



AIR / MIST / MICRO MIST FILTER

Air Treatment Unit



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5 + 0.3 + 0.01 μ m

**FILTER for
TURBINE** ▶
TYPE

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MWC

Filter for turbine type

WATER SEPARATOR

PRECISION FILTER

MAM G

MAM B D M F

MAMG

EWS

Water separator

Removal rate 99%±1



Separating the water droplet with a special filtration in the compressed air. * cannot remove moisture.

MAMB

E3

3 μm

Filtration efficiency 99%



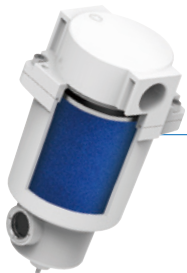
Removing the impurities which the particles are bigger than 3μm in compressed air, and extending the life of precision filter in the down-stream, then preventing trouble with the equipment.

MAMD

E03

0.3 μm

Filtration efficiency 99.9%



Removing the oil mist and impurities which the particles are bigger than 0.3μm in compressed air.

MAMM

E001

0.01 μm

Filtration efficiency 99.9%



Removing the oil mist and impurities which the particles are bigger than 0.01μm in compressed air. The filter can be applied to requirement of high purity and extremely low oil mist.

MAMF

E001D

0.01 μm + Deodorization

Filtration efficiency 99.9%



Adsorbing the order and efficiently removing oil mist with an activated carbon element in compressed air. The filter can be applied to requirement of high purity and oil-free, such as precision painting operations or food and medical equipment.

* Assembling a MAMD series as pre-filter to extend the life of activated carbon.

Body & Port size

[Rc, G, NPT thread]

MAM*25 1/4, 3/8

MAM*35 3/8, 1/2

MAM*45 1/2, 3/4

MAM*55 3/4, 1

Model & Filter element

Water separator

MAMG

Precision filter

MAMB 3 μm

MAMD 0.3 μm

MAMM 0.01 μm

MAMF 0.01 μm + Deodorization

Maintenance

Replace filter element at least once per year or when pressure drop reaches 0.07 MPa. (E001D every 6 months)



(Option)

Differential pressure indicator

Double-check with a **Sensor Switch** and an indicator to achieve preventative maintenance.

Caution

This product can't be operated in a location in which pulsations frequently occur. The indicator is only available with Indicator (Q) and Indicator with switch (QR) models.

Operation image



Initial (No clogging)



Replacement recommended

An indicator that can confirm intuitively.
A clear cover and colorful lamp enables high visibility.
A mark that help you know when it is time to replace the filter element.

Sensor switch (Option)



RDFE(V)

Solid state output, Normally open

Operating voltage: 5~30V DC

Switching current: 50mA max.

* Sensor switch specification please refer to page 32.

A hint for preventative maintenance

Generally speaking, the filter element should be replaced about once a year. This is just a guideline. The air cleanliness of the secondary side depends on working conditions. To keep your system at optimal conditions, we recommend that

Customers replace filter elements regularly / follow the Replacement mark



Modular combination example (Option)

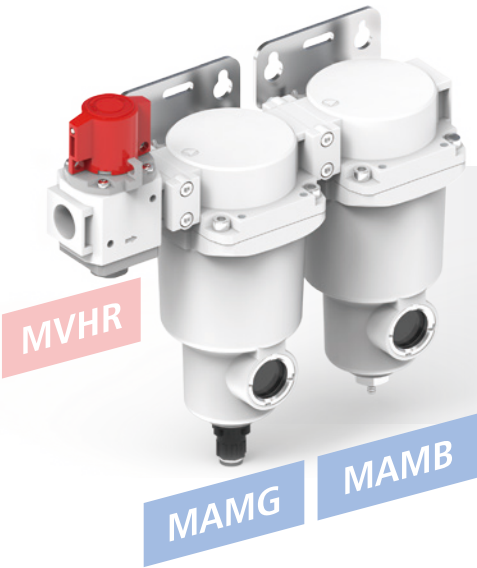
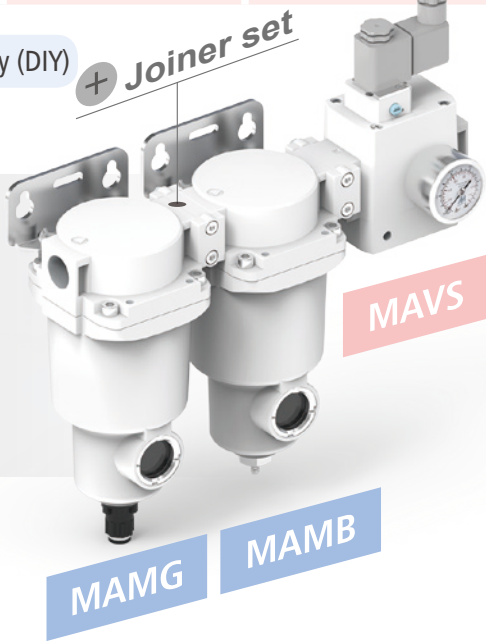
Model	Joiner set	Air unit	Shutoff valve	Soft start-up valve
MAM*25	BS-MACP403	MA*401-W MA*403	MVHR400 MVHT400	MAVS400
MAM*35				
MAM*45	BS-MACP501	MA*501	—	—
MAM*55				

● Space-saving ● Various combinations available ● Easy assembly (DIY)

EXAMPLE

MAMG35 + MAMB35 + MAVS400
Water separator 3 μm Shutoff valve

Applicable to the dangerous pneumatic machinery. The valve will control the pressure to increase gradually when the air supply start up, which avoids the accident and machinery damage caused by the sudden action of the actuators.



EXAMPLE

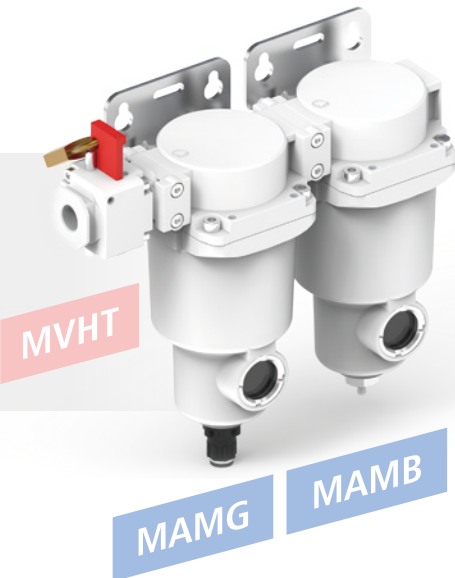
MVHR400 + MAMG35 + MAMB35
Shutoff valve Water separator 3 μm

Applicable to the pneumatic circuit to switch the air supply on and off promptly and release residual pressure while the valve is off.

EXAMPLE

MVHT400 + MAMG35 + MAMB35
Shutoff valve Water separator 3 μm

Applicable to the pneumatic circuit to switch the air supply on and off promptly and release residual pressure while the valve is off.



EXAMPLE

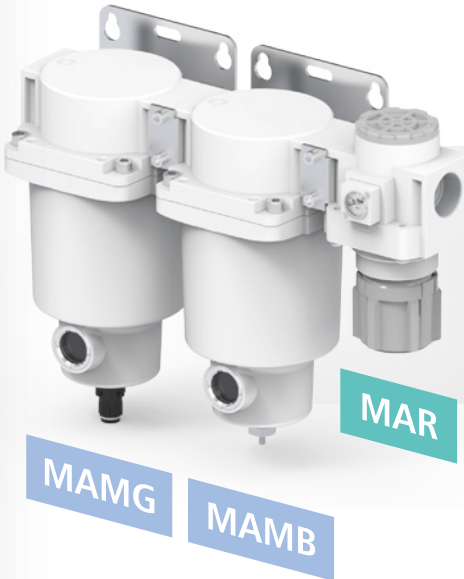
MAMG45 + MAMB45
Water separator 3 μm

Applicable to the main line of the pneumatic circuit or the instance of low compressed air quality demand. For example, the main circuit of the pneumatic system in the factory.

EXAMPLE

MAMB45 + MAMD45 + MAMM45
3 μm 0.3 μm 0.01 μm

Applicable to the instance of high compressed air quality demand. For example, food processing industry and pharmaceutical plant.



EXAMPLE

MAMG55 + MAMB55 + MAR501
Water separator 3 μm Regulator

Applicable to the instance of pressure regulation requirement. For example, automation industry and machine tool.

EXAMPLE

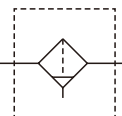
MAMG55 + MAMB55 + MAL501
Water separator 3 μm Lubricator

Applicable to the instance of lubrication requirement. For example, automation industry and machine tool.





Symbol



Order example

MAMG 45 – 15A – D – Q –

MODEL	BODY SIZE	PORT SIZE	Differential Pressure Indicator (*)	PORT HREAD
	25	8A: 1/4 10A: 3/8	Blank: Rc thread G: G thread	Blank: Rc thread G: G thread
	35	10A: 3/8 15A: 1/2	Blank: Without Q: Indicator	NPT: NPT thread
	45	15A: 1/2 20A: 3/4	QR: Indicator with switch (*)	
	55	20A: 3/4 25A: 1	Blank: Semi-auto drain D: Auto drain valve (FMRF300)	

- * Please add the sensor when selecting Indicator with switch (QR).
- * The models without Indicator (Q) and Indicator with switch (QR) type don't have the installation thread holes.

Order example of sensor switch

RDFE V –

MODEL	AUTO SWITCH TYPE	WIRE LENGTH
RDFE: Non-contact RNFE: NPN RPFE: PNP	Blank: Straight cable V: Angle cable	Blank: L=2000mm 1M: L=1000mm QD: M8, 3 Pin connector EQD: M8, 3 Pin connector

MAMG series Water removal rate

$$\text{Water removal rate (\%)} = \frac{\text{Removed water (water droplet) g}}{\text{Inflowed water (water droplet) g}} \times 100$$

* Water separator can remove water droplets, but it cannot remove moisture.

Features

Separating the water droplet with a special filtration in the compressed air. * cannot remove moisture.

Maintenance

Replace filter element at least once per year or when pressure drop reaches 0.07 MPa.

Specification

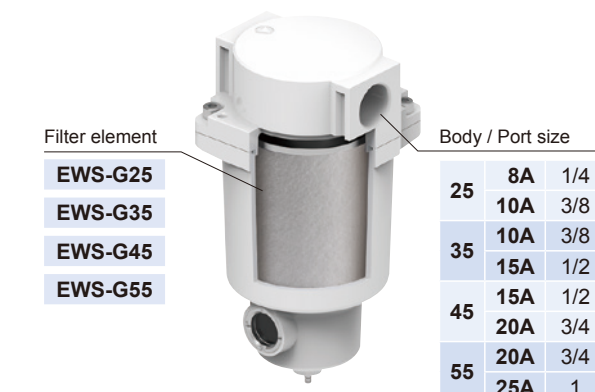
Model	MAMG							
Body size	25	35	45	55				
Bore No.	8A	10A	10A	15A	15A	20A	20A	25A
Port size	1/4	3/8	3/8	1/2	1/2	3/4	3/4	1
Medium	Air							
Operating perssure range (*)	0.05~1 MPa							
Proof pressure	1.5 MPa							
Ambient temperature	- 5~+60°C (No freezing)							
Filter element	Water separator (Removal rate 99%±1)							
Attachment	L-type bracket							
Sensor switch	RDFE(V) (Refer to page 32)							
Weight	610 g	870 g	1450 g	2250 g				

- * Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.
- * Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.

Selector table – Filter element

Model	Port size	Filter element	Nominal * flow capacity l/min(ANR)	Symbol for order
MAMG25	1/4, 3/8	Water separator (removal rate 99%±1)	650	EWS-G25
MAMG35	3/8, 1/2		1350	EWS-G35
MAMG45	1/2, 3/4		2100	EWS-G45
MAMG55	3/4, 1		3600	EWS-G55

* Nominal flow capacity is at 0.7 MPa, and it varies depending on the operating pressure. If flow rate is over nomial flow capacity, may not meet the specifications of the product.

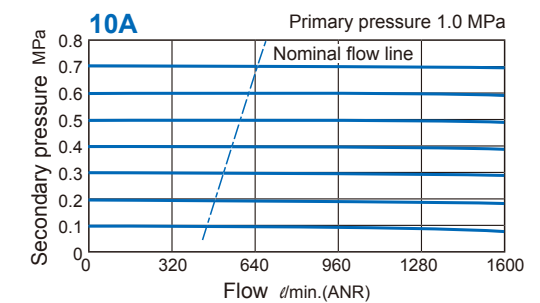
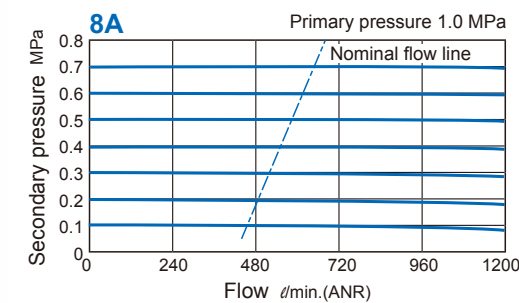


Filter element	Body / Port size		
EWS-G25	25	8A	1/4
EWS-G35	35	10A	3/8
EWS-G45	45	15A	1/2
EWS-G55	55	20A	3/4
		25A	1

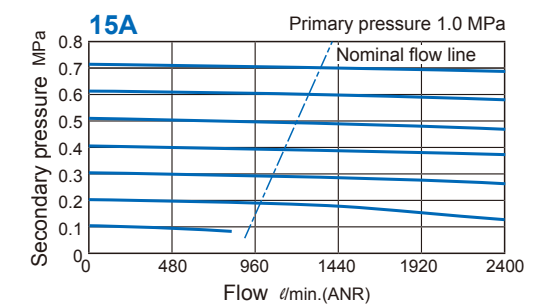
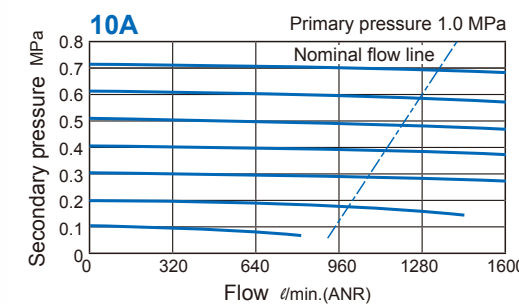
Dimensions * Please refer to page 16.

⚠ If flow rate is over nomial flow capacity, may not meet the specifications of the product.

