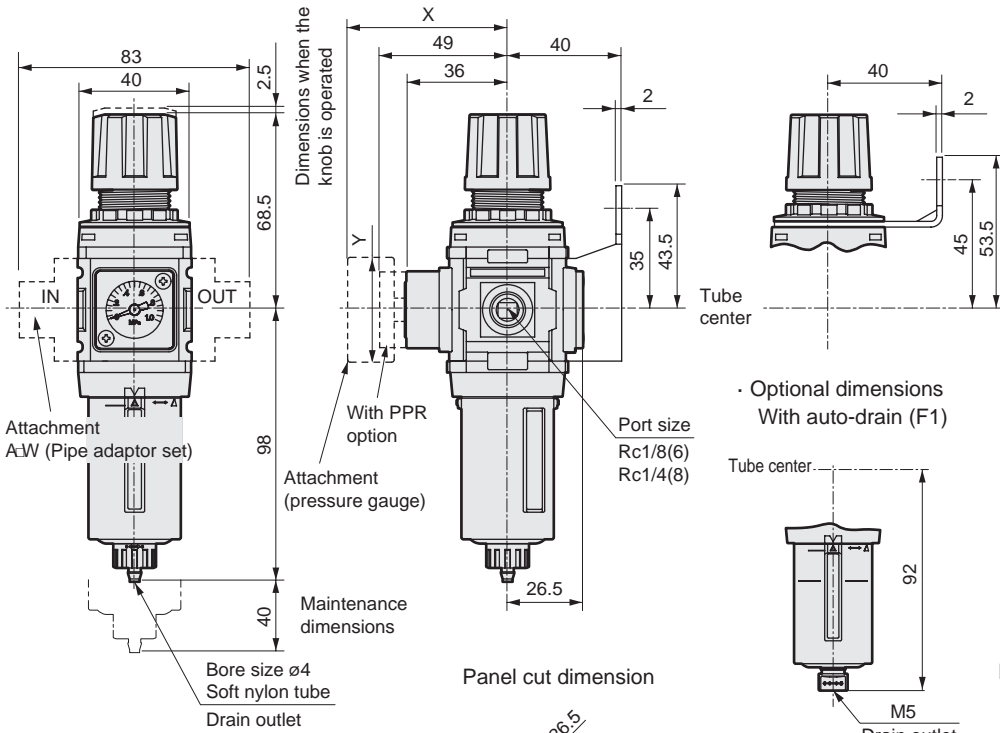
- F.R.L.
- F.R.
- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filtr
- Film Resist FR
- Oil-ProhR
- Med Press FR
- No Cu/ PTFE FRL
- Outdrs FRL
- Adapter Joiner
- Press Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- Speed Ctrl
- Silncr
- CheckV/ other
- Fit/Tube
- Nozzle
- Air Unit
- PresCompn
- Electro Press SW
- ContactSW
- AirSens
- PresSW Cool
- Air Flo Sens/Ctrl
- WaterRSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- Gas generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

Filter/Regulator Series

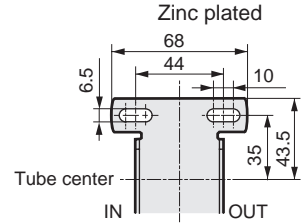


F.R.L. Dimensions

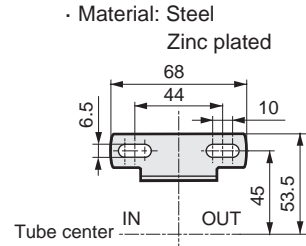
F.R. ● W1000-W



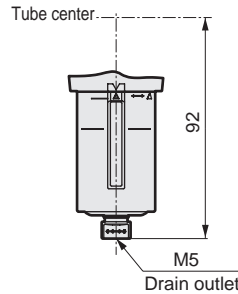
- Attachment C-bracket (-BW) Part model No.: B120
- Material: Steel



- Attachment L-bracket (-B3W) Part model No.: B130
- Material: Steel

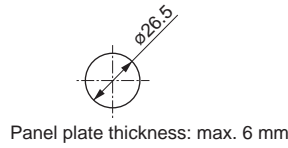


- Optional dimensions With auto-drain (F1)

