

MAVS series

SOFT START-UP VALVE



Caution for safety
(Read before installing)



- Start-up valve for low speed air supply to gradually raise initial pressure in an air system and for quick exhaust by cutting off air supply.
- Combination with modular type air units (F.R.L. unit).
- Adaptor possess smooth pressure relief is optional.

Specification

Model		MAVS200	MAVS300	MAVS400
Bore No.		8A	10A	15A
Port size		1/4	3/8	1/2
Medium		Air		
Operating pressure range		0.25~1 MPa		
Effective orifice	1(P)→2(A)	20 mm ²	37 mm ²	61 mm ²
	2(A)→3(R)	24 mm ²	49 mm ²	76 mm ²
Ambient temperature		0~+60°C		
Voltage		AC110V, 220V (50/60)Hz, DC24V		
Power consumption	Standard	AC=4.8/4.4VA, 6/4.9VA DC=2W		
	Power saving	DC=Start: 2W(*) Power saving: 0.5W		
Available voltage range		±10%		
Insulation class		F class		
Option		Pressure gauge (PG-40), L type bracket		
Weight		450 g	520 g	800 g

* Power saving covert time 100ms.

Order example

MAVS400 — 15A — 1 — □ — B — AC110 — L — □

MODEL

200
300
400

PORT SIZE

8A: 1/4 (for 200 type)
10A: 3/8 (for 300 type)
15A: 1/2 (for 400 type)

BRACKET

Blank: Without
B: L type bracket

VOLTAGE

AC220V(50/60)Hz
AC110V(50/60)Hz
DC24V

PORT THREAD

Blank: Rc thread
G: G thread
NPT: NPT thread

PRESSURE GAUGE

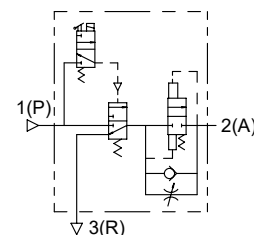
Blank: Without pressure gauge
C: Pressure gauge (PG-40)

EXTERIOR COLOR (*)

1: Silver (for air unit 401 series)
3: Cool gray (for air unit 401-V, 403 series)

* MAVS200/300 only have cool gray, if selected MAVS200/300 type can skip this option.

Symbol



ELECTRIC CONNECTION

Standard	
Blank	DIN terminal
L	DIN terminal with LED indicator
E	Explosion protection (Table 1)(Black coil)
Power saving (for DC24V)	
KL	DIN terminal with LED indicator

Order example of Bracket

MAVS400 — B

MODEL

200, 300, 400

BRACKET

L type bracket

Order example of Adaptor

MAVS400 — F — □

MODEL

200
300
400

ADAPTOR

with smooth pressure relief

PORT THREAD

Blank: Rc thread
G: G thread
NPT: NPT thread

* By using the adaptor with smooth pressure relief, when air supplied from valve is off, the air inside the body will be released, smoothly and safely. (The exhausting duration will be around 40 seconds for 10L volume)

