

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

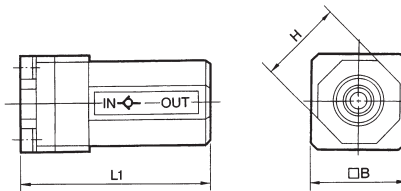
BODY SIZE	PORT SIZE	EFFECTIVE ORIFICE*
AK2000-01	1/8	.25
AK2000-02	1/4	.27.5
AK4000-02	1/4	.47
AK4000-03	3/8	.85
AK4000-04	1/2	.95
AK6000-06	3/4	.200
AK6000-10	1	.230

*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

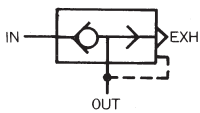


Model	Port Size	A	B	C
AK2000-01, 02	1/8, 1/4	50	25	22
AK4000-02, 03, 04	1/4, 3/8, 1/2	67	36	36
AK6000-06, 10	3/4, 1	95	50	50

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

Flow Control Equipment

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

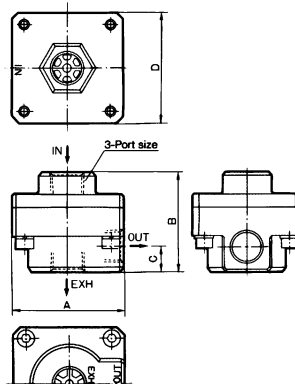
*S(mm²) is effective orifice
Figure given for A-R direction (exhaust flow)

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

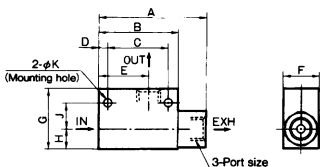
SERIES AQ2000, 3000, 5000



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
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DIMENSIONS
SERIES AQ1500, 1510



Model	Port Size	A	B	C	D	E	F	G	H	J	ØK
AQ1500-M5	M5x0.8	23	20	14	3	12.5	12	15	5.5	6.5	3.1
AQ1510-01	1/8	45	33	25	4	21	15	25	8	11	4.3



FOR FURTHER TECHNICAL
DETAILS ON THIS
PRODUCT REQUEST
CATALOGUE REFERENCE
E201-G

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 temperatures ...0-60°C
 Applicable tube materialsNylon, soft nylon, polyurethane

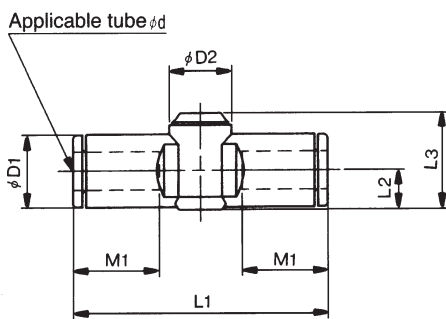
FLOW COMPARISON

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

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

DIMENSIONS

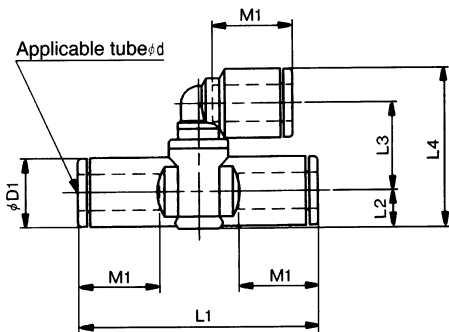
SERIES AQ240F/340F WITH SILENCER



Model	Applicable tube O.D.ød	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

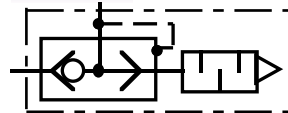
DIMENSIONS

SERIES AQ240F/340F WITH EXHAUST TAKE OFF

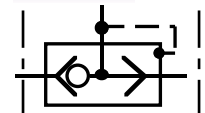


Model	Applicable tube O.D.ød	D1	L1	L2	L3	L4	M1	Weight (g)
AQ240F-04-04	4	9.3	39.2	5.2	13.7	23.5	12.9	6
AQ240F-06-06	6	11.6	40.7	6.2	14.7	26.7	13.7	8
AQ340F-06-06	6	11.6	44.8	6.3	19.6	31.7	13.7	13

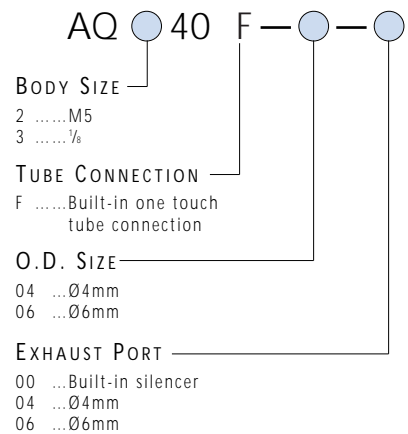
SYMBOLS WITH BUILT-IN SILENCER



SYMBOLS WITHOUT SILENCER



HOW TO ORDER SERIES AQ240F/340F



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.