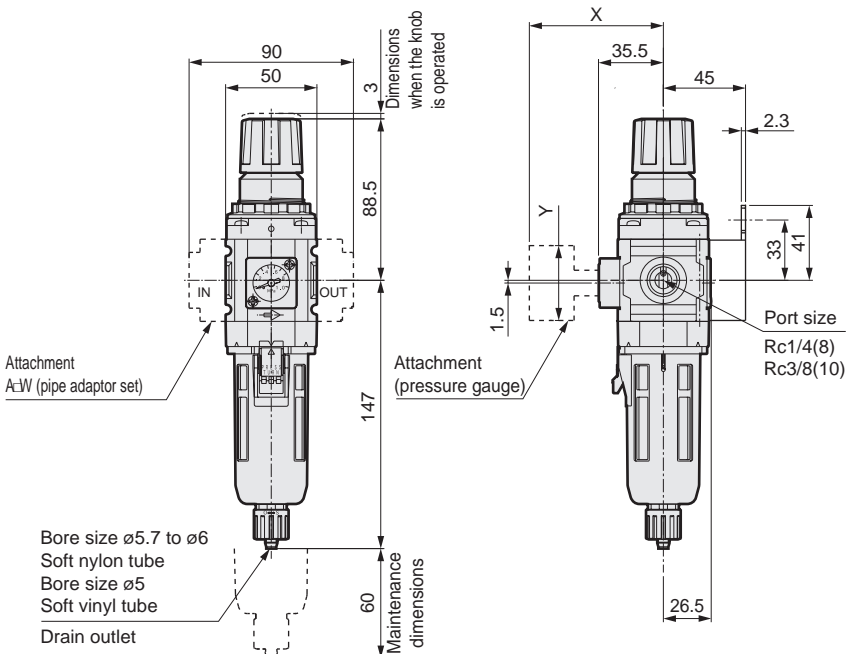


Pressure gauge attached optional dimensions table

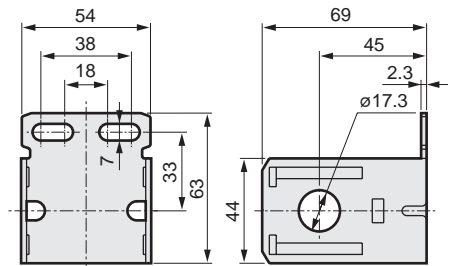
Pressure gauge	X	Y
G45P	(74)	ø39
G49P	(73.5)	ø43.5
G59P	(76)	ø52
G40P	(75.5)	ø42.5
G52P	(86)	ø52.5
R2	(74)	□30



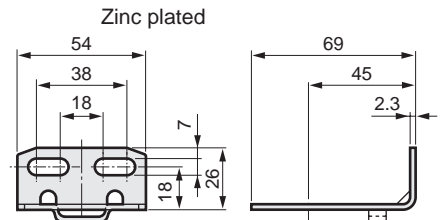
● W2000-W



- Attachment C-bracket (-BW) Part model No.: B220
- Material: Steel

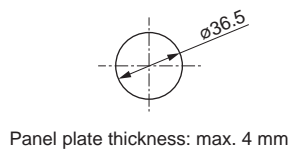


- Attachment L-bracket (-B3W) Part model No.: B230
- Material: Steel



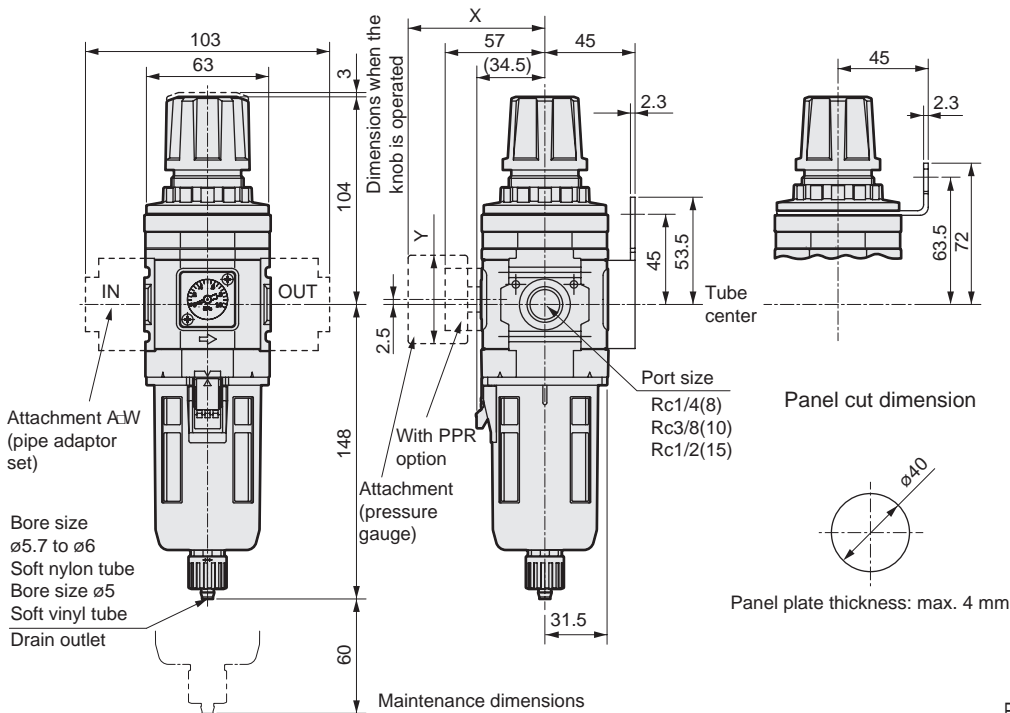
Pressure gauge attached optional dimensions table