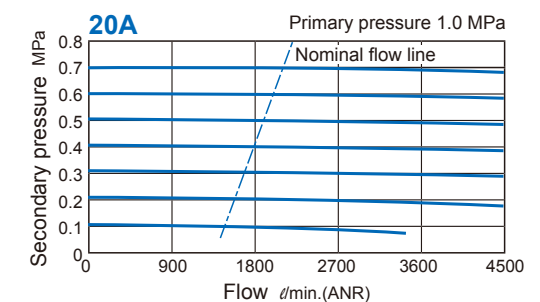
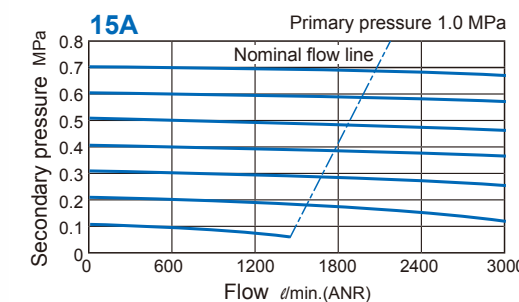
MAMG25



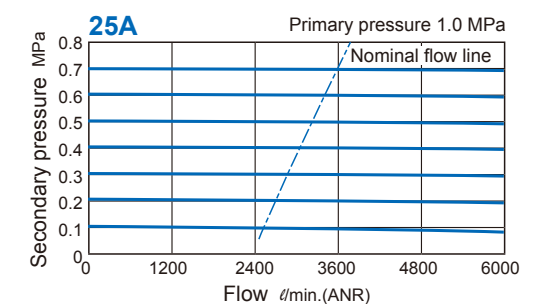
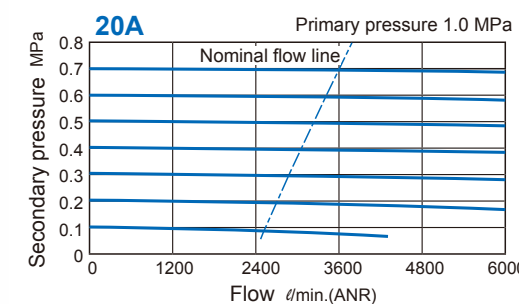
MAMG35



MAMG45

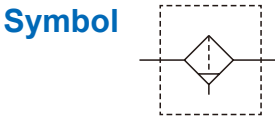


MAMG55



MAMB series 3 μm

AIR UNIT (MAIN LINE FILTER)



Order example

MAMB 45 – 15A – D – Q – □

MODEL	BODY SIZE	PORT SIZE	Differential Pressure Indicator (*)	PORT HREAD
B: 3 μm	25	8A: 1/4 10A: 3/8	Blank: Without Indicator Q: Indicator with switch (*)	Blank: Rc thread G: G thread NPT: NPT thread
	35	10A: 3/8 15A: 1/2		
	45	15A: 1/2 20A: 3/4		
	55	20A: 3/4 25A: 1		

Blank: Semi-auto drain
D: Auto drain valve (FMRF300)

* Please add the sensor when selecting Indicator with switch (QR).
* The models without Indicator (Q) and Indicator with switch (QR) type don't have the installation thread holes.

Order example of sensor switch

RDFE V – □

MODEL	AUTO SWITCH TYPE	WIRE LENGTH
RDFE: Non-contact RNFE: NPN RPFE: PNP	Blank: Straight cable V: Angle cable	Blank: L=2000mm 1M: L=1000mm QD: M8, 3 Pin connector EQD: M8, 3 Pin connector

Dimensions * Please refer to page 16.



Features
Removing the impurities which the particles are bigger than 3μm in compressed air, and extending the life of precision filter in the down-stream, then preventing trouble with the equipment.

Maintenance
Replace filter element at least once per year or when pressure drop reaches 0.07 MPa.

Specification

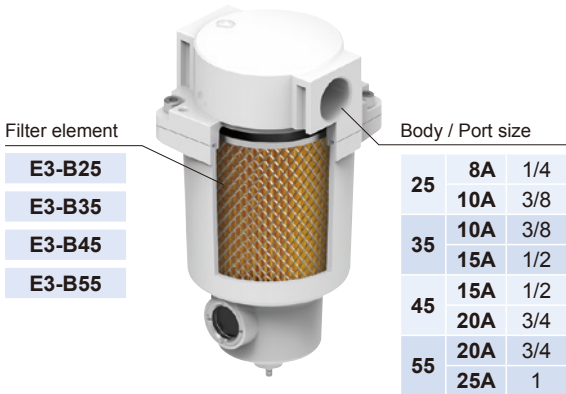
Model	MAMB							
Body size	25	35	45	55				
Bore No.	8A	10A	10A	15A	15A	20A	20A	25A
Port size	1/4	3/8	3/8	1/2	1/2	3/4	3/4	1
Medium	Air							
Operating perssure range (*)	0.05~1 MPa							
Proof pressure	1.5 MPa							
Ambient temperature	– 5~+60°C (No freezing)							
Filter element	3 μm							
Attachment	L-type bracket							
Sensor switch	RDFE(V) (Refer to page 32)							
Weight	610 g	870 g	1450 g	2250 g				

* Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.
* Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.

Selector table – Filter element

Model	Port size	Filter element *1	Nominal*2 flow capacity l/min(ANR)	Symbol for order
MAMB25	1/4, 3/8	E3: 3μm (filtration efficiency 99%)	650	E3-B25
MAMB35	3/8, 1/2		1350	E3-B35
MAMB45	1/2, 3/4		2100	E3-B45
MAMB55	3/4, 1		3600	E3-B55

*1. Tested according to ISO8573.
*2. Nominal flow capacity is at 0.7 MPa, and it varies depending on the operating pressure. If flow rate is over nomial flow capacity, may not meet the specifications of the product.

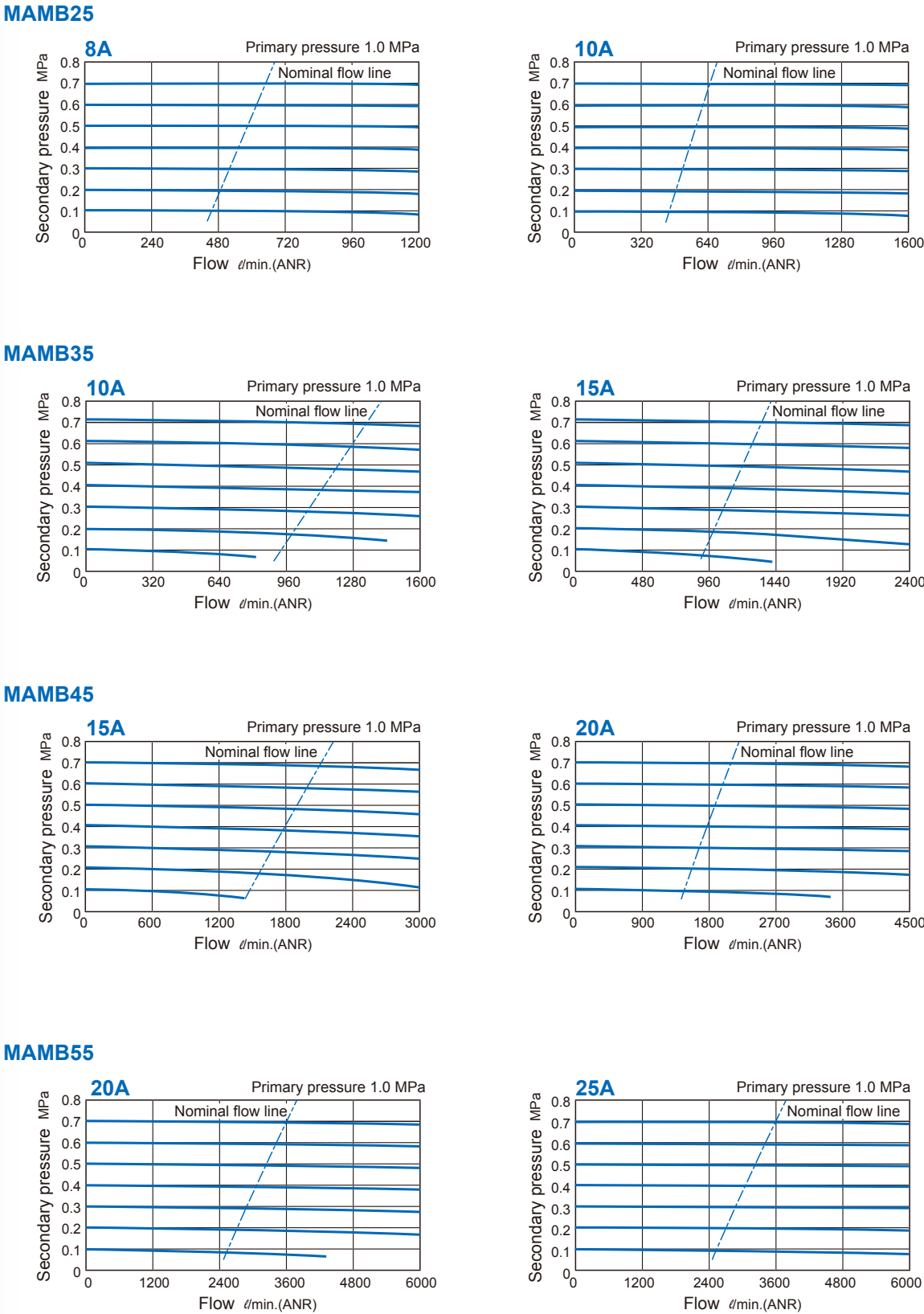


MAMB Capacity

AIR UNIT (MAIN LINE FILTER)



⚠ If flow rate is over nomial flow capacity, may not meet the specifications of the product.

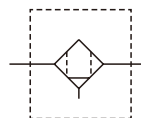


MAMD series 0.3 μm

AIR UNIT (MIST FILTER)



Symbol



Order example

MAMD 45 – 15A – D – Q – □

MODEL	BODY SIZE	PORT SIZE	Differential Pressure Indicator (*)	PORT HREAD
	25	8A: 1/4 10A: 3/8	Blank: Without Indicator Q: Indicator QR: Indicator with switch (*)	Blank: Rc thread G: G thread NPT: NPT thread
	35	10A: 3/8 15A: 1/2		
	45	15A: 1/2 20A: 3/4		
	55	20A: 3/4 25A: 1		

* Please add the sensor when selecting Indicator with switch (QR).
* The models without Indicator (Q) and Indicator with switch (QR) type don't have the installation thread holes.

Order example of sensor switch

MODEL	AUTO SWITCH TYPE	WIRE LENGTH
RDFE: Non-contact RNFE: NPN RPFE: PNP	Blank: Straight cable V: Angle cable	Blank: L=2000mm 1M: L=1000mm QD: M8, 3 Pin connector EQD: M8, 3 Pin connector

Dimensions * Please refer to page 16.

Features

Removing the oil mist and impurities which the particles are bigger than 0.3μm in compressed air.

Maintenance

Replace filter element at least once per year or when pressure drop reaches 0.07 MPa.

Specification

Model	MAMD							
Body size	25	35	45	55				
Bore No.	8A	10A	10A	15A	15A	20A	20A	25A
Port size	1/4	3/8	3/8	1/2	1/2	3/4	3/4	1
Medium	Air							
Operating perssure range (*)	0.05~1 MPa							
Proof pressure	1.5 MPa							
Ambient temperature	- 5~+60°C (No freezing)							
Filter element	0.3 μm							
Attachment	L-type bracket							
Sensor switch	RDFE(V) (Refer to page 32)							
Weight	610 g	870 g	1450 g	2250 g				

* Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.

* Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.

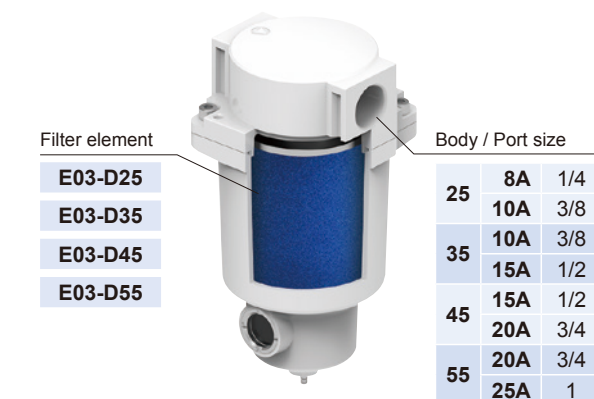
Selector table – Filter element

Model	Port size	Filter element *1	Residual oil content *2	Nominal flow capacity /min.(ANR)	Symbol for order
MAMD25	1/4, 3/8	E03: 0.3μm (filtration efficiency 99.9%)	< 0.1 mg/m ³	650	E03-D25
MAMD35	3/8, 1/2			1350	E03-D35
MAMD45	1/2, 3/4			2100	E03-D45
MAMD55	3/4, 1			3600	E03-D55

*1. Tested according to ISO8573.

*2. Tested according to ISO12500-1, inlet concentration 10mg/m³

*3. Nominal flow capacity is at 0.7 MPa, and it varies depending on the operating pressure. If flow rate is over nomial flow capacity, may not meet the specifications of the product.



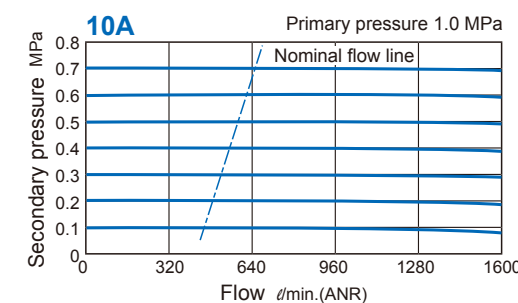
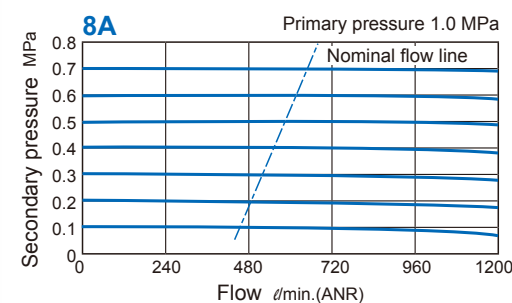
MAMD Capacity

AIR UNIT (MIST FILTER)

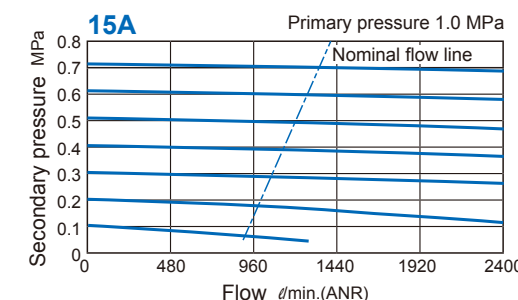
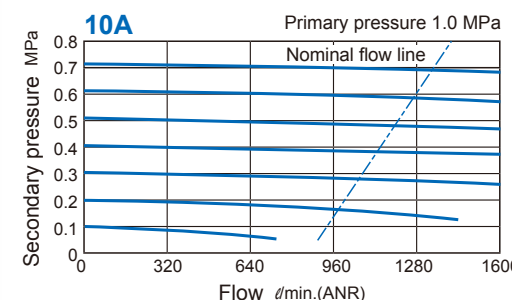


! If flow rate is over nomial flow capacity, may not meet the specifications of the product.