Table 1

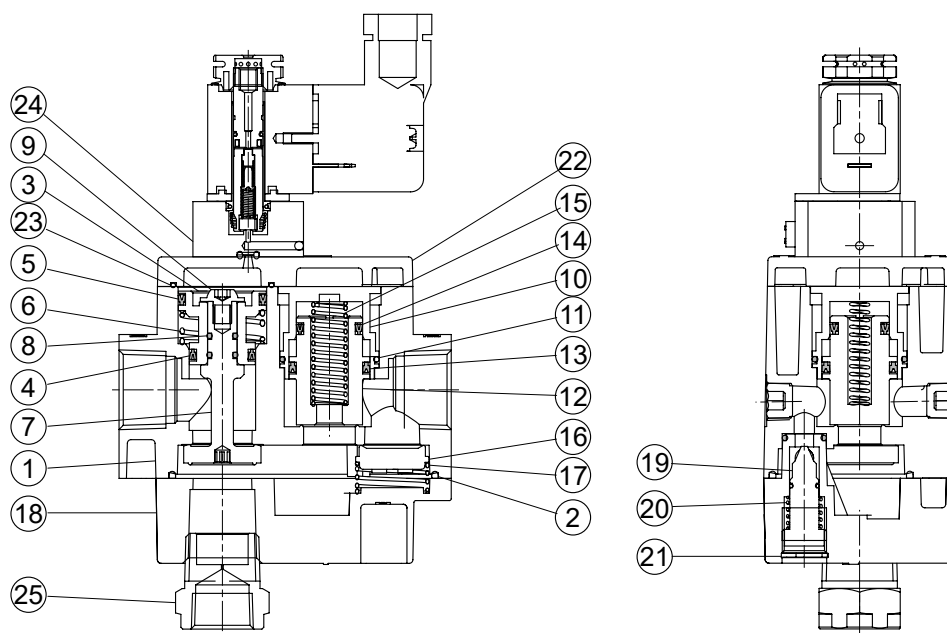
Property for explosion-proof type

Anti-explosion class	Ex mb IIC T4 Gb
Voltage	AC110V / 220V(50/60)Hz, DC24V
Power consumption	AC110V=4.5VA, AC220V=4.8VA, DC=5W
Available valtage range	±10%
Insulation class	F class
Wire length	3 m

Piping note

When the air current is restricted or insufficient pressure, the main valve will not function / switch normally and it could cause air to leak from the R port.
The total effective orifice of the piping material and component on the P port side:

MAVS200	Total effective orifice ≥5mm ²
MAVS300	Total effective orifice ≥22mm ²
MAVS400	Total effective orifice ≥35mm ²

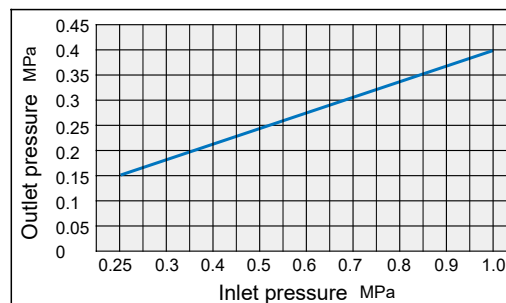


Material

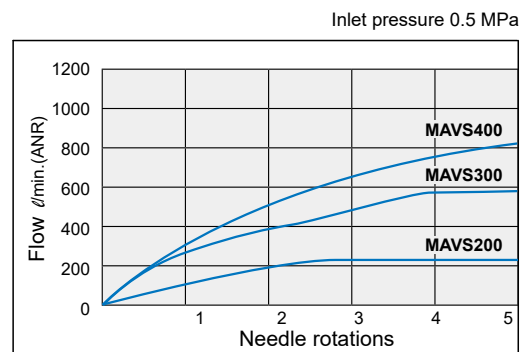
No.	Part name	Material
1	Body	Aluminum alloy
2	Body packing	NBR
3	Piston A	Aluminum alloy
4	Seal ring	NBR
5	Rod packing	NBR
6	Piston A spring	SWP
7	Main valve assembly	Copper+NBR
8	O-ring	NBR
9	Screw	Alloy steel
10	Snap ring	Spring steel
11	O-ring	NBR
12	Piston B	Copper+NBR
13	Seal ring	NBR
14	Seal ring	NBR
15	Piston B spring	Stainless steel
16	Check valve	Copper+NBR
17	Check valve spring	Stainless steel
18	Cap	Aluminum alloy
19	Needle valve	Copper
20	Needle valve spring	SWP
21	Snap ring	Spring steel
22	Cover	Aluminum alloy
23	Cover ring	NBR
24	Pilot valve assembly	—
25	Adaptor with smooth pressure relief	Aluminum alloy

