

Oil mist filter/Standard White Series/Differential pressure switch option M2000/M3000/M4000/M6000-W Q2/Q3/Q4 Series

Ideal for circuits susceptible to oil, including measuring and instrumentation circuits

● Port size: 1/4 to 1

JIS symbol Standard



Q2



Q3



Q4



Specifications

Descriptions	M2000-W	M3000-W	M4000-W	M6000-W
Working fluid	Compressed air			
Working pressure MPa	0.1 to 1.0 *2			
Proof pressure MPa	1.5			
Drain capacity cm ³	25	45	80	80
Port size Rc, NPT, G	1/4, 3/8 (1/2 with adaptor)		3/8, 1/2 (3/4 with adaptor)	3/4, 1 (1 1/4 with adaptor)
Weight kg	0.25	0.28	0.52	0.95
Standard accessories	Bowl guard			

Mantle option name		Blank (M type)	S (S type)
Max. processing flow rate *1 l/min (ANR) For a primary pressure of 0.7 MPa	M2000-□-W	250	310
	M3000-□-W	360	450
	M4000-□-W	825	1000
	M6000-□-W	1270	1400
Ambient/fluid temperatures	°C	5 to 60	
Filtration	µm	0.01 (nominal)	0.3
Secondary side oil concentration	mg/m ³	0.01 or less (0.1 or less after oil saturation) *3, *4	0.5 or less *3
Mantle (element) change		1 year (6000 hours) or pressure drop 0.1 MPa	

*1: Use within the max. processing flow rate.

If the max. processing flow is exceeded temporarily, or if the filter is installed at a place with high levels of pulsation, the mantle could be damaged or oil or drainage, etc., could splatter to the secondary side and result in faults at the terminal.

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

*3: The secondary side oil concentration is the value when the primary side oil concentration is 30 mg/m³ and inlet air temperature is 21°C.

*4: Install an oil mist filter (S type) as a pre-filter on the primary side to prevent early clogging.

Differential pressure switch/switch specifications

Differential pressure switch options	Differential pressure switch option Q3/Q4	
	Reed 2-wire	
Load voltage	12/24 VDC	110 VAC
Load current *1	5 to 50mA	7 to 20mA
Internal voltage drop	3 V or less	
Indicator lamp	Red LED (Lit when ON)	
Lead wire length	3 m (oil resistant vinyl cabtyre cable 2-conductor 0.2 mm ²)	
Shock resistance	294 m/s ²	
Insulation resistance	20 MΩ and over with 500 VDC megger	
Withstand voltage	No failure after 1 minute of 1,000 VAC application.	
Degree of protection	IEC Standard IP67, JIS C0920 (water-tight), oil resistance	
Contact protection circuit	None	

*1: Install the load resistance before use.

CE marking specifications

Compatible as standard.

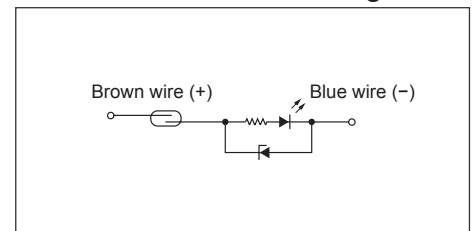
Option weight

* Add to the weight of the standard accessories.

Unit: kg

Code	Drain discharge	Differential pressure switch				Pipe adaptor set						Bracket
	F1	Q2	Q3	Q4	A8*W	A10*W	A15*W	A20*W	A25*W	A32*W	BW	
M2000	0.02	0.04	0.09	0.13	0.16	0.16	0.16					0.15
M3000	0.02	0.04	0.09	0.13	0.16	0.16	0.16					0.17
M4000	0.02	0.05	0.10	0.14	0.16	0.16	0.16	0.16				0.21
M6000	0.02	0.05	0.10	0.14				0.53	0.53	0.53		0.34

Switch internal circuit diagram



How to order

M4000 - 15 - W - Q4 - A20W -

A Model No.

B Port size

C Port thread

D Option

E Display unit

F Piping adaptor set (attached)

G Bracket (attached)

A Model No.