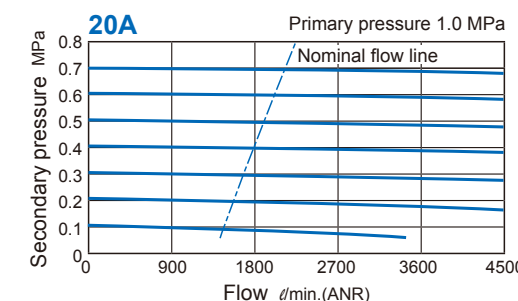
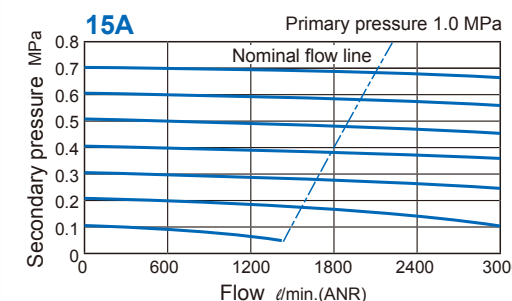
MAMD25



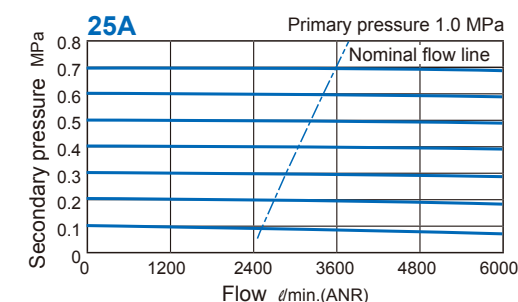
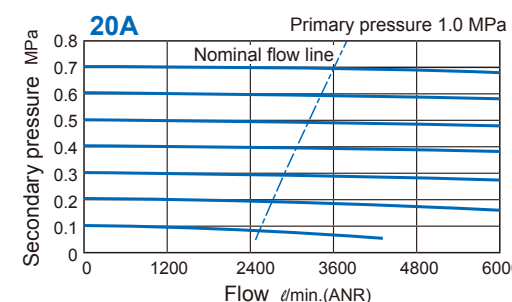
MAMD35



MAMD45



MAMD55

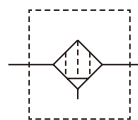


MAMM series 0.01 μm

AIR UNIT (MICRO MIST FILTER)



Symbol



Order example

MAMM 45 – 15A – D – Q – □

MODEL	BODY SIZE	PORT SIZE	Differential Pressure Indicator (*)	PORT HREAD
	25	8A: 1/4 10A: 3/8	Blank: Without Indicator Q: Indicator QR: Indicator with switch (*)	Blank: Rc thread G: G thread NPT: NPT thread
	35	10A: 3/8 15A: 1/2		
	45	15A: 1/2 20A: 3/4		
	55	20A: 3/4 25A: 1		

- * Please add the sensor when selecting Indicator with switch (QR).
- * The models without Indicator (Q) and Indicator with switch (QR) type don't have the installation thread holes.

Order example of sensor switch

RDFE V – □	AUTO SWITCH TYPE	WIRE LENGTH
RDFE: Non-contact RNFE: NPN RPFE: PNP	Blank: Straight cable V: Angle cable	Blank: L=2000mm 1M: L=1000mm QD: M8, 3 Pin connector EQD: M8, 3 Pin connector

Dimensions

* Please refer to page 16

Features

Removing the oil mist and impurities which the particles are bigger than 0.01μm in compressed air. The filter can be applied to requirement of high purity and extremely low oil mist.

Maintenance

Replace filter element at least once per year or when pressure drop reaches 0.07 MPa.

Specification

Model	MAMM							
Body size	25	35	45	55				
Bore No.	8A	10A	10A	15A	15A	20A	20A	25A
Port size	1/4	3/8	3/8	1/2	1/2	3/4	3/4	1
Medium	Air							
Operating pressure range (*)	0.05~1 MPa							
Proof pressure	1.5 MPa							
Ambient temperature	- 5~+60°C (No freezing)							
Filter element	0.01 μm							
Attachment	L-type bracket							
Sensor switch	RDFE(V) (Refer to page 32)							
Weight	610 g	870 g	1450 g	2250 g				

* Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.

* Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.

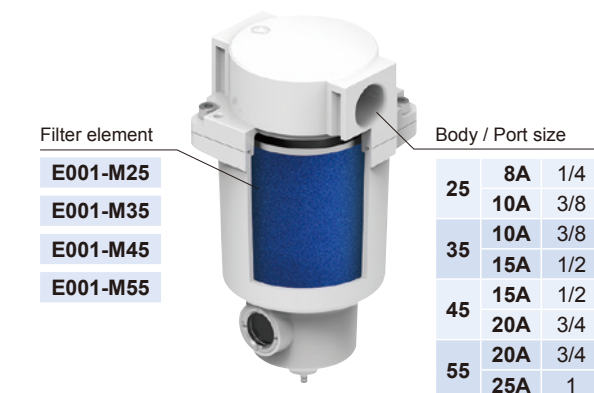
Selector table – Filter element

Model	Port size	Filter element *	Residual oil content *	Nominal flow capacity l/min(ANR)	Symbol for order
MAMM25	1/4, 3/8	E001: 0.01μm (filtration efficiency 99.9%)	< 0.01 mg/m ³	500	E001-M25
MAMM35	3/8, 1/2			1000	E001-M35
MAMM45	1/2, 3/4			2000	E001-M45
MAMM55	3/4, 1			3600	E001-M55

*1. Tested according to ISO8573.

*2. Tested according to ISO12500-1, inlet concentration 10mg/m³

*3. Nominal flow capacity is at 0.7 MPa, and it varies depending on the operating pressure. If flow rate is over nominal flow capacity, may not meet the specifications of the product.



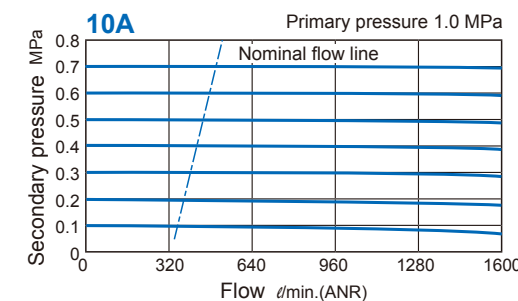
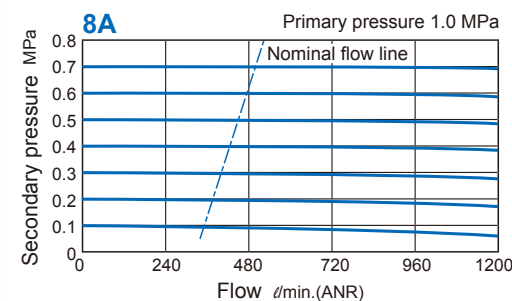
MAMM Capacity

AIR UNIT (MICRO MIST FILTER)

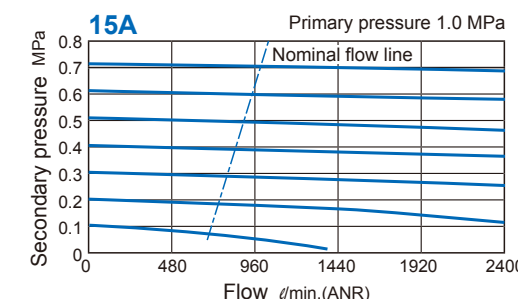
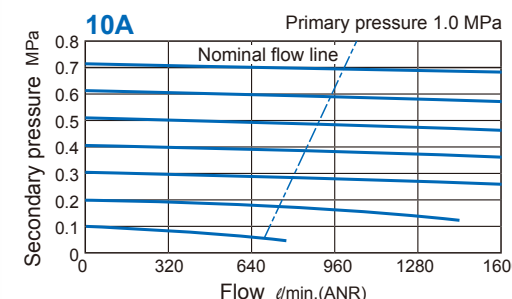


! If flow rate is over nominal flow capacity, may not meet the specifications of the product.

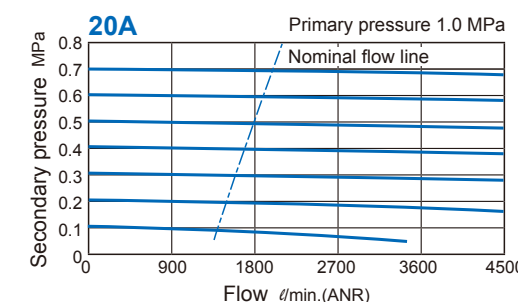
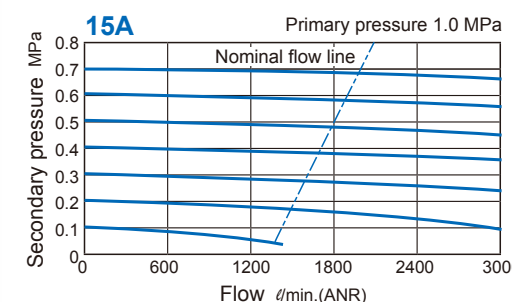
MAMM25



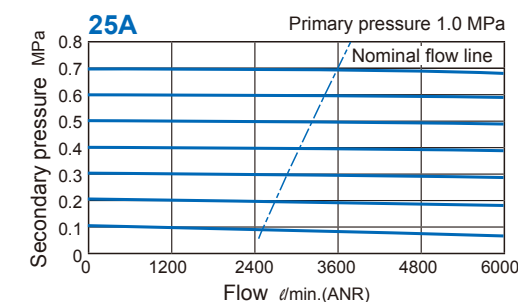
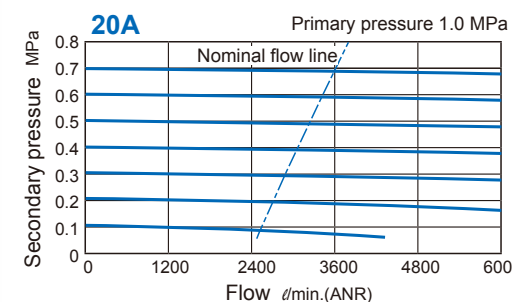
MAMM35



MAMM45



MAMM55

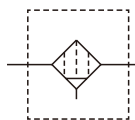


MAMF series 0.01 μm + Deodorization

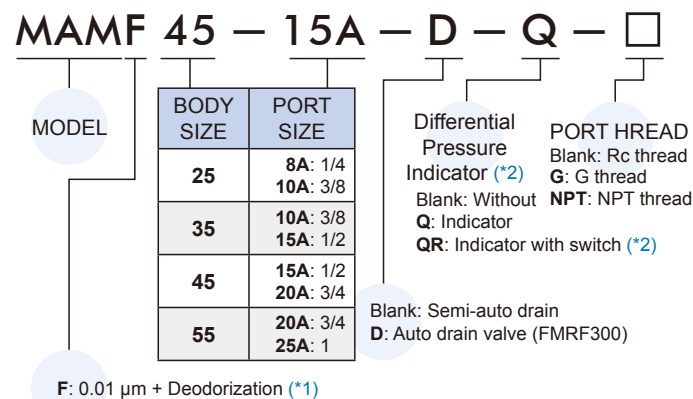
AIR UNIT (ODOR REMOVAL FILTER)



Symbol

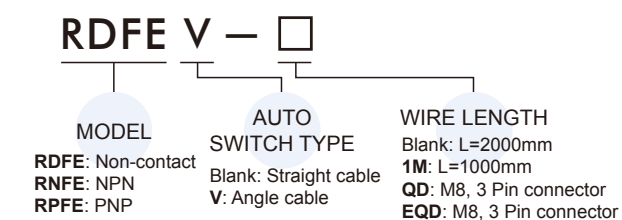


Order example



- *1. Assembling a MAMD series as pre-filter of activated carbon.
*2. Please add the sensor when selecting Indicator with switch (QR).
The models without Indicator (Q) and Indicator with switch (QR) type don't have the installation thread holes.

Order example of sensor switch



Features

Adsorbing the odor and efficiently removing oil mist with an activated carbon element in compressed air. The filter can be applied to requirement of high purity and oil-free, such as precision painting operations or food and medical equipment.

* Assembling a MAMD series as pre-filter to extend the life of activated carbon.

Maintenance

Replace filter element at least every 6 months or when pressure drop reaches 0.07 MPa.

Specification

Model	MAMF							
Body size	25	35	45	55				
Bore No.	8A	10A	10A	15A	15A	20A	20A	25A
Port size	1/4	3/8	3/8	1/2	1/2	3/4	3/4	1
Medium	Air							
Operating perssure range (*1)	0.05~1 MPa							
Proof pressure	1.5 MPa							
Ambient temperature	- 5~+60°C (No freezing)							
Filter element	0.01μm+Deodorization (*2)							
Attchment	L-type bracket							
Sensor switch	RDFE(V) (Refer to page 32)							
Weight	610 g	870 g	1450 g	2250 g				

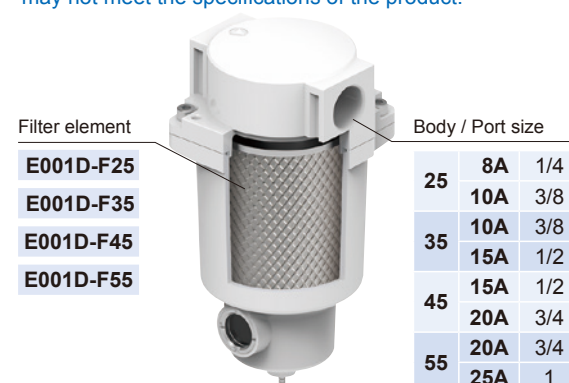
*1. Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.
Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.

*2. Assembling a MAMD series as pre-filter to extend the life of activated carbon.

Selector table – Filter element

Model	Port size	Filter element *1	Residual oil content *2	Nominal flow capacity l/min(ANR)	Symbol for order
MAMF25	1/4, 3/8	E001D: 0.01μm + Deodorization (filtration efficiency 99.9%)	< 0.005 mg/m ³	500	E001D-F25
MAMF35	3/8, 1/2			1000	E001D-F35
MAMF45	1/2, 3/4			2000	E001D-F45
MAMF55	3/4, 1			3600	E001D-F55

- *1. Tested according to ISO8573.
*2. Tested according to ISO12500-1, inlet concentration 10mg/m³
*3. Nominal flow capacity is at 0.7 MPa, and it varies depending on the operating pressure. If flow rate is over nomial flow capacity, may not meet the specifications of the product.



