

5 Port Solenoid Valve

Series SY3000, 5000, 7000

GRIPPER
SYSTEMS S.R.O.

◆ How to Order

SY 5 1 20 [] - 5 L [] [] - 01 - []


Thread type

Nil	Rc	F	G
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A, B port size(Thread piping)

Symbol	Port size	Applicable series
M5	M5×0.8	SY3000
01	1/8	SY5000
02	1/4	SY7000




Manual override

Nil	Non-locking push type	
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Light/Surge voltage suppressor

Electrical entry for L	
Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

Electrical entry

L: L plug connector		
L: With lead wire (Length 300 mm)	LN: Without lead wire	LO: Without connector
		

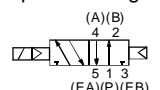
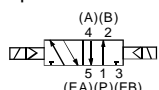
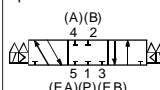
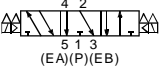

Rated voltage

AC(50/60Hz)		DC	
3	110VAC[115VAC]	5	24VDC
4	220VAC[230VAC]	6	12VDC

Coil specifications

Nil	Standard
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Type of actuation

1	2	3
2 position single	2 position double	3 position closed center
		
3 position exhaust center	3 position pressure center	
		

Series

3	SY3000	5	SY5000	7	SY7000
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II

VF
4V100
4V200
4V300
4V400
SY
SYJ
VT307
VP
3V
2L
2W
2WH
2V
2P
VFA
SYA
4A100
4A200
4A300
3A100
3A200
3A300
3L
4L
4H
SL,SH
4HV
HV,K
3FM
3F
4F
FV
ST
MSV
MOV
JM
HL
SH,RE
ASC
KA,ACV
VOR,QE
Manifold



◆ Specifications

Series		SY3000	SY5000	SY7000
Fluid		Air		
Internal pilot	2 position single	0.15~0.7 MPa		
Operating pressure range	2 position double	0.1~0.7 MPa		
	3 position	0.2~0.7 MPa		
Ambient and fluid temperature		-10~50°C (No freezing)		
Max. operating frequency	2 position single,double	10 Hz	5 Hz	5 Hz
	3 position	3 Hz	3 Hz	3 Hz
Manual override(Manual operation)		Non-locking push type		
Pilot exhaust method		Common exhaust type for main and pilot valve		
Lubrication		Not required		
Mounting orientation		Unrestricted		
Impact/Vibration resistance		150/30 (m/s ²)		
Enclosure		Dustproof		

◆ Solenoid Specifications

Electrical entry			L plug connector(L)
Coil rated voltage(V)	DC		24, 12
	AC 50/60Hz		110, 220
Allowable voltage fluctuation(%)			± 10% of rated voltage
Power consumption	DC	Standard	0.35W (With indicator light: 0.4)
	AC	110V	1.6VA (With indicator light: 1.7)
220V		2.5VA (With indicator light: 2.6)	
Indicator light			LED

◆ Response Time

Series	Type of actuation	Response time (at the pressure of 0.5MPa)	
		Without light/surge voltage suppressor	With light/surge voltage suppressor Type S, Z
SY3000	2 position single	12ms or less	15ms or less
	2 position double	10ms or less	13ms or less
	3 position	15ms or less	20ms or less
SY5000	2 position single	19ms or less	26ms or less
	2 position double	18ms or less	22ms or less
	3 position	32ms or less	38ms or less
SY7000	2 position single	31ms or less	38ms or less
	2 position double	27ms or less	30ms or less
	3 position	50ms or less	56ms or less