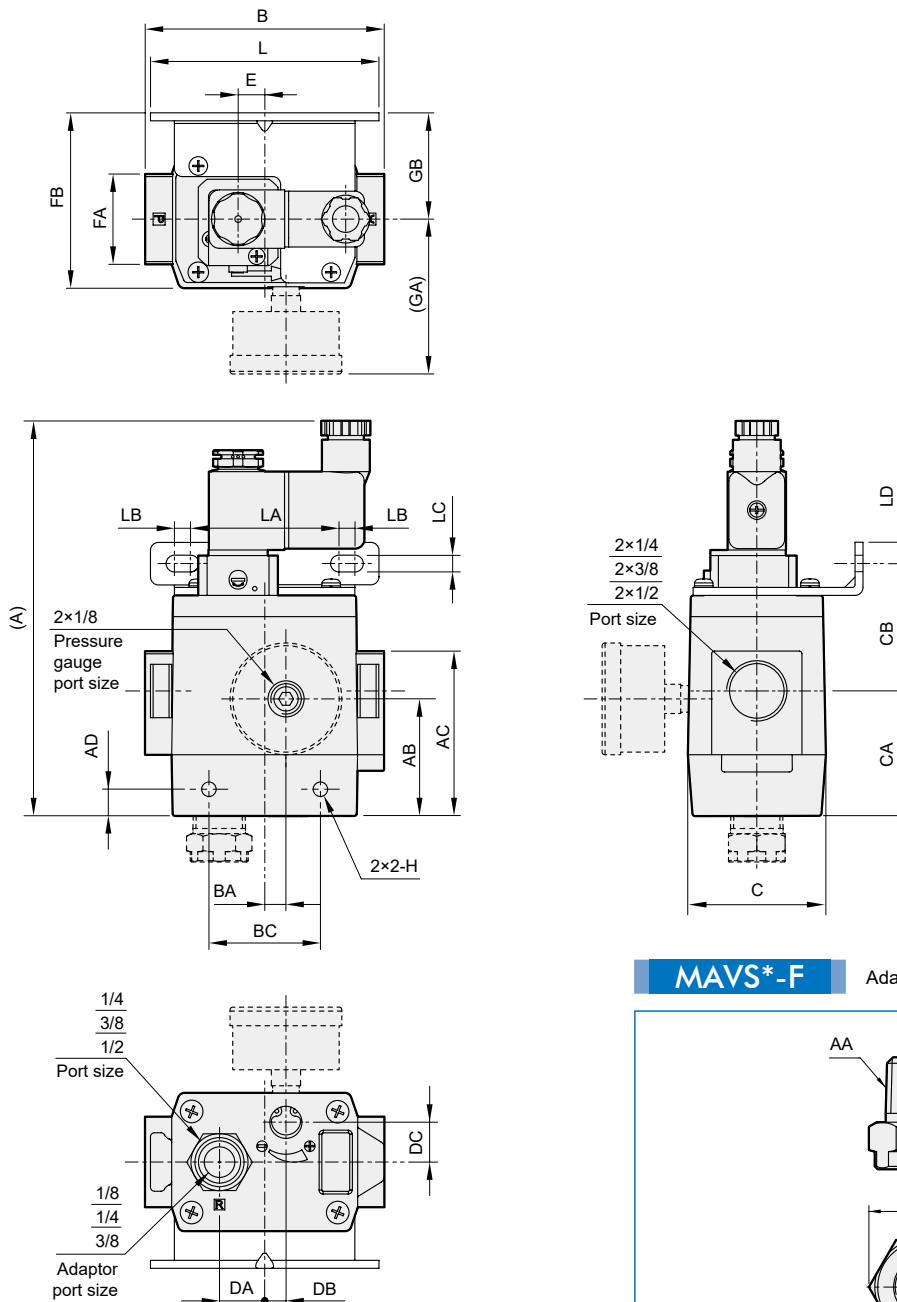
Flow feature

Piston B switching pressure (Close→Open)



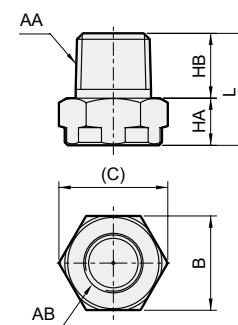
Needle valve flow characteristics





MAVS*-F

Adaptor with smooth pressure relief



Code Model	A	AB	AC	AD	B	BA	BC	C	CA	CB	DA	DB	DC
200	126.6	31	41.2	7.5	66	5	29	39.6	31.2	40.2	11	5	11
300	134	34	50.5	8.5	78	5	28	47.6	36	31.9	14	5	14
400	149	44	62	10	90	8	42	52	47	48	17	8	15