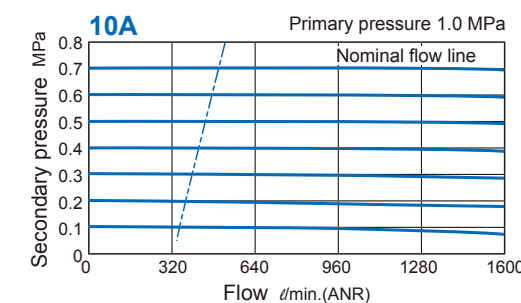
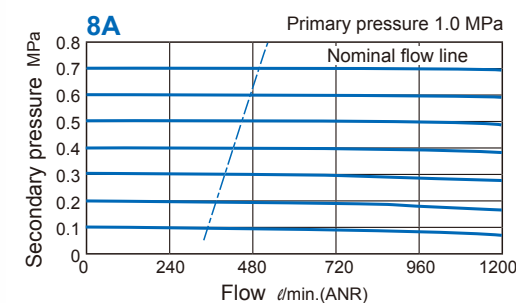
MAMF Capacity

AIR UNIT (ODOR REMOVAL FILTER)

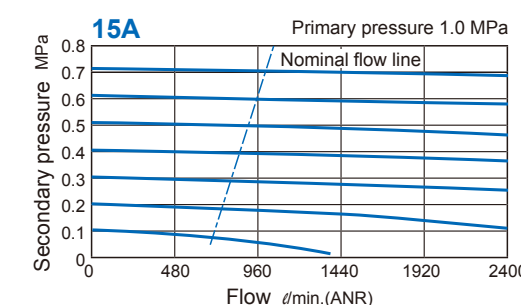
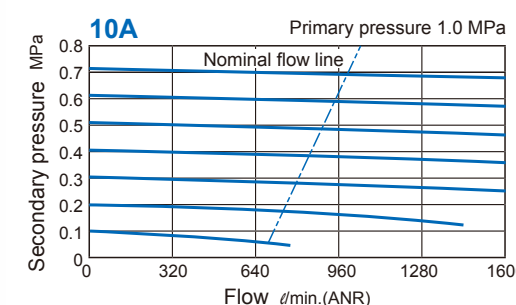


! If flow rate is over nomial flow capacity, may not meet the specifications of the product.

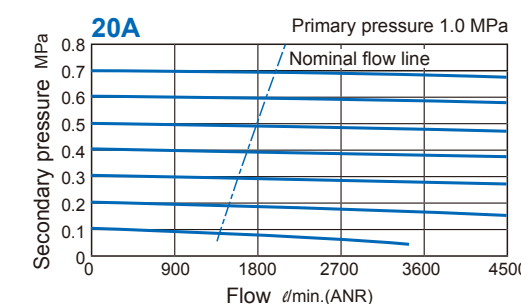
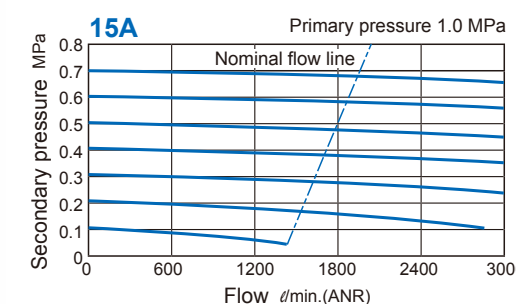
MAMF25



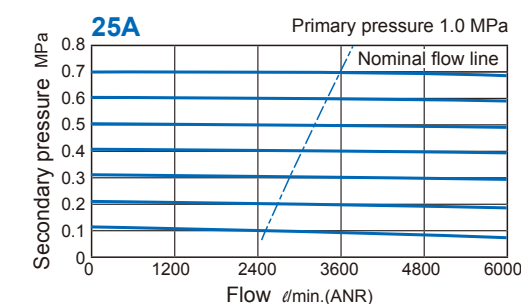
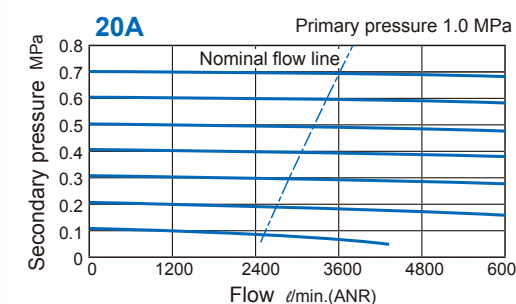
MAMF35

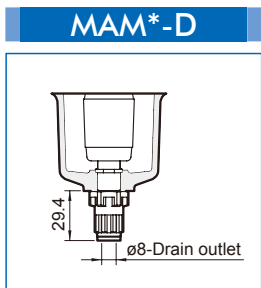
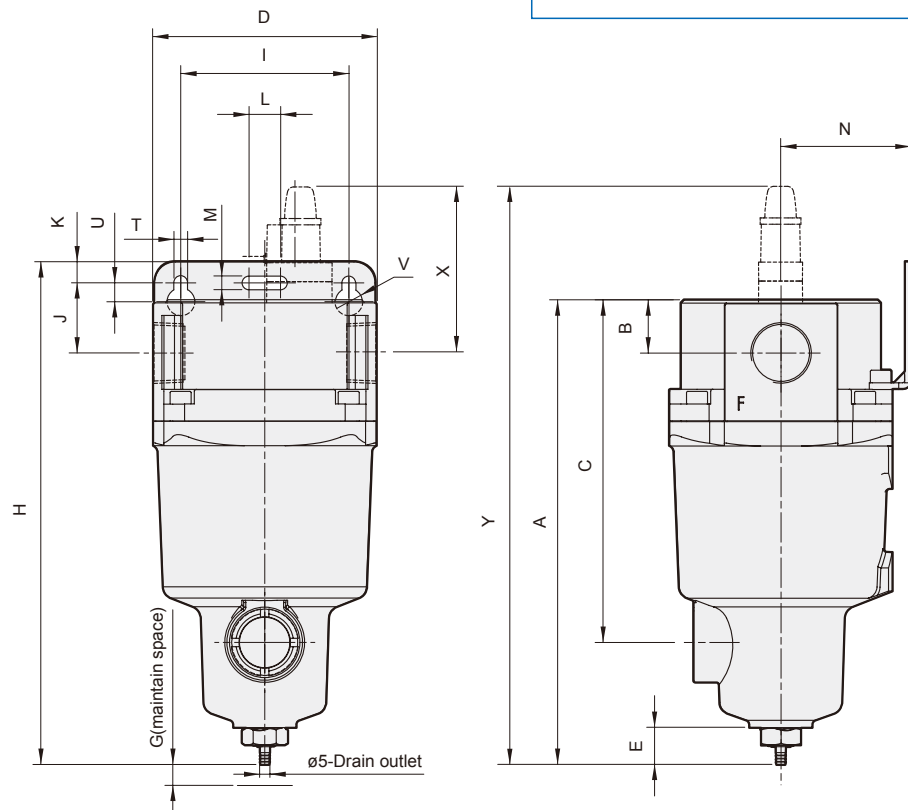
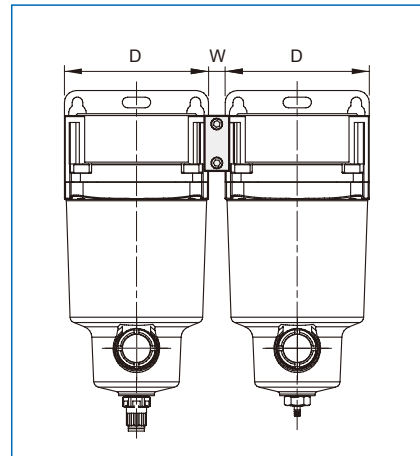
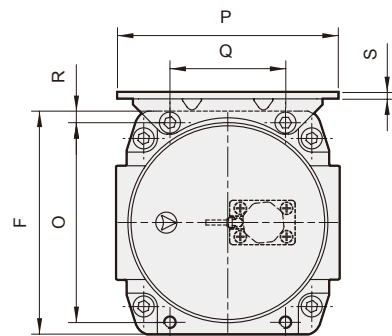


MAMF45



MAMF55





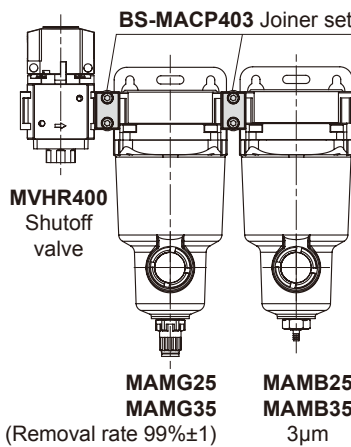
Code Model	Port size	A	B	C	D	E	F	G	H	I	J	K	T	U	L	M	V	N	O	P	Q	R	S	W	X	Y
MAM*25	1/4", 3/8"	171.6	16.5	113.5	76	17.6	76	10	187.1	66	24	8	6	6	6	6	10	47	68.5	80	35	3.8	2	10	71.5	226.6
MAM*35	3/8", 1/2"	199.1	16.5	141	90	17.6	90	10	218.6	80	28	8	7	7	7	7	12	53.4	80.5	95	44	4.8	2.3	10	71.5	254.1
MAM*45	1/2", 3/4"	221.1	25.2	163	106	17.6	106	10	236.9	90	31	10	9	9	9	9	15	62	95	111	55	5.5	3.2	14	80.2	276.1
MAM*55	3/4", 1"	256.1	25.2	198.5	122	17.6	122	10	275.6	100	34.7	10	9	9	15	9	15	72	106	122	63	8	3.2	14	80.2	311.1

Available components (Option)

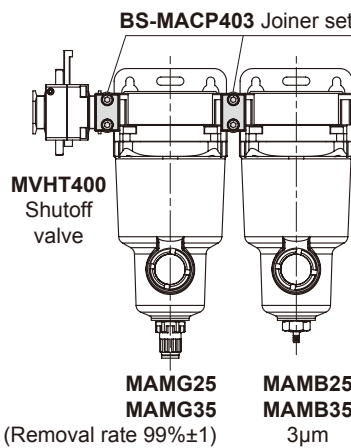
Model	Joiner set	Air unit	Shutoff valve	Soft start-up valve
MAM*25	BS-MACP403	MA*401-W	MVHR400	MAVS400
MAM*35		MA*403	MVHT400	
MAM*45	BS-MACP501	MA*501	-	-
MAM*55				

- Space-saving.
- Easy assembly (DIY).
- Various combinations available.

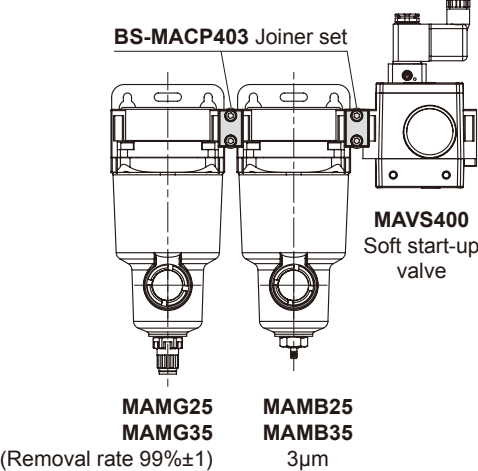
Example 1



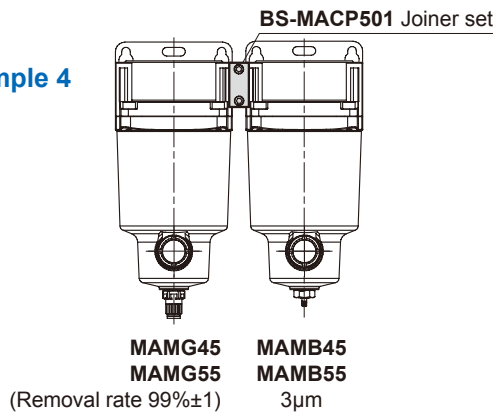
Example 2



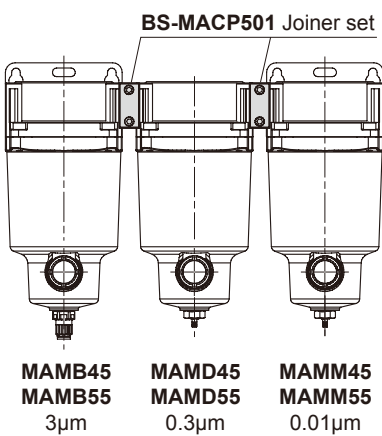
Example 3



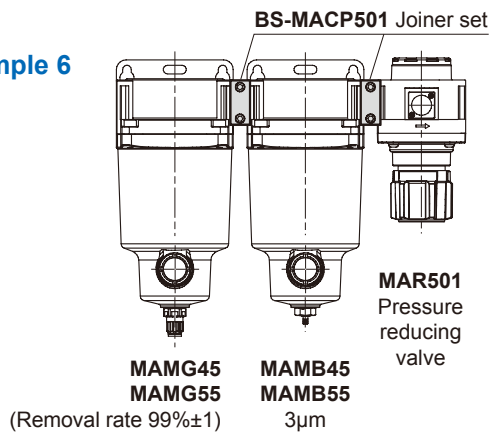
Example 4



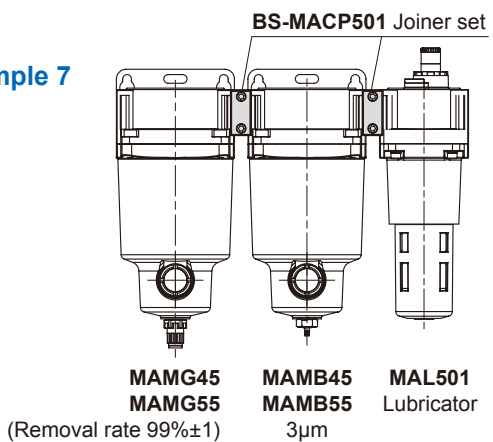
Example 5



Example 6



Example 7

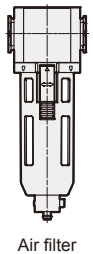


MA*302 / 401 / 501* series

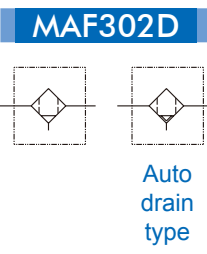
AIR UNIT (AIR /MIST / MICRO MIST FILTER)



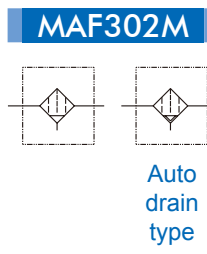
MAF302D/M



M 0.01 μm

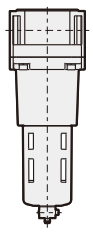


MAF302D
Auto drain type

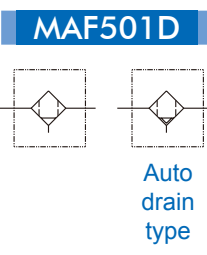


MAF302M
Auto drain type

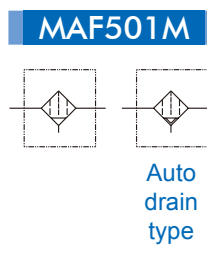
Model	Air filter 5 μm	Mist filter 0.3 μm	Micro mist filter 0.01 μm	Regulator
MAF302D		●		
MAF302M			●	
MAF501D		●		
MAF501M			●	
MAF401A	●			
MAF401D		●		
MAF401M			●	
MAFF401AD	●	●		
MAFF401DM	●	●	●	
MAFRF401	●	●		●
MATFR401	●	●	●	●