◆ Flow Characteristics/Weight

Valve model	Type of actuation		Port size		Flow characteristics						Weight(g) L plug connector
			1,5,3 (P,EA,EB)	4,2 (A,B)	1→4/2(P→A/B)			4/2→5/3(A/B→EA/EB)			
					C(kdm ³ /(s·bar))	b	Cv	C(kdm ³ /(s·bar))	b	Cv	
SY3□20-□-M5	2 position	Single	M5×0.8	M5×0.8	0.61	0.44	0.16	0.64	0.45	0.18	53
		Double									74
	3 position	Closed center			0.48	0.46	0.13	0.47	0.43	0.13	76
		Exhaust center									
SY5□20-□-01	2 position	Single	1/8	1/8	1.9	0.35	0.49	2.4	0.39	0.61	72
		Double									93
	3 position	Closed center			1.7	0.43	0.45	1.8	0.35	0.46	98
		Exhaust center									
SY7□20-□-02	2 position	Single	1(P) Port 1/4	1/4	4.1	0.23	0.93	3.3	0.33	0.81	104
		Double									125
	3 position	Closed center			2.9	0.31	0.70	2.4	0.38	0.63	133
		Exhaust center									
3 position	Pressure center	2.5	0.39	0.65	3.4 (2.1)	0.35 (0.38)	0.82 (0.54)	133			
	Pressure center										
3 position	Pressure center	4.3 (2.4)	0.23 (0.32)	0.97 (0.61)	2.2	0.39	0.59	133			
	Pressure center										

5 Port Solenoid Valve

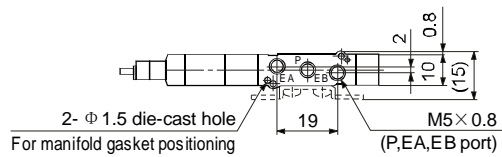
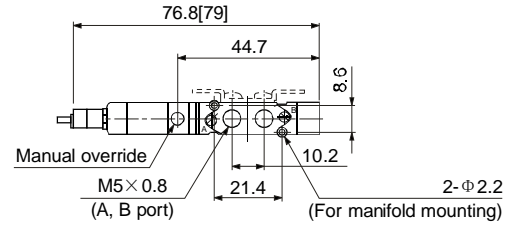
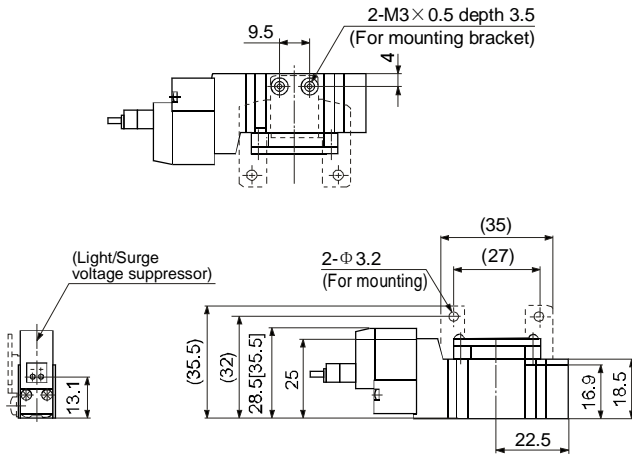
Series SY3000, 5000, 7000

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◆ Dimensions

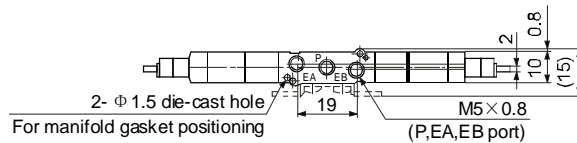
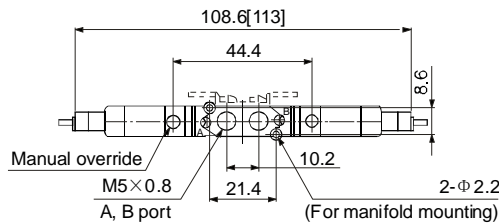
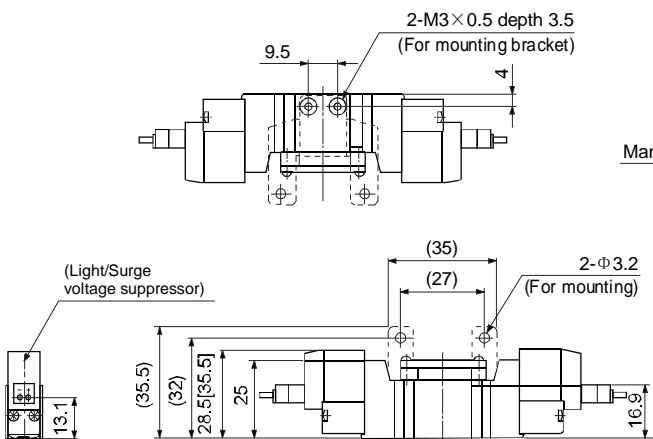
2 position single

