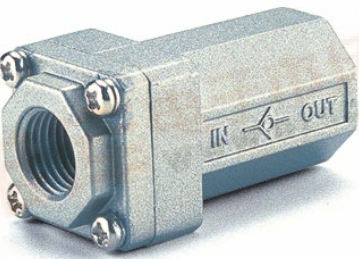




FLOW CONTROL VALVES

Flow Control Equipment

SYMBOLS



CHECK VALVE SERIES AK

- ✓ High flow capacity
- ✓ Low cracking pressure: 0.2 bar
- ✓ Port sizes from 1/8 ~ 1

HOW TO ORDER

SERIES AK

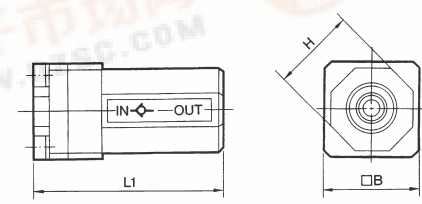
BODY SIZE	PORT SIZE	EFFECTIVE ORIFICE*
AK2000-01	1/8	.25
AK2000-02	1/4	.27.5
AK4000-02	1/4	.47
AK4000-03	3/8	.85
AK4000-04	1/2	.95
AK6000-06	3/4	.200
AK6000-10	1	.230

*S(mm²) is effective orifice
Figure given for A-R direction (exhaust flow)

TECHNICAL SPECIFICATIONS

Fluid	Air
Proof pressure	1.5MPa{15.3kgf/cm ² }
Max. operating pressure	1.0MPa
Min. operating pressure	0.02MPa
Ambient and fluid temperature	0 ~ 60°C

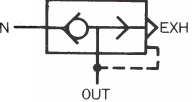
DIMENSIONS SERIES AK



Model	Port Size	A	B	C
AK2000-01, 02	1/8, 1/4	50	25	22
AK4000-02, 03, 04	1/4, 3/8, 1/2	67	36	36
AK6000-06, 10	3/4, 1	95	50	50

STOCKED PRODUCTS
FOR A LIST OF STOCKED PRODUCTS,
PLEASE SEE THE CURRENT SMC PRICE LIST

SYMBOLS



QUICK EXHAUST VALVE SERIES AQ

- ✓ High exhaust characteristics
- ✓ Port sizes from M5 ~ 3/4
- ✓ High flow capacity

HOW TO ORDER

SERIES AQ

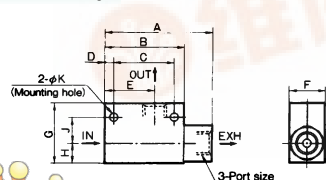
BODY SIZE	PORT SIZE	EFFECTIVE ORIFICE*
AQ1500-M5	M5	.2.8
AQ1510-01	1/8	.5.8
AQ2000-01	1/8	.25
AQ2000-02	1/4	.40
AQ3000-02	1/4	.42
AQ3000-03	3/8	.70
AQ5000-04	1/2	.115
AQ5000-06	3/4	.180

*S(mm²) is effective orifice
Figure given for A-R direction (exhaust flow)

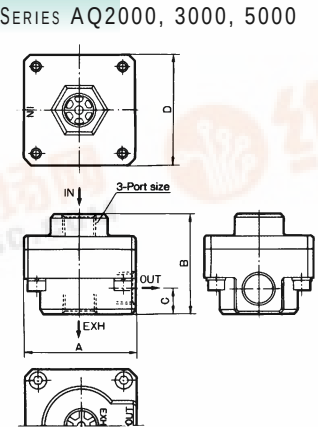
TECHNICAL SPECIFICATIONS

Fluid	Air
Proof Pressure	1.5MPa{15.3kgf/cm ² }
Max. operating pressure	AQ1500.1510 0.7MPa AQ2000~5000 1.0MPa
Min. operating pressure	AQ1500.1510 0.1MPa AQ2000~5000 0.05Mpa
Ambient and fluid temperature	5 ~ 60°C

DIMENSIONS SERIES AQ1500, 1510



DIMENSIONS SERIES AQ2000, 3000, 5000



Model	Port size	A	B	C	D
AQ2000-01, 02	1/8, 1/4	45	40	10	45
AQ3000-02, 03	1/4, 3/8	56	50	12.5	56
AQ5000-04, 06	1/2, 3/4	85	75	18	85