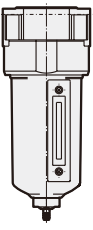
D 0.3 μm
M 0.01 μm



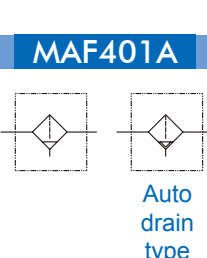
MAF501D
Auto drain type



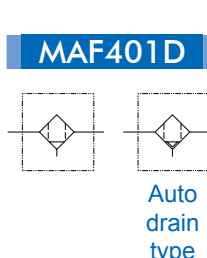
MAF501M
Auto drain type



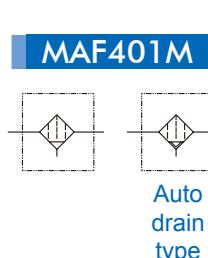
A 5 μm
D 0.3 μm
M 0.01 μm



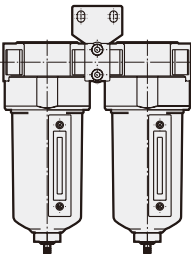
MAF401A
Auto drain type



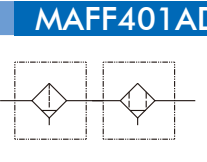
MAF401D
Auto drain type



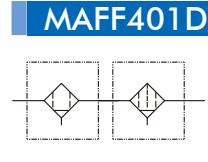
MAF401M
Auto drain type



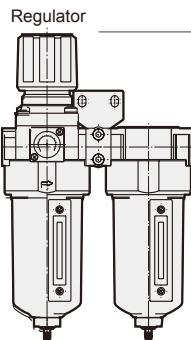
AD 5 μm + 0.3 μm
DM 0.3 μm + 0.01 μm



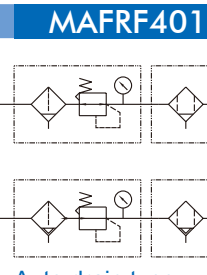
MAFF401AD
Auto drain type



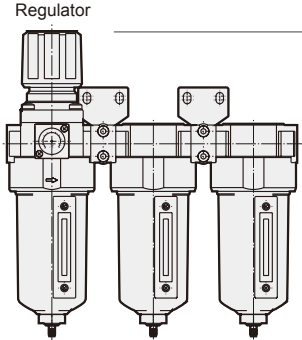
MAFF401DM
Auto drain type



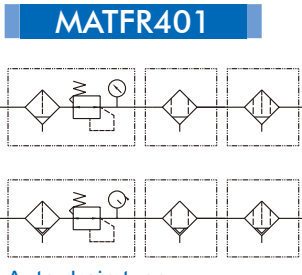
Air filter Mist filter
5 μm + 0.3 μm



MAFRF401
Auto drain type



Air filter Mist filter Micro mist filter
5 μm + 0.3 μm + 0.01 μm



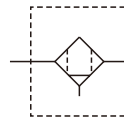
MATFR401
Auto drain type

MAF302D / M series

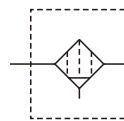
AIR UNIT (MIST / MICRO MIST FILTER)



Symbol



D: 0.3 μm



M: 0.01 μm

- MA302D is designed for removal of foreign matter as well as oil mist (Element: 0.3 μm)
- MA302M is designed for removal of foreign matter as well as oil mist (Element: 0.01 μm)

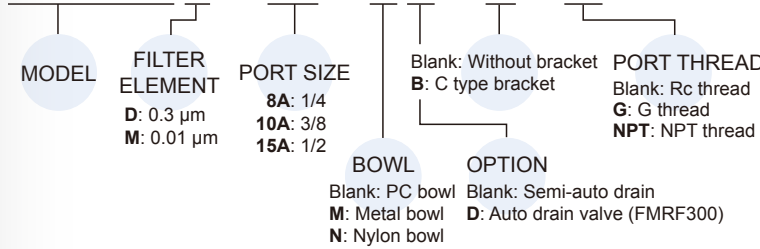
Specification

Model	MAF302D/M		
Bore No.	8A	10A	15A
Port size	1/4	3/8	1/2
Medium	Air		
Operating pressure range (*)	0.05~1 MPa		
Proof pressure	1.5 MPa		
Ambient temperature	- 5~+60°C (No freezing)		
Filter element	0.3 μm, 0.01 μm		
Drain capacity	35 cm ³		
Weight	365 g		

* Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.
* Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.

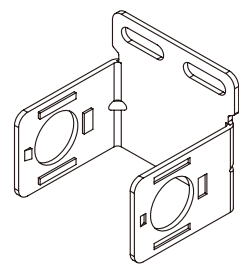
Order example

MAF302D – 8A – ND – B – □



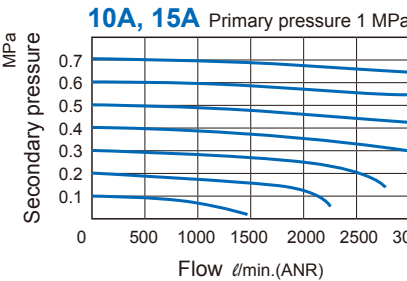
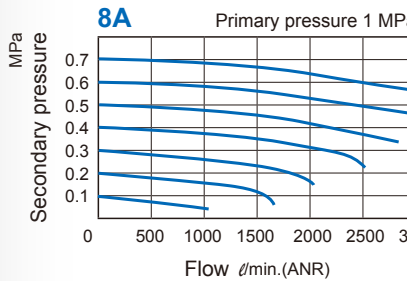
Option accessories

C type bracket

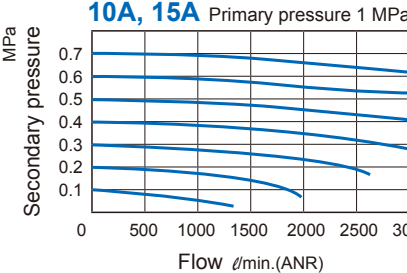
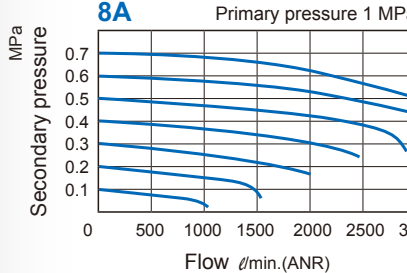


Flow feature

MAF302D (Filter element: 0.3 μm)



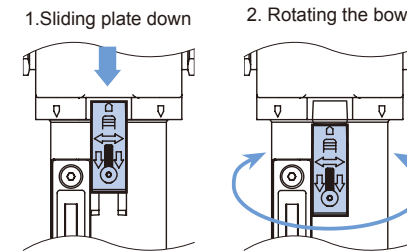
MAF302M (Filter element: 0.01 μm)



Caution

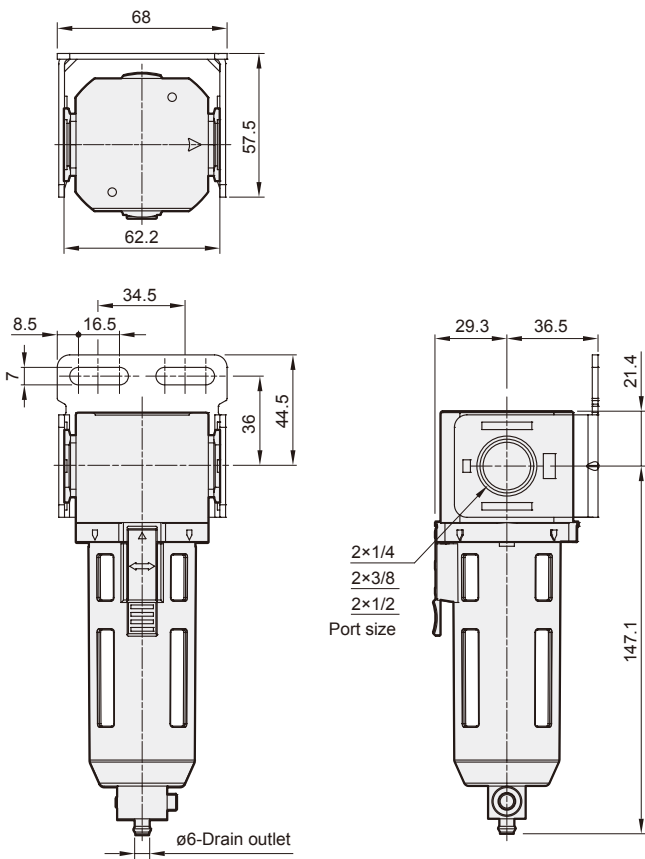
Metal bowl

Before assembling or disassembling, push the lock plate down to the end, and confirm that is detached from the body then rotate the bowl, otherwise the lock plate will be deformed or the body will be scratched.



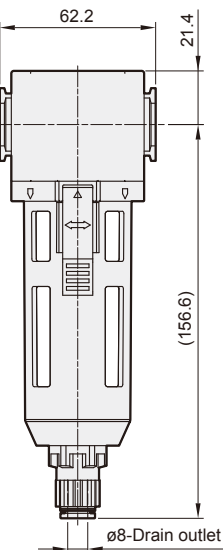
MAF302D / M Dimensions

AIR UNIT (MIST / MICRO MIST FILTER)



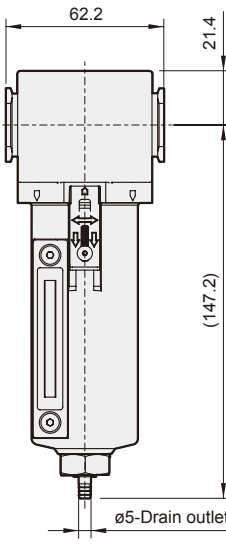
MAF302D/M-D

Auto drain valve



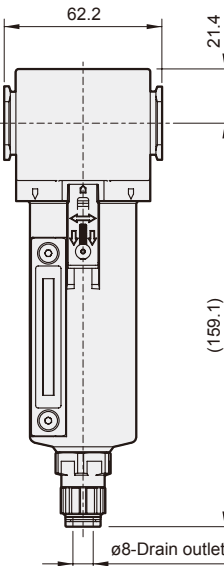
MAF302D/M-M

Metal bowl



MAF302D/M-MD

Metal bowl + Auto drain valve



MAF501D / M series

AIR UNIT (MIST / MICRO MIST FILTER)



Specification

Model	MAF501D/M	
Bore No.	20A	25A
Port size	3/4	1
Medium	Air	
Operating pressure range (*)	Nylon bowl, PC bowl: 0.05~1 MPa Metal bowl: 0.05~1.5 MPa	
Proof pressure	Nylon bowl, PC bowl: 1.5 MPa Metal bowl: 2 MPa	
Ambient temperature	- 5~+60°C (No freezing)	
Filter element	0.3 μm, 0.01 μm	
Drain capacity	Nylon bowl, PC bowl: 75 cm ³ Metal bowl: 70 cm ³	
Weight	Nylon bowl, PC bowl: 1180g Metal bowl: 1300g	

* Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.
* Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.
* Replace filter element at least once per year or when pressure drop reaches 0.07 MPa.

Order example

MAF501D - 20A - MD - B - □

MODEL: MAF501D, 20A: 3/4, 25A: 1

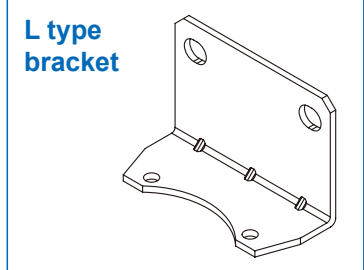
FILTER ELEMENT: D: 0.3 μm, M: 0.01 μm

BOWL: Blank: PC bowl, M: Metal bowl, N: Nylon bowl

OPTION: Blank: Without bracket, B: L type bracket

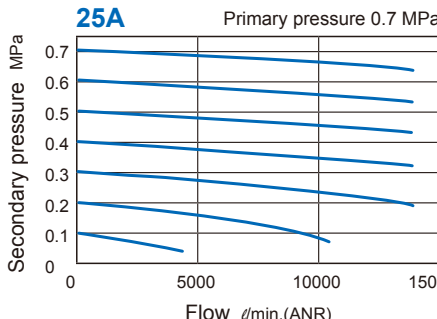
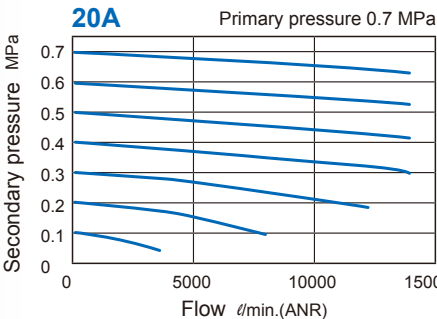
PORT THREAD: Blank: Rc thread, G: G thread, NPT: NPT thread

Option accessories

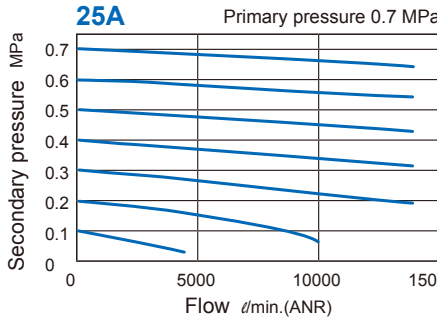
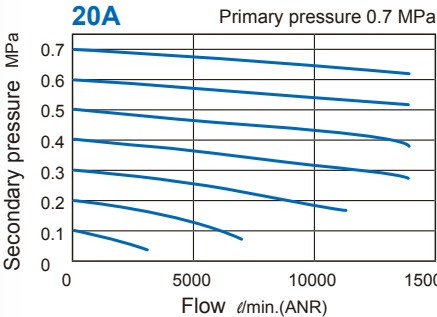


Flow feature

MAF501D (Filter element: 0.3 μm)



MAF501M (Filter element: 0.01 μm)