L plug connector(L):SY3120-□L□□-M5(-F2)



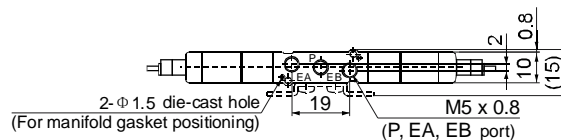
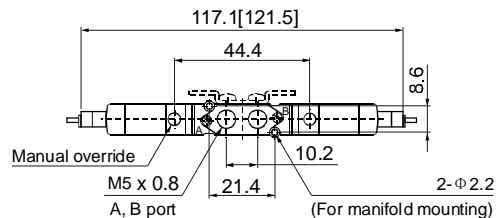
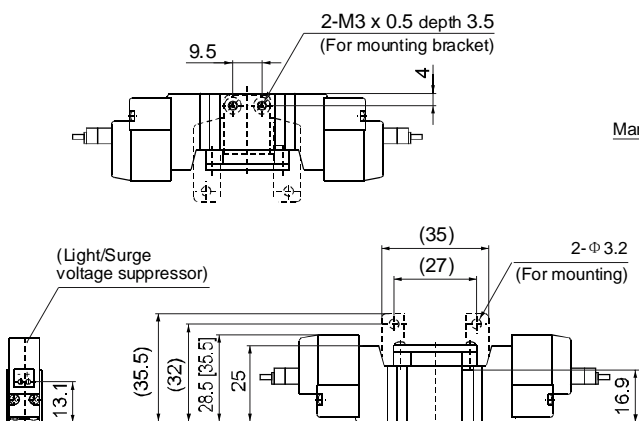
2 position double

L plug connector(L):SY3220-□L□□-M5(-F2)



3 position closed center/exhaust center/pressure center

L plug connector(L):SY3³/₄20-□L□□-M5(-F2)