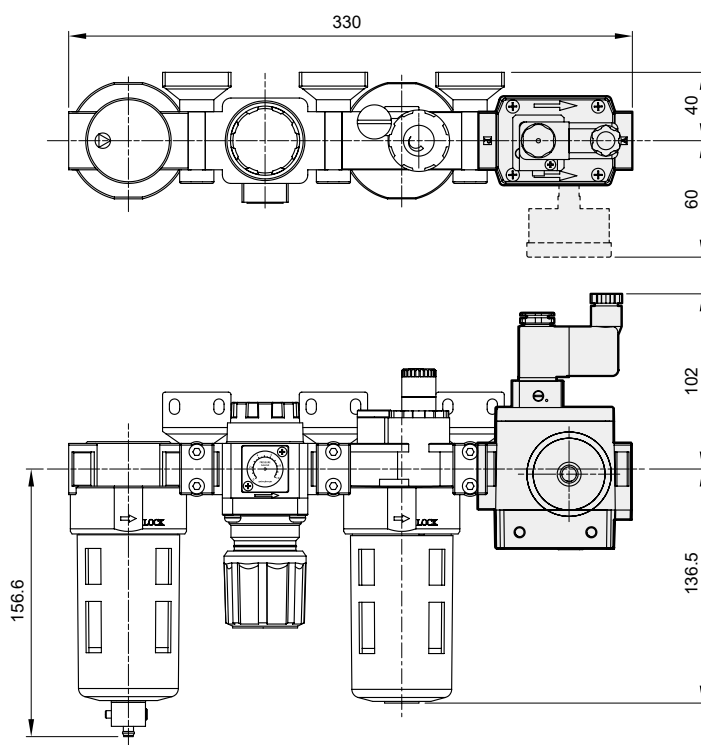
Code Model	E	FA	FB	GA	GB	H	L	LA	LB	LC	LD
200	8.9	35	47.3	53.8	27.5	M4×0.7×4.5 dp	68	50	3.5	4.3	7
300	11	29	56.3	55	32.5	M5×0.8×5 dp	76	55	5	5.2	8
400	10	34	66	60	40	M6×1.0×6 dp	86	56	6	6.2	8

Code Model	AA	AB	B	C	HA	HB	L	Weight
200	R1/4	Rc1/8	16	18.5	8	11	19	6 g
200-N	NPT1/4	NPT1/8	16	18.5	8	15.1	23.1	7 g
200-G	G1/4	G1/8	19	21.9	8	7	15	7 g
300	R3/8	Rc1/4	19	21.9	11	12	23	11 g
300-N	NPT3/8	NPT1/4	19	21.9	11	15.2	26.2	12 g
300-G	G3/8	G1/4	25	28.9	11	8.5	19.5	15 g
400	R1/2	Rc3/8	22	25.4	11	15	26	15 g
400-N	NPT1/2	NPT3/8	22	25.4	11	19.8	30.8	17 g
400-G	G1/2	G3/8	27	31.2	11	11.5	22.5	19

Combination with air units (F.R.L. unit)

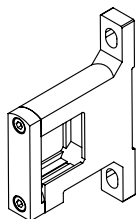
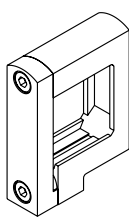
Air unit (F.R.L.)		Valve
MA**302		MAVS300
MA**401	MA**403	MAVS400

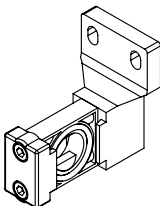
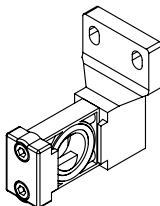
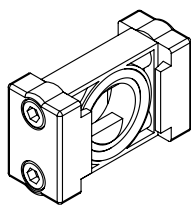
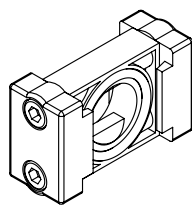
EX: MACT403+MAVS400



Bracket / Joiner set

BT: T type bracket/ BL: L type bracket/ BS: Joiner set

Order example	BT-MACP302	BS-MACP302
Pictures		
Applicable model	MACP302, MACT302	MACP302, MACT302

Order example	BL-MACP401	BL-MACP403	BS-MACP401	BS-MACP403
Pictures				
Applicable model	MACP401, MACT401	MACP401-W, MACT401-W MACP403, MACT403	MACP401, MACT401	MACP401-W, MACT401-W MACP403, MACT403