M2000	M3000	M4000	M6000
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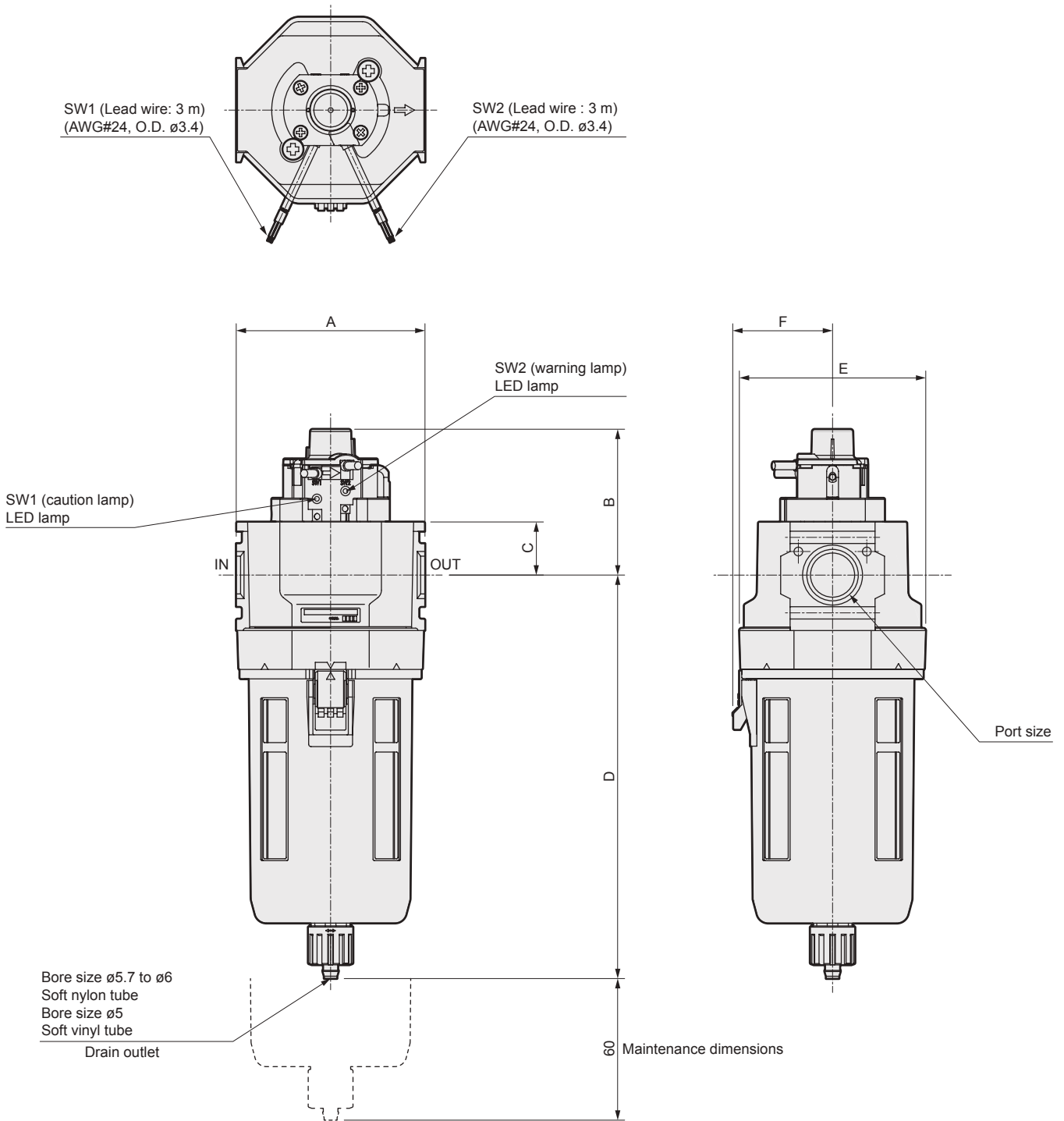
Code	Content	M2000	M3000	M4000	M6000	
B Port size						
8	1/4	●	●			
10	3/8	●	●	●		
15	1/2			●		
20	3/4				●	
25	1				●	
C Port thread *1						
Blank	Rc Thread	●	●	●	●	
N	NPT Thread	●	●	●	●	
G	G Thread	●	●	●	●	
D Option *2						
Drain discharge *3, *4	Blank	Manual drain cock	●	●	●	●
	F1	Auto-drain with manual override (NC: No exhaust when not pressurized)	●	●	●	●
Bowl material	Blank	Polycarbonate bowl	●	●	●	●
	Z	Nylon bowl	●	●	●	●
Mantle (element)	Blank	M type (nominal 0.01 μm; remaining oil 0.01 mg/m ³)	●	●	●	●
	S	S type (nominal 0.3 μm; remaining oil 0.5 mg/m ³)	●	●	●	●
Differential pressure detection	Q2	With differential pressure indicator	●	●	●	●
	Q3	Differential pressure indicator + switch 1-point (SW2)	●	●	●	●
	Q4	Differential pressure indicator + switch 2-point (SW1/SW2)	●	●	●	●
Flow direction	Blank	Standard flow (left → right)	●	●	●	●
	X1	Reverse flow (right → left)	●	●	●	●
E Display unit						
Blank	MPa display, Rc thread	●	●	●	●	
J1	MPa display, NPT, G thread	●	●	●	●	
F Piping adaptor set (attached) *5, *6						
Blank	Not attached	●	●	●	●	
A8*W	1/4 piping adaptor set	●	●	●		
A10*W	3/8 piping adaptor set	●	●	●		
A15*W	1/2 piping adaptor set	●	●	●		
A20*W	3/4 piping adaptor set			●	●	
A25*W	1 pipe adaptor set				●	
A32*W	1 1/4 pipe adaptor set				●	
*Adaptor thread type						
Blank	Rc Thread	●	●	●	●	
N	NPT Thread	●	●	●	●	
G	G Thread	●	●	●	●	
G Bracket (attachment)						
Blank	Not attached	●	●	●	●	
BW	C bracket	●	●	●	●	