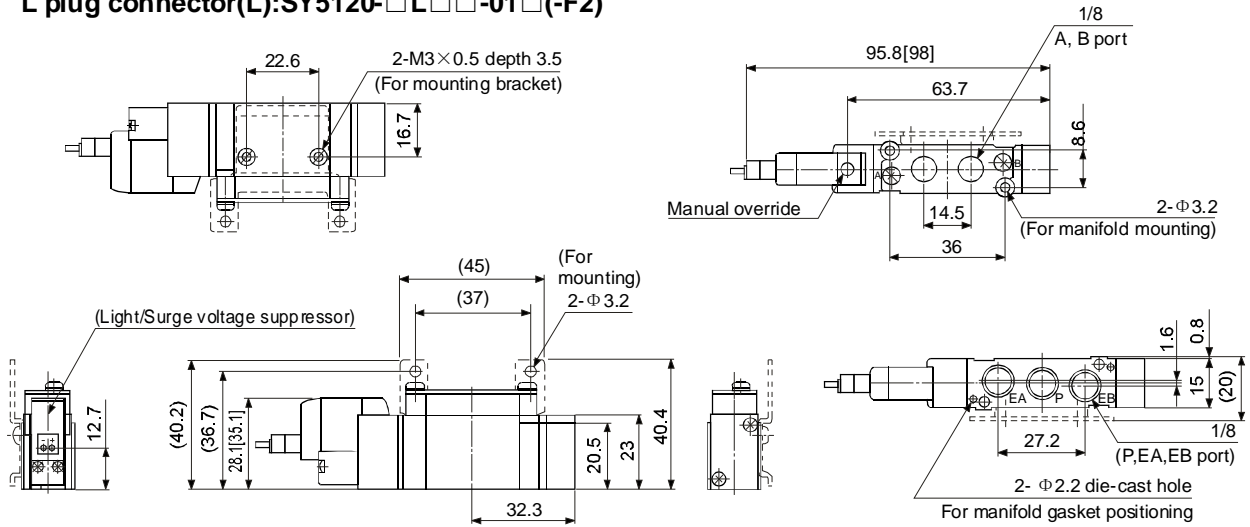


II

- VF
- 4V100
- 4V200
- 4V300
- 4V400
- SY**
- SYJ
- VT307
- VP
- 3V
- 2L
- 2W
- 2WH
- 2V
- 2P
- VFA
- SYA
- 4A100
- 4A200
- 4A300
- 3A100
- 3A200
- 3A300
- 3L
- 4L
- 4H
- SL,SH
- 4HV
- HV,K
- 3FM
- 3F
- 4F
- FV
- ST
- MSV
- MOV
- JM
- HL
- SH,RE
- ASC
- KA,ACV
- VOR,QE
- Manifold

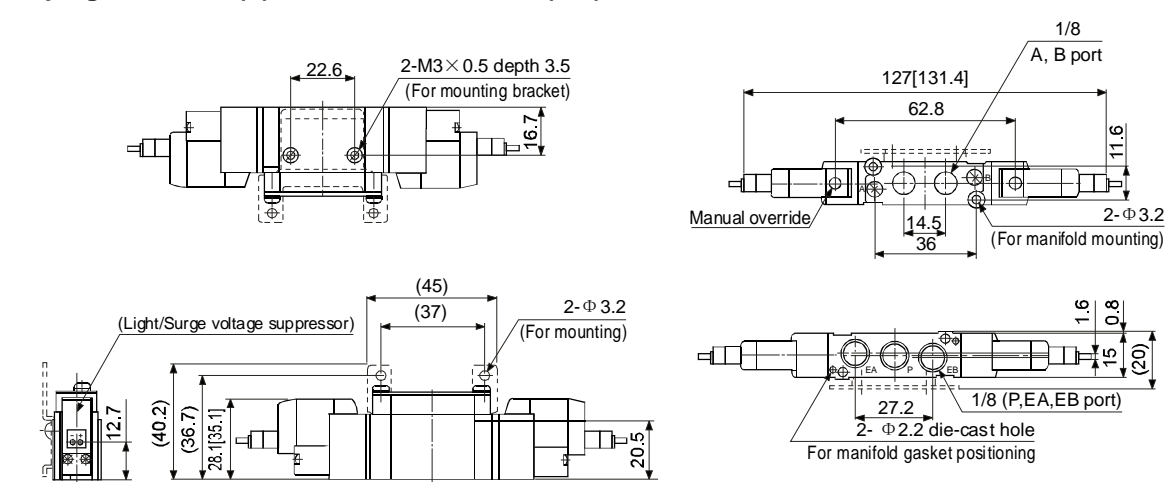
2 position single

L plug connector(L):SY5120-□L□□-01□(-F2)



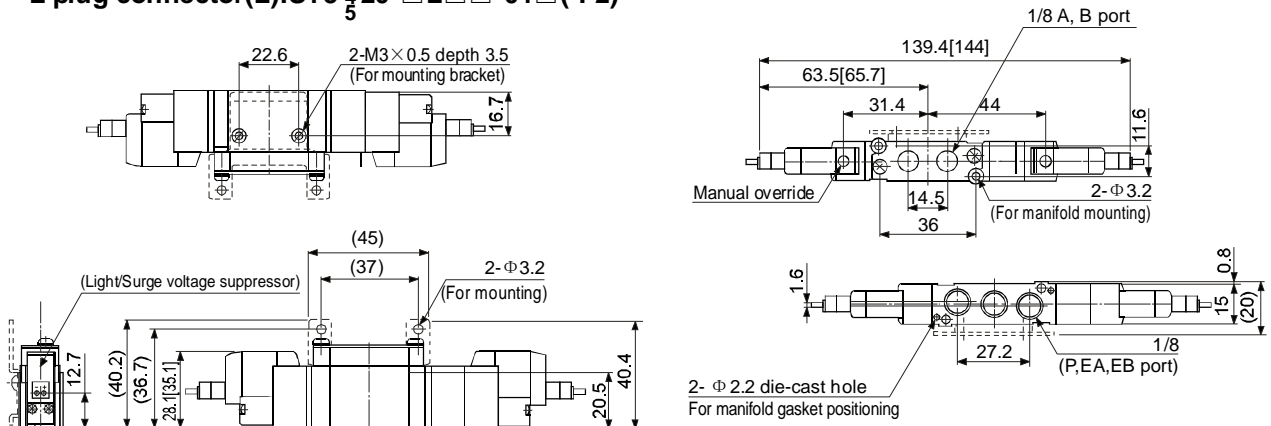
2 position double

L plug connector(L):SY5220-□L□□-01□(-F2)