STOCKED PRODUCTS
FOR A LIST OF STOCKED PRODUCTS,
PLEASE SEE THE CURRENT SMC PRICE LIST

找零件就上 捷多邦

Model: AQ1500-M5, AQ1510-01, AQ2000-01, AQ2000-02, AQ3000-02, AQ3000-03, AQ5000-04, AQ5000-06

Port Size: M5x0.8, 1/8, 1/4, 3/8, 1/2, 3/4

找零件就上 捷多邦

MINIATURE IN-LINE QUICK EXHAUST VALVES SERIES AQ200/300

- ✓ Option of built in silencer or facility to pipe exhaust away
- ✓ Minimises installation time and cost
- ✓ Integral one touch fittings
- ✓ Accepts nylon and polyurethane tubing
- ✓ Compact lightweight design

TECHNICAL SPECIFICATIONS

Proof pressure1.5MPa (15.3kgf/cm²)
 Max operating pressure1MPa (10.2kgf/cm²)
 Min operating pressure0.1MPa (1kgf/cm²)
 Ambient and fluid temperatures0~60°C
 Applicable tube materialsNylon, soft nylon, polyurethane

NOTE: observe maximum recommended operating pressures for tube when using soft nylon or polyurethane

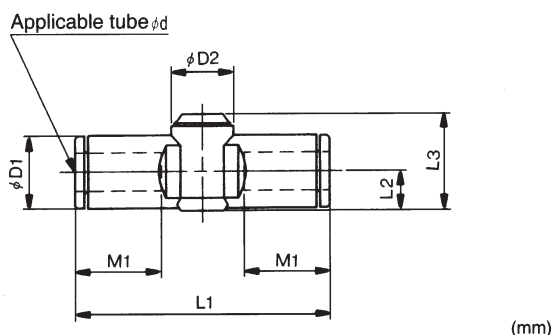
FLOW COMPARISON

Models	Tube size		Effective area mm ²	
	Ø4	Ø6	In-Out	Out-Exh
AQ140F-04-*	•		1.7	2.5
AQ240F-06-*		•	2.4	2.7
AQ320F-06-*		•	4	4



DIMENSIONS

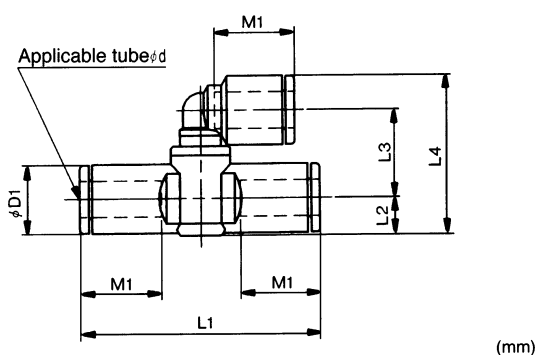
SERIES AQ240F/340F WITH SILENCER



Model	Applicable tube O.D. (mm)	D1	D2	L1	L2	L3	M1	Weight (g)
AQ240F-04-00	4	9.3	10.0	39.2	5.2	14.3	12.9	5
AQ240F-06-00	6	11.6	10.0	40.7	6.2	15.4	13.7	6
AQ340F-06-00	6	11.6	11.8	44.8	8.3	19.5	13.7	11

DIMENSIONS

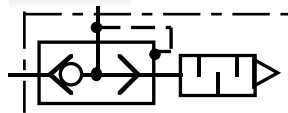
SERIES AQ240F/340F WITH EXHAUST TAKE OFF



Model	Applicable tube O.D. (mm)	D1	L1	L2	L3	L4	M1	Weight (g)
AQ240F-04-04	4	9.3	39.2	5.2	13.7	23.5	12.9	6
AQ240F-06-06	6	11.6	40.7	6.2	14.7	26.7	13.7	8
AQ340F-06-06	6	11.6	44.8	6.3	19.6	31.7	13.7	13

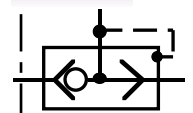
SYMBOLS

WITH BUILT-IN SILENCER



SYMBOLS

WITHOUT SILENCER



HOW TO ORDER

SERIES AQ240F/340F

AQ 40 F — —

BODY SIZE

2M5
 31/8"

TUBE CONNECTION

FBuilt-in one touch tube connection

O.D. SIZE

04 ...Ø4mm
 06 ...Ø6mm

EXHAUST PORT

00 ...Built-in silencer
 04 ...Ø4mm
 06 ...Ø6mm

STOCKED PRODUCTS

FOR A LIST OF STOCKED PRODUCTS, PLEASE SEE THE CURRENT SMC PRICE LIST

SPECIAL OPTION

Black body/blue bush (same dimension) order with -X35 suffix.