SEE INSIDE FRONT COVER FOR DETAILS OF YOUR LOCAL SALES OFFICE



FOR FURTHER TECHNICAL DETAILS ON THIS PRODUCT REQUEST CATALOGUE REFERENCE E201-G



EXHAUST RESTRICTOR WITH SILENCER SERIES ASN

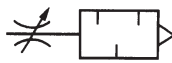
- ✓ Over 20dB sound reduction
- ✓ Cylinder speed easily set
- ✓ Retainer prevents accidental loss of needle
- ✓ Increased flow
- ✓ Increased silencing effect
- ✓ Overall length reduced

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



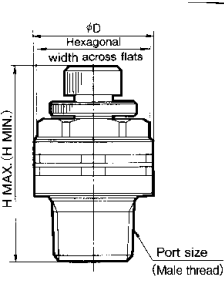
HOW TO ORDER SERIES ASN

ASN2 —

PORT SIZE

M5 ... M5x0.8
01 ... 1/8
02 ... 1/4
03 ... 3/8
04 ... 1/2

DIMENSIONS SERIES ASN



Model	Port size	ϕD	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

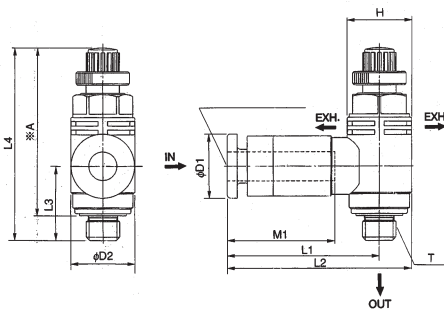
Note: observe maximum recommended operating pressures for tube when using soft nylon or polyurethane

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 1/2
- ✓ Integral One Touch fitting - 4mm to 12mm
- ✓ Excellent control characteristics
- ✓ Compact design



DIMENSIONS SERIES ASV ELBOW TYPE



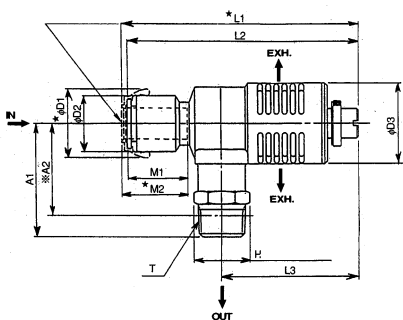
FLOW COMPARISON

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

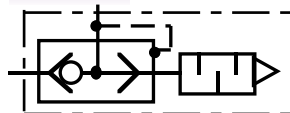
Model	Applicable tube O.D	T	H	D1	D2	L1	L2	L3	L4	*A		M1	Weight g	
										Max	Min			
ASV120F-M3-04	4	M3x0.5	5.5	9.3	7.2	21.4	25	9.8	28.6	26.1	25.8	23.3	12.9	5
ASV220F-M5-04	4	M5x0.8	8	9.3	9.6	22.8	27.6	11.1	31.4	28.6	27.7	24.9	12.9	8
ASV220F-M5-06	6	M5x0.8	8	11.6	9.6	23.8	28.4	11.1	31.4	28.6	27.7	24.9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

* Assembled height

DIMENSIONS SERIES ASV TEE TYPE



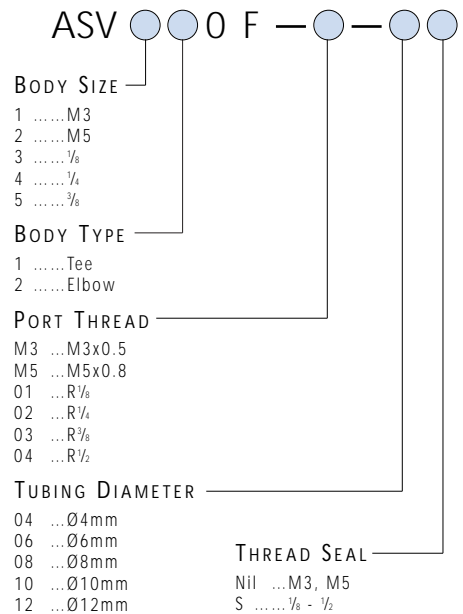
SYMBOLS WITH BUILT-IN SILENCER



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	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

HOW TO ORDER SERIES ASV



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.



SEE INSIDE FRONT COVER FOR DETAILS OF YOUR LOCAL SALES OFFICE



FOR FURTHER TECHNICAL DETAILS ON THIS PRODUCT REQUEST CATALOGUE REFERENCE E201-G