3 position closed center/exhaust center/pressure center

L plug connector(L):SY5³/₅20-□L□□-01□(-F2)



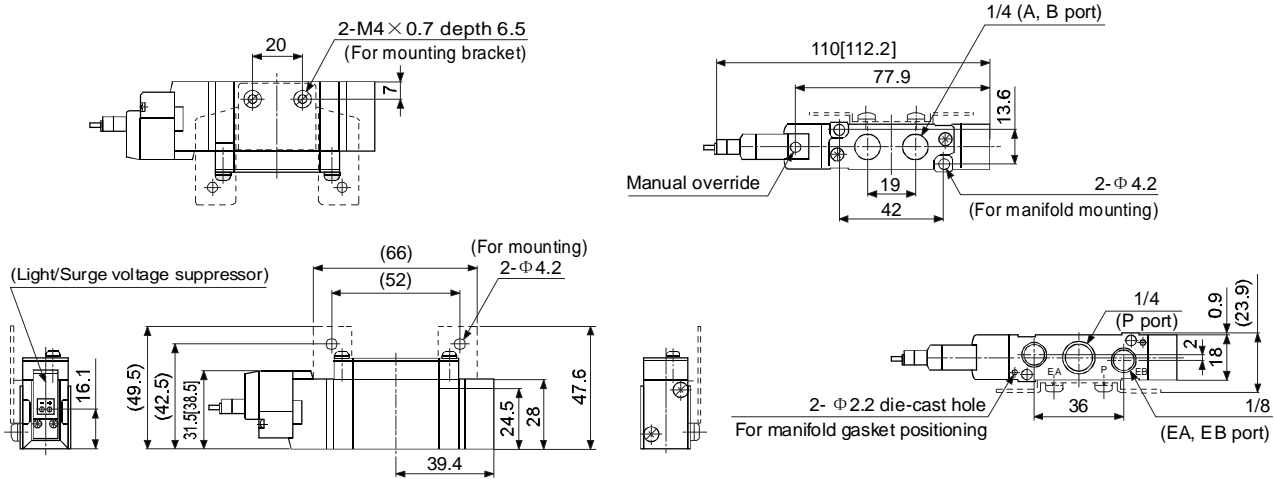
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II
VF
4V100
4V200
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4V400
SY
SYJ
VT307
VP
3V
2L
2W
2WH
2V
2P
VFA
SYA
4A100
4A200
4A300
3A100
3A200
3A300
3L
4L
4H
SL,SH
4HV
HV,K
3FM
3F
4F
FV
ST
MSV
MOV
JM
HL
SH,RE
ASC
KA,ACV
VOR,QE
Manifold