⚠ Precautions for model No. selection

- *1: G threads and NPT threads are available for IN and OUT.
- *2: Select options for drainage, bowl material, and differential pressure switch. When selecting options for several items, list options in order from the top.
- *3: NO auto-drain cannot be selected.
- *4: Refer to "Pneumatic, Vacuum, and Auxiliary Components (No. CB-024SA)" for the auto-drain working conditions.
- *5: The piping adaptor set and C bracket cannot be used together.
- *6: The joiner set has an attached piping adaptor set.

Oil Mist Filter Series

Dimensions



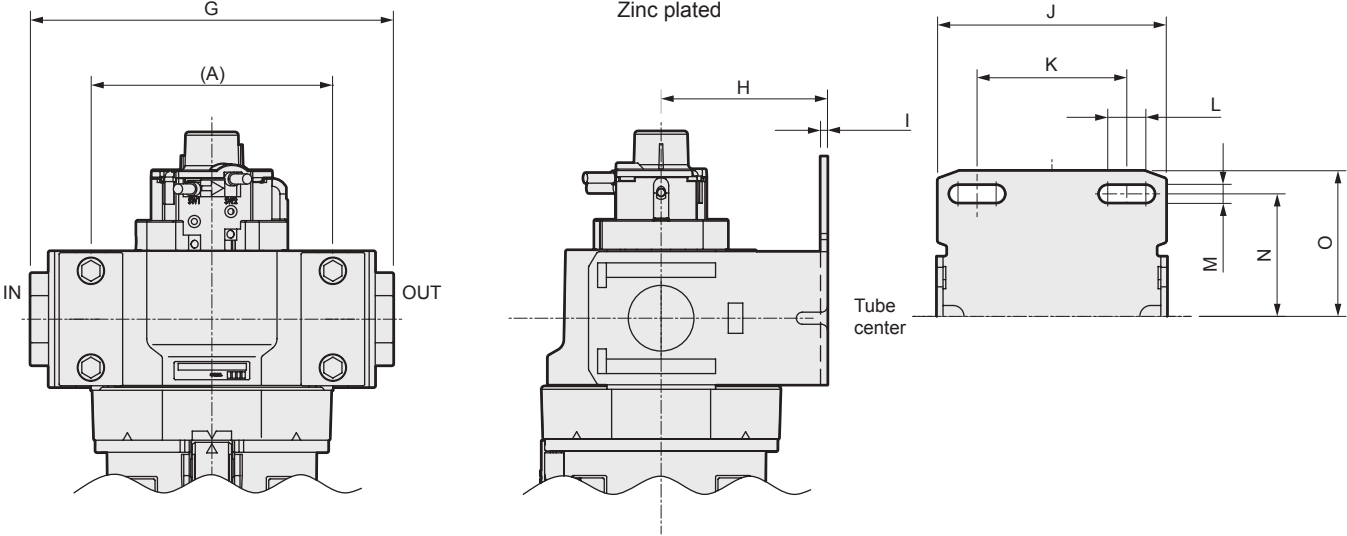
● The dimensions of the manual cock and the auto-drain are the same.
Note : C-type bracket and piping adaptor set attachments cannot be used at the same time.

Code	Port size	A	B	C	D	E	F
M2000	Rc1/4 (8), Rc3/8 (10)	50	62	22.5	147	50	(28)
M3000	Rc1/4 (8), Rc3/8 (10)	63	62	22.5	148	63	(34.5)
M4000	Rc3/8 (10), Rc1/2 (15)	80	62	22.5	171	79	(42.5)
M6000	Rc3/4 (20), Rc1 (25)	90	72.5	33	210	85	42.5

Dimensions (attachment)

● Piping adaptor set (A□W)

● C bracket (-BW)
 Part model No.: B□20
 • Material: Steel
 Zinc plated



• Attachment (piping adaptor set -A□W)

Code	G					
	A8*W	A10*W	A15*W	A20*W	A25*W	A32*W
M2000	90	90	90			
M3000	103	103	103			
M4000	120	120	120	130		
M6000				160	160	166

• Attachment (C bracket -BW)

Code	Part model No.	H	I	J	K	L	M	N	O
M2000	B220	45	2.3	54	28	10	7	33	41
M3000	B320	45	2.3	67	34.5	16.5	7	45	53.5
M4000	B420	55	2.3	84	55	14	7	45	53.5
M6000	B620	60	2.3	104	68	16	9	54	65

Differential pressure switch option