Pressure gauge	X	Y
G45P	(73.5)	ø39
G49P	(73)	ø43.5
G40P	(75)	ø42.5
G52P	(85.5)	ø52.5
R2	(73)	□30

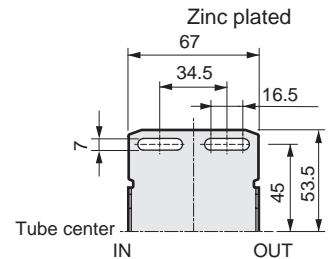


Dimensions

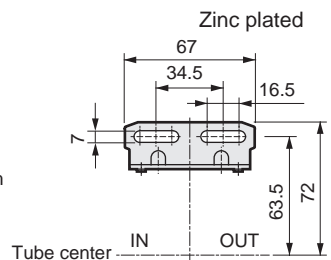
● W3000-W



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



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

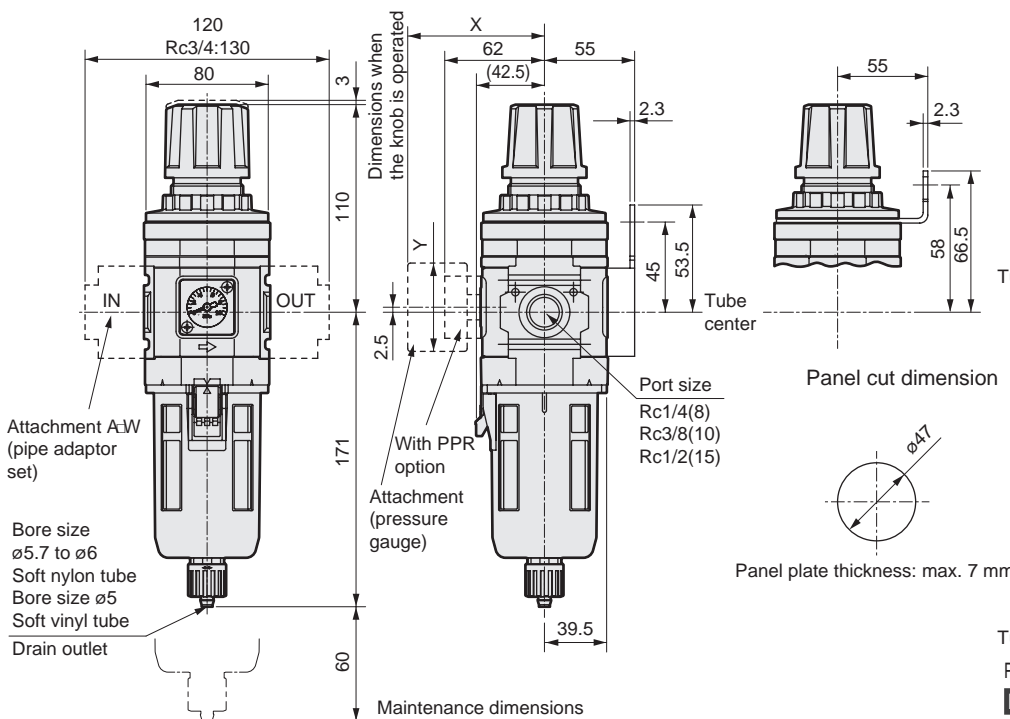


Pressure gauge attached optional dimensions table

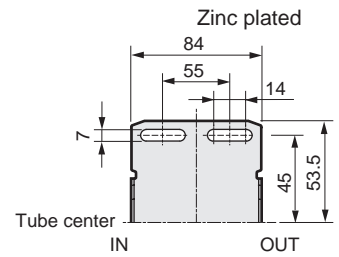
Pressure gauge	X	Y
G45P	(70)	$\phi 39$
G49P	(69.5)	$\phi 43.5$
G59P	(72)	$\phi 52$
G40P	(71.5)	$\phi 42.5$
G52P	(82)	$\phi 52.5$
R2	(69.5)	$\square 30$

● For the plastic bowl, the dimensions of the manual cock and the auto-drain are the same.

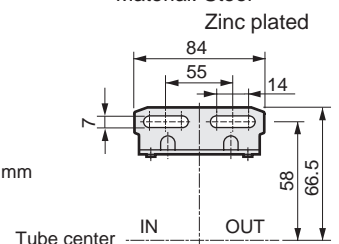
● W4000-W



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



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



Pressure gauge attached optional dimensions table