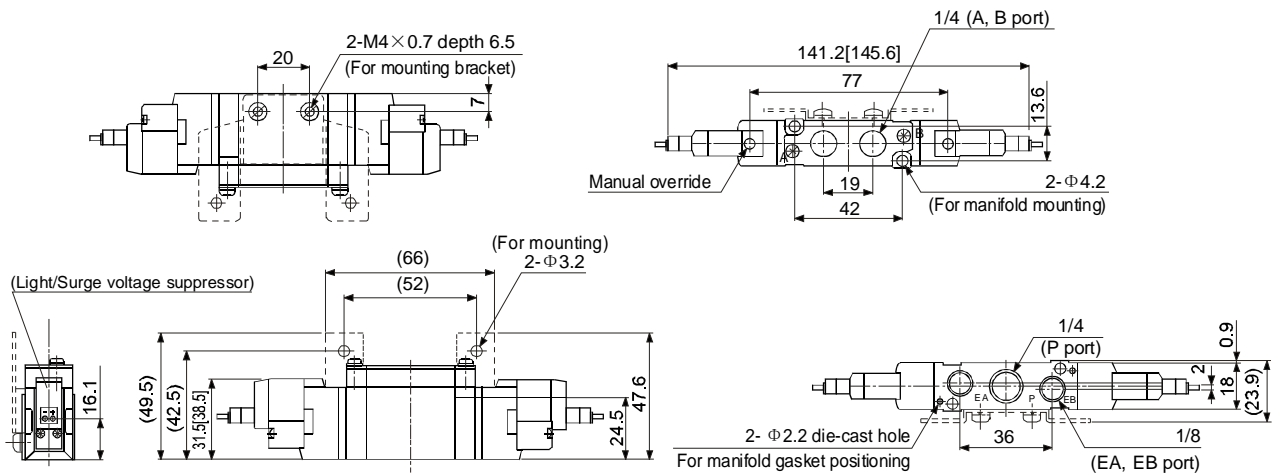
2 position single

L plug connector(L):SY7120-□L□□-02□(-F2)



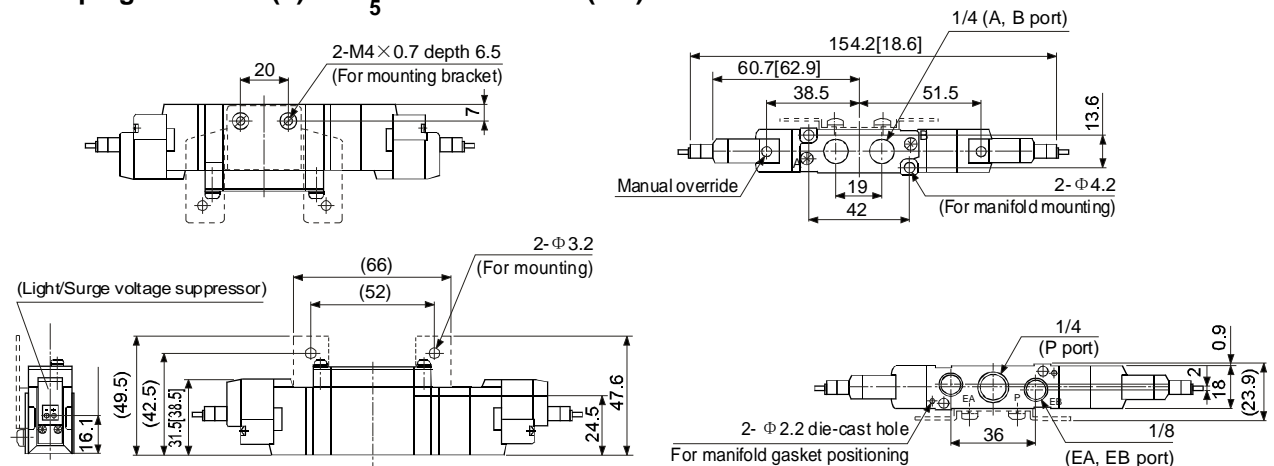
2 position double

L plug connector(L):SY7220-□L□□-02□(-F2)



3 position closed center/exhaust center/pressure center

L plug connector(L):SY7320-□L□□-02□(-F2)



Silencer **GRIPPER**

Series YQS | SYSTEMS S.R.O.

The silencer could connect the vent directly, which prevent the dirty enter into the valve and decrease the noise and with the lowest flow resistance. This product adopt the copper power metallurgical materials, high temperature resistance, and long life.