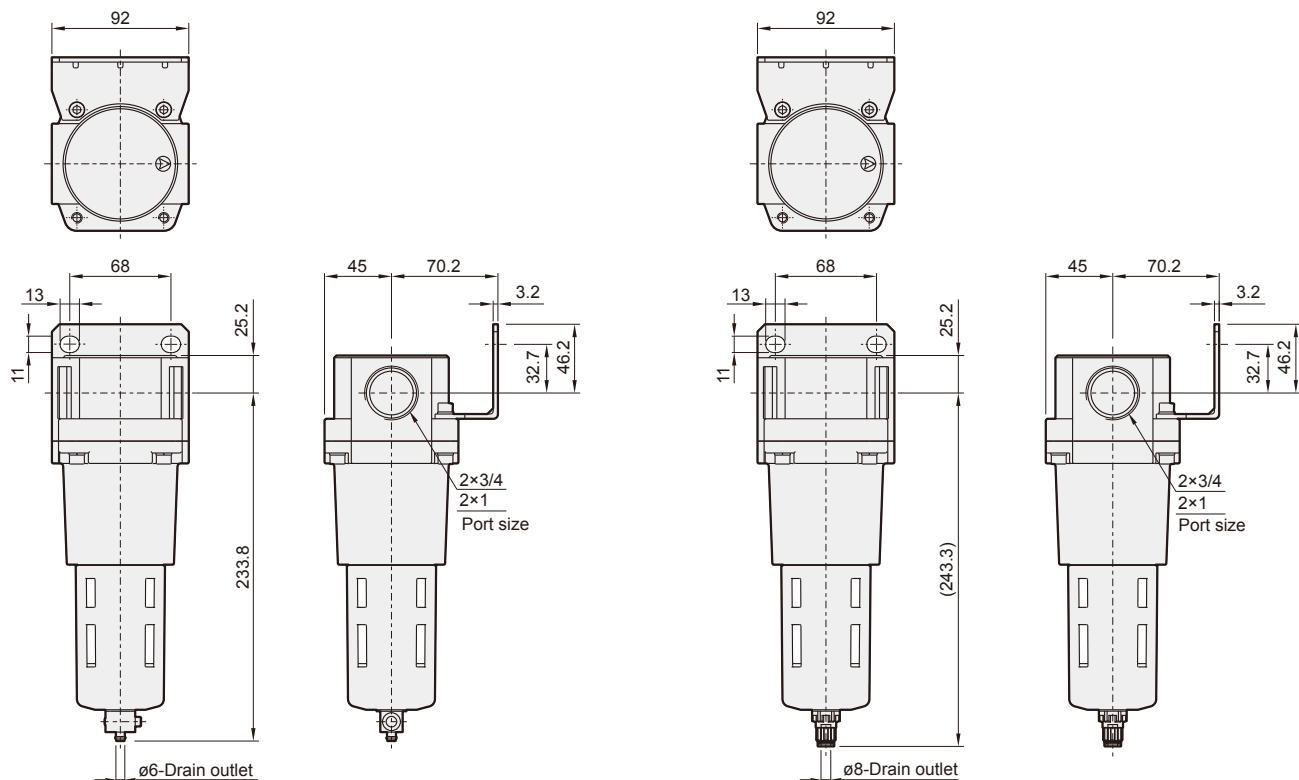
MAF501D / M Dimensions

AIR UNIT (MIST / MICRO MIST FILTER)



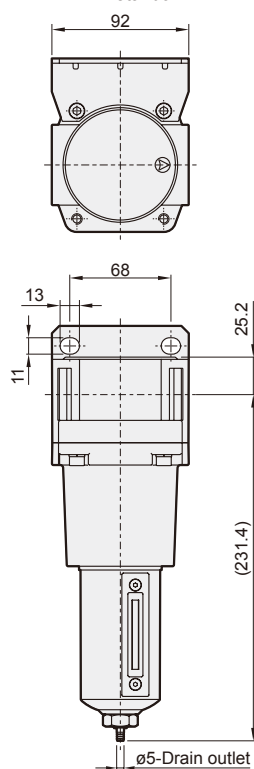
MAF501D/M-D

Auto drain valve



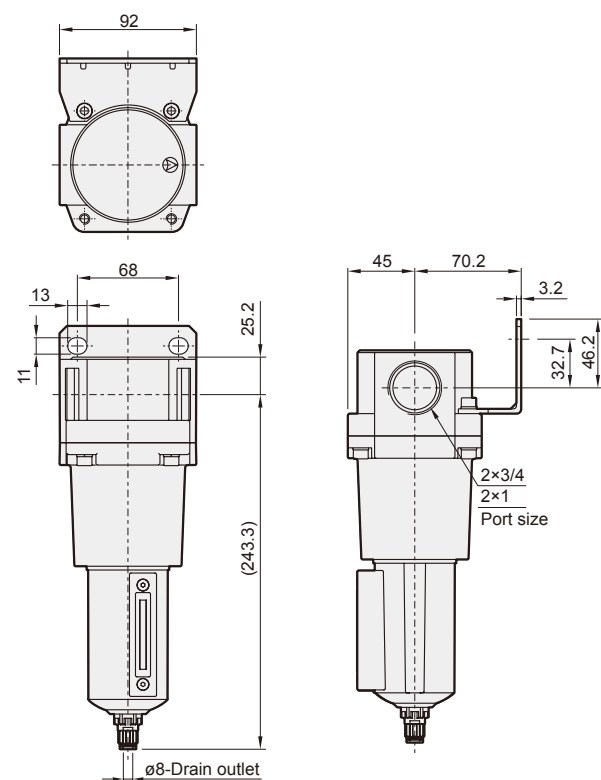
MAF501D/M-M

Metal bowl



MAF501D/M-MD

Metal bowl + auto drain valve

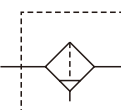


MAF401 A / D / M series

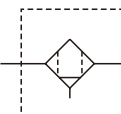
AIR UNIT (AIR / MIST / MICRO MIST FILTER)



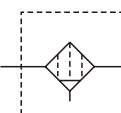
Symbol



A: 5µm



D: 0.3µm



M: 0.01µm

- MAF401A is designed for draining and removal of foreign matter. (Element: 5µm)
- MAF401D/M is designed for removal of foreign matter as well as oil mist (Element: 0.3µm / 0.01µm)

Specification

Model	MAF401A/D/M		
Bore No.	8A	10A	15A
Port size	1 / 4	3 / 8	1 / 2
Medium	Air		
Operating pressure range (*)	0.05~1.5 MPa		
Proof pressure	2 MPa		
Ambient temperature	- 5~+60°C (No freezing)		
Filter element	5 µm, 0.3 µm, 0.01 µm		
Drain capacity	70 cm ³		
Weight	480 g		

* Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.

* Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.

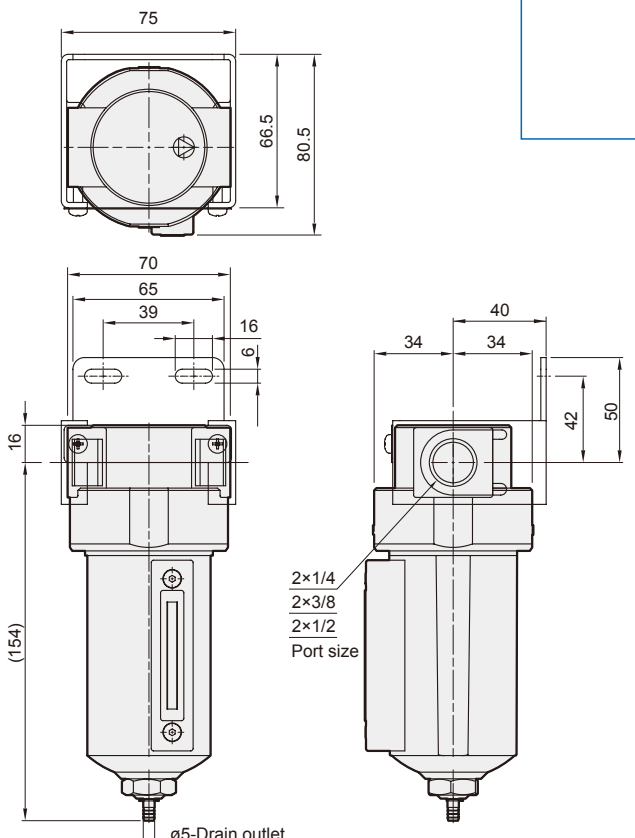
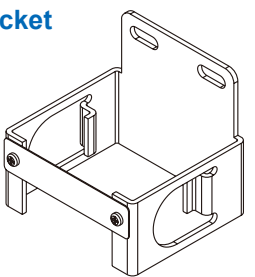
Order example

MAF401D-8A-□-D-B-□

- MODEL
- PORT SIZE
8A: 1/4
10A: 3/8
15A: 1/2
- Blank: Semi-auto drain
D: Auto drain valve (FMRF300)
- EXTERIOR COLOR
Blank: Black & silver
W: Gray & white
- PORT THREAD
Blank: Rc thread
G: G thread
NPT: NPT thread
- Blank: Without bracket
B: C type bracket

Option accessories

C type bracket



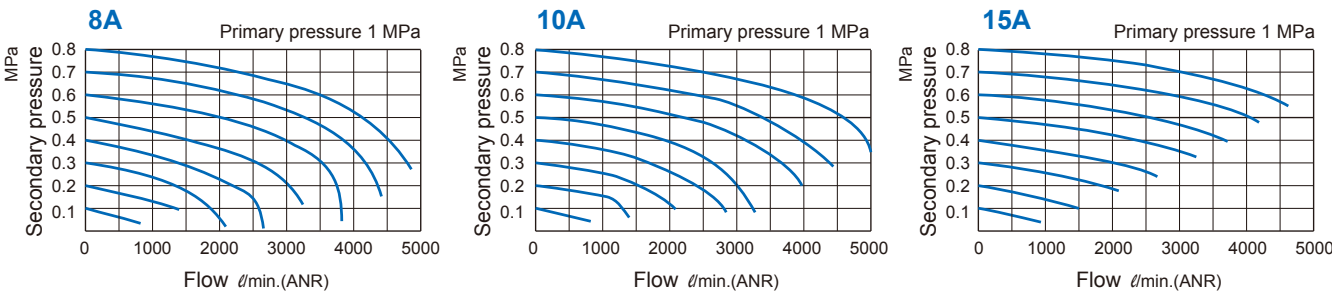
MAF401 A / D / M Capacity

AIR UNIT (AIR / MIST / MICRO MIST FILTER)

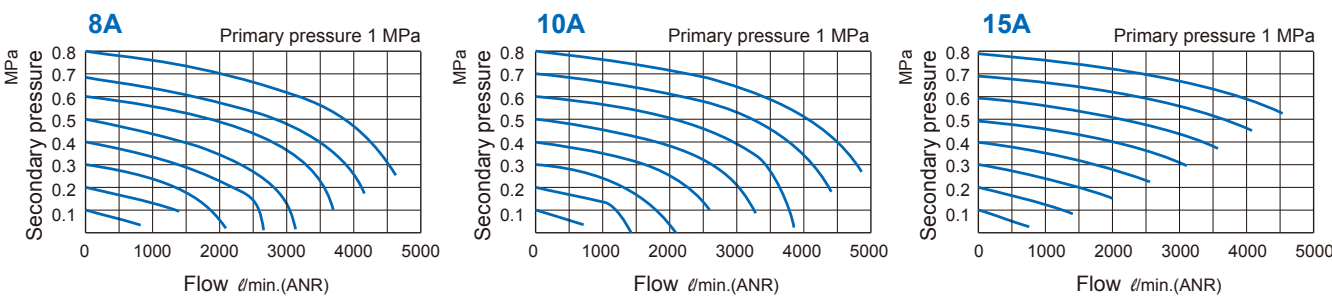


Flow feature

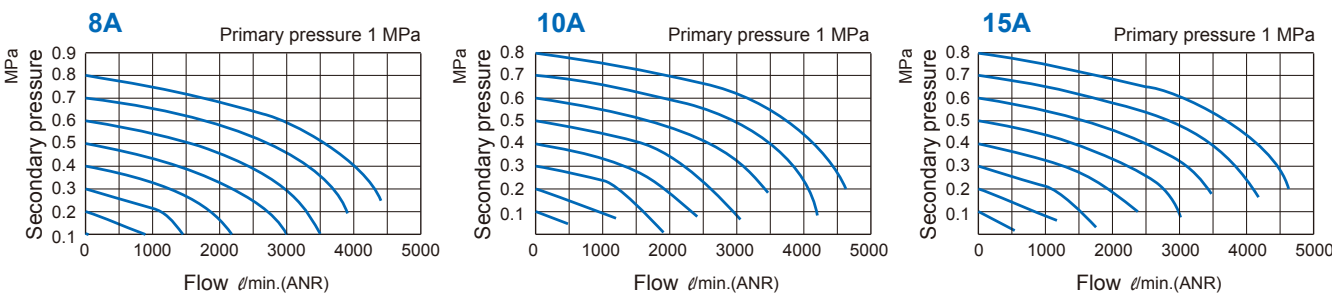
MAF401A (Filter element: 5 μm)



MAF401D (Filter element: 0.3 μm)



MAF401M (Filter element: 0.01 μm)



MAFF401 AD / DM series

AIR UNIT (AIR / MIST / MICRO MIST FILTER)



Specification

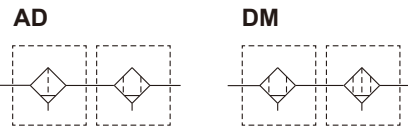
Model	MAFF401AD	MAFF401DM
Bore No.	8A,10A,15A	
Port size	1 / 4, 3/8, 1/2	
Medium	Air	
Operating pressure range (*)	0.05~1.5 MPa	
Proof pressure	2 MPa	
Ambient temperature	- 5~+60°C (No freezing)	
Filter element	5 μm+0.3 μm	0.3 μm+0.01 μm
Attachment	L type bracket	
Weight	1133 g	

* Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.

* Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.



Symbol



Order example

MAFF401AD-8A-□-D-B-□

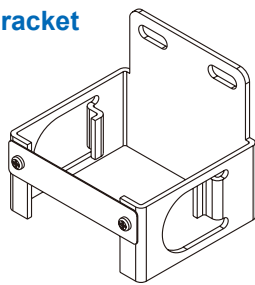
MODEL PORT SIZE Blank: Semi-auto drain
D: Auto drain valve (FMRF300) PORT THREAD
Blank: Rc thread
G: G thread
NPT: NPT thread

FILTER ELEMENT EXTERIOR COLOR
AD: 5 μm+0.3 μm Blank: Black & silver
DM: 0.3 μm+0.01 μm W: Gray & white

Blank: L type bracket
B: C type bracket

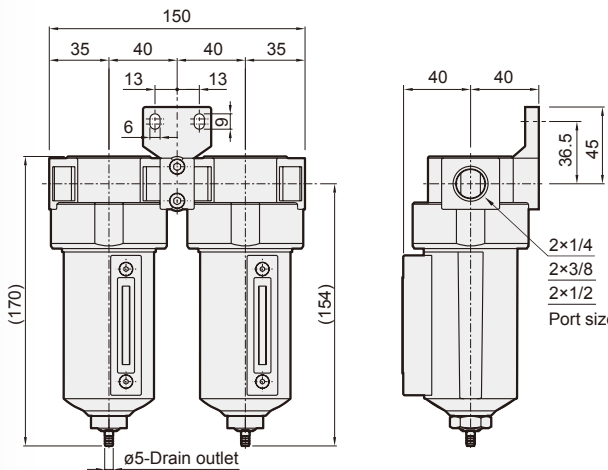
Option accessories

C type bracket



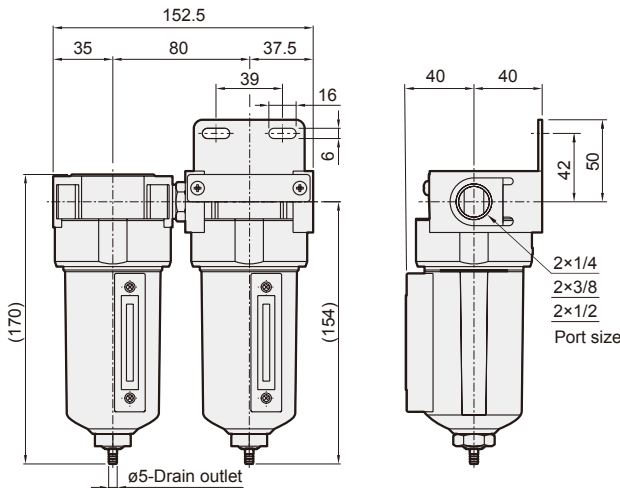
MAFF401**

L type bracket



MAFF401**-B

C type bracket



MAFRF401 series

AIR UNIT (F.R.UNIT)

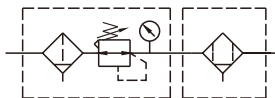


Specification

Model	MAFRF401		
Bore No.	8A	10A	15A
Port size	1/4	3/8	1/2
Medium	Air		
Operating pressure range (*)	0.05~1.5 MPa		
Proof pressure	2 MPa		
Regulated pressure range	Standard type: 0.1~0.85 MPa		
	High pressure type: 0.1~1.5 Mpa		
Ambient temperature	- 5~+60°C (No freezing)		
Filter element	5 µm+0.3 µm		
Attachment	Pressure gauge (PG-20), L type bracket		
Weight	1453 g		

* Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.
* Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.