EXHAUST RESTRICTOR WITH SILENCER
SERIES ASN

- ✓ Over 20dB sound reduction
- ✓ Cylinder speed easily set
- ✓ Retainer prevents accidental loss of needle
- ✓ Increased flow
- ✓ Increased silencing effect
- ✓ Overall length reduced

Flow Control Equipment

TECHNICAL
SPECIFICATIONS

Proof pressure	1.5MPa{15.3kgf/cm ² }
Operating pressure range	0~1.0MPa
Ambient and fluid temperature	5~60°C
Number of needle rotations	8 turns

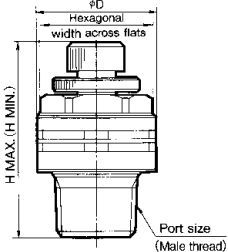
SYMBOLS



HOW TO
ORDER
SERIES ASN

ASN2 —
PORT SIZE
M5 ... M5x0.8
01 ... 1/8
02 ... 1/4
03 ... 3/8
04 ... 1/2

DIMENSIONS
SERIES ASN



Model	Port size	øD	H		Hexagonal width across flats	Effective Orifice (mm ²)
			Min	Max		
ASN2-M5	M5x0.8	10	20.5	23.3	8	1.8
ASN2-01	1/8	15	30	35	12	3.6
ASN2-02	1/4	20	34.2	39.2	17	6.5
ASN2-03	3/8	25	37	42	19	16.6
ASN2-04	1/2	30	49	54	24	24.5

SPECIAL OPTION

Black body/blue bush (same dimension) order with -X35 suffix.

STOCKED PRODUCTS
FOR A LIST OF STOCKED PRODUCTS,
PLEASE SEE THE CURRENT SMC PRICE LIST

NOTE: IT IS RECOMMENDED, FOR BODY PORTED VZ3000/SYJ5000 AND VZ5000/SYJ7000 VALVES WHERE ASN2 IS USED ON EXHAUST PORTS, THAT MINIATURE SERIES -M FITTINGS ARE USED ON SUPPLY PORTS

TECHNICAL SPECIFICATIONS

Proof pressure1.5 MPa (15.3 bar)
Max. operating pressure1 MPa (10.2 bar)
Min. operating pressure0.1 MPa (1 bar)
Ambient & fluid temperature 0-60°C
Suitable tube materialNylon, soft nylon,
polyurethane

Note: observe maximum recommended operating pressures for tube when using soft nylon or polyurethane

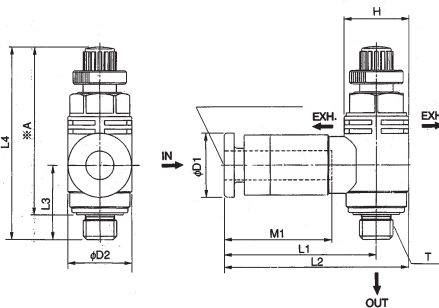
ADJUSTABLE QUICK EXHAUST VALVE WITH INTEGRAL EXHAUST RESTRICTOR AND SILENCER SERIES ASV

- ✓ Three functions from a single component
- ✓ Minimises installation time and cost
- ✓ Accepts nylon and polyurethane tubing
- ✓ Wide variety of sizes M3 to ½
- ✓ Integral One Touch fitting - 4mm to 12mm
- ✓ Excellent control characteristics
- ✓ Compact design



DIMENSIONS

SERIES ASV ELBOW TYPE



FLOW COMPARISON

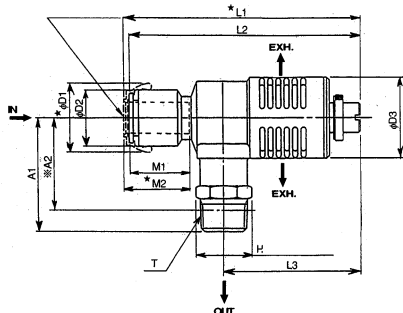
Model	Port thread	Tube O.D. (mm)					Effective area	
		4	6	8	10	12	In-Out	Out-Exh
ASV120F-M3	M3x0.5	•					0.3	0.3
ASV220F-M5	M5x0.8	•	•				1.3	1.3
ASV310F-01	R(PT)1/8		•	•			7	8
ASV310F-02	R(PT)1/4		•	•			7	8
ASV410F-01	R(PT)1/8			•	•		13.5	14
ASV410F-02	R(PT)1/4			•	•		13.5	14
ASV410F-03	R(PT)3/8			•	•		13.5	14
ASV510F-02	R(PT)1/4				•	•	23	27
ASV510F-03	R(PT)3/8				•	•	27	29
ASV510F-04	R(PT)1/2				•	•	27	29