IV

KQ2

BP

APF

APN

APK

APB

QC

Y

YQS
Silencer

AS

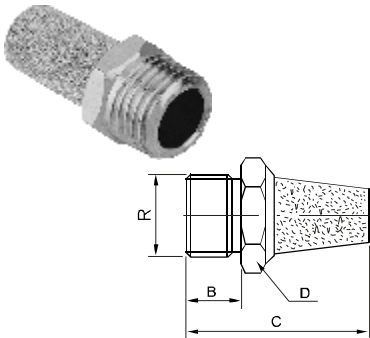
RQ

Tube

Air gun

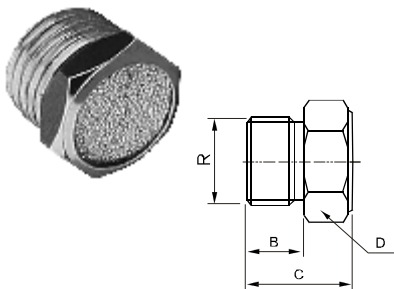
CV

Silencer: YQS-A



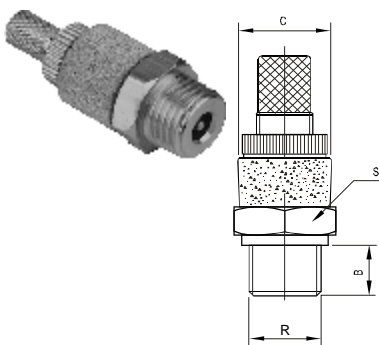
Type	Connection thread R	B	C	D
YQS-A4	M5	4.5	23	12
YQS-A6	R1/8	6	26	12
YQS-A8	R1/4	9	30	14
YQS-A10	R3/8	12	48	17
YQS-A15	R1/2	14	55	22
YQS-A20	R3/4	15	70	29
YQS-A25	R1	16	75	36
YQS-A40	R1½	18	80	54
YQS-A50	R2	21	113	65

Silencer: YQS-B



Type	Connection thread R	B	C	D
YQS-B4	M5	5	10	10
YQS-B6	R1/8	7	12	13
YQS-B8	R1/4	10	15	17
YQS-B10	R3/8	13	22	22
YQS-B15	R1/2	14	25	30
YQS-B20	R3/4	15	31	42
YQS-B25	R1	16	35	46

Silencer: YQS-C



Type	Connection thread R	B	C	S
YQS-C6	R1/8	8	12	12
YQS-C8	R1/4	9	14	14
YQS-C10	R3/8	10	16	17
YQS-C15	R1/2	12	20	22

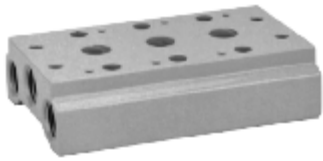
Plastic silencer: YQS-L



Type	Connection thread R
YQS-L6	R1/8
YQS-L8	R1/4
YQS-L10	R3/8
YQS-L15	R1/2

Manifold For Series 4V, VF, SY

◆ How to order



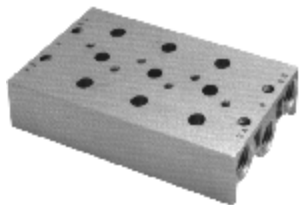
100M - 7 F

Number

100M	1-12	200M	1-12
300M	1-12	400M	1-5

Manifold type

100M	100 Series	200M	200 Series
300M	300 Series	400M	400 Series



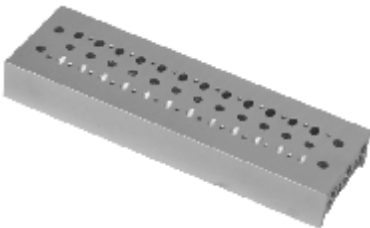
VF - 7 F

Number

VF3130	1-15
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Manifold type

VF3130	VF3000 Series
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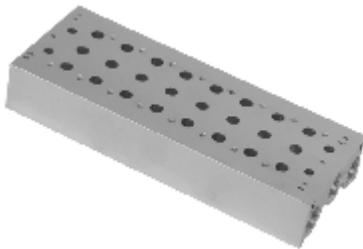
SY - 7 F

Number

SY3120	1-12	SY5120	1-15
SY7120	1-15		

Manifold type

SY3120	SY3000 Series	SY5120	SY5000 Series
SY7120	SY7000 Series		



II

VF

4V100

4V200

4V300

4V400

SY

SYJ

VT307

VP

3V

2L

2W

2WH

2V

2P

VFA

SYA

4A100

4A200

4A300

3A100

3A200

3A300

3L

4L

4H

SL,SH

4HV

HV,K

3FM

3F

4F

FV

ST

MSV

MOV

JM

HL

SH,RE

ASC

KA,ACV

VOR,QE

Manifold