Pressure gauge	X	Y
G45P	(75)	$\phi 39$
G49P	(74.5)	$\phi 43.5$
G59P	(77)	$\phi 52$
G40P	(76.5)	$\phi 42.5$
G52P	(86)	$\phi 52.5$
R2	(75)	$\square 30$

● For the plastic bowl, the dimensions of the manual cock and the auto-drain are the same.

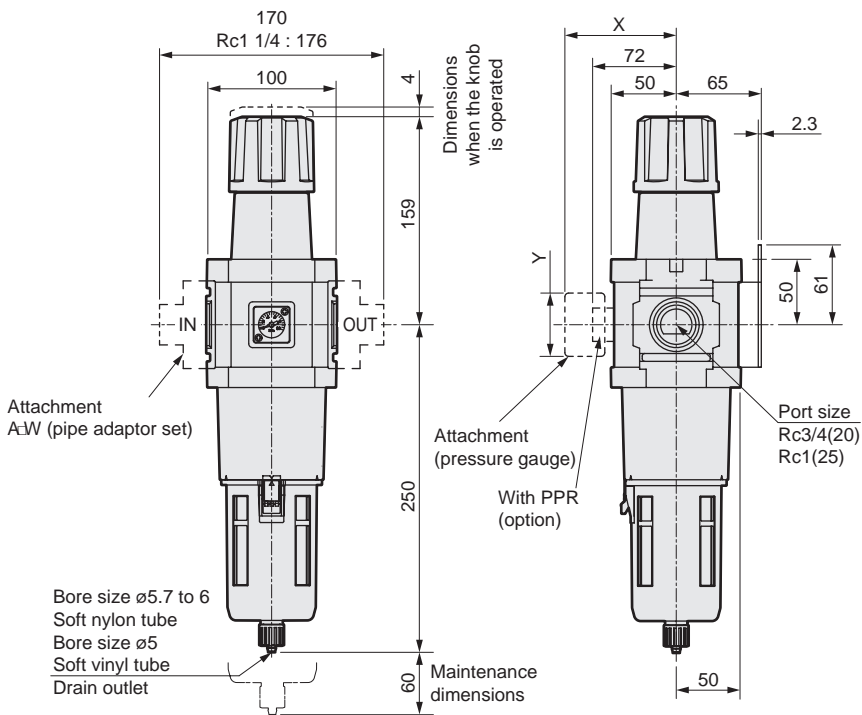
Filter/Regulator Series



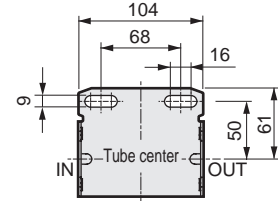
F.R.L. Dimensions

- F.R.
- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filtr
- Film Resist FR
- Oil-Prohr
- Med Press FR
- No Cu/PTFE FRL
- Outdrs FRL
- Adapter Joiner
- Press Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneUR
- AirBoost
- Speed Ctrl
- Silncr
- CheckV/other
- Fit/Tube
- Nozzle
- Air Unit
- PrecsCompn
- Electro Press SW
- ContactSW
- AirSens
- PresSW Cool
- Air Flo Sens/Ctrl
- WaterRiSens
- TotAirSys (Total Air)
- TotAirSys (Gamma) Gas generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