Model	Applicable tube O.D	T	H	D1	D2	L1	L2	L3	L4 Max	L4 Min	*A Max	*A Min	M1	Weight g
ASV120F-M3-04	4	M3x0.5	5.5	9.3	7.2	21.4	25	9.8	28.6	26.1	25.8	23.3	12.9	5
ASV220F-M5-04	4	M5x0.8	8	9.3	9.6	22.8	27.6	11.1	31.4	28.6	27.7	24.9	12.9	8
ASV220F-M5-06	6	M5x0.8	8	11.6	9.6	23.8	28.4	11.1	31.4	28.6	27.7	24.9	13.7	9

* Assembled height

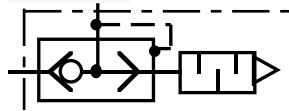
DIMENSIONS

SERIES ASV TEE TYPE



SYMBOLS

WITH BUILT-IN SILENCER



HOW TO ORDER SERIES ASV

ASV	0	F	—	—	—	—
BODY SIZE	1	2	3	4	5	
	1	2	3	4	5	
BODY TYPE	1	2				
	1	2				
PORT THREAD	M3	M5	01	02	03	04
	M3	M5	01	02	03	04
TUBING DIAMETER	04	06	08	10	12	
	04	06	08	10	12	
THREAD SEAL	Nil	M3, M5	S			
	Nil	M3, M5	S			

STOCKED PRODUCTS
FOR A LIST OF STOCKED PRODUCTS,
PLEASE SEE THE CURRENT SMC PRICE LIST

SPECIAL OPTION

M3 and M5 body sizes available with black body/blue bush order with -X35 suffix.

Model	Applicable tube O.D	T	H	D1	D2	D3	L1		L2		L3		A1	A2	M1	M2	Weight g
							Max	Min	Max	Min	Max	Min					
ASV310F-01-06S	6	R(PT)1/8	10	16.8	12.8	17.6	71.9	65.9	69.9	63.9	45.8	39.8	27.4	23.4	17	19	22
ASV310F-01-08S	8	R(PT)1/8	10	19.3	15.2	17.6	73.8	67.8	71.8	65.8	45.8	39.8	27.4	23.4	19	21	23
ASV310F-02-06S	6	R(PT)1/4	14	16.8	12.8	17.6	71.9	65.9	69.9	63.9	45.8	39.8	31.4	25.4	17	19	30
ASV310F-02-08S	8	R(PT)1/4	14	19.3	15.2	17.6	73.8	67.8	71.8	65.8	45.8	39.8	31.4	25.4	19	21	31
ASV410F-01-08S	8	R(PT)1/8	12	19.3	15.2	24	83.1	75.6	81.1	73.6	52.8	45.3	30.7	26.7	19	21	39
ASV410F-01-10S	10	R(PT)1/8	12	23.3	18.5	24	85.2	77.7	83.2	75.7	52.8	45.3	30.7	26.7	21	23	41
ASV410F-02-08S	8	R(PT)1/4	14	19.3	15.2	24	83.1	75.6	81.1	73.6	52.8	45.3	34.7	28.7	19	21	47
ASV410F-02-10S	10	R(PT)1/4	14	23.3	18.5	24	85.2	77.7	83.2	75.7	52.8	45.3	34.7	28.7	21	23	49
ASV410F-03-08S	8	R(PT)3/8	17	19.3	15.2	24	83.1	75.6	81.1	73.6	52.8	45.3	36.7	30.4	19	21	61
ASV410F-03-10S	10	R(PT)3/8	17	23.3	18.5	24	85.2	77.7	83.2	75.7	52.8	45.3	36.7	30.4	21	23	63
ASV510F-02-10S	10	R(PT)1/4	17	23.3	18.5	30	90.2	84.2	88.2	82.2	55.6	49.6	39.8	33.8	21	23	69
ASV510F-02-12S	12	R(PT)1/4	17	25.7	20.9	30	91.8	85.8	89.8	83.8	55.6	49.6	39.8	33.8	22	24	74
ASV510F-03-10S	10	R(PT)3/8	17	23.3	18.5	30	90.2	84.2	88.2	82.2	55.6	49.6	41.8	35.5	21	23	73
ASV510F-03-12S	12	R(PT)3/8	17	25.7	20.9	30	91.8	85.8	89.8	83.8	55.6	49.6	41.8	35.5	22	24	78
ASV510F-04-10S	10	R(PT)1/2	22	23.3	18.5	30	90.2	84.2	88.2	82.2	55.6	49.6	45.8	37.6	21	23	95
ASV510F-04-12S	12	R(PT)1/2	22	25.7	20.9	30	91.8	85.8	89.8	83.8	55.6	49.6	45.8	37.6	22	24	100

Height to centre based on nominal thread engagement