Symbol



Order example

MAFRF401AD - 8A - ☐ - HA ☐ - E1 - B - ☐

MODEL FILTER ELEMENT PORT SIZE EXTERIOR COLOR (Option) PRESSURE SWITCH PORT THREAD

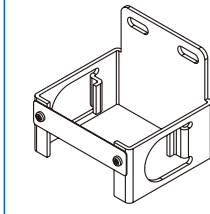
AD: 5 µm+0.3 µm 8A: 1/4 10A: 3/8 15A: 1/2 Blank: Black & silver W: Gray & white E1: MP41P-022 E2: MP41P-022-QD E5: MP41P-042 E6: MP41P-042-QD Blank: Rc thread G: G thread NPT: NPT thread Blank: L type bracket B: C type bracket

(Option) ACCESSORIES

Type	Pressure gauge	Drain valve
Blank: Standard type	Blank: Pressure gauge (PG-20) C: External pressure gauge (PG-40) + Gauge adapter set (A-MAR401) A: Gauge adapter set (A-MAR401)	Blank: Semi-auto drain D: Auto drain valve (FMRF300)
H: High pressure type	C: External pressure gauge (PG-40) + Gauge adapter set (A-MAR401) A: Gauge adapter set (A-MAR401)	Blank: Semi-auto drain

Option accessories

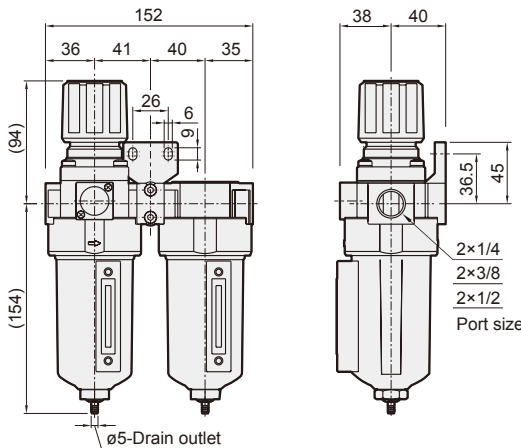
C type bracket



* PG-40 (C), A-MAR302 (A) and MP41 (E*) can not be selected at the same time.
* Specification (W) gauge adapter set (A-MAR302).

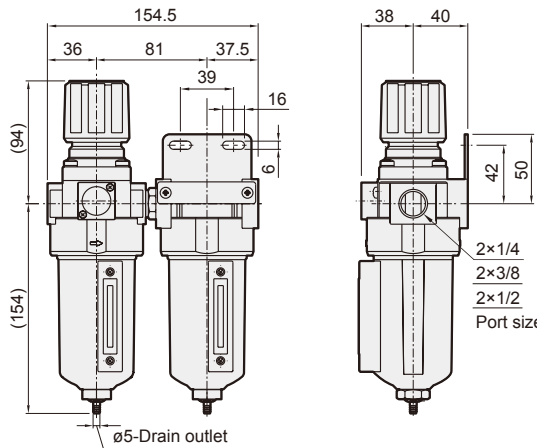
MAFRF401AD

L type bracket



MAFRF401AD-B

C type bracket



MATFR401 series

AIR UNIT (F.R.UNIT)

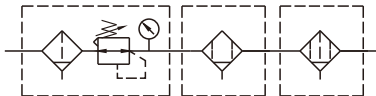


Specification

Model	MATFR401		
Bore No.	8A	10A	15A
Port size	1/4	3/8	1/2
Medium	Air		
Operating pressure range (*)	0.05~1.5 MPa		
Proof pressure	2 MPa		
Regulated pressure range	Standard type: 0.1~0.85 MPa		
	High pressure type: 0.1~1.5 Mpa		
Ambient temperature	- 5~+60°C (No freezing)		
Filter element	5 µm+0.3 µm+0.01 µm		
Attachment	Pressure gauge (PG-20), L type bracket		
Weight	2106 g		

* Standard unit contains semi-auto-drain function when operating pressure below 0.05 MPa.
* Choose auto-drain FMRF300, the pressure range is 0.15~1 MPa.

Symbol



Order example

MATFR401 - 8A - ☐ - HA ☐ - E1 - B - ☐

MODEL PORT SIZE EXTERIOR COLOR (Option) PRESSURE SWITCH PORT THREAD

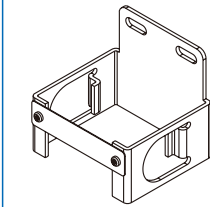
8A: 1/4 10A: 3/8 15A: 1/2 Blank: Black & silver W: Gray & white E1: MP41P-022 E2: MP41P-022-QD E5: MP41P-042 E6: MP41P-042-QD Blank: Rc thread G: G thread NPT: NPT thread Blank: L type bracket B: C type bracket

(Option) ACCESSORIES

Type	Pressure gauge	Drain valve
Blank: Standard type	Blank: Pressure gauge (PG-20) C: External pressure gauge (PG-40) + Gauge adapter set (A-MAR401) A: Gauge adapter set (A-MAR401)	Blank: Semi-auto drain D: Auto drain valve (FMRF300)
H: High pressure type	C: External pressure gauge (PG-40) + Gauge adapter set (A-MAR401) A: Gauge adapter set (A-MAR401)	Blank: Semi-auto drain

Option accessories

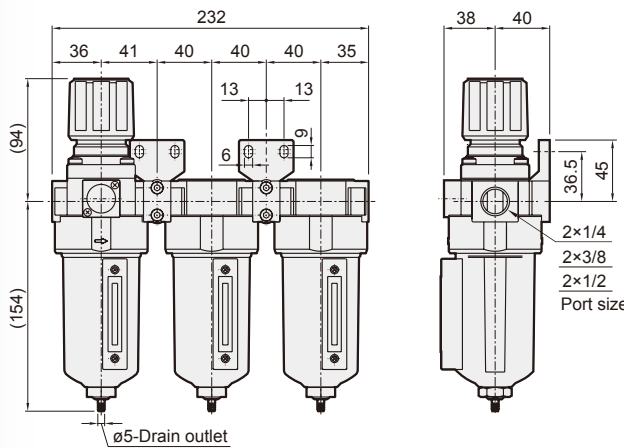
C type bracket



* PG-40 (C), A-MAR302 (A) and MP41 (E*) can not be selected at the same time.
* Specification (W) gauge adapter set (A-MAR302).

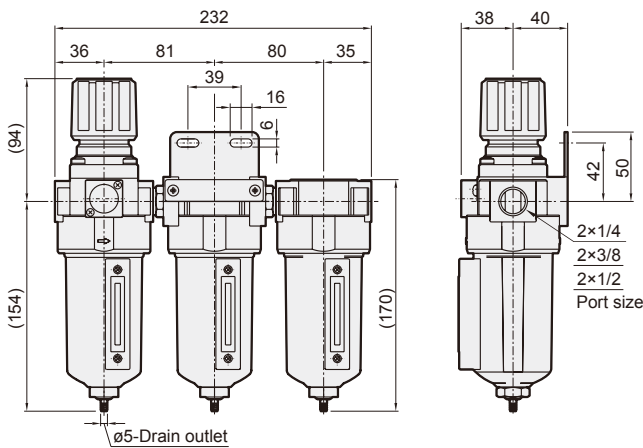
MATFR401

L type bracket



MATFR401-B

C type bracket





Features

- Water removal rate remove as much as 99.99% of the water.
- Cost space saving save 80% cost.
- No power supply since no electricity is used, no wiring work is necessary. Installation is very easy.
- Compact design easily installed in wide variety of mechanical systems, due to space-saving design.

Specification

Model	MWC-1000	MWC-4000
Port size	3/8	1
External dimension (mm)	ø85×382	ø130×501
Max. operating pressure	1 MPa	
Max. air flow (*)	940 Nl/min	4,000 Nl/min
Option	Bracket	
Weight	1.6 kg	4.3 kg

* Pressure is at 0.7 MPa.

Order example of filter

MWC – 1000 – □ – NPT

MODEL FLOW CODE PORT THREAD

1000 4000 Blank: Rc thread
G: G thread
NPT: NPT thread

BRACKET

Blank: Without bracket
BT: With bracket

* NPT, G: Using converting sockets (Attachment).

Order example of bracket

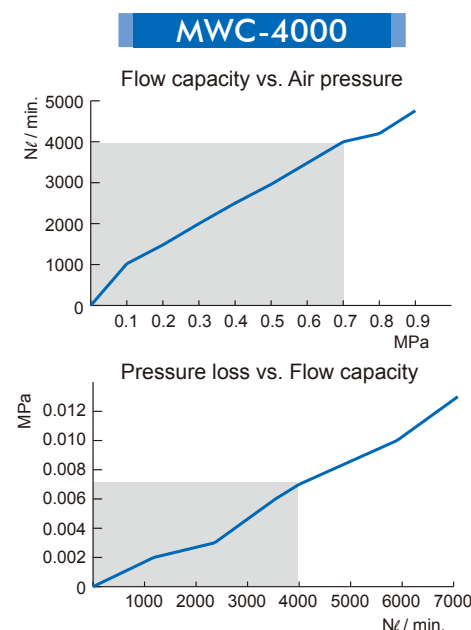
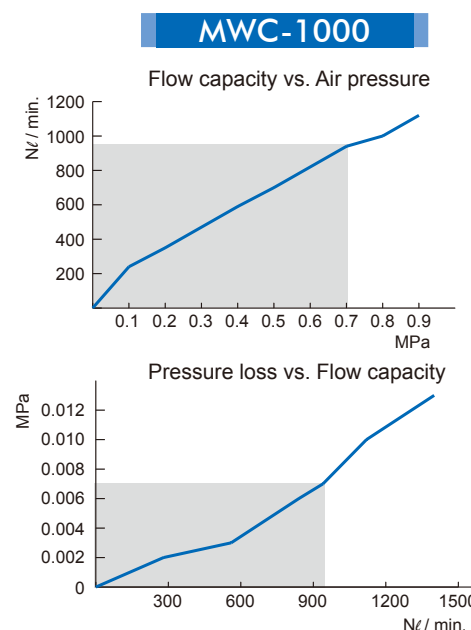
BT – MWC – 1000

BRACKET FLOW CODE

1000 4000

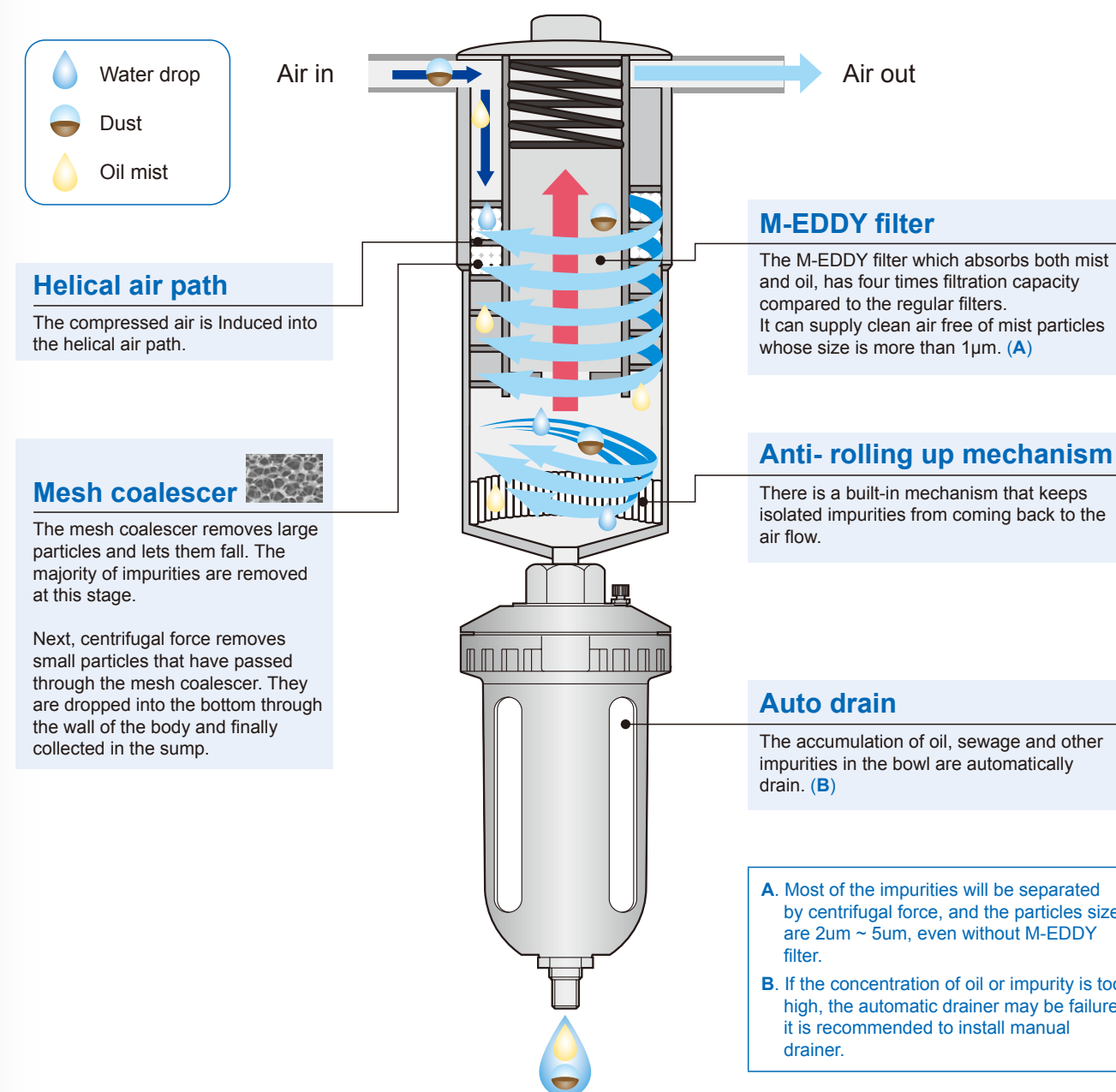
Pressure loss / flow capacity

The pressure loss is less than 1%

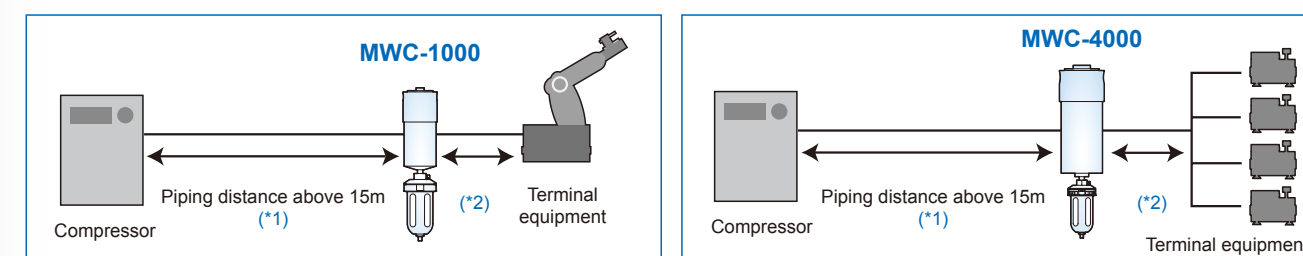


* This product must be operated within the condition designated by blue areas in the graphs.

Compact and high efficiency



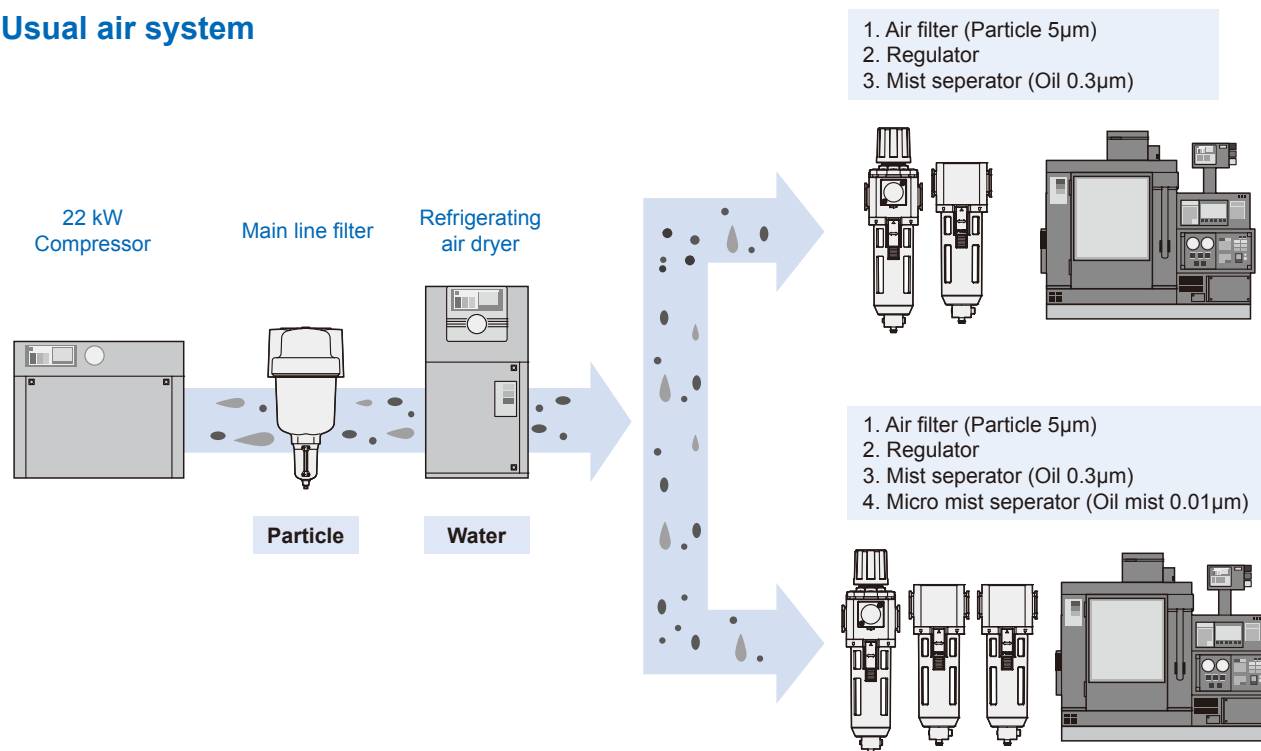
Application examples



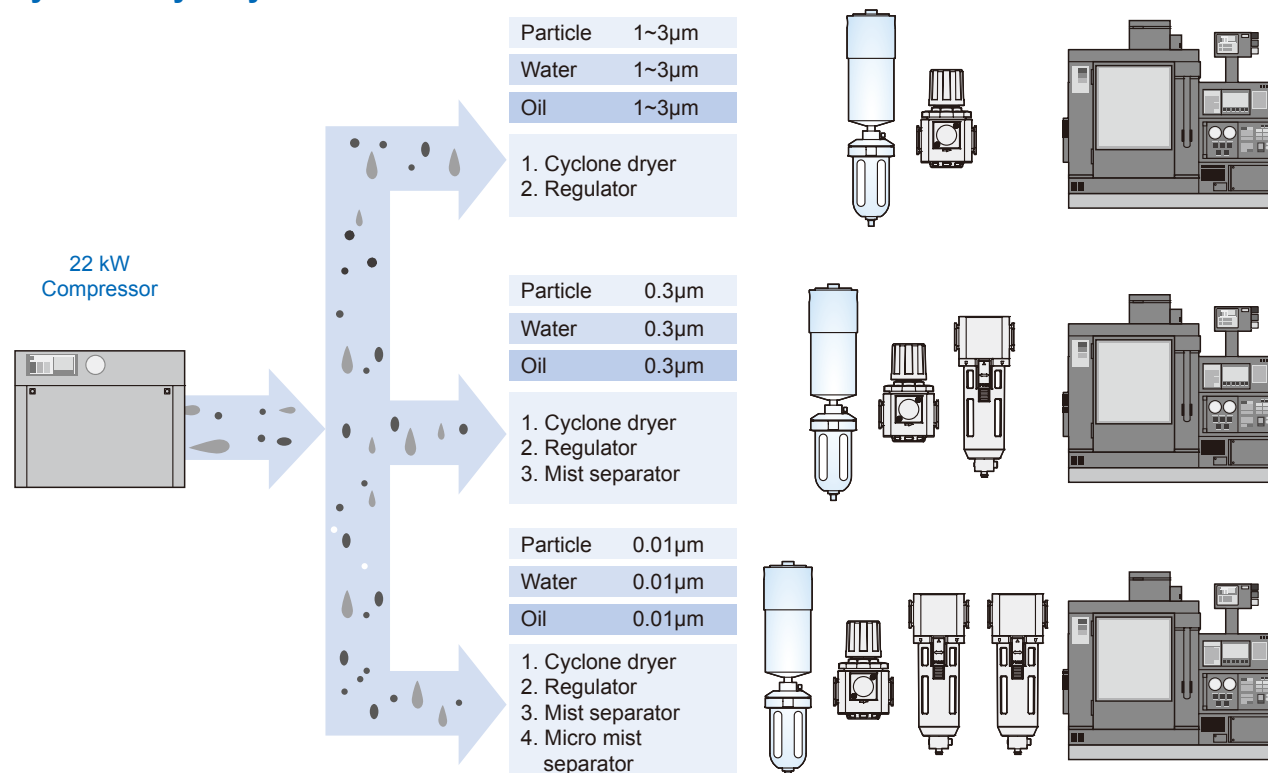
*1. Should be installed as far as possible from the compressor.

*2. Should be installed as closer as possible to the terminal equipments.

Usual air system



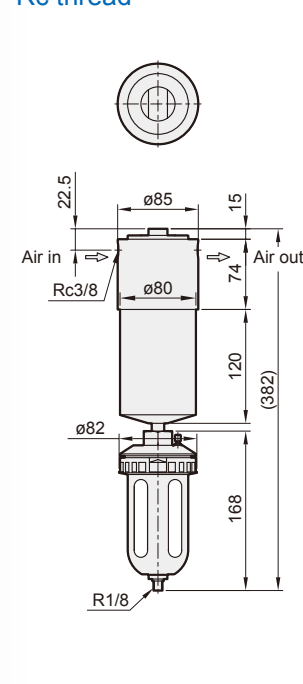
Cyclone dryer system



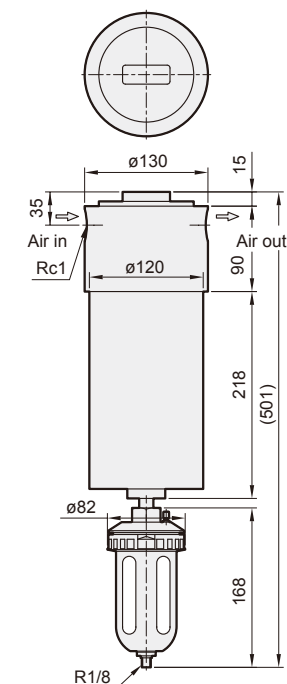
Dimensions

MWC-1000

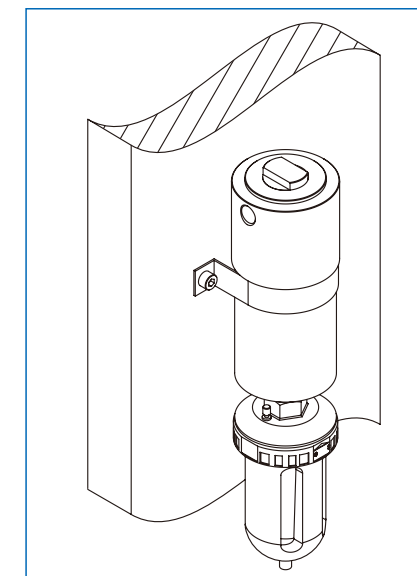
Rc thread



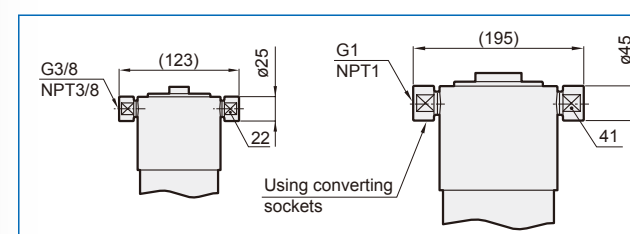
MWC-4000



Installation diagram

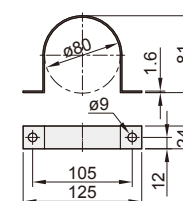


G & NPT thread

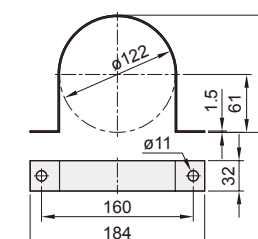


Bracket

BT-MWC-1000



BT-MWC-4000



RDFE series
SENSOR SWITCH

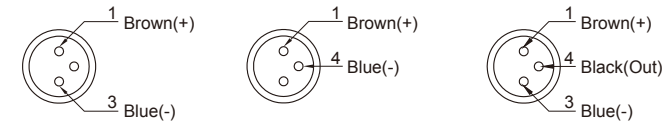


Assembling style

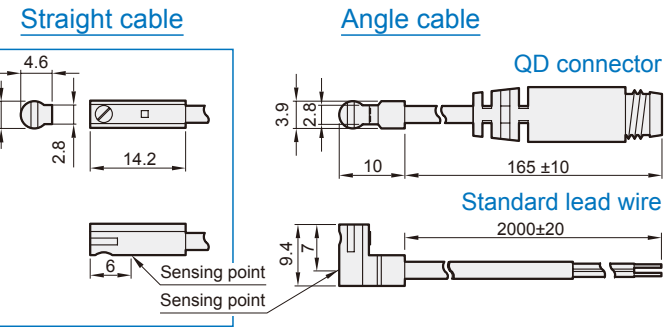
Cylinder type	Mounting clamp
MAM*, MCJU, MCJB, MCMJP, MCDJ, MSBE, MCRJ-S, MCRQ, MCRQ-S, MCHC-6, MCHD, MCHH, MCHU, MCHS, MCHX, MCHG2, MCHJ, MCHY, MEQI	

Wiring of the QD

- 2 wire QD wiring • 2 wire EQD wiring • 3 wire QD wiring



Dimension



Order example * Special order is available.

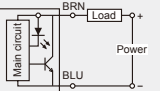
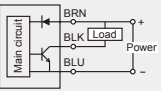
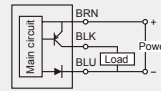
RDFE V —

MODEL
RDFE: Non-contact
RNFE: NPN
RPFE: PNP

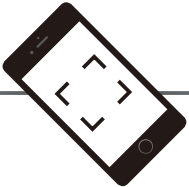
AUTO SWITCH TYPE
Blank: Straight cable
V: Angle cable

WIRE LENGTH
Blank: L=2000mm
1M: L=1000mm
QD: M8, 3 Pin connector
EQD: M8, 3 Pin connector

Specification

Model	RDFE / RDFEV	RNFE	RNFEV	RPFE	RPFEV
Wiring method	2 wire	3 wire			
Switching logic	Solid state output, Normally open				
Switch type	Non-contact	NPN current sinking		PNP current sourcing	
Operating voltage	5~30V DC	5~30V DC		5~30V DC	
Switching current	50mA max.	50mA max.	80mA max.	50mA max.	80mA max.
Contact rating (*1)	1.5W max.	1.5W max.	2.2W max.	1.5W max.	2.2W max.
Current consumption	—	10mA @24V DC max.	6mA @24V DC max.	10mA @24V DC max.	6mA @24V DC max.
Voltage drop	3.5V max.	0.5V @ 50mA max.			
Leakage current	0.1mA(40uA) max.	0.01mA max.			
Indicator	Red LED				
Cable	ø2.6, 2C, PVC	ø2.6, 3C, PVC			
Temperature range	-10~+70°C (No freezing)				
Shock (*2)	50G				
Vibration (*3)	9G				
Enclosure classification	IEC 60529 IP67				
Protection circuit (*4)	3, 4				
Weight	12.8 g (1m cable) / 23.8 g (2m cable)				
Connect diagram					

*1. Warning: Never exceed rating (watt=voltage×amperage). Permanent damage to sensor will occur.
*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.
*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.
*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression





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 886-2-25912822 · 886-2-25981879

The specifications are subject to change without advance notice.

CAT. NO.:MD-DM2005-E