● W8000-W



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



Pressure gauge attached optional dimensions table

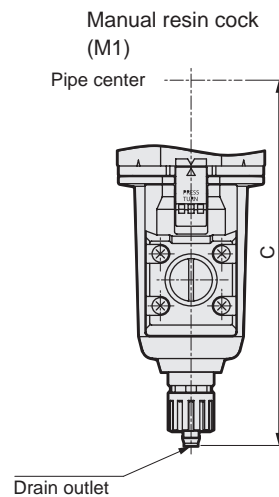
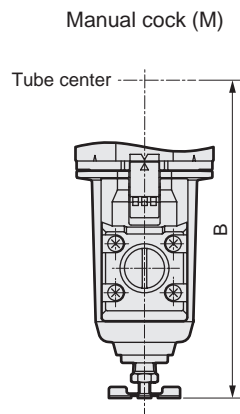
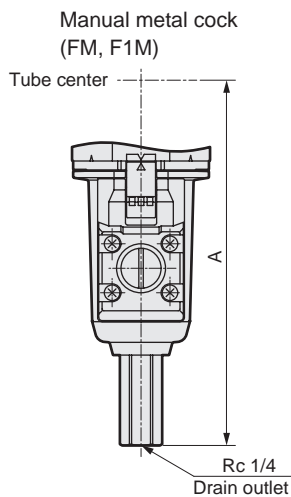
Pressure gauge	X	Y
G45P	(85)	ø39
G49P	(84.5)	ø43.5
G59P	(87)	ø52
G40P	(86.5)	ø42.5
G52P	(98)	ø52.5
R2	(85)	□30

● For the plastic bowl, the dimensions of the manual cock and the auto-drain are the same.

Optional dimensions



● Metal bowl (option)
[W2000-W, 3000-W, 4000-W, 8000-W]



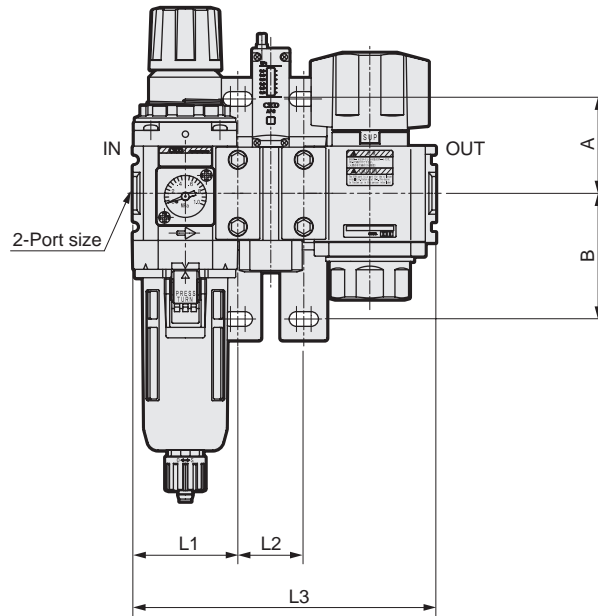
● Material of the metal bowl is aluminum die-casting.

Dimensions table

Model No.	F1M	M	M1
	A	B	C
W2000-W	-	-	147
W3000-W	164	143.5	154
W4000-W	187	166.5	177
W8000-W	266	245.5	256

Option assembly dimensions

● W1000-W to W4000-W



Assembled option Model No.	S			V			SV			A	B
	L1	L2	L3	L1	L2	L3	L1	L2	L3		
W1000-W	40	28	89.5	40	-	80	40	28	108	35	45
W2000-W	50	31.5	102	50	-	113	50	31.5	145	45	60
W3000-W	63	31.5	115	63	-	126	63	31.5	158		
W4000-W	80	31.5	132	80	-	143	80	31.5	175		

- F.R.L.
- F.R.**
- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filtr
- Film Resist FR
- Oil-ProhR
- Med Press FR
- No Cu/ PTFE FRL
- Outdrs FRL
- Adapter Joiner
- Press Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- Speed Ctrl
- Silncr
- CheckV/ other
- Fit/Tube
- Nozzle
- Air Unit
- PresCompn
- Electro Press SW
- ContactSW
- AirSens
- PresSW Cool
- Air Flo Sens/Ctrl
- WaterRISens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- Gas generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending