

**PT. Rayas Triputra Sejati**

Indonesian Distributor

**BLCH**

Product Selection  
Guide 2024

**PNEUMATIC COMPONENTS**

Air Source Treatment

Control Components

Auxiliary Components

Executive Components

Accessories



**BLCH**



# NEVER GIVE UP

不忘初心 ● 方得始终

BLCH Pneumatic Science and Technology Co. Ltd was founded in August 2004, it is located in the YUEQING economic development industrial zone. The company covers an area of 24000M<sup>2</sup>, having 5 production bases with more than 300 employees. It's a non-regional enterprise specializing in R&D, production, sales and service maintenance of pneumatic components.

We now provide five series pneumatic products, such as air source treatment, pneumatic fittings, cylinders, solenoid valves, PU tubes and air guns, nearly 100 models and thousands items to worldwide. We have passed ISO 9001:2015 certification, ISO 14001:2015 environmental management system certification and CE markig of EU. Also we are National High-tech Enterprise, National Standards developing organization.

We always take "High Quality" as the most important thing, the key parts are all produced by automatic processing, which effectively guarantees the stable quality of the materials.

We take long time in long-life testing and insist that every single product should be checked and tested before delivery. Meanwhile, "After Service" is our commitment, because we know that the clients will fully understand our responsible attitude and create more and more win-win situation.

In pasted years, we have exported to more than 50 countries and get lots of good feedback. In the future, we expect that we can cooperate with more and more clients and have the chance to be a leading company in the world. We are growing together with you.

◆ **300+**

Employees

◆ **40+**

R&d technicians

◆ **50+**

Exported countries

◆ **50+**

Various patents

◆ **120Million +**

Annual output value

◆ **100+**

Products series

TECHNOLOGY CREATES VALUE



**BLOH**  
自研气动

# HONOR & CERTIFICATES



National high-tech enterprise  
 National industry standard developing organization  
 Zhejiang province high-tech R&D center

**NOTHING  
 IS IMPOSSIBLE**

博观约取 ● 厚积薄发

# **BLCH 百灵气动**

## **CERTIFICATE OF AUTHORIZATION**



This is to certify that  
**PT RAYAS TRIPUTRA SEJATI**

**As our Indonesian distributor**

**Effective Period: 1st, Jan. 2024 to 30th, Des. 2024**

**BLCH PNEUMATIC SCIENCE&TECHNOLOGY CO.LTD.CIINA**

**王 胜 平**

**GENERAL MANAGER: SHENGPING WANG**

COMPLETE  
**SPECIFICATIONS**

想你所想 ● 格物致知





# BLCH

## 百灵气动

BLCH PNEUMATIC  
SCIENCE & TECHNOLOGY  
CO., LTD.

www.blch.cn  
www.blpneumatic.com

Air Source Treatment



- 02 AC Series F.R.L combination
- 03 AC Series FR.L combination
- 04 AF Series Air filter
- 06 AW Series Air filter-regulator
- 08 AR Series Air Regulator
- 10 AL Series Air Lubricator
- 12 G Series F.R.L combination
- 13 G Series FR.L combination
- 14 G Series Air filter
- 15 G Series Air filter-regulator
- 16 G Series Air Regulator
- 17 G Series Air Lubricator
- 18 C Series F.R.L combination
- 18 C Series FR.L combination
- 18 C Series Air filter
- 19 C Series Air filter-regulator
- 19 C Series Air Regulator
- 19 C series Lubricator
- 20 AD/AH Series Automatic Drain
- 20 YT Series Lock valve
- 21 A/B Series F.R.L combination
- 22 A/B Series FR.L combination
- 23 A/B Series Air filter
- 24 A/B Series Air filter-regulator
- 25 A/B Series Air Regulator
- 26 A/B Series Lubricator
- 27 FRC Series FR.L combination
- 27 LF Series Air filter
- 28 LR Series Air Regulator
- 28 LFR Series Air filter-regulator
- 29 LOE Series Lubricator
- 29 AMD Series Micro Mist Separator  
AMG Series Water Separator
- 30 IR Series Precision Regulator
- 32 SFC Series Two-point combination
- 32 SFR Series Air filter-regulator
- 32 SL Series Lubricator
- 33 UFRL Series Three-point combination
- 33 UFR/L Series Two-point combination
- 34 UF Series Air filter
- 34 UFR Series Air filter-regulator
- 35 UR Series Air filter-regulator
- 35 UL Series Lubricator
- 36 FRL700A Three-point combination
- 36 FRL700A Two-point combination
- 36 FR500A Air filter-regulator
- 37 NR200/R200 Air Regulator
- 37 F200A Air filter
- 37 R200A Air Regulator
- 38 4000-5000 Explosion proof  
aluminum cup
- 38 SHAKO Series Aluminum cup
- 38 BP Series Automatic drain
- 38 IS1000 Series Pressure switch

Control Components



- 40 3V series Solenoid Valve
- 42 4V series Solenoid Valve
- 45 6V series Solenoid Valve
- 46 4M series Solenoid Valve
- 47 2V series Solenoid Valve
- 47 Solenoid Valve Coil
- 47 HSV series Slide Valve
- 48 3A series Air Control Valve
- 49 4A series Air Control Valve
- 51 VT307 series Solenoid Valve
- 52 ASC series Flow Control Valve
- 52 RE series Flow Control Valve
- 53 3H/4H series Hand Valve
- 53 3L/4L series Hand Valve
- 54 DS3000/MF3000 series Solenoid Valve
- 56 DS5000/MF5000 series Solenoid Valve
- 58 VFA series Air Control Valve
- 60 Manifold series

Control Components



- 61 2W series Solenoid Valve
- 62 2L series Solenoid Valve
- 63 2S series Solenoid Valve
- 64 PU series Solenoid Valve
- 65 Parts of Solenoid Valve
- 66 HV series Hand Valve
- 67 4HV series Hand Valve
- 68 FV320/420 series Foot Valve
- 69 4F/FOV series Foot Valve
- 70 FV/3F/3FM series Foot Valve
- 71 VM200 series Mechanical Valve
- 72 S3 series Mechanical Valve
- 74 VM100 series Mechanical Valve
- 75 JM322 series Mechanical Valve
- 76 MOV321 series Mechanical Valve
- 77 MV322 series Mechanical Valve
- 78 MV522 series Mechanical Valve
- 79 QE series Quick Exhaust Valve

Auxiliary Components



- 79 CV series Non-return Valve
- 81 PC Straight Male Thread
- 81 PCF Straight Female Thread
- 82 PL Elbow Male Thread
- 82 PLF Elbow Female Thread
- 83 PLL Elbow Longer Male Thread
- 83 PH External Hex Joint
- 83 PHF Joints in Series
- 84 PB T-Shape Vertical Male Thread
- 84 PD T-Shape side Male Thread
- 85 PX Y-Shape Three-Way Thread
- 85 PK Five-Way
- 85 PKG Reduced Five-Way
- 86 PM Bulkhead Union
- 86 PY Y-Shape Three-Way
- 86 PU Straight Union
- 86 PV Elbow Two-Way
- 86 PUG Reduced Straight Union
- 86 PYG Y-Shape Reduced Three-Way
- 87 PE T-Shape Three-Way
- 87 PEG T-Shape Reduced Three-Way
- 87 SL Speed controller
- 87 LSA Pipe Speed controller
- 87 PKB Side Male Thread Five-Way
- 87 PKD Side Female Thread
- 87 PZA Union Cross
- 87 HVFF series Hand Switch
- 88 BUC series Hand Valves
- 88 BC series Hand Valves
- 88 BC-G series Hand Valves
- 88 BL-G series Hand Valves
- 88 BUL series Hand Valves
- 88 KCM Push in Check valve
- 88 AN series Plastic Silencer
- 88 AL series Plastic Silencer
- 88 ST/SV series Brass Silencer
- 89-90 White fittings
- 91 Brass Nickel Plating-One Touch Fittings
- 91 Metal One Touch Fittings
- 92 Quick Pipe Connectors
- 93 Micro Quick Fittings
- 93 SPP Series Plug
- 93 Rotation Fittings
- 93 Oil Pipe
- 94 PU Tube
- 94 Spiral Tube
- 94 Air Gun
- 95 C Type Quick Coupler
- 96 Self-locked C Type Quick Coupler

Executive Components



- 98 SC/SU Series Standard Cylinder
- 100 DNC Series Standard Cylinder
- 102 SI Series Standard Cylinder
- 104 MB Series Standard Cylinder
- 106 SDA Series Compact Cylinder
- 108 CQ2 Series Compact Cylinder
- 110 CQS Series Compact Cylinder
- 112 ADVU series compact cylinder
- 114 MAL Series Aluminum Mini Cylinder
- 116 MA Series Stainless Steel Mini Cylinder
- 118 CM2 Series Stainless Steel Mini Cylinder
- 120 CJ2 Series Stainless Steel Mini Cylinder
- 121 DSN series round cylinder
- 123 TN Series Double Rods Cylinder
- 125 CXS Series Twin Rods Cylinder
- 126 CU Series Free Mounting Cylinder
- 128 MGP Series Compact Guide Cylinder
- 131 AC Series Shock Absorber
- 132 ACD Series Shock Absorber
- 133 RBC Series Short Shock Absorber
- 134 AD Series Shock Absorber
- 135 SR Series Adjustable Hydraulic Stabilizer

Accessories



- 136 Air Combination Accessories
- 137 Cylinder Accessories
- 138 SC Series Standard Cylinder Accessories

# AIR SOURCE TREATMENT

气源处理件



**BLCH** | 百灵气动

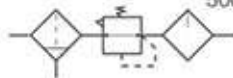
### AC Series F.R.L combination



#### Order Code

AC	2000	-	02	□
Series	Body Size	Port Size	Drain Mode	
	1000	M5   M5	Nil	Semi-Automatic Type
	2000	02   1/4"	D	Automatic Type
	3000	03   3/8"		
	4000	04   1/2"		
	5000	06   3/4"		
		10   1"		

#### Symbol

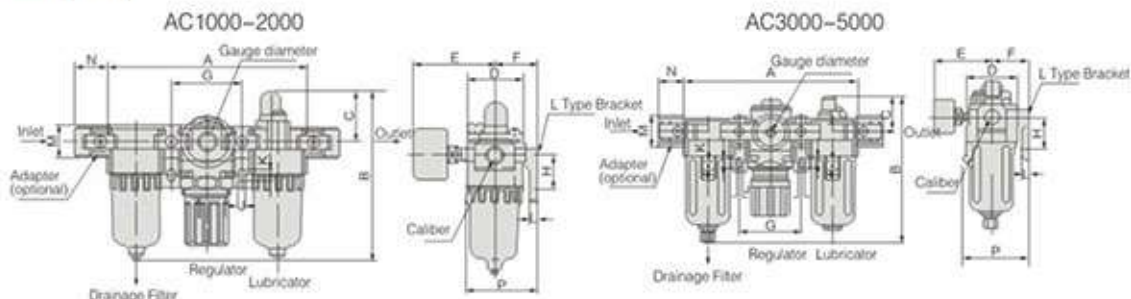


#### Technical Specification

Proof Pressure	1.5Mpa   15bar , 217.5psi
Max. operating pressure	1.0Mpa   10bar,145psi
Ambient Temperature	5~60°C(Not Frozen)
Filter Precision	40 μ m
Suggested Lubricating Oil	Turbine No. 1 Oil(ISO VG32)
Bowl Material	PC
Cup Cover	AC1000-2000(Without) AC3000-5000(with)
Range of Regulation	AC1000:0.05-0.7Mpa(7.25-101.5 psi) AC2000-5000:0.05-0.85Mpa(7.25-123 psi)

Model		Specifications					
Manual	Automatic	Combinations			Max. Flow (L/min)	Port Size Rp(PT)	Pressure Gauge SizeRp(PT)
		Filter	Regulator	Lubricator			
AC1000-M5	AC1000-M5D	AF1000	AR1000	AL1000	90	M5x0.8	1/16
AC2000-02	AC2000-02D	AF2000	AR2000	AL2000	500	1/4	1/8
AC3000-02	AC3000-02D	AF3000	AR3000	AL3000	2000	1/4	1/8
AC3000-03	AC3000-03D	AF3000	AR3000	AL3000	2000	3/8	1/8
AC4000-03	AC4000-03D	AF4000	AR4000	AL4000	4000	3/8	1/4
AC4000-04	AC4000-04D	AF4000	AR4000	AL4000	4000	1/2	1/4
AC4000-06	AC4000-06D	AF4000	AR4000	AL4000	4500	3/4	1/4
AC5000-06	AC5000-06D	AF5000	AR5000	AL5000	5000	3/4	1/4
AC5000-10	AC5000-10D	AF5000	AR5000	AL5000	5000	1	1/4

#### Dimension(mm)



Model	Port Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	With Auto Drain B
AC1000-M5	M5x0.8	89	87	25	25	33.5	25.5	31	20	4.5	7	3	18	16	41	106
AC2000-01/02	1/8 • 1/4	140	124.5	39	40	53	30	50	24	5.5	8.5	5	22	23	50	146
AC3000-02/03	1/4 • 3/8	182	158	37	53	54.5	41	64	35	6	10	7	34	26	70	197
AC4000-03/04	3/8 • 1/2	238	195	43	70	60	49	84	40	9	13	7	42	33	86	213
AC4000-06	3/4	253	197	43	70	66	51	89	40	9	13	8	48	36	88	215
AC5000-06/10	3/4 • 1	300	272	47	90	70	68	105	50	12	16	10	55	40	-	290

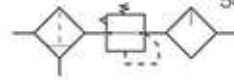
### AC Series FR.L combination



#### Order Code

AC	2000	-	02	□
Series	Body Size	Port Size	Drain Mode	
	1010 2010 3010 4010 5010	M5   M5 02   1/4" 03   3/8" 04   1/2" 06   3/4" 10   1"	Nil   Semi-Automatic Type D   Automatic Type	

#### Symbol

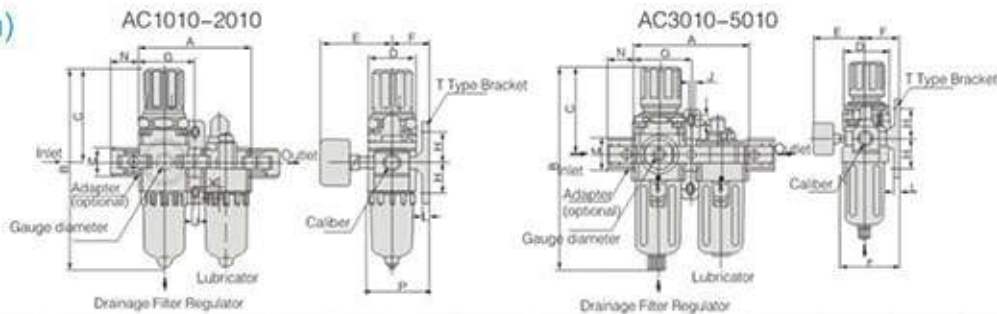


#### Technical Specification

Proof Pressure	1.5Mpa   15bar , 217.5psi
Max. operating pressure	1.0Mpa   10bar, 145psi
Ambient Temperature	5~60°C(Not Frozen)
Filter Precision	40 μm
Suggested Lubricating Oil	Turbine No. 1 Oil(ISO VG32)
Bowl Material	PC
Cup Cover	AC1000-2000(Without) AC3000-5000(with)
Range of Regulation	AC1010:0.05-0.7Mpa ( 7.25-101.5 psi) AC2010-5010:0.05-0.85Mpa ( 7.25-123 psi)

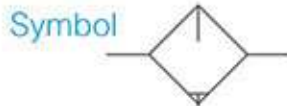
Model		Specifications				
Manual	Automatic	Combinations		Max. Flow (L/min)	Port Size Rp(PT)	Pressure Gauge SizeRp(PT)
		Filter	Lubricator			
AC1010-M5	AC1010-M5D	AW1000	AL1000	90	M5x0.8	1/16
AC2010-02	AC2010-02D	AW2000	AL2000	500	1/4	1/8
AC3010-02	AC3010-02D	AW3000	AL3000	1700	1/4	1/8
AC3010-03	AC3010-03D	AW3000	AL3000	1700	3/8	1/8
AC4010-03	AC4010-03D	AW4000	AL4000	3000	3/8	1/8
AC4010-04	AC4010-04D	AW4000	AL4000	3000	1/2	1/4
AC4010-06	AC4010-06D	AW4000	AL4000	3000	3/4	1/4
AC5010-06	AC5010-06D	AW5000	AL5000	4000	3/4	1/4
AC5010-10	AC5010-10D	AW5000	AL5000	4000	1	1/4

#### Dimension(mm)



Model	Port Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	With Auto Drain
																B
AC1010-M5	M5x0.8	58	108	50.5	25	33.5	25.5	28	20	4.5	7	3	18	16	41	127
AC2010-01/02	1/8 · 1/4	90	160	74	40	53	30	45	24	5.5	8.5	5	22	23	50	181
AC3010-02/03	1/4 · 3/8	117	207	89	53	54.5	41	58.5	35	6	10	7	34	26	70	245
AC4010-03/04	3/8 · 1/2	155	259	109	70	60	49	77	40	9	13	7	42	33	86	276
AC4010-06	3/4	165	263	111	70	66	51	82	40	9	13	8	48	36	88	281
AC5010-06/10	3/4 · 1	196	339	117	90	70	68	97.5	50	12	16	10	55	40	-	356

### AF Series Air filter



### Order Code

AF	2000	-	02	□
Series	Body Size	Port Size	Drain Mode	
	1000	M5   M5	Nil	Semi-Automatic Type
	2000	02   1/4"	D	Automatic Type
	3000	03   3/8"		
	4000	04   1/2"		
	5000	06   3/4"		
		10   1"		

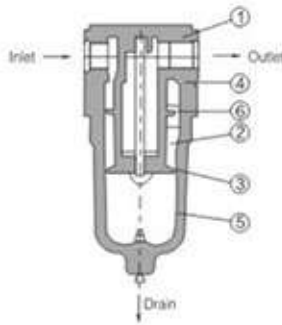
### Technical Specification

Proof Pressure	1.5Mpa   15bar , 217.5psi
Max. operating pressure	1.0Mpa   10bar, 145psi
Ambient Temperature	5~60°C(Not Frozen)
Filter Precision	40 μm
Bowl Material	PC
Cup Cover	AC1000-2000(Without) AC3000-5000(with)

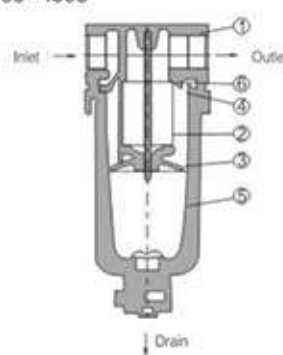
Model		Specifications		
Manual	Automatic	Max. Flow (L/min)	Port Size Rp(PT)	Cup Combination(cm <sup>3</sup> )
AF1000-M5	AF1000-M5D	110	M5x0.8	4
AF2000-02	AF2000-02D	750	1/4	15
AF3000-02	AF3000-02D	1500	1/4	20
AF3000-03	AF3000-03D	1500	3/8	20
AF4000-03	AF4000-03D	4000	3/8	45
AF4000-04	AF4000-04D	4000	1/2	45
AF4000-06	AF4000-06D	6000	3/4	45
AF5000-06	AF5000-06D	7000	3/4	130
AF5000-10	AF5000-10D	7000	1	130

### Structure Charts

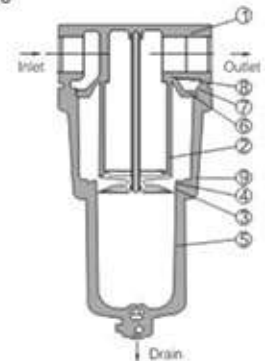
AF1000~2000



AF3000~4000

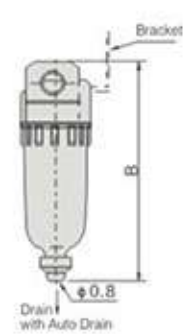
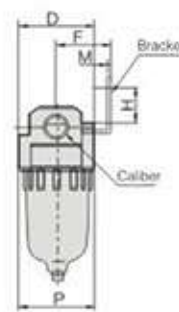
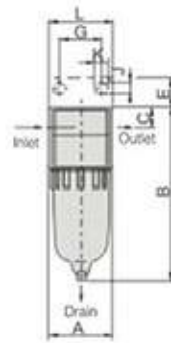


AF5000

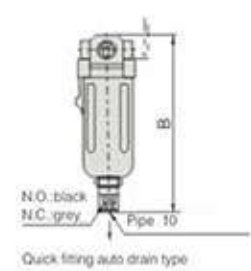
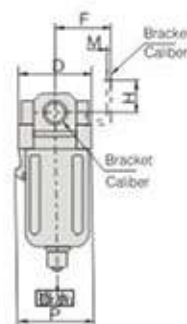
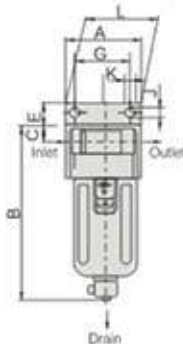


### Dimension(mm)

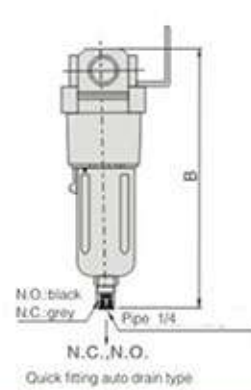
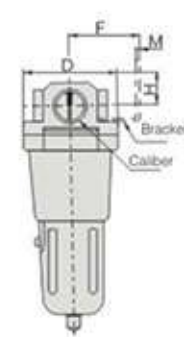
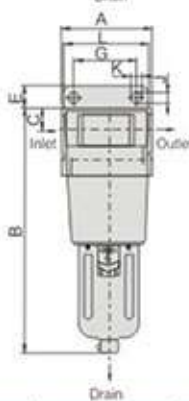
AF1000~2000



AF3000~4000



AF5000



Model	Port Size	A	B	C	D	E	F	G	H	J	K	L	M	P	With Auto Drain
															B
AF1000-M5	M5x0.8	25	68	7.5	25	-	-	-	-	-	-	-	-	25	87
AF2000-01/02	1/8 · 1/4	40	97.5	11	40	17	30	27	21	5.5	8.5	40	1.8	40	120
AF3000-02/03	1/4 · 3/8	53	134	14	53	16	41	40	24	6.5	8	53	1.8	55	173
AF4000-03/04	3/8 · 1/2	70	169	17	70	17	50	51.5	24	8.5	12	69	1.8	72	186
AF4000-06	3/4	75	173	20	70	-	-	-	-	-	-	-	-	72	191
AF5000-06/10	3/4 · 1	90	248	25	90	-	-	-	-	-	-	-	-	-	266

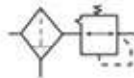
### AW Series Air filter-regulator



#### Order Code

AW	2000	-	02	D
Series	Body Size	Port Size	Drain Mode	
	1000 2000 3000 4000 5000	M5   M5 02   1/4" 03   3/8" 04   1/2" 06   3/4" 10   1"	Nil	Semi-Automatic Type
			D	Automatic Type

#### Symbol



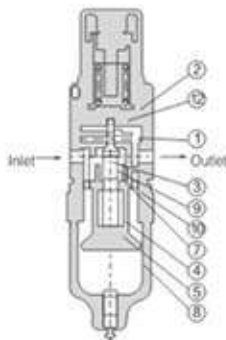
#### Technical Specification

Proof Pressure	1.5Mpa   15bar , 217.5psi
Max. operating pressure	1.0Mpa   10bar, 145psi
Ambient Temperature	5-60°C(Not Frozen)
Filter Precision	40 μ m, 5 μ m(customized)
Bowl Material	PC
Cup Cover	AC1000-2000(Without) AC3000-5000(with)
Range of Regulation	AW1000:0.05-0.7Mpa(7.25-101.5 psi) AW2000-5000:0.05-0.85Mpa(7.25-123 psi)

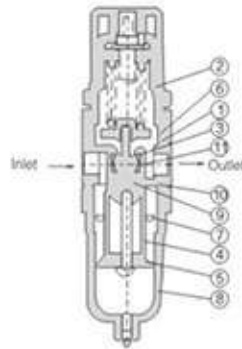
Model		Specifications		
Manual	Automatic	Max. Flow(L/min)	Port SizeRp(PT)	Pressure Gauge SizeRp(PT)
AW1000-M5	AW1000-M5D	100	M5x0.8	1/16
AW2000-02	AW2000-02D	550	1/4	1/8
AW3000-02	AW3000-02D	2000	1/4	1/8
AW3000-03	AW3000-03D	2000	3/8	1/8
AW4000-03	AW4000-03D	4000	3/8	1/4
AW4000-04	AW4000-04D	4000	1/2	1/4
AW4000-06	AW4000-06D	4500	3/4	1/4
AW5000-06	AW5000-06D	5000	3/4	1/4
AW5000-10	AW5000-10D	5000	1	1/4

### Structure Charts

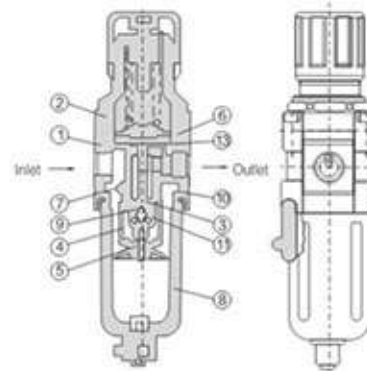
AW1000



AW2000

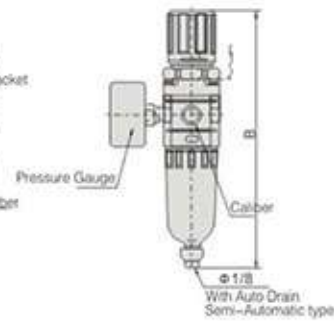
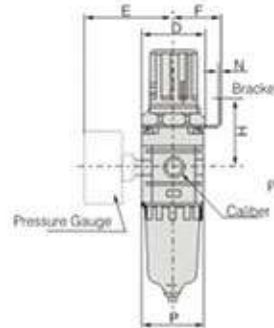
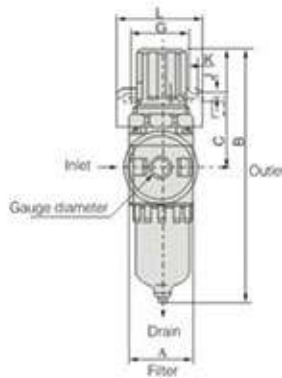


AW3000~4000

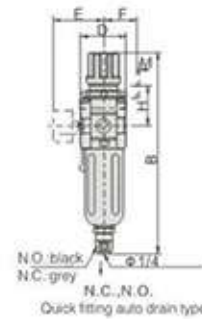
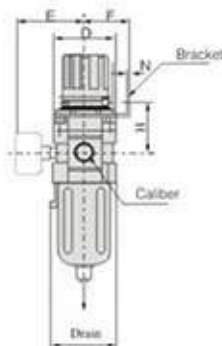
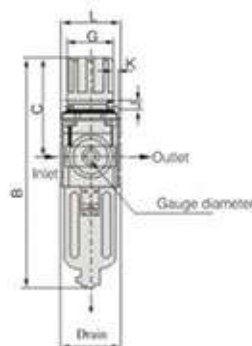


### Dimension(mm)

AW1000~2000



AW3000~4000



Model	Port Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	With Auto Drain
																B
AW1000-M5	M5x0.8	25	108	50.5	25	33.5	25	28	30	4.5	6.5	40	1.8	18.5	25	127
AW2000-01/02	1/8 · 1/4	40	160	74	40	53	33	33.5	43	5.5	15	55	1.8	33.5	40	181
AW3000-02/03	1/4 · 3/8	53	207	89	53	54.5	41	36	47	6.5	11.5	54	1.8	42.5	55	245
AW4000-03/04	3/8 · 1/2	70	259	109	70	60	49	53	52	8.5	10.5	70	1.8	52.5	72	276
AW4000-06	3/4	75	263	111	70	66	49	53	56	8.5	10.5	70	1.8	52.5	72	281
AW5000-06/10	3/4 · 1	90	339	117	90	70	49	53	62	8.5	10.5	70	1.8	52.5	-	356

### AR Series Air Regulator



#### Order Code

AR	2000	-	02
Series	Body Size	Port Size	
	1000	M5	M5
	2000	02	1/4"
	3000	03	3/8"
	4000	04	1/2"
	5000	06	3/4"
		10	1"

#### Symbol

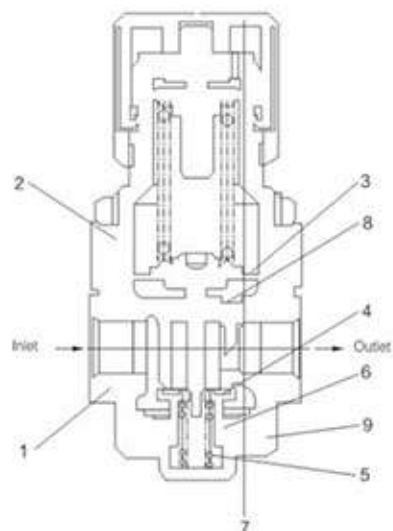


#### Technical Specification

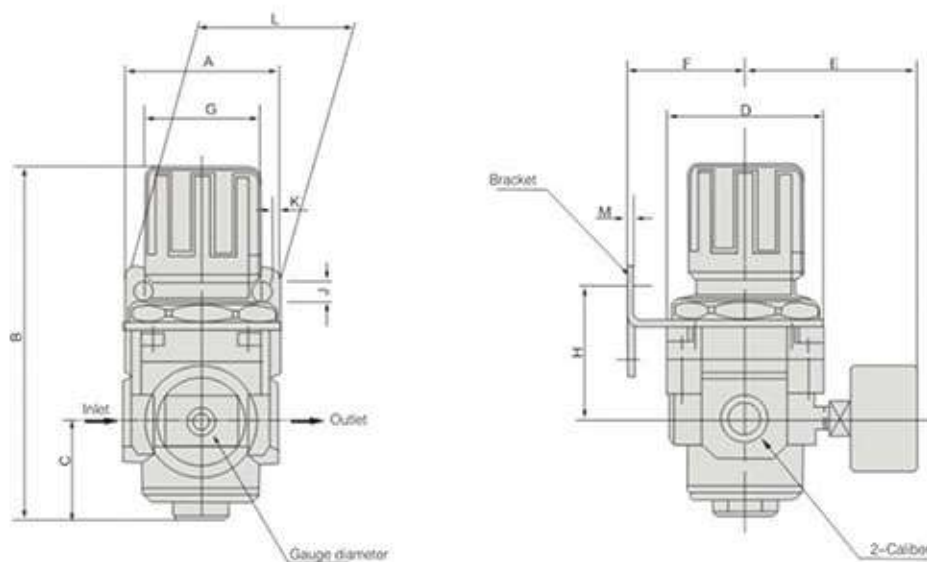
Proof Pressure	1.5Mpa   15bar , 217.5psi
Max. operating pressure	1.0Mpa   10bar, 145psi
Ambient Temperature	5~60°C(Not Frozen)
Range of Regulation	AR1000:0.05~0.7Mpa(7.25~101.5 psi) AR2000~5000:0.05~0.85Mpa(7.25~123 psi)

Model	Specifications		
	Max. Flow(L/min)	Port SizeRp(PT)	Pressure Gauge SizeRp(PT)
AR1000-M5	100	M5 × 0.8	1/16
AR2000-02	550	1/4	1/8
AR3000-02	2500	1/4	1/8
AR3000-03	2500	3/8	1/8
AR4000-03	6000	3/8	1/4
AR4000-04	6000	1/2	1/4
AR4000-06	6000	3/4	1/4
AR5000-06	8000	3/4	1/4
AR5000-10	8000	1	1/4

### Structure Charts



### Dimension(mm)



Model	Port Size	A	B	C	D	E	F	G	H	J	K	L	M	N
AR1000-M5	M5x0.8	25	58	12	25	33.5	25	28	27.5	4.5	6.5	40	1.8	18.5
AR2000-01/02	1/8 • 1/4	40	92	17	40	53	33	33.5	43	5.5	15	55	1.8	33.5
AR3000-02/03	1/4 • 3/8	53	123.5	35	53	54.5	41	36	46	6.5	11.5	54	1.8	42.5
AR4000-03/04	3/8 • 1/2	70	145.5	37.5	70	60	49	53	52	8.5	10.5	70	1.8	52.5
AR4000-06	3/4	75	150	38.5	70	66	49	53	56	8.5	10.5	70	1.8	52.5
AR5000-06/10	3/4 • 1	90	165	48	90	70	49	53	62	8.5	10.5	70	1.8	52.5

### AL Series Air Lubricator



#### Order Code

AL		2000		-	02	
Series	Body Size	Port Size				
	1000	M5	M5			
	2000	02	1/4"			
	3000	03	3/8"			
	4000	04	1/2"			
	5000	06	3/4"			
		10	1"			

#### Symbol



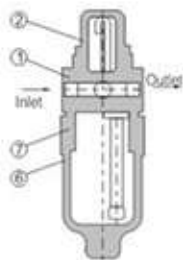
#### Technical Specification

Proof Pressure	1.5Mpa   15bar , 217.5psi
Max. operating pressure	1.0Mpa   10bar, 145psi
Ambient Temperature	5~60°C(Not Frozen)
Suggested Lubricating Oil	Turbine No. 1 Oil(ISO VG32)
Bowl Material	PC
Cup Cover	AC1000-2000(Without) AC3000-5000(with)

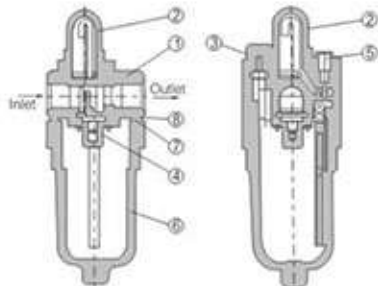
Model	Max. Flow(L/min)	Specifications		
		Max. Flow(L/min)	Port SizeRp(PT)	cup combination(cm <sup>3</sup> )
AL1000-M5	4	95	M5 x 0.8	7
AL2000-02	15	800	1/4	25
AL3000-02	30	1700	1/4	50
AL3000-03	40	5000	3/8	50
AL4000-03	40	5000	3/8	130
AL4000-04	50	5000	1/2	130
AL4000-06	50	6300	3/4	130
AL5000-06	190	7000	3/4	130
AL5000-10	190	7000	1	130

### Structure Charts

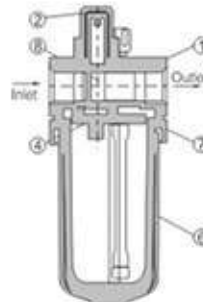
AL1000



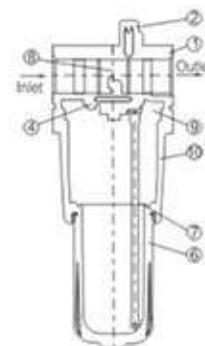
AL 2000



AL 3000~4000

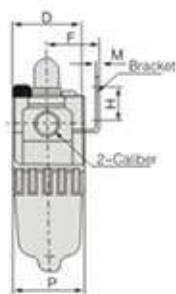
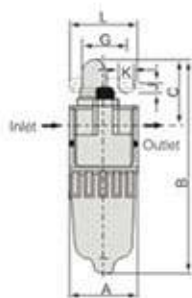


AL 5000

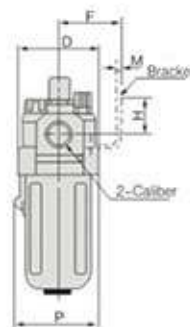
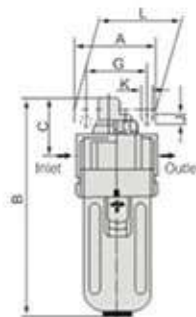


### Dimension(mm)

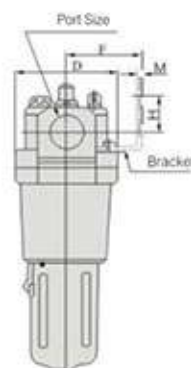
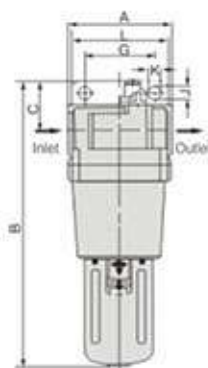
AL1000~2000



AL3000~4000



AL5000



Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N
AL1000-M5	M5x0.8	25	77	25	25	-	-	-	-	-	-	-	-	25
AL2000-01/02	1/8 • 1/4	40	118	39	40	12	30	27	21.24	5.5	8.5	40	1.8	40
AL3000-02/03	1/4 • 3/8	53	141	37	53	14	41	40	24	6.5	8	53	1.8	55
AL4000-03/04	3/8 • 1/2	70	177	43	70	17	50	51.5	24	8.5	12	69	1.8	72
AL4000-06	3/4	75	180	43	70	-	-	-	-	-	-	-	-	72
AL5000-06/10	3/4 • 1	90	255	47	90	-	-	-	-	-	-	-	-	-

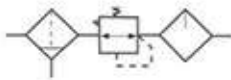
### G Series F.R.L combination



#### Order code

GC200 - 08		-	□	-	F	-	□	-	□
Series	GC200 series GC300 series GC400 series	Drain mode	Nil D	Semi-Automatic Type Automatic Type		Filter Accuracy	Nil W	40 μM level 5 μM level	Port Size
	Port Size								Nil T G
	06   PT1/8 08   PT1/4 10   PT3/8 15   PT1/2				Pressure Gauge type				PT Port NPT Port G Port
					F   Square Gauge C   Round Gauge				

#### Symbol



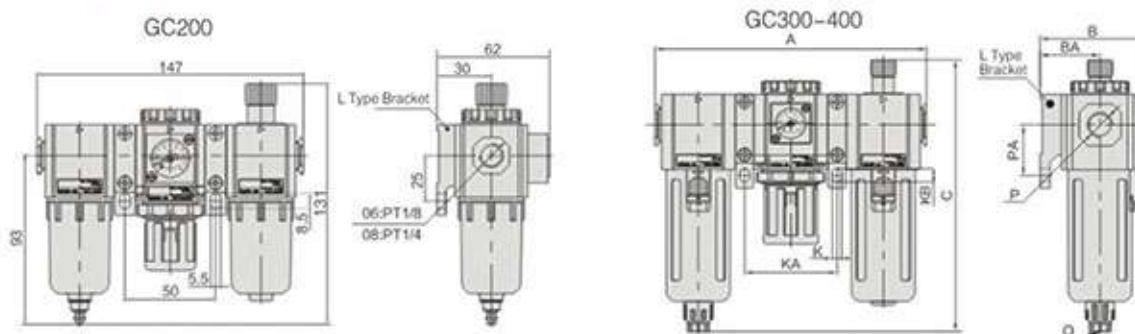
#### Product feature

1. Quick and reliable mounting clamps makes it convenient to install and use .
2. The performance of pressure adjustment is reliable with high precision.
3. The efficiency of eliminating moisture and solid grain is high.
4. Oil dripping adopts gas seal structure, which makes the adjustment of oil supply more reliable.

#### Technical Specification

Model	GC200-06	GC200-08	GC300-08	GC300-10	GC300-15	GC400-10	GC400-15
Working Medium	Air						
Port Size	PT1/8	PT1/4	PT1/4	PT3/8	PT1/2	PT3/8	PT1/2
Filter Precision	40 μm or 5 μm						
Pressure Range	Automatic and Semi-Automatic:0.15-0.9Mpa						
Proof Pressure	1.5Mpa(215Psi)						
Temperature Range	-5-60°C(Not Frozen)						
Suggested Lubricating Oil	Turbine No. 1 Oil(ISO VG32)						
Water Cup Capacity	10CC			40CC			80CC
Oil Cup Capacity	25CC			75CC			160CC
Weight(kg)	0.68kg			1.42kg			2.60kg

#### Dimension(mm)



Model	A	B	BA	C	K	KA	KB	P	PA	E
GC300-08	188	72	41.5	188	6.5	64	9	PT1/4	35	G1/8
GC300-10	188	72	41.5	188	6.5	64	9	PT3/8	35	G1/8
GC300-15	188	72	41.5	188	6.5	64	9	PT1/2	35	G1/8
GC400-10	248	89	50	207	8.6	84	12	PT3/8	40	G1/4
GC400-15	248	89	50	207	8.6	84	12	PT1/2	40	G1/4

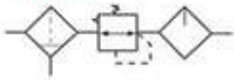
### G Series FR.L combination



#### Order Code

GFC200-08		-	□	-	F	-	□	-	□
Series	GFC200 series GFC300 series GFC400 series				Pressure Gauge type F Square Gauge C Round Gauge				Port Size Nil PT Port T NPT Port G G Port
		Drain Mode Nil D			Semi-Automatic Type Automatic Type		Filter Accuracy Nil 40 μM level W 5 μM level		
	Port Size 06 PT1/8 08 PT1/4 10 PT3/8 15 PT1/2								

#### Symbol



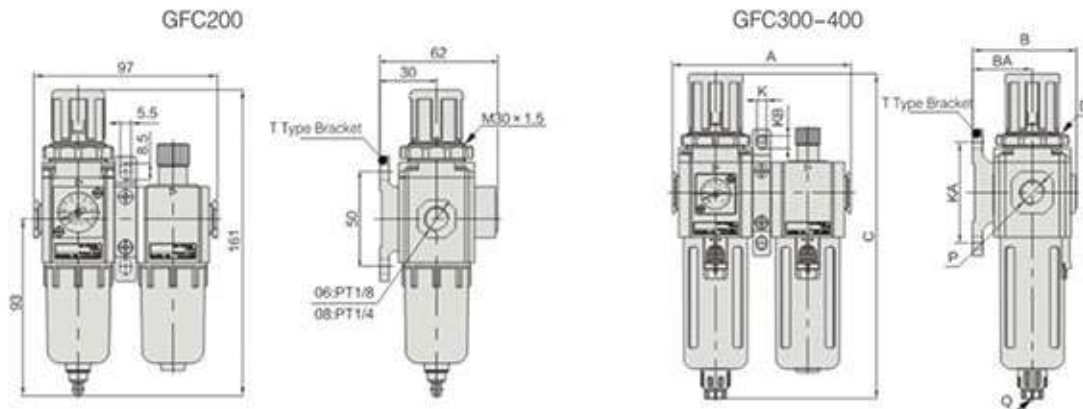
#### Product feature

- 1.Quick and reliable mounting clamps makes it convenient to install and use .
- 2.The performance of pressure adjustment is reliable with high precision.
- 3.The efficiency of eliminating moisture and solid grain is high.

#### Technical Specification

Model	GFC200-06	GFC200-08	GFC300-08	GFC300-10	GFC300-15	GFC400-10	GFC400-15
Working Medium	Air						
Port Size	PT1/8	PT1/4	PT1/4	PT3/8	PT1/2	PT3/8	PT1/2
Filter Precision	40 μm or 5 μm						
Pressure Range	Automatic and Semi-Automatic:0.15-0.9Mpa						
Proof Pressure	1.5Mpa(215Psi)						
Temperature Range	-5-60°C(Not Frozen)						
Suggested Lubricating Oil	Turbine No.1 Oil(ISO VG32)						
Water Cup Capacity	10CC		40CC			80CC	
Oil Cup Capacity	25CC		75CC			160CC	
Weight(kg)	0.44kg		1.0kg			1.95kg	

#### Dimension(mm)



Model	A	B	BA	C	D	K	KA	KB	P	Q
GFC300-08	124	72	41.5	225.5	M40x1.5	6.5	70	9	PT1/4	G1/8
GFC300-10	124	72	41.5	225.5	M40x1.5	6.5	70	9	PT3/8	G1/8
GFC300-15	124	72	41.5	225.5	M40x1.5	6.5	70	9	PT1/2	G1/8
GFC400-10	164	89	50	266	M55x2.0	8.6	80	12	PT3/8	G1/4
GFC400-15	164	89	50	266	M55x2.0	8.6	80	12	PT1/2	G1/4



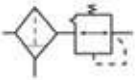
### G Series Air filter-regulator



#### Order Code

GFR200 - 08 - □ - F - □ - □									
Series	Drain Mode			Pressure Gauge type	Filter Accuracy			Port Size	
GFR200 series	Nil	Semi-Automatic Type	Automatic Type	F	40 μM level	5 μM level	Nil	PT Port	
GFR300 series	D			C			Square Gauge	T	NPT Port
GFR400 series				Round Gauge			G	G Port	
	Port Size								
	06  PT1/8								
	08  PT1/4								
	10  PT3/8								
	15  PT1/2								

#### Symbol



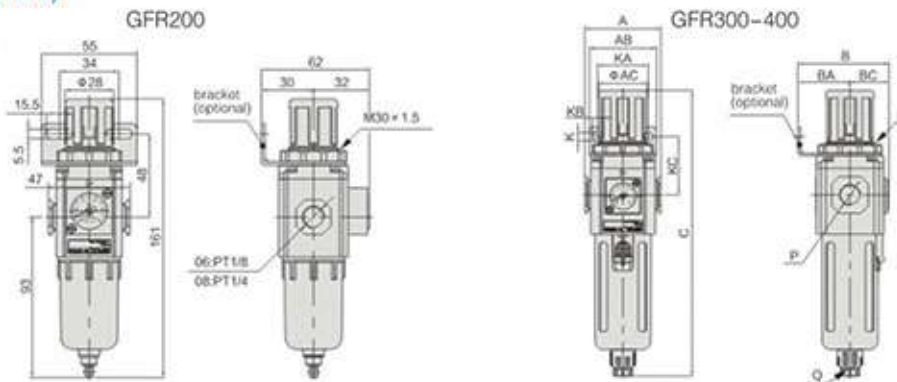
#### Product feature

1. Embedded square pressure gauge is used to save installation space.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interfere.
3. Balanced design is adopted for the pressure adjustment mechanism.
4. The filtering grade includes 5um and 40 um (optional).

#### Technical Specification

Model	GFR200-06	GFR200-08	GFR300-08	GFR300-10	GFR300-15	GFR400-10	GFR400-15
Working Medium	Air						
Port Size	PT1/8	PT1/4	PT1/4	PT3/8	PT1/2	PT3/8	PT1/2
Filter Precision	40 μm Or 5 μm						
Pressure Range	Automatic and Semi-Automatic:0.15-0.9Mpa						
Proof Pressure	1.5Mpa						
Temperature Range	-5-60°C(Not Frozen)						
Water Cup Capacity	10CC		40CC			80CC	
Weight(kg)	0.32kg		0.62kg			1.20kg	

#### Dimension(mm)



Model	A	AB	AC	B	BA	BC	C	D	K	KA	KB	KC	P	Q
GFR300-08	60	53	38	72	41	31	225.5	M40x1.5	6.5	40	8	46	PT1/4	G1/8
GFR300-10	60	53	38	72	41	31	225.5	M40x1.5	6.5	40	8	46	PT3/8	G1/8
GFR300-15	60	53	38	72	41	31	225.5	M40x1.5	6.5	40	8	46	PT1/2	G1/8
GFR400-10	80	72	52	90	50	40	266	M55x2.0	6.5	52	11	53	PT3/8	G1/4
GFR400-15	80	72	52	90	50	40	266	M55x2.0	8.5	52	11	53	PT1/2	G1/4

### G Series Air Regulator



#### Order Code

GR200		-	08	-	□	-	F	-	□	-	□
Series	GR200 series						Pressure Gauge type				Port Size
	GR300 series						F Square Gauge				Nil PT Port
	GR400 series						C Round Gauge				T NPT Port
											G G Port
							Drain Mode				
							Nil	Semi-Automatic Type			
							D	Automatic Type			
									Filter	Accuracy	
									Nil	40 μM level	
									W	5 μM level	

#### Symbol



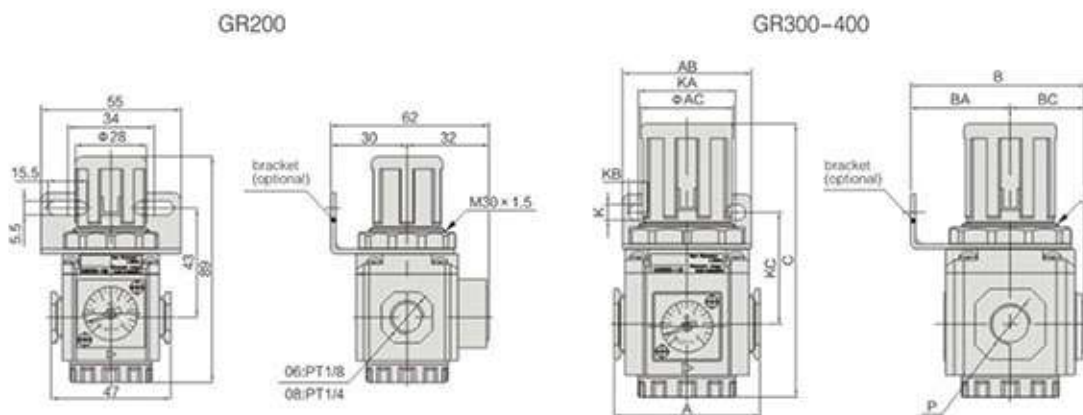
#### Product feature

1. Embedded square pressure gauge is used to save installation space.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interference.
3. Balanced design is adopted for the pressure adjustment mechanism

#### Technical Specification

Model	GR200-06	GR200-08	GR300-08	GR300-10	GR300-15	GR400-10	GR400-15
Working Medium	Air						
Port Size	PT1/8	PT1/4	PT1/4	PT3/8	PT1/2	PT3/8	PT1/2
Pressure Range	0.05-0.9Mpa						
Proof Pressure	1.5Mpa						
Temperature Range	-5-60°C(Not Frozen)						
Weight(kg)	0.26kg		0.45kg			0.80kg	

#### Dimension(mm)



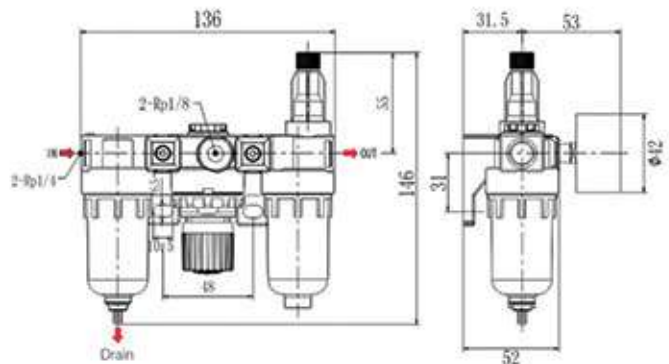
Model	A	AB	AC	B	BA	BC	C	D	K	KA	KB	KC	P
GR300-08	60	53	38	72	41	31	114	M40x1.5	6.5	40	8	46	PT1/4
GR300-10	60	53	38	72	41	31	114	M40x1.5	6.5	40	8	46	PT3/8
GR300-15	60	53	38	72	41	31	114	M40x1.5	6.5	40	8	46	PT1/2
GR400-10	80	72	52	90	50	40	140.5	M55x2.2	8.5	55	11	53	PT3/8
GR400-15	80	72	52	90	50	40	140.5	M55x2.2	8.5	55	11	53	PT1/2



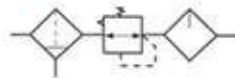
### C Series F.R.L combination



#### Dimension(mm)



#### Symbol



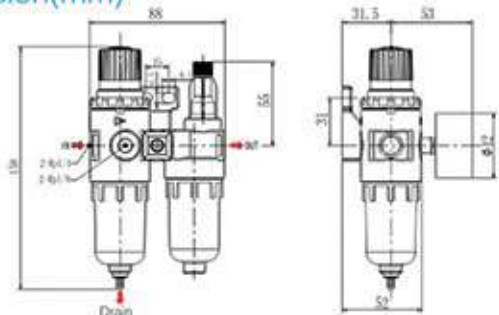
#### Technical Specification

Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
CC2000	1/4"	650	0.15~0.85	G(with gauge) Environment current temperature -5~60°C(Not Frozen)

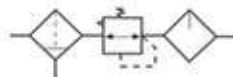
### C Series FR.L combination



#### Dimension(mm)



#### Symbol



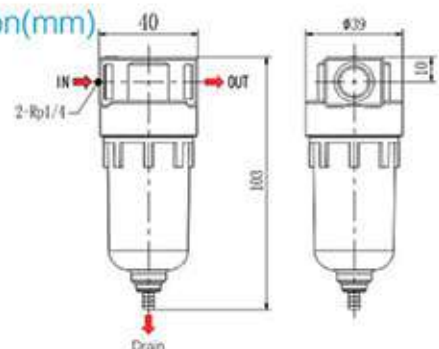
#### Technical Specification

Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
CFC2000	1/4"	650	0.15~0.85	G(with gauge) Environment current temperature -5~60°C(Not Frozen)

### C Series Air filter



#### Dimension(mm)



#### Symbol



#### Technical Specification

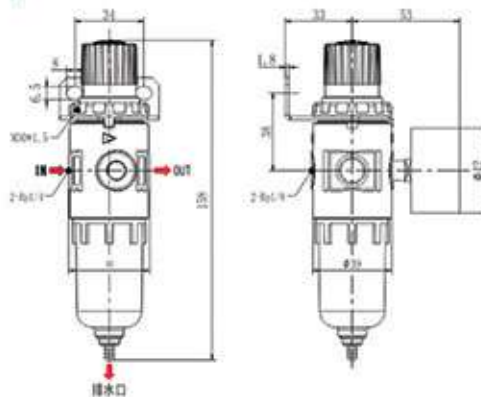
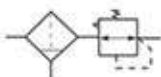
Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
CF2000	1/4"	650	0.15~0.85	Environment current temperature -5~60°C(Not Frozen)

### C Series Air filter-regulator

Dimension(mm)



Symbol



#### Technical Specification

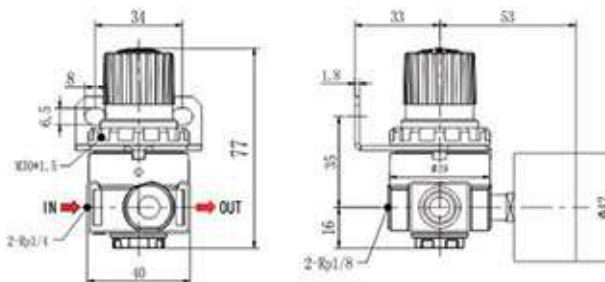
Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
CFR2000	1/4"	650	0.15~0.85	with mounting bracket G(with gauge) Ambient Temperature: -5~60°C(Not Frozen)

### C Series Air Regulator

Dimension(mm)



Symbol



#### Technical Specification

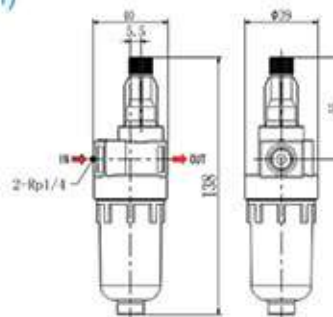
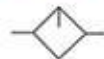
Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
CR2000	1/4"	650	0.15~0.85	with mounting bracket G(with gauge) Ambient Temperature: -5~60°C(Not Frozen)

### C series Lubricator

Dimension(mm)



Symbol



#### Technical Specification

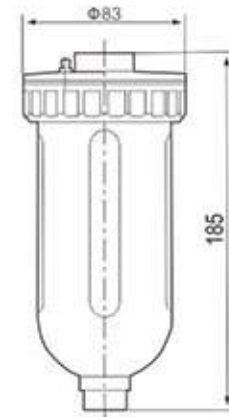
Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
CL2000	1/4"	650	0.15~0.85	Environment current temperature -5~60°C(Not Frozen)

### AD/AH Series Automatic Drain

Dimension(mm)



Symbol



### Technical Specification

Model	Port Size Rp(PT)	Drain Size Rp(PT)	Pressure Range MPa	Options/Description
AD402	04	1/2"	0.15~0.85	Ambient Temperature: -5~60°C(Not Frozen) No need people operating Max. Working pressure: 10Mpa (10.2kgf/cm <sup>2</sup> ) 1. When installing the drainer, the diameter of pipe should be above 10mm, the length not more than 5 meters, and don't make the pipe bending upwards. 2. Compressor power should be more than 3.7kw.
AH402	04	1/2"		

### NOTICE:

When the drain connect with drainage hose, it required the hose diameter should be bigger than 10mm, the length should be shorter than 5 meters, and keep it down, not up.

The power of the compressor should be greater than 3.7KW

when there have no pressure in water cup

The float (5) dropped due to the self-weight. The valve (9) closes the cavity hole. The piston (8) is pressed down by the spring (11), and the condensed water is drained through the drain hole (12).

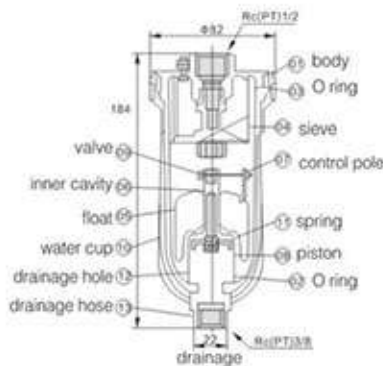
when there have pressure in water cup

When the pressure is above 1 kgf/cm<sup>2</sup>, the piston (8) overcomes the upward pressure of the spring (11), so the drain hole (12) is closed and the water cup (10) is separated from the outside world.

when there have condensed water in water cup

When the condensed water is collected to a certain extent, the float (5) rises due to buoyancy and opens the inner cavity. The piston (8) is pressed down by pressure and spring (11), and the condensed water is drained through the drainage hose (13).

### Structure Charts



### Main parts

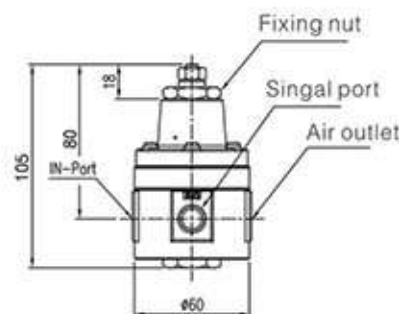
No.	Model	Standard
1	body	Die-casting aluminum

### Specification

No.	Model	Model	Standard
2	O ring	NBR	JIS B2401P-8
3	O ring	NBR	113136
4	sieve	SUS	20062

### YT Series Lock valve Dimension(mm)

### Technical Specification



Model	YT-400
acting type	Single-action
Signal pressure	1.0Mpa <sup>(1)</sup>
Setting pressure range	0.14~0.7Mpa
Working pressure	MAX0.7Mpa
Hysteresis	0.01Mpa <sup>(2)</sup>
Effective basal area	1.7mm <sup>2</sup>
Ambient Temperature	-5~60°C(Not Frozen)
Port Size	Rc(PT)1/4
Weight	455g

Because of gas source or supply line fault which let to operate pneumatic control circuit accidents, tool-lock can maintain pressure until the gas source or supply lines back to normal.

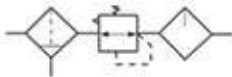
### A/B Series F.R.L combination



#### Order Code

BC	2000	□
Series	Port Size	Drain Mode
AC   A series Air Filter combination	2000   1/4" 3000   3/8" 4000   1/2"	Nil   Semi-Automatic Type D   Automatic Type
BC   B series Air Filter combination		

#### Symbol



#### Product feature

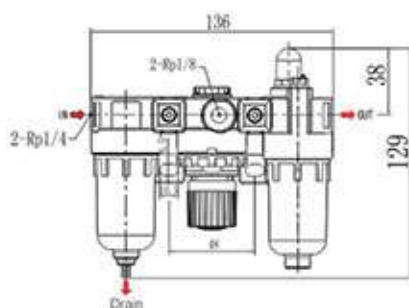
1. The structure is delicate and compact, which is convenient for installation and application.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interference.
3. The pressure loss is low and efficiency of water separating is high.
4. The quantity of oil dripping can be directly observed through transparent check-dome.

#### Technical Specification

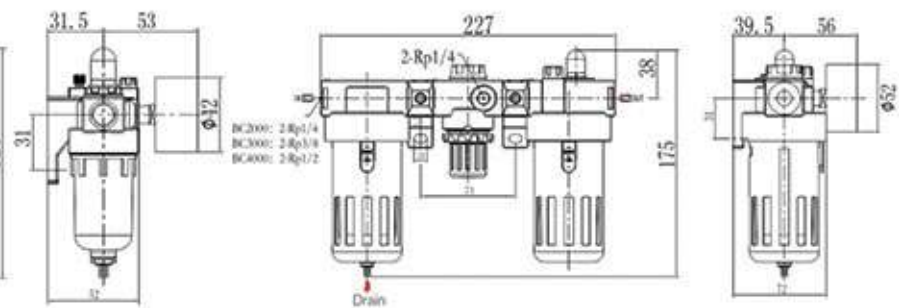
Model	AC2000	BC2000	BC3000	BC4000	
Working Medium	Air				
Port Size	PT1/4"	PT1/4"	PT3/8"	PT1/2"	
Filter Precision	40 μm Or 5 μm				
Range of Regulation	Automatic and Semi-Automatic: 0.15-0.9Mpa				
Max. operating pressure	1.0MPa				
Proof Pressure	1.5MPa				
Temperature Range	-5-60°C(Not Frozen)				
Water Cup Capacity	15CC	60CC			
Oil Cup Capacity	25CC	90CC			
Suggested Lubricating Oil	Turbine No. 1 Oil(ISO VG32)				
Weight(kg)	0.50kg	1.24kg			
Components	Filter	AF2000	BF2000	BF3000	BF4000
	Regulator	AR2000	BR2000	BR3000	BR4000
	Lubricator	AL2000	BL2000	BL3000	BL4000

#### Dimension(mm)

AC series



BC series



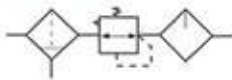
### A/B Series FR.L combination



#### Order Code

BFC		2000	M	
Series		Port Size	Drain Mode	
AFC	A series Air Filter combination	2000 1/4" 3000 3/8" 4000 1/2"	Nil	Semi-Automatic Type
BFC	B series Air Filter combination		D	Automatic Type

#### Symbol



#### Product feature

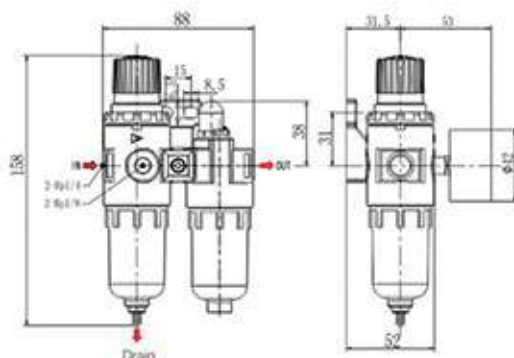
1. The structure is delicate and compact, which is convenient for installation and application.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interfere.
3. The pressure loss is low and efficiency of water separating is high.
4. The quantity of oil dripping can be directly observed through transparent check-dome.

#### Technical Specification

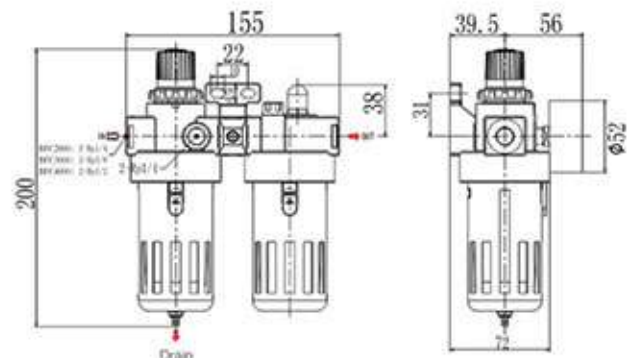
Model	AFC2000	BFC2000	BFC3000	BFC4000	
Working Medium	Air				
Port Size	PT1/4"	PT1/4"	PT3/8"	PT1/2"	
Filter Precision	40 μm Or 5 μm				
Range of Regulation	Automatic and Semi-Automatic: 0.15~0.9Mpa				
Max. operating pressure	1.0MPa				
Proof Pressure	1.5MPa				
Temperature Range	-5~60°C(Not Frozen)				
Water Cup Capacity	15CC	60CC			
Oil Cup Capacity	25CC	90CC			
Suggested Lubricating Oil	Turbine No. 1 Oil(ISO VG32)				
Weight(kg)	0.44kg	1.06kg			
Components	Filter-regulator	AFR2000	BFR2000	BFR3000	BFR4000
	Lubricator	AL2000	BL2000	BL3000	BL4000

#### Dimension(mm)

AFC series



BFC series



### A/B Series Air filter



### Order Code

BF		2000	-	M
Series	Port Size	Drain Mode		
AF   A series Air Filter	2000   1/4" 3000   3/8"	Nil	Semi-Automatic Type	
BF   B series Air Filter	4000   1/2"	M	Manual Type	
		D	Automatic Type	

### Symbol



### Product feature

AF series

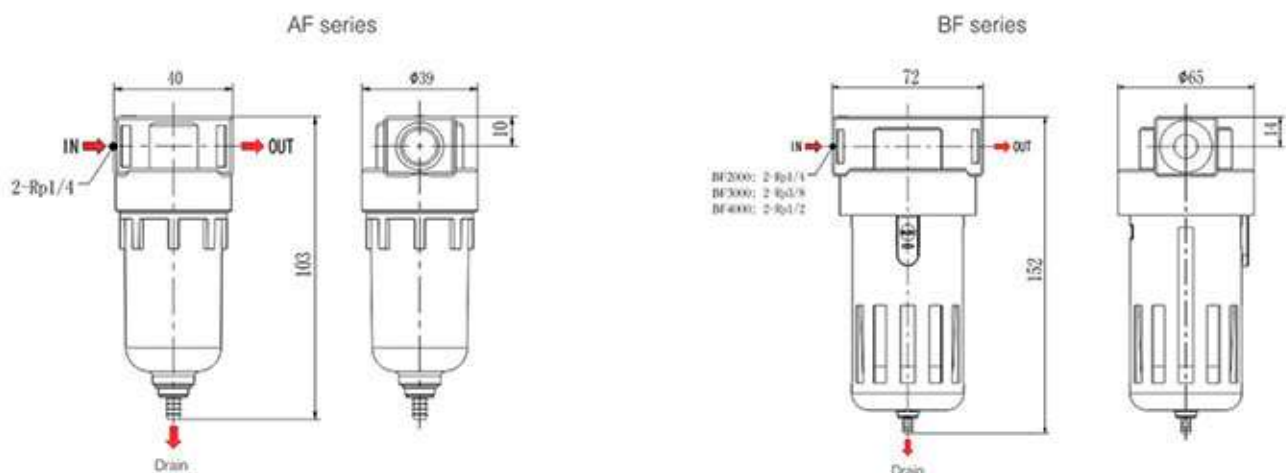
BF series

1. The structure is delicate and compact, which is convenient for installation and application.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interference.

### Technical Specification

Model	AF2000	BF2000	BF3000	BF4000
Working Medium	Air			
Port Size	PT1/4"	PT1/4"	PT3/8"	PT1/2"
Filter Precision	40 μm Or 5 μm			
Pressure Range	Automatic and Semi-Automatic: 0.15-1.0MPa(20-145Psi)			
Proof Pressure	1.5MPa(215Psi)			
Temperature Range	-5-60°C(Not Frozen)			
Water Cup Capacity	15CC	60CC		
Weight(kg)	0.12kg	0.42kg		

### Dimension(mm)



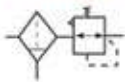
### A/B Series Air filter-regulator



#### Order Code

BFR	2000	-	□
Series	Port Size	Drain Mode	
AFR   A series Filter-regulator	2000   1/4" 3000   3/8" 4000   1/2"	Nil	Semi-Automatic Type
BFR   B series Filter-regulator		D	Automatic Type

#### Symbol



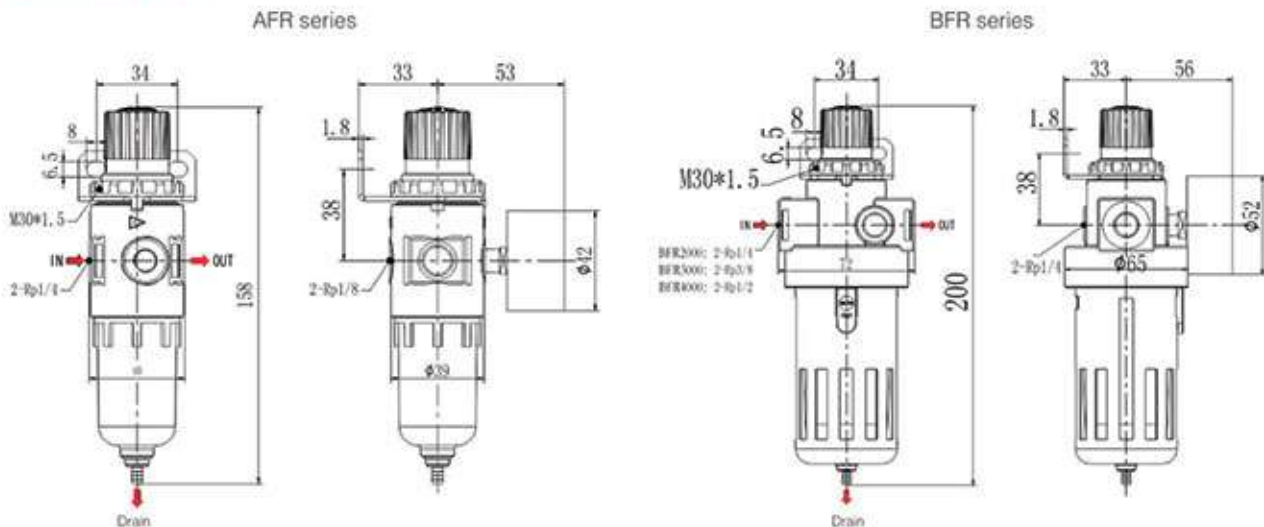
#### Product feature

1. The structure is delicate and compact, which is convenient for installation and application.
2. The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interfere.
3. The pressure loss is low and efficiency of water separating is high.
4. The quantity of oil dripping can be directly observed through transparent check-dome.

#### Technical Specification

Model	AFR2000	BFR2000	BFR3000	BFR4000
Working Medium	Air			
Port Size	PT1/4"	PT1/4"	PT3/8"	PT1/2"
Filter Precision	40 μm Or 5 μm			
Range of Regulation	Automatic and Semi-Automatic: 0.15-0.9MPa(20-130Psi)			
Max. operating pressure	1.0MPa(145Psi)			
Proof Pressure	1.5MPa(215Psi)			
Temperature Range	-5-60°C(Not Frozen)			
Water Cup Capacity	15CC	60CC		
Suggested Lubricating Oil	Turbine No. 1 Oil(ISO VG32)			
Weight(kg)	0.3kg	0.6kg		

#### Dimension(mm)



### A/B Series Air Regulator

### Order Code



BR		2000	
Series		Port Size	
AR	A series Regulator	2000	1/4"
		3000	3/8"
BR	B series Regulator	4000	1/2"

### Symbol



### Product feature

1. The structure is delicate and compact, which is convenient for installation and application .
- 2.The pressed-in self-locking mechanism can prevent the abnormal movement of the set pressure caused by external interfere.
- 3.The pressure loss is low and efficiency of water separating is high.

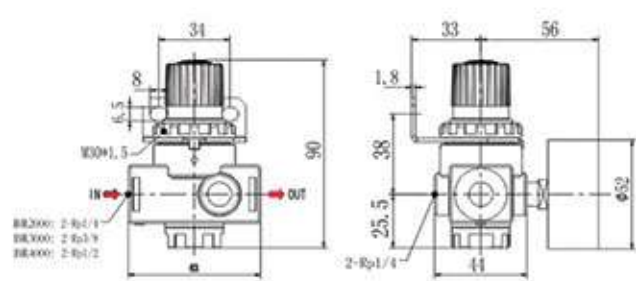
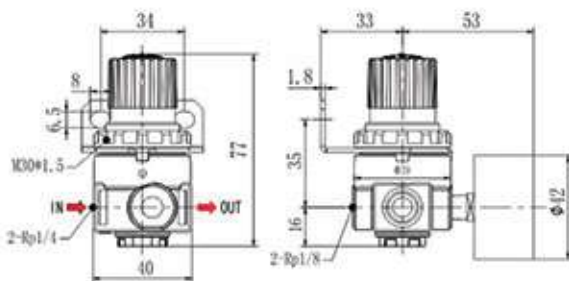
### Technical Specification

Model	AR2000	BR2000	BR3000	BR4000
Working Medium	Air			
Port Size	PT1/4"	PT1/4"	PT3/8"	PT1/2"
Pressure Range	0.05-0.9MPa			
Max. operating pressure	1.0MPa			
Proof Pressure	1.5MPa			
Temperature Range	-5-60°C(Not Frozen)			
Weight(kg)	0.22kg	0.34kg		

### Dimension(mm)

AR series

BR series



### A/B Series Lubricator

### Order Code



AL		2000	
Series	AL	Port Size	2000 1/4"
	A series		3000 3/8"
	Lubricator		4000 1/2"
Series	BL		
	B series		
	Lubricator		

### Symbol



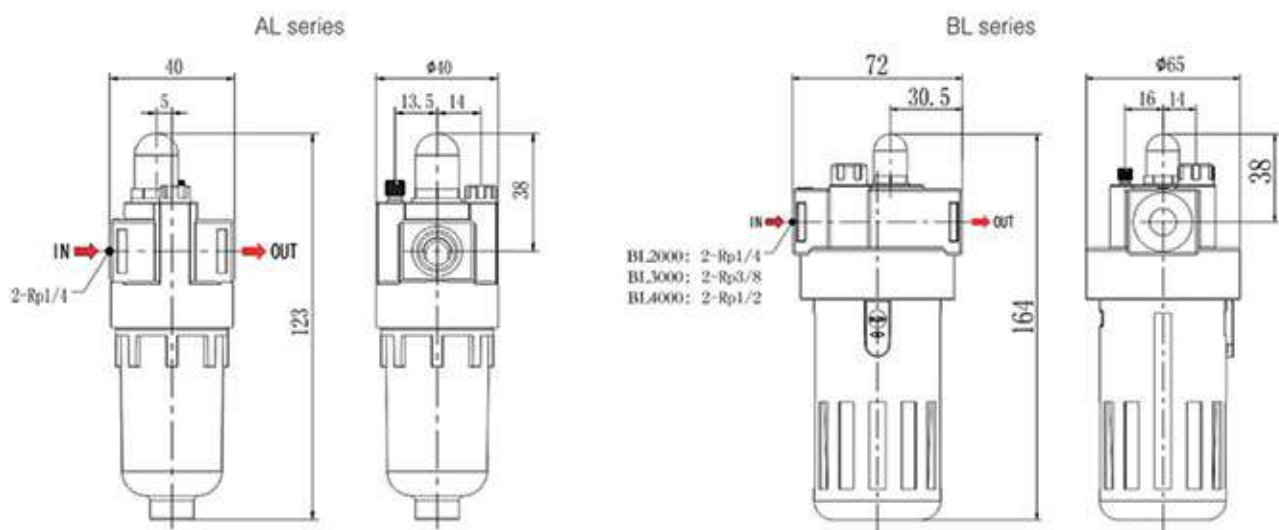
### Product feature

1. The structure is delicate and compact, which is convenient for installation and application .
2. The quantity of oil dripping can be directly observed through transparent inspection sheet.
3. The pressure loss and the flow of miststart is low

### Technical Specification

Model	AL2000	BL2000	BL3000	BL4000
Working Medium	Air			
Port Size	PT1/4"	PT1/4"	PT3/8"	PT1/2"
Pressure Range	0.05–1.0MPa			
Proof Pressure	1.5MPa			
Temperature Range	–5–60°C(Not Frozen)			
Oil Cup Capacity	25CC	90CC		
Suggested Lubricating Oil	Turbine No. 1 Oil(ISO VG32)			
Weight(kg)	0.17kg	0.44kg		

### Dimension(mm)



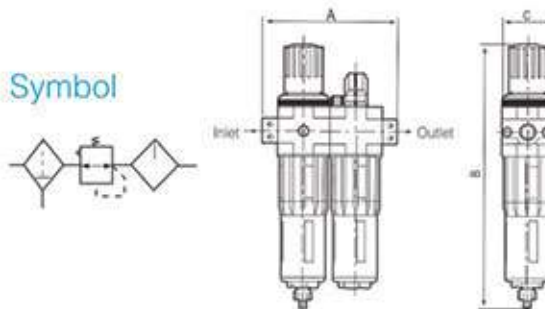
### FRC Series FR.L combination



#### Dimension ( mm )

Model	A	B	C
FRC-MIDI-02	140	268	55
FRC-MIDI-03			
FRC-MIDI-04			
FRC-MINI-01	104	210	40
FRC-MINI-02			
FRC-MINI-03			

#### Symbol



#### Technical Specification

Model	Components		Port Size Rp(PT)	Filter Accuracy	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description	
	Filter-Regulator	Lubricator						
FRC-MINI	01	LFR-MINI	LOE-MINI	1/8"	40 μm	700	0.15~1.2	Manual drain type Ambient Temperature: -5~60°C(Not Frozen) Suggested Lubricating Oil: Turbine No. 1 Oil(ISO VG32) Optional filter accuracy 5 μm
	02							
	03							
FRC-MIDI	02	LFR-MIDI	LOE-MIDI	1/4"	1500			
	03			2000				
	04			2600				

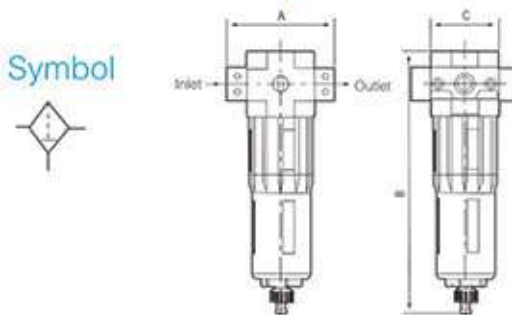
### LF Series Air filter



#### Dimension ( mm )

Model	A	B	C
LF-MIDI-02	85	195	55
LF-MIDI-03			
LF-MIDI-04			
LF-MINI-01	64	161	40
LF-MINI-02			
LF-MINI-03			

#### Symbol



#### Technical Specification

Model	Port Size Rp(PT)	Filter Accuracy	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
LF-MINI	01	40 μm	1000	0.15~1.2	Manual drain type Ambient Temperature: -5~60°C(Not Frozen) Optional filter accuracy 5 μm
	02		1200		
	03		1400		
LF-MIDI	02	40 μm	1900		
	03		2700		
	04		3000		

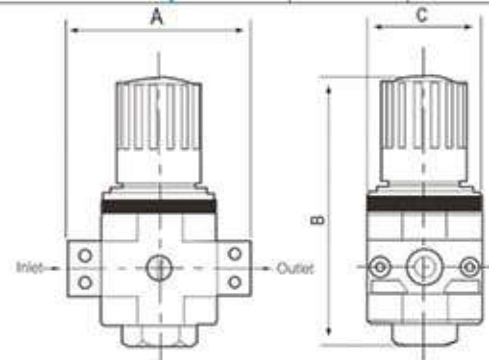
### LR Series Air Regulator



#### Dimension ( mm )

Model	A	B	C
LR-MIDI-02	85	128	55
LR-MIDI-03			
LR-MIDI-04			
LR-MINI-01	64	96	40
LR-MINI-02			
LR-MINI-03			

#### Symbol



#### Technical Specification

Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
LR-MINI	01	1/8"	1000	Ambient Temperature: -5~60°C(Not Frozen)
	02	1/4"	1600	
	03	3/8"	1800	
LR-MIDI	02	1/4"	2200	
	03	3/8"	3300	
	04	1/2"	4000	

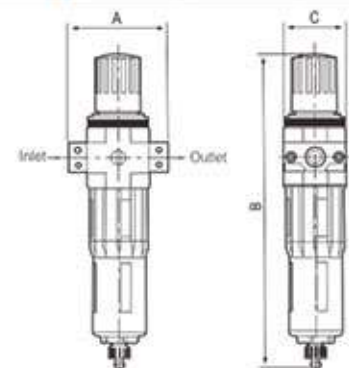
### LFR Series Air filter-regulator



#### Dimension(mm)

Model	A	B	C
LFR-MIDI-02	85	268	55
LFR-MIDI-03			
LFR-MIDI-04			
LFR-MINI-01	64	210	40
LFR-MINI-02			
LFR-MINI-03			

#### Symbol



#### Technical Specification

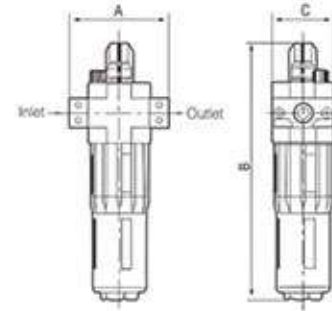
Model	Port Size Rp(PT)	Filter Accuracy	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
LFR-MINI	01	40 μm	750	0.15~1.2	Manual drain type Ambient Temperature: -5~60°C(Not Frozen) Optional filter accuracy 5 μm
	02		1400		
	03		1600		
LFR-MIDI	02		2000		
	03		3100		
	04		3400		

### LOE Series Lubricator



#### Dimension ( mm )

Model	A	B	C
LOE-MIDI-02	85	208	55
LOE-MIDI-03			
LOE-MIDI-04			
LOE-MINI-01	64	169	40
LOE-MINI-02			
LOE-MINI-03			



#### Symbol



#### Technical Specification

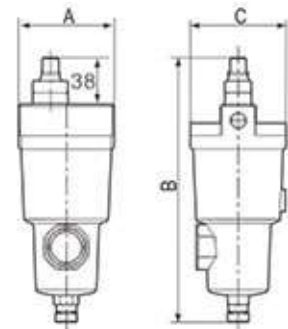
Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Min.Flow L/min	Pressure Range MPa	Options/Description
LOE-MINI	01	1/8"	1300	0.15~1.2	Ambient Temperature: -5~60°C(Not Frozen) Suggested Lubricating Oil: Turbine No. 1 Oil(ISO VG32)
	02	1/4"	2300		
	03	3/8"	2700		
LOE-MIDI	02	1/4"	2800		
	03	3/8"	5500		
	04	1/2"	6100		

### AMD Series Micro Mist Separator AMG Series Water Separator



#### Dimension ( mm )

TYPE	A	B(with T)	C
AMD150-01/02	63	195	67
AMD250-02/03	76	210	76
AMD350-03/04	90	240	90
AMD450-04/06	105	263	105
AMD550-06/10	122	295	122



#### Technical Specification

Model	Filter Port	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description	
AMD/AMG150	0.01 μm (Remove 95%)	01/02	1/8 / 1/4"	200	Manual drain type D automatic drain type T select with indicator Ambient Temperature: -5~60°C(Not Frozen) Bracket: BM51-BM55 optional	
		03	3/8"			
AMD/AMG250		02/03	1/4 / 3/8"	500		
		04	1/2"			
AMD/AMG350		03/04	3/8 / 1/2"	1000		0.15~0.85
AMD/AMG450		04/06	1/2 / 3/4"	2000		
AMD/AMG550	06/10	3/4 / 1"	3500			

When the flow is lower than 300L/min, please be sure to select normal closed type, the auto drain may always keep haust if select normal opened type.

### IR Series Precision Regulator



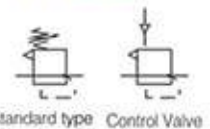
#### Specifications

Sensitivity	within 0.2% of full span	
Repeatability	within +- 0.5% of full span	
Air consumption	IR2000	MAX flow rate 3.5L/min(ANR) under 1.0MPa pressure
	IR3000	Exhaust hole max flow rate 3L/min (ANR) under Max setting pressure
Ambient Temperature	-5~60°C(Not Frozen)	
Max. operating pressure	1.0MPa	
Pressure Gauge Port Size	G1/8	

#### Product feature

small volume, light weight  
 Regulating screw space width is 0.5MM  
 Accurate Pressure setting  
 Install convenience , it can install with bracket separately , or install with modular air filter combine components AF an AFM directly

#### Symbol



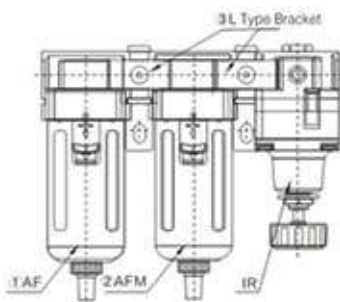
#### Order Code

IR	3	0	0	0	-	□	02	G	-	R
Series Code Precision Regulator	Body Size 1 IR1000 Series 2 IR2000 Series 3 IR3000 Series	Set Type 0 Basic Model (manual) 1 Control Valve (r2000,ir3000 Series)	Pressure Range IR1000/2000 series setting 0 0.005~0.2MPa 1 0.01~0.4MPa 2 0.01~0.8MPa IR3000 Series Setting 0 0.01~0.2MPa 1 0.01~0.4MPa 2 0.01~0.8MPa	Bracket Code Nil With Bracket J Without Bracket	Pipe Thread Type R G N NPT blank Rc	Port Size 01 1/8(ONLY IR1000) 02 1/4(ONLY IR2, 3000) 03 3/8(ONLY IR3000) 04 1/2(ONLY IR3000)	Accessories Blank B With Bracket G With Gauge	Remark Blank R Standard Mounting Pressure Gauge, bracket Label Stick In Back		

Note: The Standard Mounting Position Should Be In Side On The Left, Out Side On The Right. Pressure Gauge And Label In Front And Back, And Mounting Bracket Back.

#### Technical Specification

Model	Basic Model		
	IR10□0	IR20□0	IR30□0
Max supply pressure	MAX.1.0MPa		
Min supply pressure	Set Pressure +0.05mpa		Set Pressure+0.1mpa
Pressure Range	IR1000:0.005~0.2MPa IR1010:0.01~0.4MPa IR1020:0.01~0.8MPa	IR2000:0.005~0.2MPa IR2010:0.01~0.4MPa IR2020:0.01~0.8MPa	IR3000:0.01~0.2MPa IR3010:0.01~0.4MPa IR3020:0.01~0.8MPa
Input signal pressure	-		
Sensitivity	within 0.2% of full span		
Repeatability	within +- 0.5% of full span		
Straightness	-		
Air consumption(Supply pressure)	4.4L/min(ANR)within	4.4L/min(ANR)within	11.5L/min(ANR)within
Port Size	Rc1/8	Rc1/4	Rc1/4,3/8,1/2
Pressure Gauge Port Size	Rc1/8(2point)		
Environment And Fluid Temperature	-5~60°C(Not Frozen)		
Weight(kg)	0.36kg	0.44kg	0.88kg

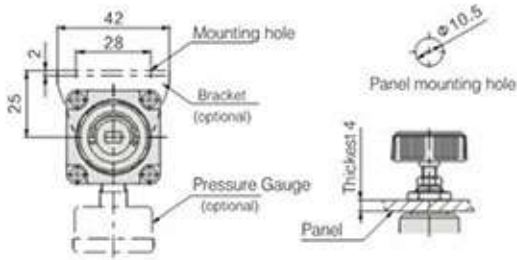


#### Install In Modular Air Filter Combine Components

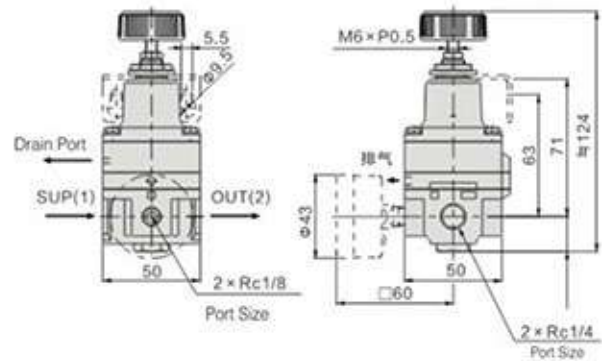
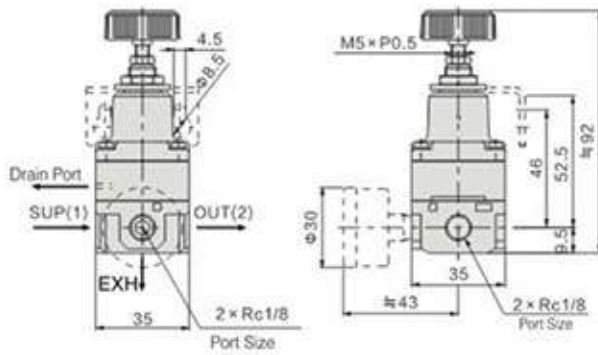
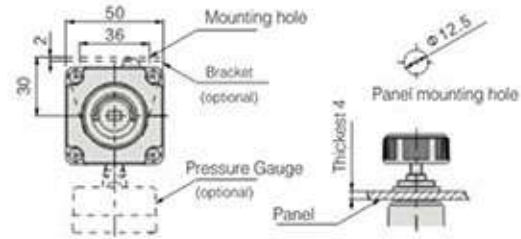
Applicable Products And Accessories	Applicable Models	
	IR20□0	IR30□0
① Air Filter	AF2000	AF3000
② Air lubricator	AFM2000	AFM3000
③ L Type Bracket	B210L	B310L
④ T Type Bracket	B210T	B310T
⑤ Spacer	Y20	Y30
⑥ L shape bracket spacer	Y20L	Y30L
⑦ T shape bracket spacer	Y20T	Y30T

### Dimension (mm)

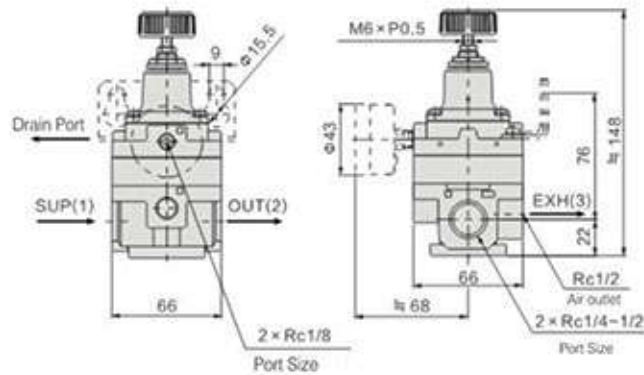
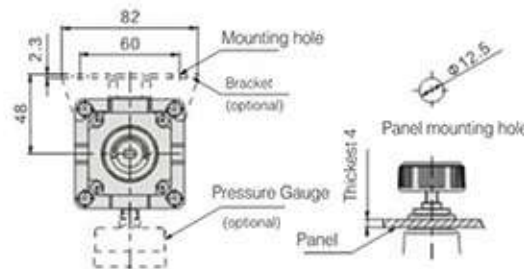
IR10□0-01



IR20□0-01



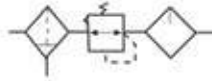
IR30□0-0□



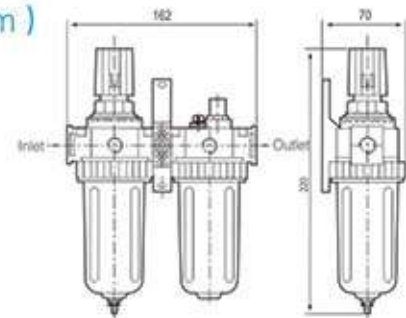
### SFC Series Two-point combination



Symbol



Dimension ( mm )



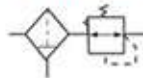
#### Technical Specification

Model	Components		Port Size Rp(PT)	Filter Accuracy	Proof pressure MPa	Pressure Range MPa	Options/Description
	Filter-Regulator	Lubricator					
SFC-200	SFR-200	SL-200	1/4"	40 μm	1.5	0.15~0.85	Ambient Temperature: -5~60°C(Not Frozen) Environment current temperature: Turbine No. 1 Oil(ISO VG32) Optional filter accuracy 5
SFC-300	SFR-300	SL-300	3/8"				
SFC-400	SFR-400	SL-400	1/2"				

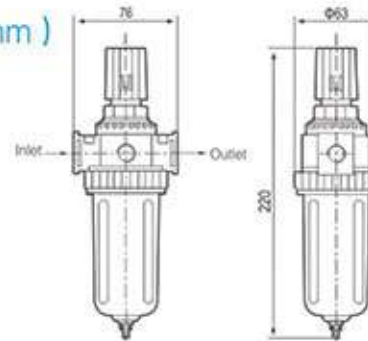
### SFR Series Air filter-regulator



Symbol



Dimension ( mm )



#### Technical Specification

Model	Port Size Rp(PT)	Filter Accuracy	Proof pressure MPa	Pressure Range MPa	Options/Description
SFR-200	1/4"	40 μm	1.5	0.15~0.85	Ambient Temperature: -5~60°C(Not Frozen) Environment current temperature: Turbine No. 1 Oil(ISO VG32) Optional filter accuracy 5
SFR-300	3/8"				
SFR-400	1/2"				

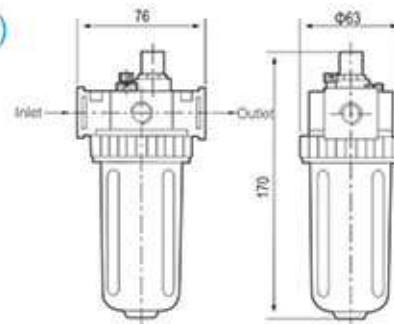
### SL Series Lubricator



Symbol



Dimension(mm)



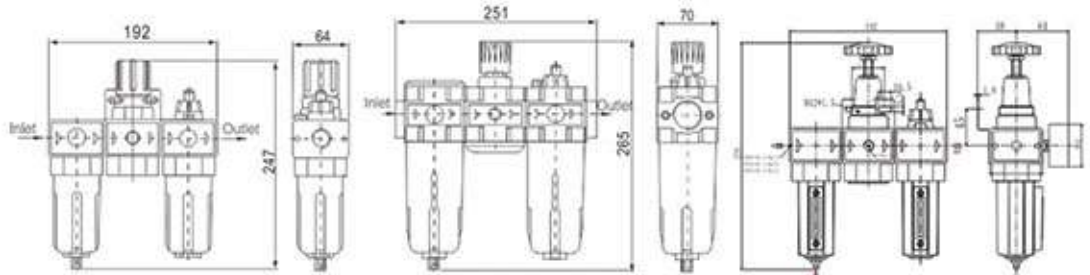
#### Technical Specification

Model	Port Size Rp(PT)	Oil drop amount L/min(ANR)	Proof pressure MPa	Pressure Range MPa	Options/Description
SL-200	1/4"	0~30	1.5	0.15~0.85	Environment current temperature: -5~60°C(Not Frozen)
SL-300	3/8"	0~40			
SL-400	1/2"	0~45			

### UFRL Series Three-point combination



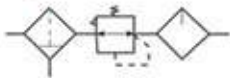
Dimension ( mm )



UFRL-02/03/04

UFRL-06/08

#### Symbol



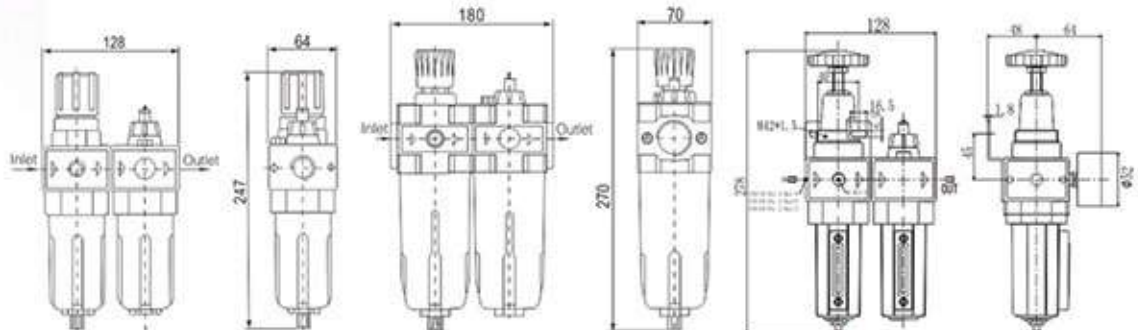
#### Technical Specification

Model	Components			Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
	Filter	Regulator	Lubricator				
UFRL-02	UF-02	UR-02	UL-02	1/4"	2080	0.15~0.85	Semi-Automatic Type(standard type) D:Automatic Type H: High pressure series Ambient Temperature: -5~60°C(Not Frozen) Suggested Lubricating Oil: Turbine No. 1 Oil(ISO VG32)
UFRL-03	UF-03	UR-03	UL-03	3/8"	2100		
UFRL-04	UF-04	UR-04	UL-04	1/2"	2600		
UFRL-06	UF-06	UR-06	UL-06	3/4"	7940		
UFRL-08	UF-08	UR-08	UL-08	1"	8200		

### UFR/L Series Two-point combination



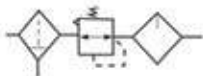
Dimension ( mm )



UFR/L-02/03/04

UFR/L-06/08

#### Symbol

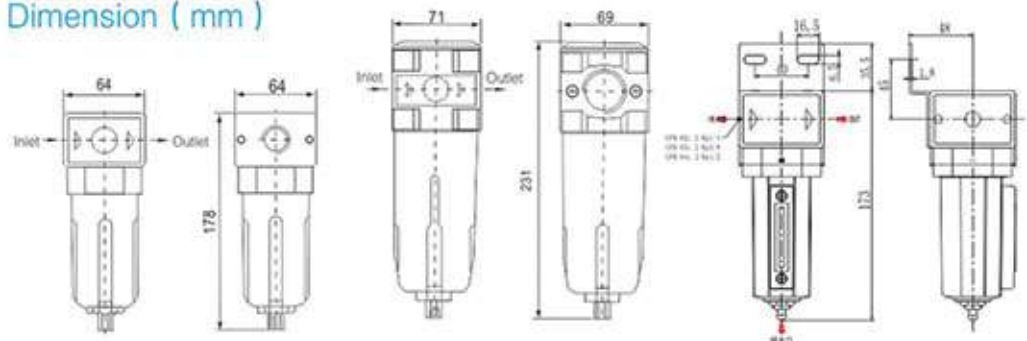


#### Technical Specification

Model	Components		Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
	Filter-Regulator	Lubricator				
UFR/L-02	UFR-02	UL-02	1/4"	2080	0.15~0.85	Semi-Automatic Type(standard type) D:Automatic Type H: High pressure series Ambient Temperature: -5~60°C(Not Frozen) Suggested Lubricating Oil: Turbine No. 1 Oil(ISO VG32)
UFR/L-03	UFR-03	UL-03	3/8"	2100		
UFR/L-04	UFR-04	UL-04	1/2"	2600		
UFR/L-06	UFR-06	UL-06	3/4"	7940		
UFR/L-08	UFR-08	UL-08	1"	8200		

### UF Series Air filter

Dimension ( mm )



UF-02/03/04

UF-06/08

#### Symbol

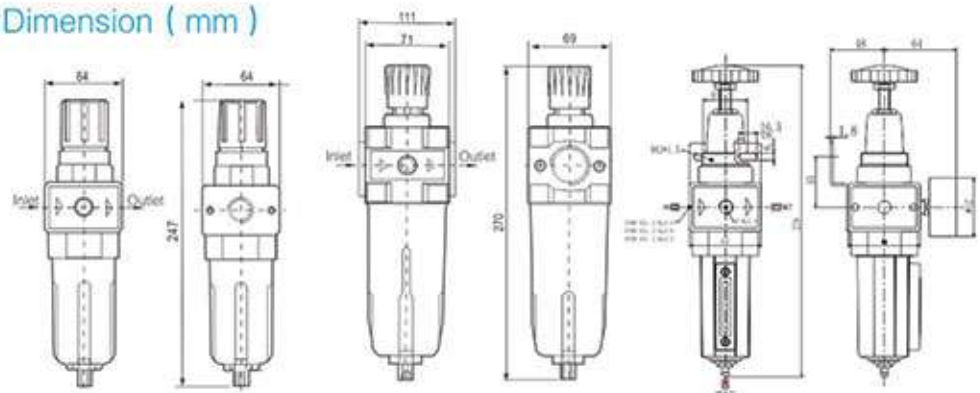


#### Technical Specification

Model	Port Size Rp(PT)	Filter Accuracy	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
UF-02	1/4"	40 μ m	2440	0.15~0.85	Semi-Automatic Type(standard type) D:Automatic Type H: High pressure series Suggested Lubricating Oil: Turbine No. 1 Oil(ISO VG32)
UF-03	3/8"		2450		
UF-04	1/2"		3030		
UF-06	3/4"		8250		
UF-08	1"		8860		

### UFR Series Air filter-regulator

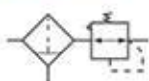
Dimension ( mm )



UFR-02/03/04

UFR-06/08

#### Symbol

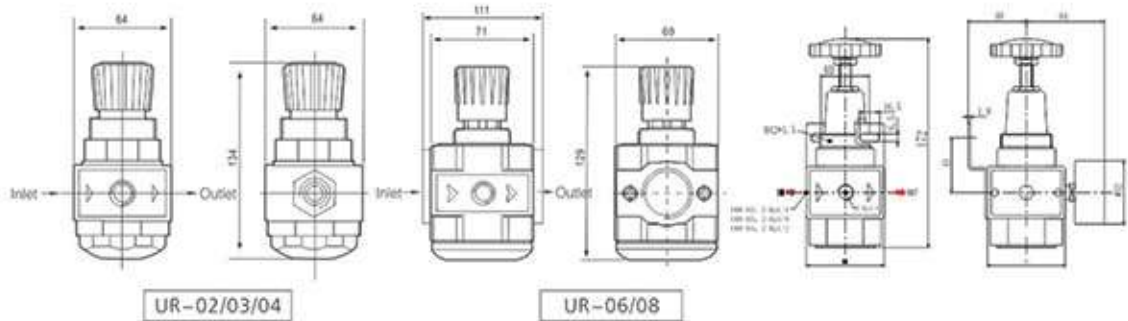


#### Technical Specification

Model	Port Size Rp(PT)	Filter Accuracy	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
UFR-02	1/4"	40 μ m	2080	0.15~0.85	Semi-Automatic Type(standard type) D:Automatic Type H: High pressure series Suggested Lubricating Oil: Turbine No. 1 Oil(ISO VG32)
UFR-03	3/8"		2100		
UFR-04	1/2"		2600		
UFR-06	3/4"		7940		
UFR-08	1"		8200		

### UR Series Air filter-regulator

Dimension ( mm )



Symbol

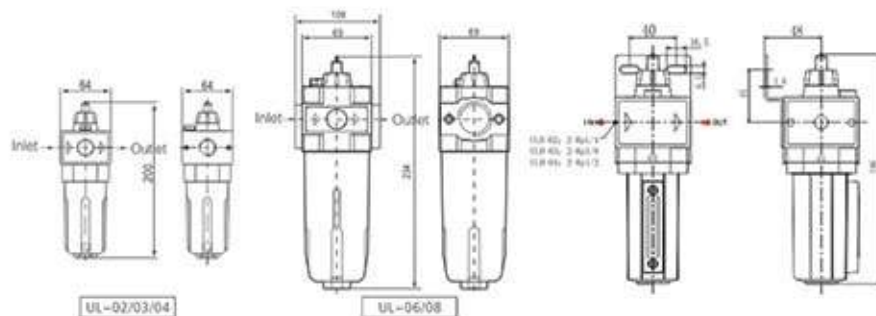


### Technical Specification

Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
UR-02	1/4"	2100	0.15~0.85	Semi-Automatic Type(standard type) D:Automatic Type H: High pressure series Ambient Tem peratur : -5~60°C(Not Frozen)
UR-03	3/8"	2130		
UR-04	1/2"	2750		
UR-06	3/4"	8000		
UR-08	1"	8500		

### UL Series Lubricator

Dimension ( mm )



Symbol



### Technical Specification

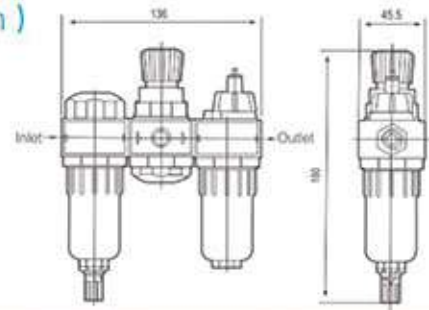
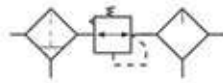
Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
UL-02	1/4"	2490	0.15~0.85	H: High pressure series Ambient Tem peratur : -5~60°C(Not Frozen) Suggested Lubricating Oil: Turbine No. 1 Oil(ISO VG32)
UL-03	3/8"	2525		
UL-04	1/2"	4310		
UL-06	3/4"	8400		
UL-08	1"	9000		

### FRL700A Three-point combination



Dimension ( mm )

Symbol



#### Technical Specification

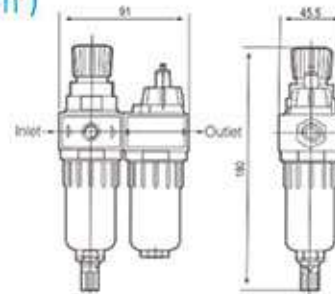
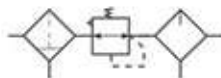
Model	Components			Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
	Filter	Regulator	Lubricator				
FRL700A-01	F200A	R200A	L200A	1/8"	1850	0.15~0.85	Semi-Automatic Type(standard type) Ambient Temperature: -5~60°C(Not Frozen) Suggested Lubricating Oil: Turbine No. 1 Oil(ISO VG32)
FRL700A-02	F200A	R200A	L200A	1/4"	1850		

### FRL600A Two-point combination



Dimension ( mm )

Symbol



#### Technical Specification

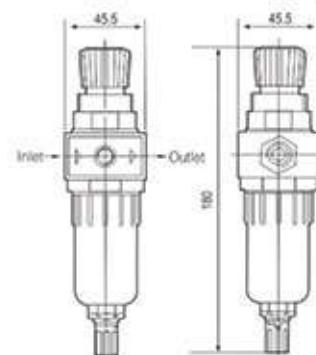
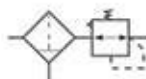
Model	Components		Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
	Filter-Regulator	Lubricator				
FRL600A-01	FR500A	L200A	1/8"	1650	0.15~0.85	Semi-Automatic Type(standard type) Ambient Temperature: -5~60°C(Not Frozen)
FRL600A-02	FR500A	L200A	1/4"	1850		

### FR500A Air filter-regulator

Dimension ( mm )



Symbol



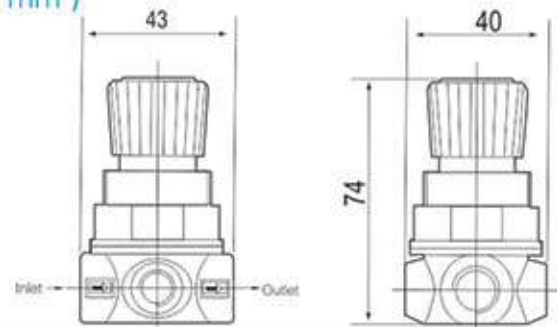
#### Technical Specification

Model	Port Size Rp(PT)	Filter Accuracy	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
FR500A-01	1/8"	40 μm	1840	0.15~0.85	Semi-Automatic Type(standard type) Optional filter accuracy 5 Ambient Temperature: -5~60°C(Not Frozen)
FR500A-02	1/4"		1940		

### NR200/R200 Air Regulator Dimension ( mm )



Symbol



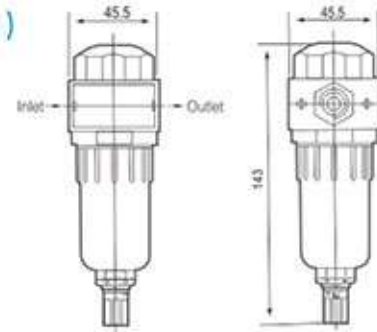
#### Technical Specification

Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
NR200-02	1/4"	550	0.15~0.85	B installed fixed frame G with pressure gauge Ambient Tem peratur: -5~60°C(Not Frozen) CU safety valve, when the pressure is higher than the set pressure, automatic pressure relief
NR200-CU	1/4"	1000		
R200-02	1/4"	1200		

### F200A Air filter Dimension ( mm )



Symbol



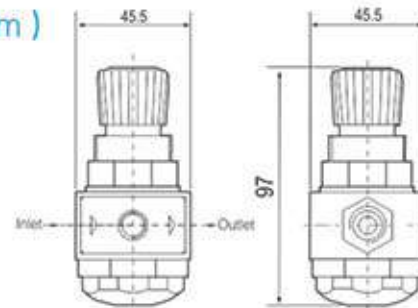
#### Technical Specification

Model	Port Size Rp(PT)	Filter Accuracy	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
F200A-01	1/8"	40 μ m	1900	0.15~0.85	Semi-Automatic Type(standard type) Optional filter accuracy 5 Ambient Tem peratur: -5~60°C(Not Frozen)
F200A-02	1/4"		1900		

### R200A Air Regulator Dimension ( mm )



Symbol



#### Technical Specification

Model	Port Size Rp(PT)	Max. Flow L/min(ANR)	Pressure Range MPa	Options/Description
R200A-02	1/4"	1546	0.15~0.85	B installed fixed frame G with pressure gauge Ambient Tem peratur: -5~60°C(Not Frozen)

4000-5000 Explosion proof aluminum cup

SHAKO Series Aluminum cup

BP Series Automatic drain



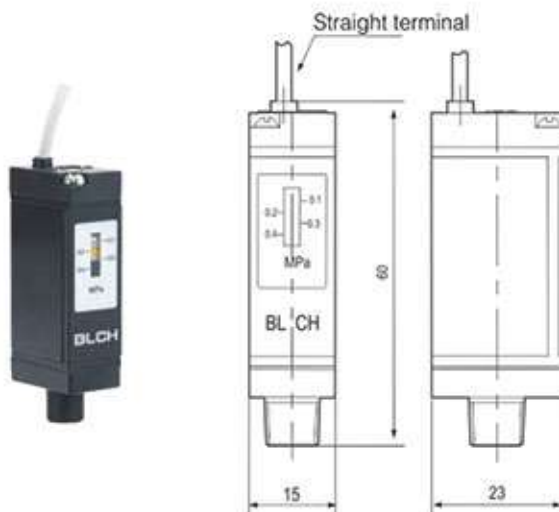
### Product feature

- 1.Can replace the traditional PC cups
- 2.Applicable for PH and corrosive high places
- 3.Equipped with a safety catch and glass observation tube
- 4.4mm thickness design than the traditional PC cups of strong resistance to pressure, to ensure the safety of personnel and equipment
- 5.Removing easy to install, easy to clean

### Product feature

- 1.Active cleaning of water and oil in air pipeline, prolong the service life of air parts
- 2.No need to plug in, Light weight shape, Easy to install without space constraints
- 3.Operating pressure
- 4.Operating water volume: 10-15cc/time

## IS1000 Series Pressure switch



### Technical Specification

Model	IS1000-01
Proof Pressure	1Mpa(10kgf/cm <sup>2</sup> )
Max. operating pressure	0.7Mpa(7kgf/cm <sup>2</sup> )
Setting pressure range	0.1~0.4Mpa(1~4kgf/cm <sup>2</sup> )
Pressure difference	0.8kgf/cm <sup>2</sup> within
Contact	1a
Electrical current temperature	Direct line type
Fluid	Air
Ambient Temperature	-5~60°C(Not Frozen)
Port Size	Rp(PT)1/8(Male thread)

### Pressure switch feature

Maximum capacity of contacts	2VAC, 2WDC		
Voltage	24VAC, DC within	48VAC, DC	100VAC, DC
Maximum current	50mA	40mA	20mA
Vibration resistance	30G		



# BLCH CONTROL COMPONENTS

控制元件



## 3V series Solenoid Valve



### Symbol



### Technical Specification

Model	Port Size Rc(G)	Coil and Postions	Ways	Pressure Range MPa
3V1	M5	M5	3/2 way	0.15-0.8
	06	1/8"		
3V110	M5	M5		
	06	1/8"		
3V120	M5	M5		
	06	1/8"		
3V210	06	1/8"		
	08	1/4"		
3V220	06	1/8"		
	08	1/4"		
3V310	08	1/4"		
	10	3/8"		
3V320	08	1/4"		
	10	3/8"		
3V410	10	3/8"		
	15	1/2"		
3V420	10	3/8"		
	15	1/2"		

### Order Code

3V 2 10 08 NO □ □ □

model code	Series	Electric control mode	Port Size	Initial state	Voltage	Connecting Type	Port Size
3V:3/2 way	1.100 series 2.200 series 3.300 series 4.400 series	10:Double positions single electric control  20:Double positions double electric control	M5 M5 06 1/8" 08 1/4" 10 3/8" 15 1/2"	NC:Normally closed type NO:Normally open type	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	NIL:Plug Type I:Wiring type	Nil:G Port PT Port NPT



## 4V series Solenoid Valve



### Symbol



### Technical Specification

Model	Port Size Rc(G)	Coil And Postions	Ways	Pressure Range MPa
4V110	M5	M5	Single Coil Double Positions	0.15~0.8
	06	1/8"		
4V120	M5	M5	Double Coils Double Positions	
	06	1/8"		
4V210	06	1/8"	Single Coil Double Positions	
	08	1/4"		
4V220	06	1/8"	Double Coils Double Positions	
	08	1/4"		
4V310	08	1/4"	Single Coil Double Positions	
	10	3/8"		
4V320	08	1/8"	Double Coils Double Positions	
	10	1/4"		
4V410	10	3/8"	Single Coil Double Positions	
	15	1/2"		
4V420	10	3/8"	Double Coils Double Positions	
	15	1/2"		
4V130	M5	M5	Double Coil Three Positions	0.15~0.8 C : Closed Type E : Exhaust type P : Pressurized Type
	06	1/8"		
4V230	06	1/8"	Double Coil Three Positions	
	08	1/4"		
4V330	08	1/8"	Double Coil Three Positions	
	10	3/8"		
4V430	10	3/8"	Double Coil Three Positions	
	15	1/2"		

### Order Code

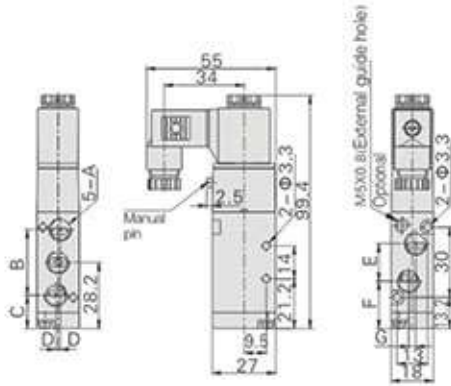
4V 2 10 08 □ □ □

model code	Series	Electric control mode	Port Size	Voltage	Connecting Type	Port Size
4V: 5/2 way 5/3 way	1.100 series 2.200 series 3.300 series 4.400 series	10:Double positions single electric control 20:Double positions double electric control 30C:Three positions double electric control closed type 30E:Three positions double electric control exhaust type 30P:Three positions double electric control Pressurized type.	M5 M5 06 1/8" 08 1/4" 10 3/8" 15 1/2"	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	Nil:DIN Plug Type I:Wiring type	Nil:G Port PT Port NPT

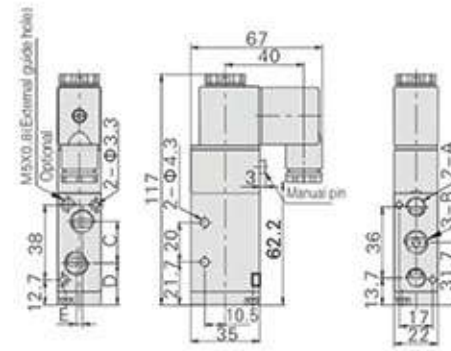
Air Source Treatment  
 Control Components  
 Auxiliary Components  
 Executive Components  
 Accessories

## Dimension ( mm )

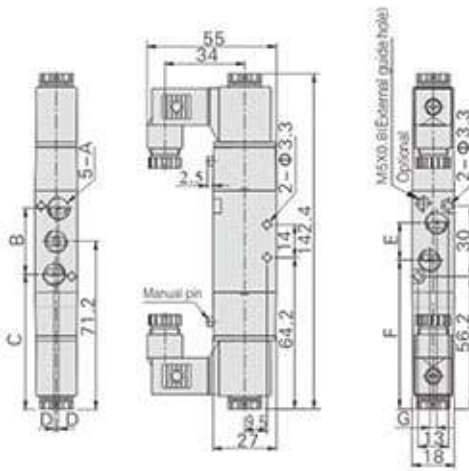
### 4V110DIN Plug Type



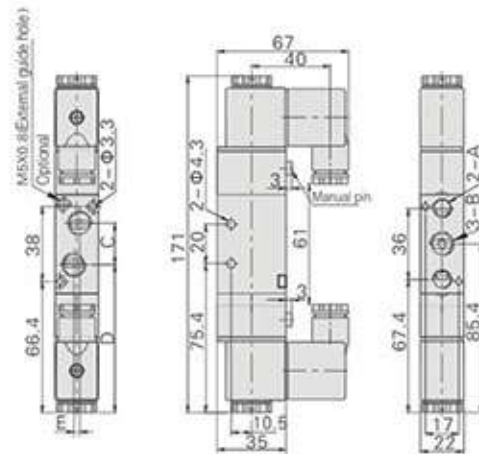
### 4V210DIN Plug Type



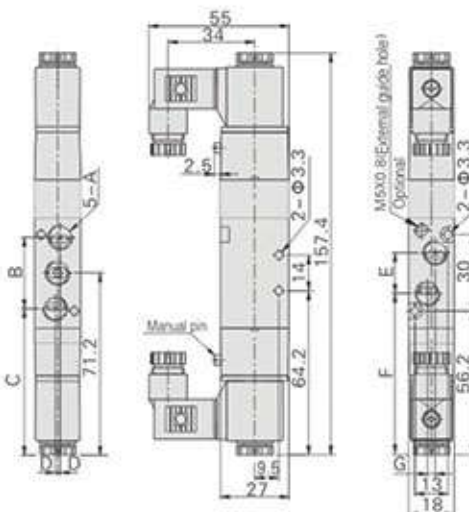
### 4V120DIN Plug Type



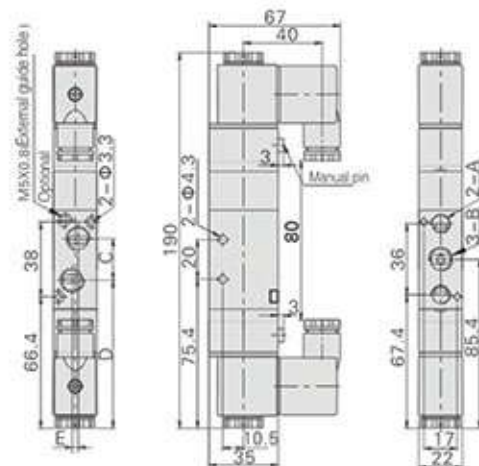
### 4V220DIN Plug Type



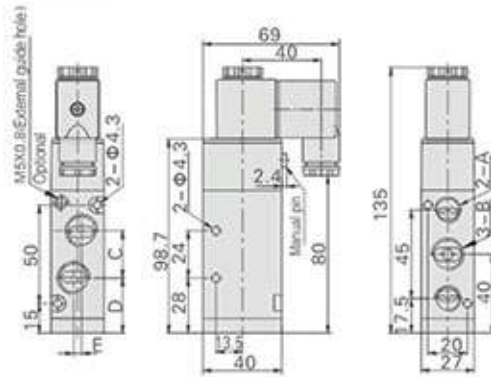
### 4V130DIN Plug Type



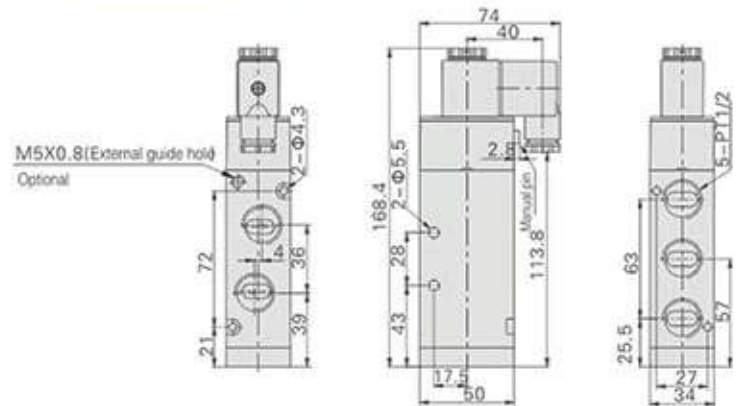
### 4V230DIN Plug Type



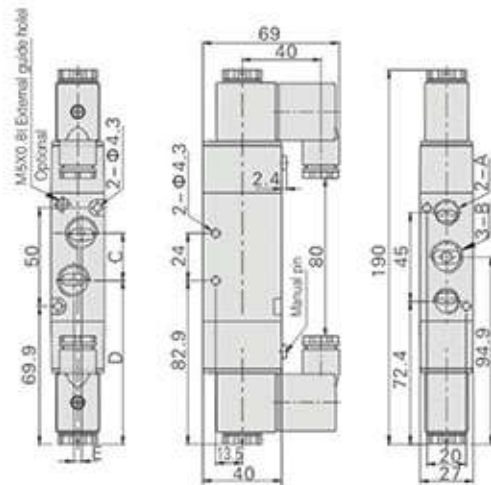
### 4V310DIN Plug Type



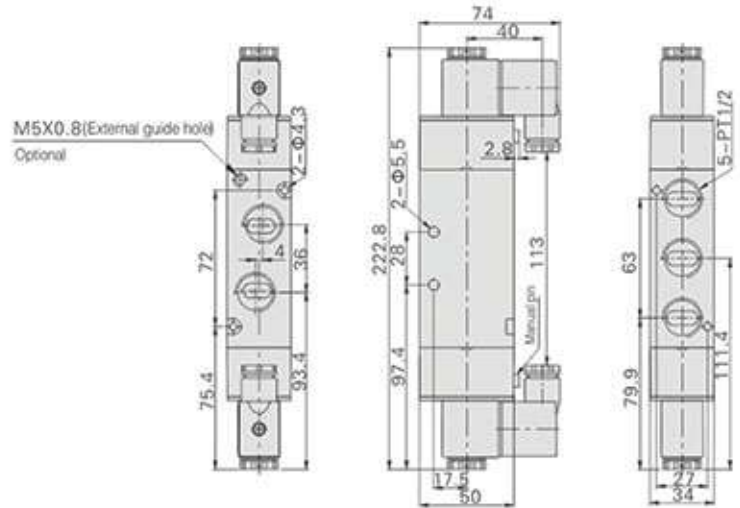
### 4V410DIN Plug Type



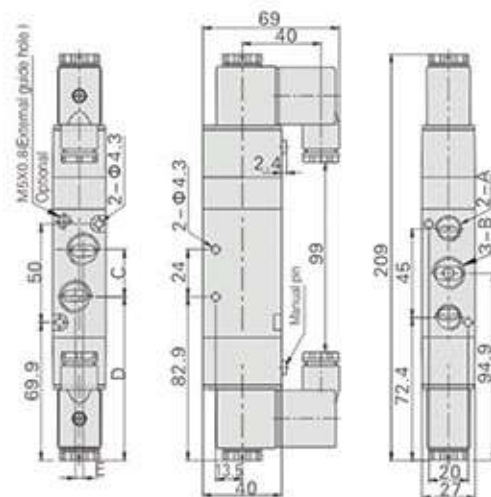
### 4V320DIN Plug Type



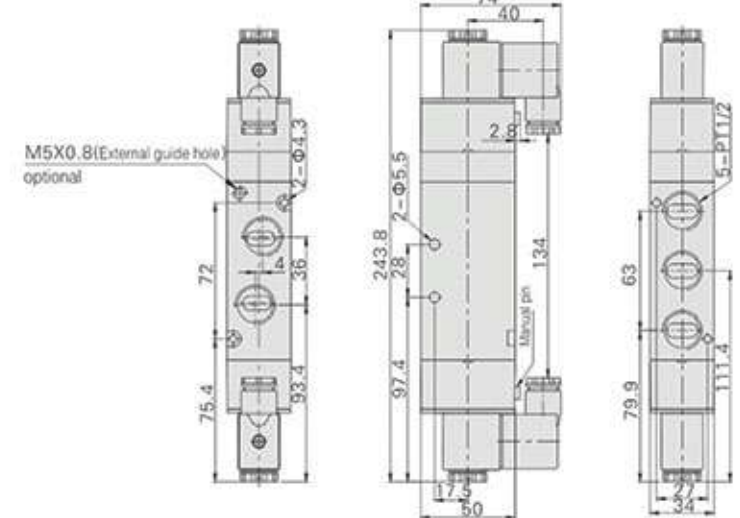
### 4V420DIN Plug Type



### 4V330DIN Plug Type



### 4V430DIN Plug Type



Air Source Treatment

Control Components

Auxiliary Components

Exhaustive Components

Accessories

## 6V series Solenoid Valve

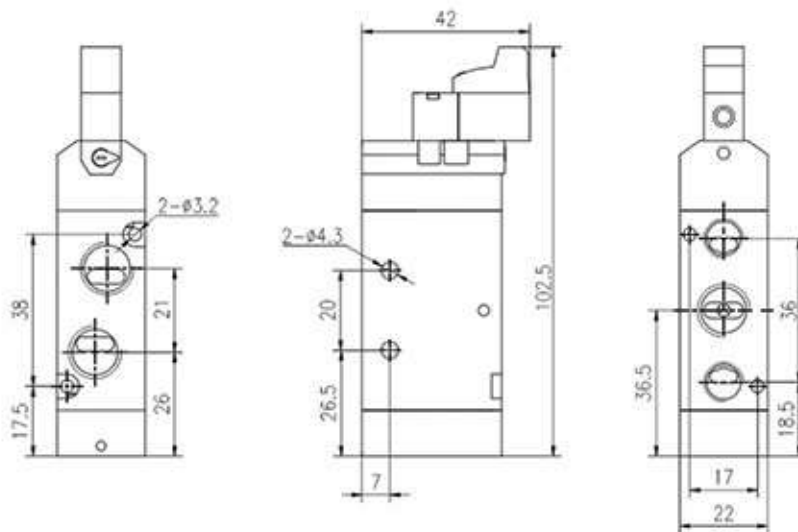
### Symbol



### Technical Specification

Model	Port Size	Positions	Max. Operating Frequency	Response time (ms/0.5 Mpa Time)	Pressure Range	Working Temperature	Working Medium	Action Mode	Energy consumption value	Pressure Range	Protection level	Heat resistance grade	lubrication
110	110	5/2 way	5	20	0.15-0.7MPa	-5-60°C (Not Frozen)	Air	Internal Pilot Type	12W (optional)	AC: ± 15% DC: ± 10%	Dustproof	B	No need
	120		5										
	130	5/3 way	3										
	130E		3										
	130P		3										
210	210	5/2 way	5										
	220		5										
	230C	5/3 way	3										
	230E		3										
	230P		3										

### Dimension ( mm )



## 4M series Solenoid Valve

### Symbol



### Technical Specification

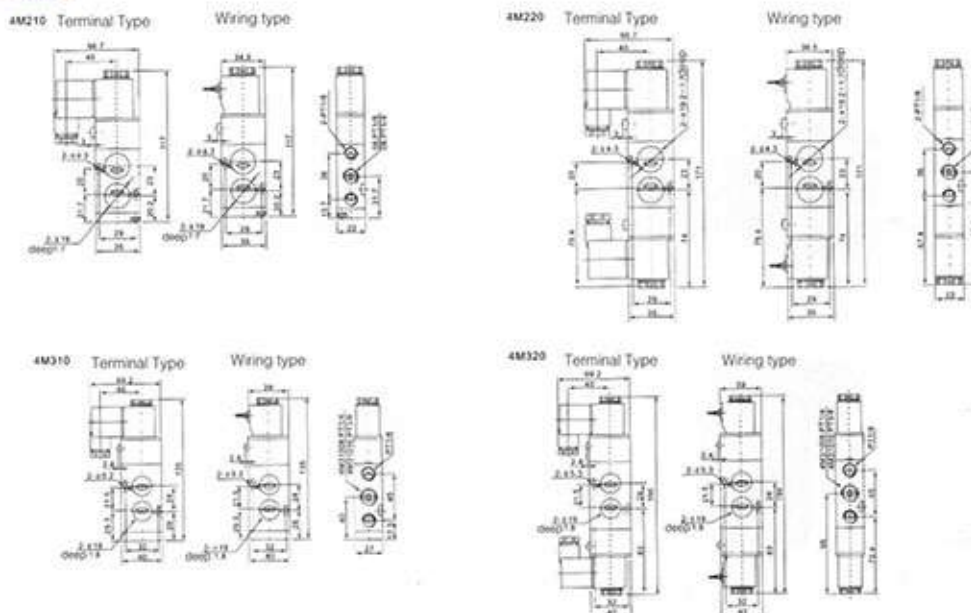
Model	Port Size Rc(G)	Coil and Postions	Ways	Pressure Range MPa
4M210	06	Single coil double positions	5/2 way	0.15~0.8
	08			
4M220	06	Double coils double positions	5/2 way	
	08			
4M310	08	Single coil double positions	5/2 way	
	10			
4M320	08	Double coils double positions	5/2 way	
	10			
4M230	06	Double Coil Three Positions	5/3 way	0.15~0.8 Closed Type Exhaust Type Pressurized Type
	08			
4M330	08	Double Coil Three Positions	5/3 way	
	10			

### Order Code

4M 3 10 10 □ □ □

Model Code	Series	Electric control mode	Port Size	Voltage	Connecting Type	Port Size
4M: 5/2 way 5/3 way	2.200 series	10: Double positions single electric control 20: Double positions double electric control	06: 1/8"	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V	Nil:DIN Plug Type I:Wiring type	Nil:GPort PT Port NPT
	3.300 series		08: 1/4" 10: 3/8"			

### Dimension ( mm )



Air Source Treatment  
 Control Components  
 Auxiliary Components  
 Exhaustive Components  
 Accessories

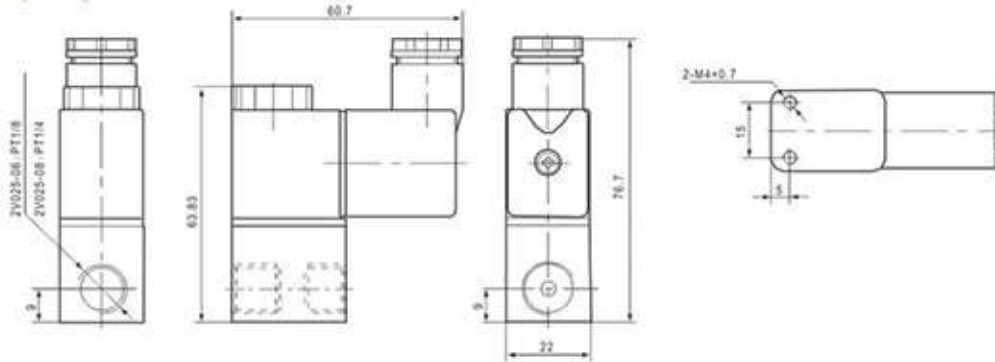
## 2V series Solenoid Valve



### Technical Specification

Model	Port Size Rc(G)	Coils and Positions	Ways	Working pressure range MPa
2V025	06 1/8"	Single coil double positions	2/2 way	0.15~0.8
	08 1/4"			

### Dimension(mm)



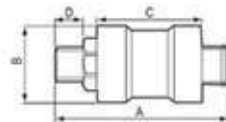
## Solenoid Valve Coil



### Technical Specification

Model	Max. Flow L/min(ANR)
AC220V	with terminal
	with wire
AC110	with terminal
	with wire
DC24V	with terminal
	with wire
DC12V	with terminal
	with wire

## HSV series slide Valve



### Order Code

HSV	-	06	SF
Series Code		Port Size	Thread Type
MS:Aluminum		06: 1/8"	SS:Double Male Thread Type
BNS:Brass		08: 1/4"	SF:Male and female Thread Type
		10: 3/8"	FF:Double Female Thread Type
		15: 1/2"	

### Technical Specification

Model	HSV-06SF/SS/FF	HSV-08SF/SS/FF	HSV-10SF/SS/FF	HSV-15SF/SS/FF
Fluid	Air			
Port Size	1/8"	1/4"	3/8"	1/2"
Proof Pressure	0~1.0MPa			
Working temperature range	-5~60°C(Not Frozen)			
Main Material	Body	HSV: Aluminum Alloy BHSV: Brass		
	O ring	NBR		

### Dimension(mm)

Model	A	B	C	D
HSV-08SF	59	26	32	11.3
HSV-10SF	59	31	32	11.3
HSV-15SF	91	39	49	12

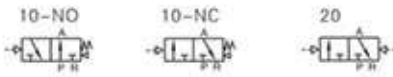
## 3A series Air Control Valve

### Order Code



3V 2 10		08 NO □			
model code	series	Mode of air control	Port Size	Original status	Port Size
3/2 way	1.100 series 2.200 series 3.300 series 4.400 series	10:Double positions Single control  20:Double positions Double control	M5 M5 06 1/8" 08 1/4" 10 3/8" 15 1/2"	NC:Normally closed type NO:Normally open type	blank:G Port PT Port NPT

### Symbol

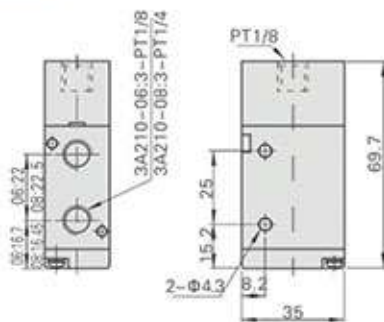


### Technical Specification

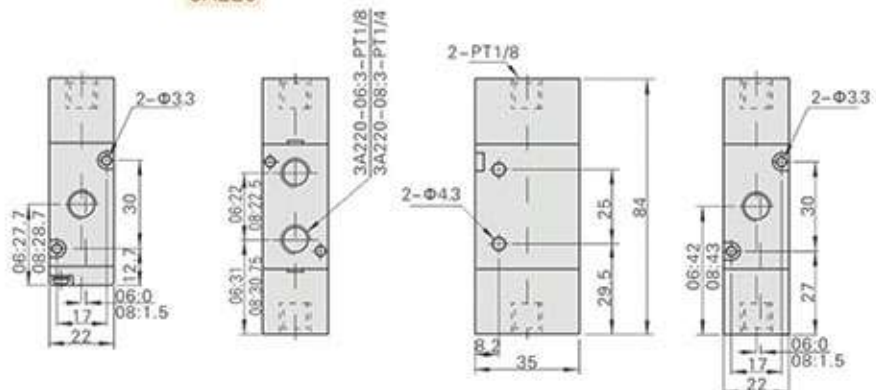
Model	Port Size Rc(G)		Switching Mode	Ways	Working pressure range MPa
3A110	M5	M5	Air	3/2 way	0.15~0.8
	06	1/8"			
3A120	M5	M5			
	06	1/8"			
3A210	06	1/8"			
	08	1/4"			
3A220	06	1/8"			
	08	1/4"			
3A310	08	1/4"			
	10	3/8"			
3A320	08	1/4"			
	10	3/8"			
3A410	10	3/8"			
	15	1/2"			
3A420	10	3/8"			
	15	1/2"			

### Dimension(mm)

3A210



3A220



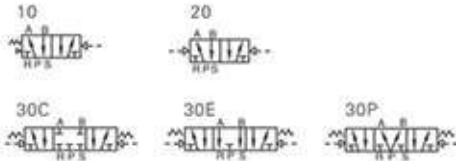
## 4A series Air Control Valve



### Dimension ( mm )

Model	4A110-M5	4A110-06
A	M5x0.8	G1/8
B	27	28
C	14.6	14.1
D	0	2
E	30	30
F	13.1	13.1
G	0	3

### Symbol



### Order Code

4A 2 10 08 □

model code	series	Electric control mode	Port Size	Port Size
4A: 3/2 way 3/5 way	1.100 series 2.200 series 3.300 series 4.400 series	10:Double positions single electric control 20:Double positions double electric control 30C:Three positions double electric control closed type 30E:Three positions double electric control exhaust type 30P:Three positions double electric control Pressurized type	M5 M5 06 1/8" 08 1/4" 10 3/8" 15 1/2"	blank:G Port PT Port NPT

### Technical Specification

Model	Port Size Rc(G)	Switching Mode	Ways	Working pressure range MPa
4A110	M5	Air	3/2 way	0.15~0.8
	06			
4A120	M5			
	06			
4A210	06			
	08			
4A220	06			
	08			
4A310	08			
	10			
4A320	08			
	10			
4A410	15			
	15			
4A130	M5		5/3 way	0.15~0.8
	06			
4A230	06			
	08			
4A330	08			
	10			
4A430	10			
	15			

C:Closed Type  
E:Exhaust Type  
P:Pressurized Type

Air Source Treatment

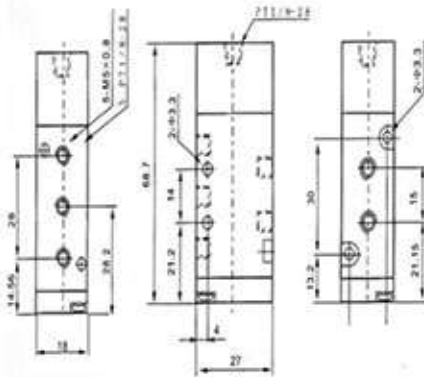
Control Components

Auxiliary Components

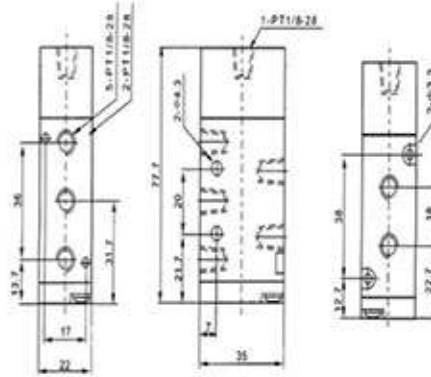
Executive Components

Accessories

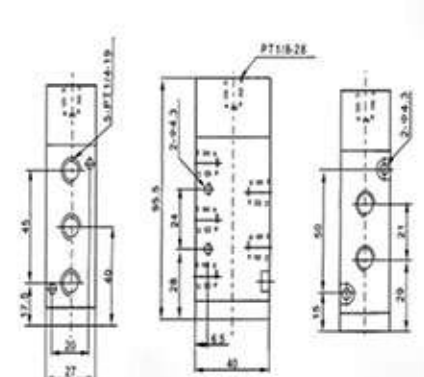
4A110-M5(06)



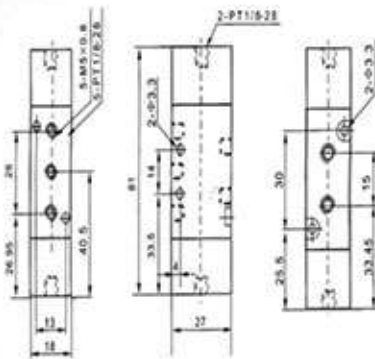
4A210-06(08)



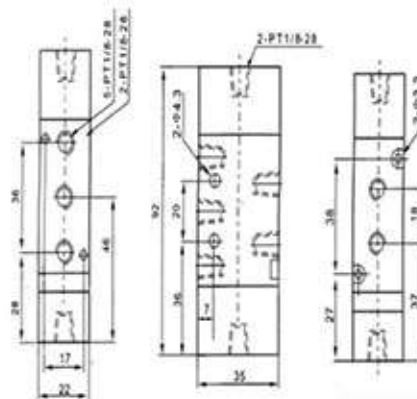
4A310-08(10)



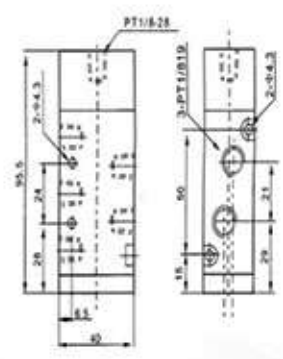
4A120-M5(06)



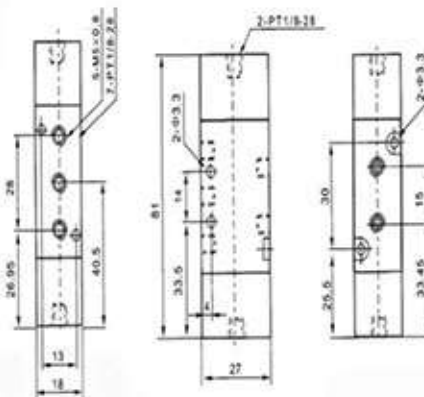
4A220-06(08)



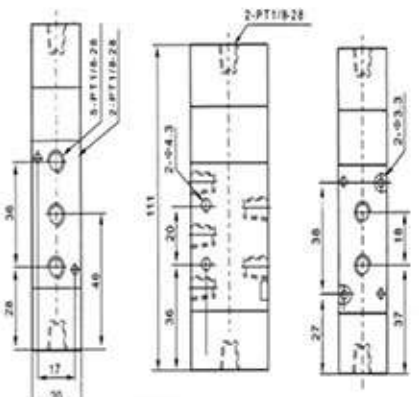
4A320-08(10)



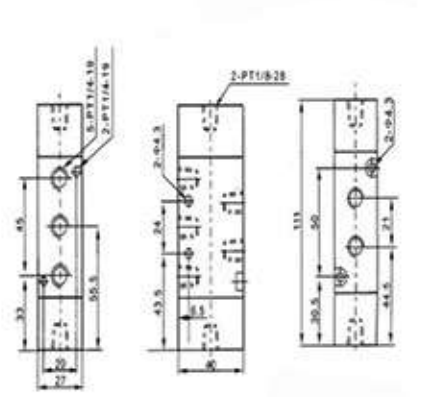
4A130-M5(06)



4A230-06(08)



4A330-08(10)



Air Source Treatment

Control Components

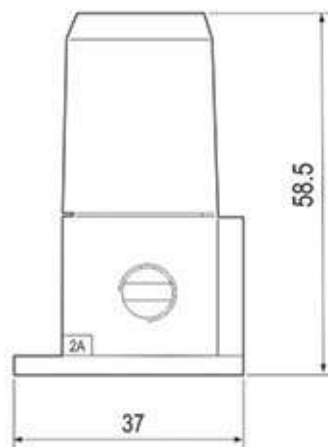
Auxiliary Components

Executive Components

Accessories

## VT307 series Solenoid Valve

### Dimension(mm)



### Technical Specification

Model	Using Fluid	Pressure Range	Port Size	Effective cross sectional area ( CV value )	Tripod
VT307-□△-01	Compressed Air	0~0.9Mpa(0~9kgf/cm <sup>2</sup> )	1/4 1/8	3.9(0.21)	DXT152-25-1A
VT307-□△-02					

□-Means using voltage    △-Means mode of power connection  
G=Direct outlet type

Ordering example:Order 3/2 way solenoid valve  
Voltage:110VAC,Direct outlet type,Port size 1/8  
The right model

- 3=110VAC
- 4=22VAC
- 5=24VDC
- 6=12VDC

### Technical Specification

Working Medium	Compressed air, inert gas
Switch mode	Normal closed or normal open
environment and fluid temperature	-5~60°C(Not Frozen)
Reaction time	Maximum 20ms
Max operating frequency	10 times/second
lubrication	No need
Manual operation	Button type without lock
Shock resistance	15G/5G(40~1000Hz)
Seals	Dust proof

### Coil specification

Connection mode	Direct outlet type	
Connection mode	Alternating current:110V,220V(50Hz) Direct current: 12V,24V	
Voltage variation range	-15%~+10% of rated voltage	
Insulation degree	Grade B or equivalent	
Temperature rising	-5~60°C(Not Frozen)	
Power consumption	Alternating current	Start:12.7VA Lasting:7.6VA
	Direct current	4.8W
Over voltage suppressor	Ac: varistor DC: diode	

## ASC series Flow Control Valve



### Technical Specification

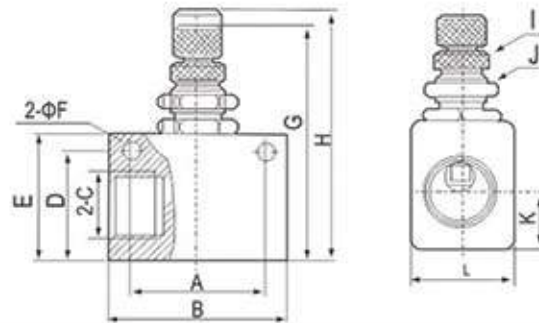
Model	ASC-06	ASC-08	ASC-10	ASC-15
Working Fluid	Air			
Port Size	1/8"	1/4"	3/8"	1/2"
Pressure Range	0~1.0MPa			
Temperature Range	-5~60°C(Not Frozen)			
Main Material	Body	Aluminum alloy		
	O-ring	NBR		

### Symbol



### Order Code

ASC200 - 06  
Series Port Size  
06:1/8"  
08:1/4"  
10:3/8"  
15:1/2"



### Dimension(mm)

Model	A	B	C	D	E	F	G	H	K	L
ASC100-06	22	32	1/8	18	23	4.3	45.7	52.3	10	18
ASC200-08	26	36	1/4	22	27	4.3	49.7	56.3	12	18
ASC300-10	30	40	3/8	24	29	4.3	51.7	58.3	13	12
ASC300-15										

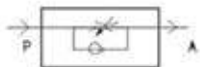
## RE series Flow Control Valve



### Technical Specification

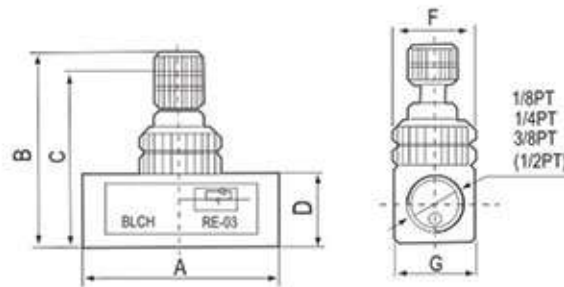
Model	RE-01	RE-02	RE-03	RE-04
Working Fluid	Air			
Port Size	1/8"	1/4"	3/8"	1/2"
Pressure Range	0~1.0MPa			
Temperature Range	-5~60°C(Not Frozen)			
Main Material	Body	Aluminum alloy		
	O-ring	NBR		

### Symbol



### Order Code

RE - 01  
Series Port Size  
01:1/8"  
02:1/4"  
03:3/8"  
04:1/2"



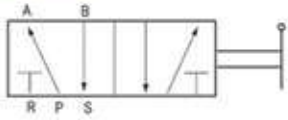
### Dimension(mm)

Model	A	B	C	D	F	G
RE-01	43	48	44	19	18	19
RE-02	43	48	44	19	18	19
RE-03	56.4	63	53	25	24	25
RE-04	56.4	63	53	25	24	25

## 3H/4H series Hand Lever Valve



### Symbol

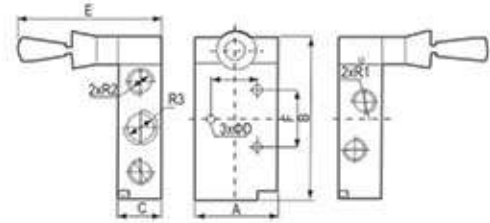


### Order Code

3H/4H	2	10	-	08
3H:2/3	Series Code	Position Code		Port Size
3/2 way	1:100 series	10: single and		06: 1/8"
4H:2/5	2:200 series	double positions		08: 1/4"
5/2 way	3:300 series			10: 3/8"
	4:400 series			15: 1/2"

### Dimension(mm)

Model	φD	A	B	C	E	F	J	R1	R2	R3
4H210-08	4	35	76.3	22	94.5	21	21	R1/4	R1/4	R3/8
4H310-10	4	40	92	27	100	28	28	R3/8	R3/8	R3/8
4H410-15	5.5	50	12.4	34	105	28.2	34.6	R3/8	R3/8	R3/8



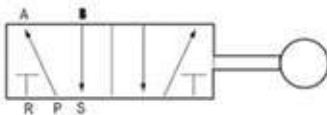
### Specification

Model	3H210-06/08 4H210-06/08	3H310-08/10 4H310-08/10	3H410-10/15 4H410-10/15
Working Fluid	Air		
Working Mode	Direct Acting type		
CV Value(mm <sup>2</sup> )	16(CV=0.89)	25(CV=1.4)	30(CV=1.68)
Port Size	1/4"	3/8"	1/2"
Working pressure range	0-0.8MPa		
Working temperature range	-5-60°C(Not Frozen)		
Operating Angle	± 5		
Main Material	Body O ring	Aluminum Alloy NBR	

## 3L/4L series Hand Valve



### Symbol

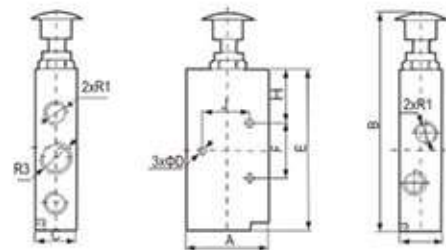


### Order Code

4L	2	100	-	08
3L:2/3	Series Code	Position Code		Port Size
3/2 way	1:100 series	10: single and		06: 1/8"
4L:2/5	2:200 series	double positions		08: 1/4"
5/2 way	3:300 series			10: 3/8"
	4:400 series			15: 1/2"

### Dimension(mm)

Model	φD	A	B	C	E	F	J	H	R1	R2	R3
4L210-08	4	35	100	22	63	20	21	17	1/8	1/4	1/4
4L310-10	4	40	116	27	95	24.3	28	19	1/4	3/8	3/8
4L410-15	5.5	50	154	34	114.3	28	35	24	3/8	1/2	1/2



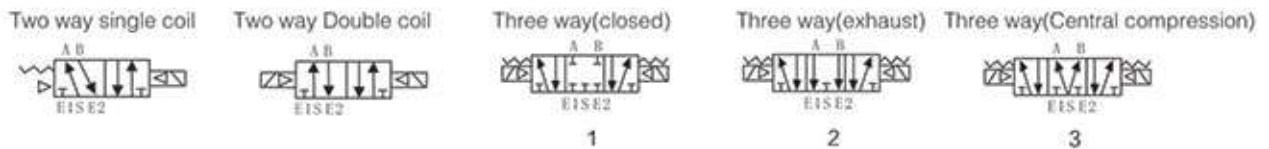
### Specification

Model	3L110-M5/06 4L110-M5/06	3L210-06/08 4L210-06/08	3L310-08/10 4L310-08/10	3L410-10/15 4L410-10/15
Working Fluid	Air			
Working Mode	Direct Acting type			
CV Value(mm <sup>2</sup> )	16(CV=0.89)	16(CV=0.89)	25(CV=1.4)	30(CV=1.68)
Port Size	1/8"	1/4"	3/8"	1/2"
Working pressure range	0-0.8MPa			
Working temperature range	-5-60°C(Not Frozen)			
Operating Angle	± 5			
Main Material	Body O ring	Aluminum Alloy NBR		

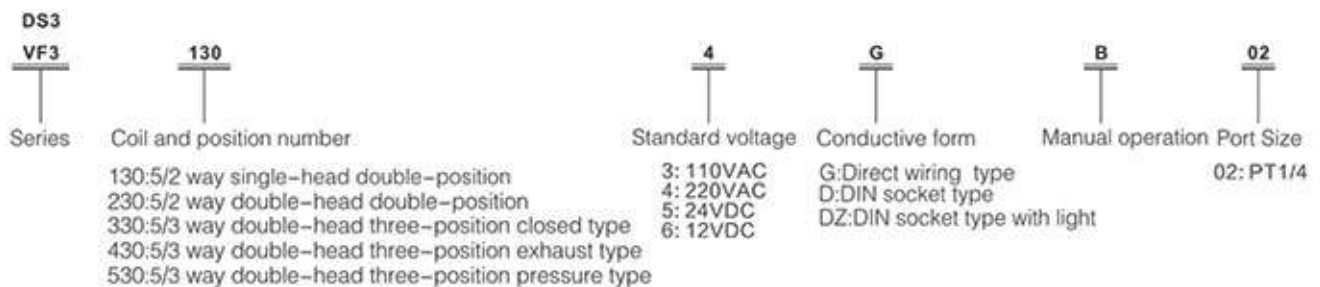
## DS3000/VF3000 series Solenoid Valve



### Symbol



### Order Code



### Technical Specification

Fluid	Air
Ambient Temperature	Max 50°C
lubrication	No need
Manual operation	Screwdriver locked type
Shock resistance	30G/5G(8.3~2000Hz)
Seal	Dust proof

Connecting Type	Direct wiring type/DIN socket type
Standard voltage	AC : 110V, 220V(50Hz) DC:12V,24V
Voltage variation range	-15%~+10% of rated voltage
Insulation over voltage	Grade B or equivalent
Power consumption	AC Start:5.6VA,Lasting:3.4VA
	DC 1.8W/2W(With indicator light)
Over voltage suppressor	Ac: varistor,DC: diode
Indicator light	Ac: neon lamp,DC: light emitting diode

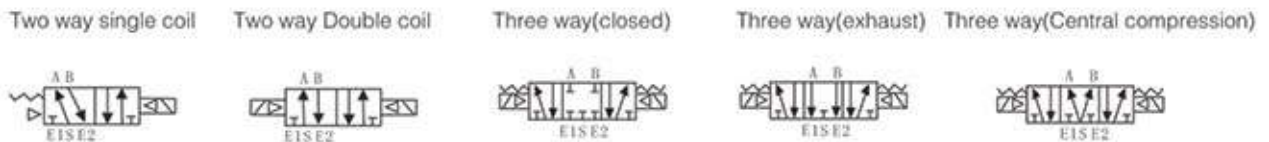
Model	Specifications							
	Number of position	Electromagnetic coil	Operating pressure range kgf/cm <sup>2</sup> (Mpa)	Reaction time (ms)	Max operation frequency ( times/second)	Port Size	Effective cross-sectional area mm <sup>2</sup> ( CV value )	Weight (Kgf)
DS/VF3130-□△B-02	2	Single coil	1.5~9(0.15~0.9)	30 or less	5	PT1/4	17.1(0.95)	0.21
DS/VF3230-□△B-02	2	Double coils	1~9(0.1~0.9)	30 or less	5	PT1/4	17.1(0.95)	0.29
DS/VF3330-□△B-02	3	Double(Central closed)	1~9(0.1~0.9)	50 or less	3	PT1/4	13.5(0.75)	0.42
DS/VF3430-□△B-02	3	Double(Central exhaust)	1~9(0.1~0.9)	50 or less	3	PT1/4	17.1(0.95)	0.42
DS/VF3530-□△B-02	3	Double(Central pressurization)	1~9(0.1~0.9)	50 or less	3	PT1/4	16.2(0.9)	0.42



## DS5000/VF5000 series Solenoid Valve



### Symbol



### Order Code

<b>DS5</b>						
<b>VF5</b>		<b>120</b>		<b>4</b>	<b>G</b>	<b>B</b>
Series	Coil and position number		Standard voltage	Conductive form	Manual operation	Port Size
	120:5/2 way single coil double position 220:5/2 way double coil double position 320:5/3 way double coil three-position closed type 420:5/3 way double coil three-position exhaust type 520:5/3 way double coil three-position pressurized type		3: 110VAC 4: 220VAC 5: 24VDC 6: 12VDC	G:Direct wiring type D:DIN socket type DZ:DIN socket type with light		03: PT3/8

### Technical Specification

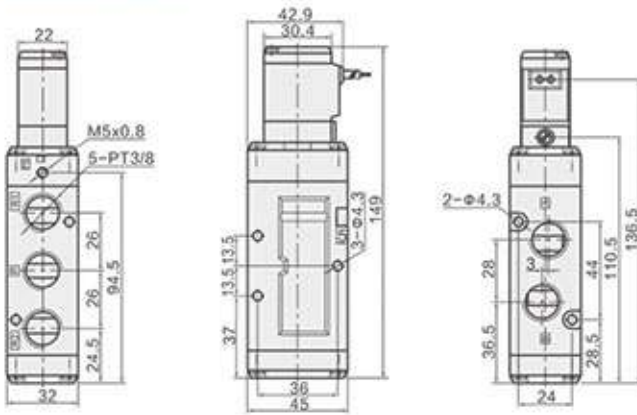
Fluid	Air
Ambient Temperature	Max 50°C
lubrication	No need
Manual operation	Screwdriver locked type
Shock resistance	30G/5G(8.3~2000Hz)
Seal	Dust proof

Connecting Type	Direct wiring type/DIN socket type
Standard voltage	AC : 110V, 220V(50Hz) DC:12V,24V
Voltage variation range	-15%~+10% of rated voltage
Insulation over voltage	Grade B or equivalent
Power consumption	AC Start:5.6VA,Lasting:3.4VA DC 1.8W/2W(With indicator light)
Over voltage suppressor	Ac: varistor,DC: diode
Indicator light	Ac: neon lamp,DC: light emitting diode

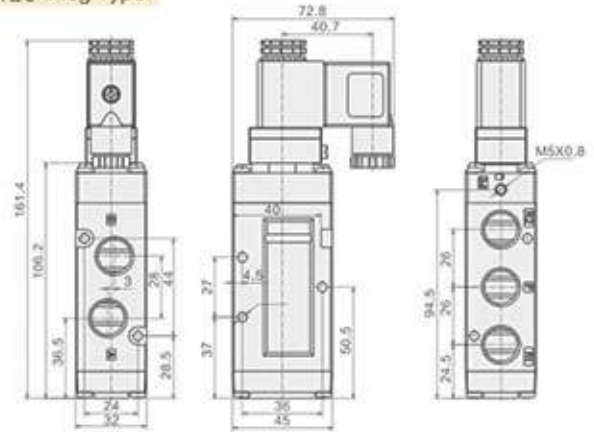
Model	Specifications							
	Number of position	Electromagnetic coil	Operating pressure range kgf/cm <sup>2</sup> (Mpa)	Reaction time (ms)	Max operation frequency (times/second)	Port Size	Effective cross-sectional area mm <sup>2</sup> ( CV value )	Weight (Kgf)
DS5/VF5120-□△B-02	2	Single coil	1.5~9(0.15~0.8)	30 or less	5	PT3/8	45(2.5)	0.38
DS5/VF5220-□△B-02	2	Double coils	1~9(0.1~0.9)	30 or less	5	PT3/8	45(2.5)	0.45
DS5/VF5320-□△B-02	3	Double(Central closed)	1~9(0.1~0.9)	50 or less	3	PT3/8	36(2)	0.53
DS5/VF5420-□△B-02	3	Double(Central exhaust)	1~9(0.1~0.9)	50 or less	3	PT3/8	41.4(2.3)	0.53
DS5/VF5520-□△B-02	3	Double(Central pressurization)	1~9(0.1~0.9)	50 or less	3	PT3/8	36(2)	0.53

## Dimension(mm)

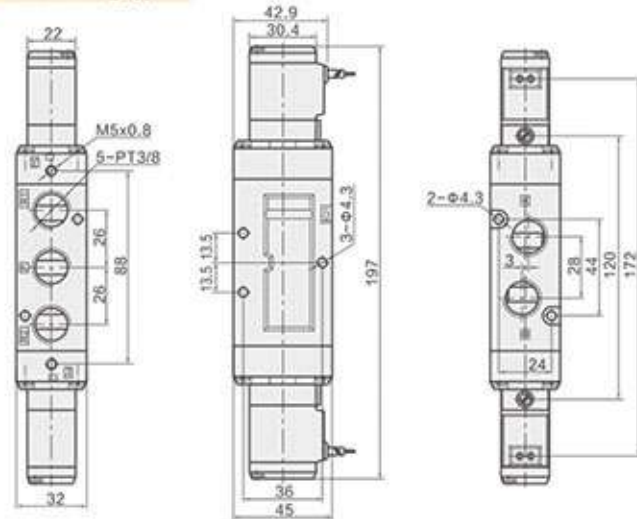
5120 Wiring type



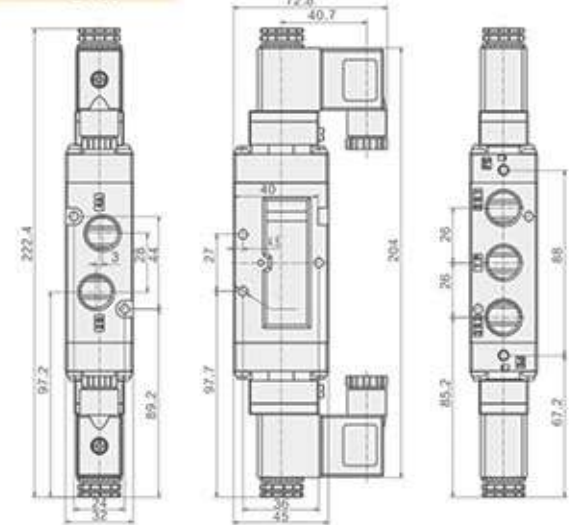
5120 Plug Type



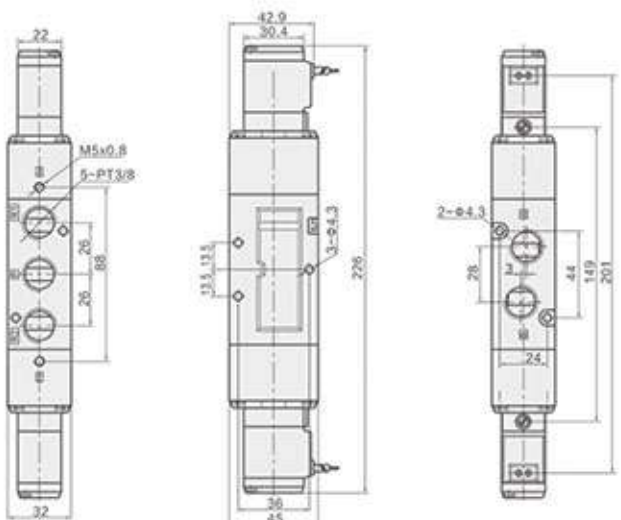
5220 Wiring type



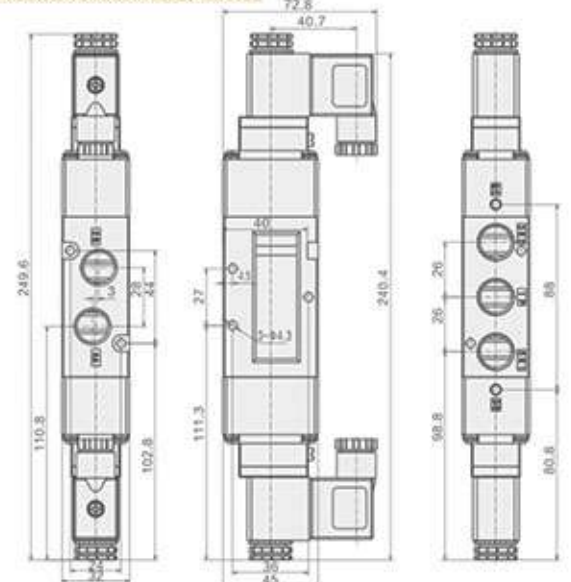
5220 Plug Type



5320/5420/5520 Wiring type



5320/5420/5520 Plug Type



## VFA series Air Control Valve



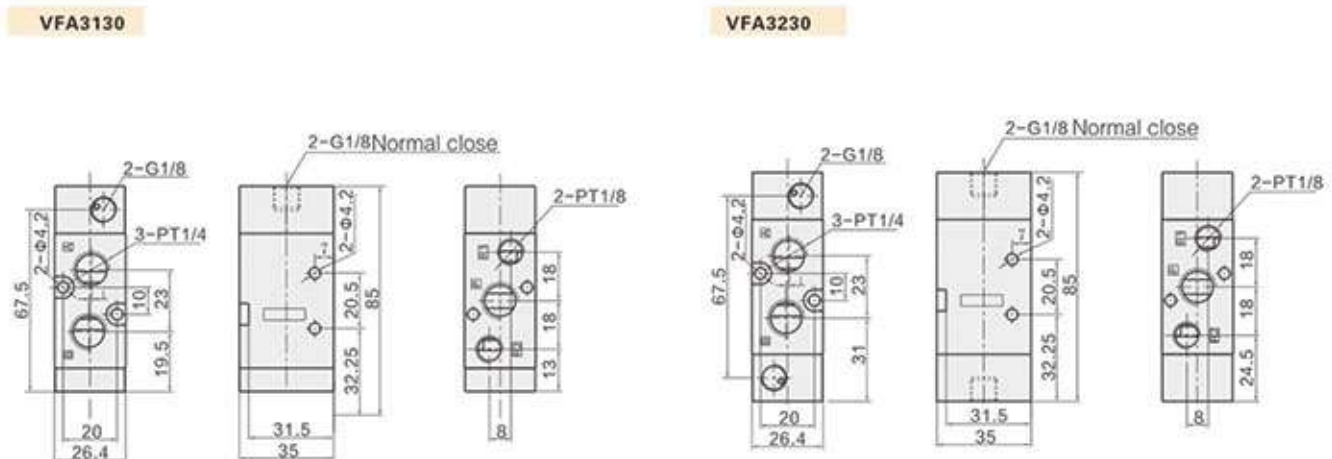
### Symbol



### Technical Specification

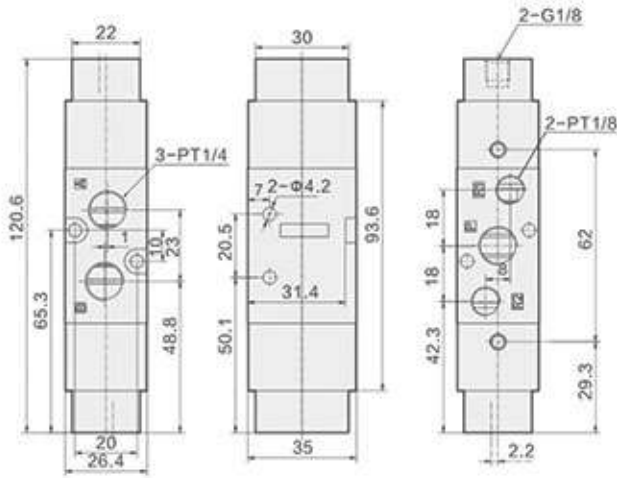
Model	Number of positions	specification			
		Pressure Range MPa(bar)	Air Control Pressure Range Mpa(bar)	Port Size	Effective cross-sectional area mm <sup>2</sup> (CV value)
VFA3130-02	single control 2 positions	0.15~0.9(1.5~9)	*(0.04xP+0.1)~0.9 (0.4xP+1)~9	PT1/4	18(1)
VFA3230-02	double control 2 positions			PT1/4	18(1)
VFA3330-02	double control 3 positions			PT1/4	18(1)
VFA3430-02	double control 3 positions			PT1/4	18(1)
VFA3530-02	double control 3 positions			PT1/4	18(1)
VFA5120-03	single control 2 positions			PT3/8	45(2.5)
VFA5220-03	double control 2 positions			PT3/8	45(2.5)
VFA5320-03	double control 3 positions			PT3/8	45(2.5)
VFA5420-03	double control 3 positions			PT3/8	45(2.5)
VFA5520-03	double control 3 positions			PT3/8	45(2.5)

### Dimension(mm)

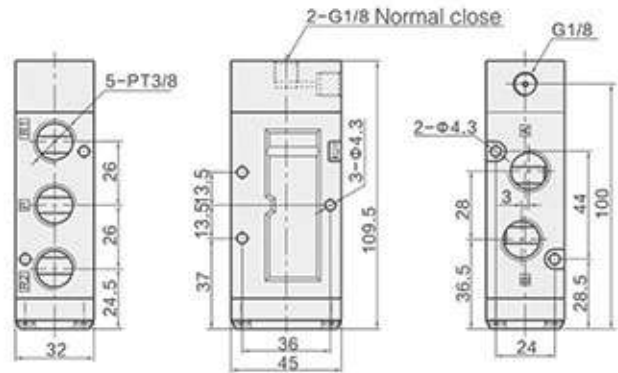


Air Source Treatment  
 Control Components  
 Auxiliary Components  
 Executive Components  
 Accessories

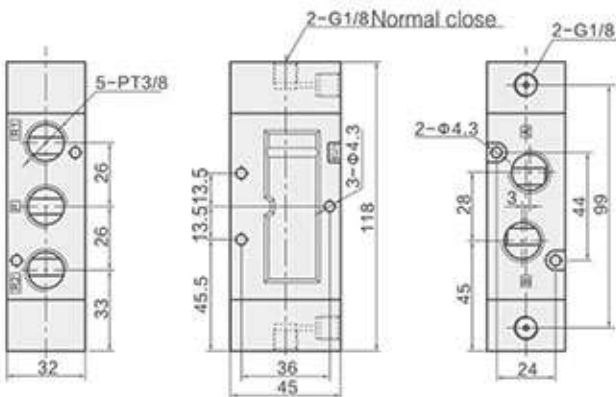
**VFA3330/3430/3530**



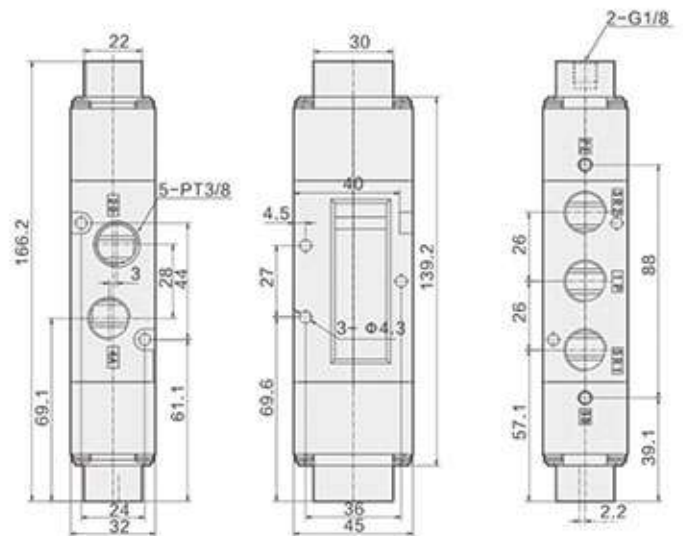
**VFA5120**



**VFA5220**



**VFA5320/5420/5520**



Air Source Treatment

Control Components

Auxiliary Components

Exhaustive Components

Accessories



## 2W series Solenoid Valve



### Order Code

**2W 025**

flow diameter  
015:1.2mm  
025:2mm  
025:2.5mm  
040:4.0mm  
160:16mm  
200:20mm  
250:25mm  
350:35mm  
400:40mm  
500:50mm

**10**

port size  
06:1/8"  
08:1/4"  
10:3/8"  
15:1/2"  
20:3/4"  
25:1"  
35:1 1/4"  
40:1 1/2"  
50:2"

No: Normal opened  
Nc: Normal closed

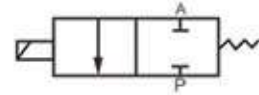
**AC110V**

Standard Voltage  
DC12V  
DC24V  
AC24V 50/60Hz  
AC36V 50/60Hz  
AC110V 50/60Hz  
AC220V 50/60Hz  
AC380V 50/60Hz

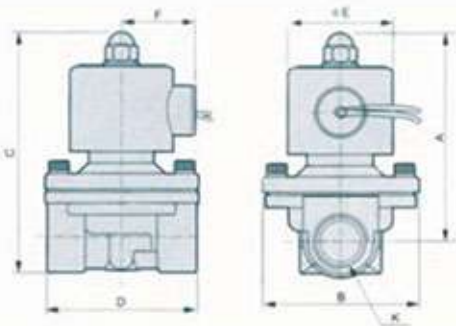
**D**

wiring Form  
empty: Lead wire coil  
D: joint connector  
N: explosion-proof coil  
E: water-proof coil

### Symbol



### Dimension(mm)



Model	A	B	C	D	K(PT)
2W025-06	66	30.3	75	40.5	1/8"
2W025-08	66	30.3	75	40.5	1/4"
2W040-10	74	32.2	85.5	52.5	3/8"
2W160-15	101.5	57	117	69	1/2"
2W200-20	107	57	123.5	73	3/4"
2W250-25	111.5	73.5	134.5	99	1"
2W350-35	142	95	172	123	1 1/4"
2W400-40	142	95	172	123	1 1/2"
2W500-50	172	123	209	168	2"

### Technical Specification

Model	Working Fluid	Action type	model type	flow diameter mm	Cv value	port size	working fluid viscosity	Operating pressure kg/cm <sup>2</sup>	Max working pressure kg/cm <sup>2</sup>	working temperature °C	operating voltage range	body material	seal ring material
2W025-06	air water gas oil	direct current type	normal closed	2.5	0.23	1/8"	20CST 以下 (Below) 50CST 以下 (Below)	0-7 water*0-7 air*0-7 oil *0-5 gas*0-7	10	5-80	±10%	2W: BRASS; 2S: Stainless steel	NBR EPDM OR VITON
2W025-08				2.5	0.23	1/4"							
2W040-10				4	0.6	3/8"							
2W160-15				16	4.8	1/2"							
2W200-20				20	7.6	3/4"							
2W250-25				25	12	1"							
2W350-35				35	24	1 1/4"							
2W400-40				40	29	1 1/2"							
2W500-50				50	48	2"							

Non-standard voltage and specification pls contact us

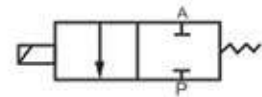
## 2L series Solenoid Valve



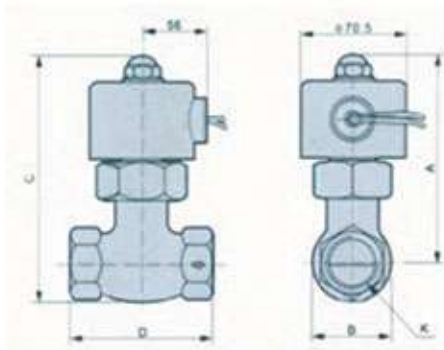
### Order Code

<b>2L</b>   Specification Code: 2L:Steam type two position two way solenoid valve	<b>170</b>   flow diameter 170:17mm 200:22mm 300:30mm 500:50mm	<b>15</b>   port size 10:3/8" 15:1/2" 20:3/4" 25:1" 35:1 1/4" 40:1 1/2" 50:2"	<b>AC110V</b>   standard voltage DC12V DC24V AC24V 50/60Hz AC36V 50/60Hz AC110V 50/60Hz AC220V 50/60Hz AC380V 50/60Hz	<b>F</b>   Wiring Form: Blank:Lead Wire Type F:Join Connector
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### Symbol



### Dimension(mm)



Model	A	B	C	D	K(PT)
2L170-10	125	42	146	82	3/8"
2L170-10	125	42	146	82	1/2"
2L170-10	125	42	146	82	3/4"
2L170-10	136	52	162	90.5	1"
2L170-10	148	74	185	111	1-1/4"
2L170-10	148	74	183	111	1-1/2"
2L170-10	176	94.5	223	163	2"

### Technical Specification

Model	Working Fluid	Action type	model type	flow diameter mm	Cv value	port size	working fluid viscosity	Operating pressure kgf/cm <sup>2</sup>	Max working pressure kgf/cm <sup>2</sup>	working temperature °C	operating voltage range	body material	seal ring material
2L170-10	Air, Water, Steam	Guide Drive	Normal Close Type	17	4.8	3/8"	20CST (Below)	1-15	22.5	-5-180°C	± 10%	Brass	( PTFE)
2L170-15				17	4.8	1/2"							
2L170-20				17	4.8	3/4"							
2L200-25				22	12	1"							
2L300-35				30	20	1-1/4"							
2L300-40				30	20	1-1/2"							
2L500-50				50	48	2"							

Non-standard voltage and specification pls contact us

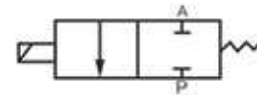
## 2S series Solenoid Valve



### Order Code

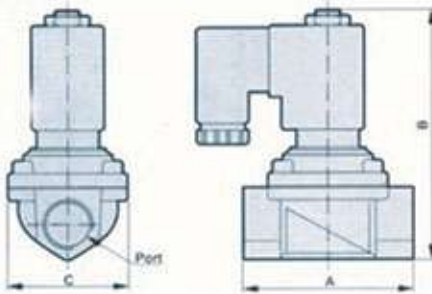
<b>2S</b> flow diameter 015:1.2mm 020:2mm 025:2.5mm 040:4.0mm 160:16mm 200:20mm 250:25mm 350:35mm 400:40mm 500:50mm	<b>050</b> port size 06:1/8" 08:1/4" 10:3/8" 15:1/2" 20:3/4" 25:1" 35:1/4" 40:1/2" 50:2"	<b>10</b> standard voltage DC12V DC24V AC24V 50/60Hz AC36V 50/60Hz AC110V 50/60Hz AC220V 50/60Hz AC380V 50/60Hz	<b>D</b> Wiring Form: Blank: Lead Wire Type D: Join Connector E: Blast-proof Coil G: Water-proof Coil
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### Symbol



Specification Code:  
 2S:two positon two way solenoid valve(direct drive type)

### Dimension(mm)



Model	A	B	C	D	K(PT)
2S025-06	66	30.3	75	40.5	1/8"
2S025-08	66	30.3	75	40.5	1/4"
2S025-10	74	32.2	85.5	52.5	3/8"
2S025-15	101.5	57	117	69	1/2"
2S025-20	107	57	123.5	73	3/4"
2S025-25	111.5	373.5	134.5	99	1"
2S025-35	142	95	172	123	1 1/4"
2S025-40	142	95	172	123	1 1/2"
2S025-50	172	123	209	168	2"

### Technical Specification

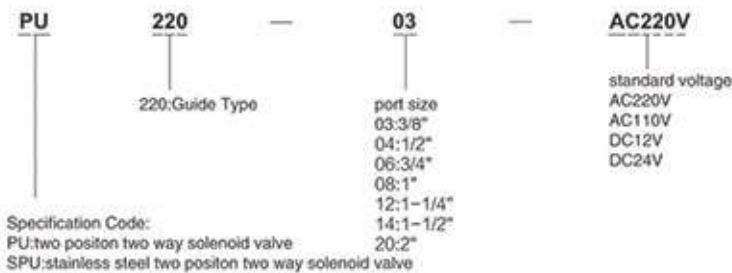
Model	Working Fluid	Action type	model type	flow diameter mm	Cv value	port size	working fluid viscosity	Operating pressure kgf/cm <sup>2</sup>	Max working pressure kgf/cm <sup>2</sup>	working temperature °C	operating voltage range	body material	seal ring material
2S025-06	Air, Water, Steam	Guide Drive	Normal Close Type	2.5	0.23	1/8"	20CST (Below) 50CST (Below)	0-7 Wter *0-5 Air *0-7 Oil *0-5 Gas *0-7	10	5-80	± 10%	2W: BRASS; 2S: Stainless Steel	NBR EPDM OR VITON
2S025-08				2.5	0.23	1/4"							
2S040-10				4	0.6	3/8"							
2S160-15				16	4.8	1/2"							
2S200-20				20	7.6	3/4"							
2S250-25				25	12	1"							
2S350-35				35	24	1 1/4"							
2S400-40				40	29	1 1/2"							
2S500-50				50	48	2"							

Non-standard voltage and specification pls contact us

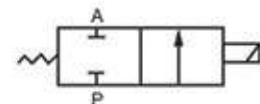
## PU series Solenoid Valve



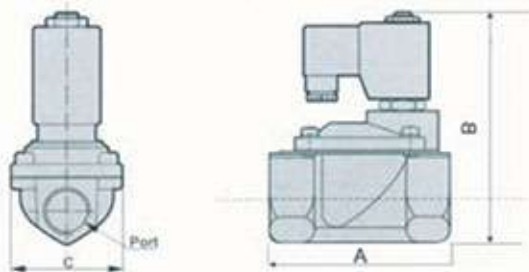
### Order Code



### Symbol



### Dimension(mm)



Model	port size	A	B	S
PU220-03	3/8"	66.5	106.5	48
PU220-04	1/2"	66.5	106.5	48
PU220-06	3/4"	96	126	70
PU220-08	1"	96	126	70
PU220-12	1-1/4"	131	145.5	96
PU220-14	1-1/2"	131	145.5	96
PU220-20	2"	160	160.5	112

### Technical Specification

Model	Working Fluid	Action type	model type	flow diameter mm	Cv value	port size	body material	working fluid viscosity	Operating pressure kgf/cm <sup>2</sup>	Max working pressure kgf/cm <sup>2</sup>	working temperature °C
PU220-03	Air, Water, Oil	Guide Type	Normal Close Type	13	4.5	3/8"	Brass	50CST	0.5-10	15	-5-80°C
PU220-04				13	4.5	1/2"					
PU220-06				25	12	3/4"					
PU220-08				25	12	1"					
PU220-12				38	22	1-1/4"					
PU220-14				38	30	1-1/2"					
PU220-20				50	48	2"					

Non-standard voltage and specification pls contact us.

## Parts of Solenoid Valve

### Piston series



Air Source Treatment

Control Components

Auxiliary Components

Exhaustive Components

Accessories

### Coil series



### Iron core series



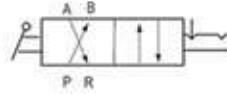
### Diaphragm series



## HV series Hand Rotary Valve



### Symbol



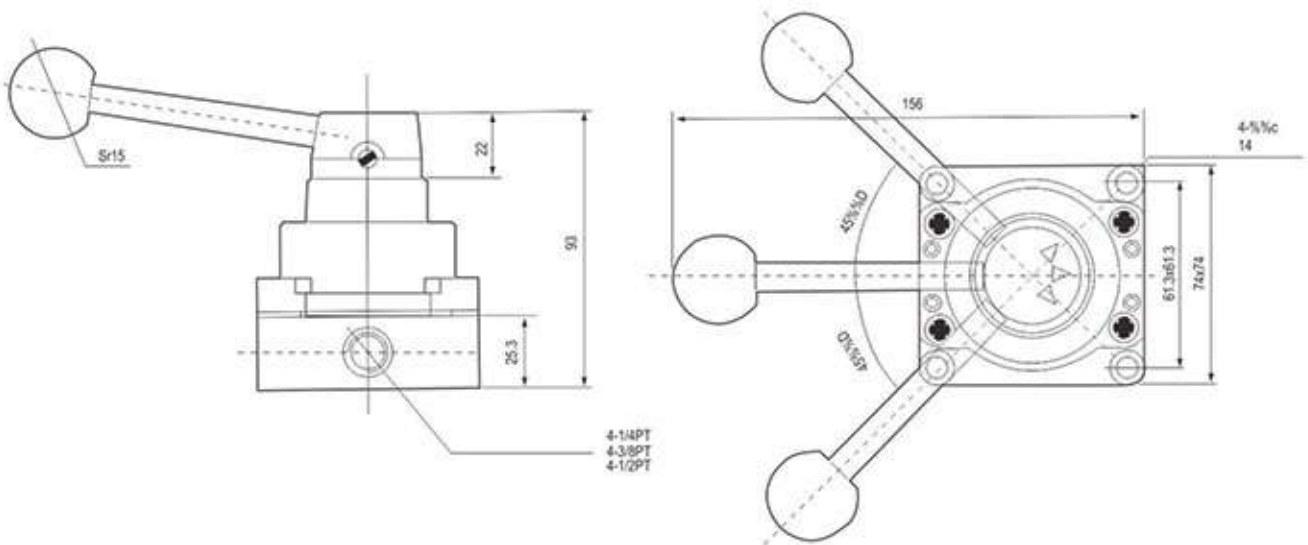
### Order Code

HV	-	02
Model		Port Size
		02: 1/4"
		03: 3/8"
		04: 1/2"

### Technical Specification

Model	HV-02	HV-03	HV-04
Working Fluid	Air		
Working Mode	Direct Acting type		
Port Size	1/4"	3/8"	1/2"
Working pressure range	0~0.8MPa		
Working temperature range	-5~60°C(Not Frozen)		
Lubricating	No Need		
Main Material	Body	Aluminum Alloy	
	O ring	NBR	

### Dimension(mm)



Air Source Treatment

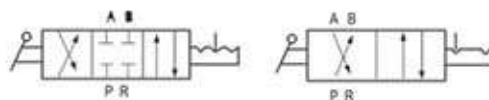
Control Components

Auxiliary Components

Executive Components

Accessories

## 4HV series Hand Valve



### Order Code

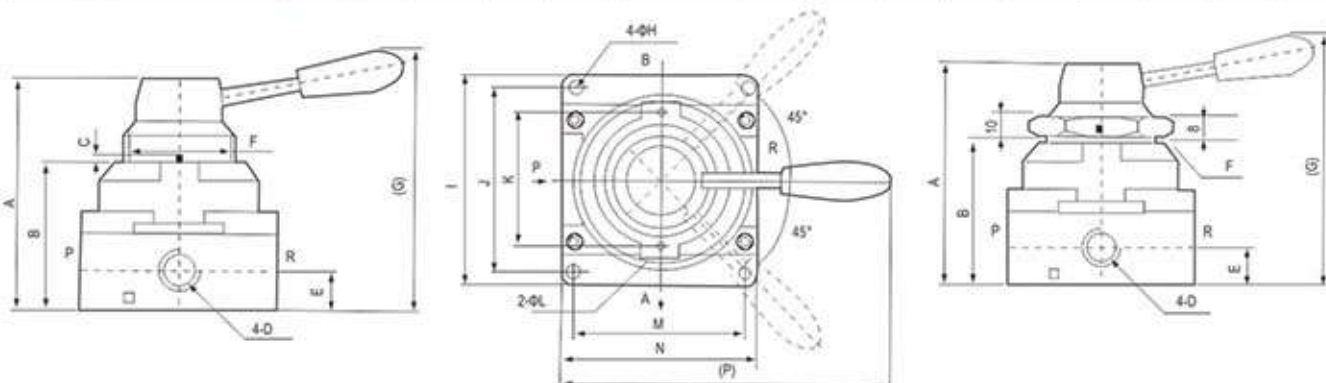
4HV	2	30
Model	Series	Positions
	2:2Series	10:4 port 2 position
	3:3Series	30:4 port 3 position
	4:4Series	

### Technical Specification

Model	4HV2□□-06	4HV2□□-08	4HV3□□-08	4HV3□□-10	4HV4□□-15	4HV4□□-20
Working Fluid	Air					
Positions	4 Port 3 Position/ 4 Port 2 Position					
Port Size	1/8"	1/4"	1/4"	3/8"	1/2"	3/4"
CV Valve(mm <sup>2</sup> )	14(0.78)	16(0.89)	30(1.67)	33(1.83)	88(4.89)	95(5.27)
Working pressure range	0~1.0MPa					
Proof Pressure	15kgf/cm <sup>2</sup>					
Working temperature range	-5~60°C(Not Frozen)					
Operating Angel	90°C					
Weight(kg)						
Main Material	Body	Aluminum Alloy				
	O ring	Nylon				

### Dimension(mm)

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
4HV2□□-06	72.6	45	1.5	PT1/8	11.5	M34 x 1.5	92.5	5	62	49	40	3	49	62	120
4HV2□□-08	72.6	45	1.5	PT1/4	11.5	M34 x 1.5	92.5	5	62	49	40	3	49	62	120
4HV3□□-08	88.5	56	1.5	PT1/4	13.5	M40 x 1.5	104	6.6	74	62	51	3	62	74	140
4HV3□□-10	88.5	56	1.5	PT3/8	13.5	M40 x 1.5	104	6.6	74	62	51	3	62	74	140
4HV4□□-15	110.3	72	2	PT1/2	18	M452 x 1.5	126	6.6	102	89	64	3	81	94	160
4HV4□□-20	110.3	72	2	PT3/4	18	M52 x 1.5	126	6.6	102	89	64	3	81	94	160



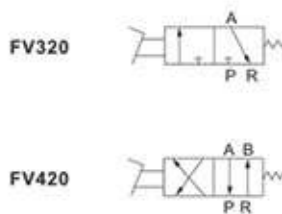
## FV320/420 series Foot Valve



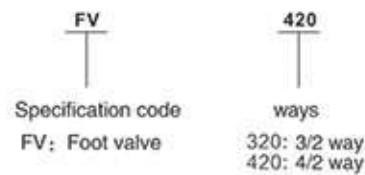
### Technical Specification

Model	FV320	FV420
Working Fluid	air ( filtered by 40UM sieve )	
ports and positions	3/2 way	4/2 way
Action type	directly operated type	
Port size	06:G1/8	08:G1/4
Operating pressure	0-0.8Mpa	
working temperature	-5-60°C(28-140° F)	
Lubrication oil	not need	

### Symbol

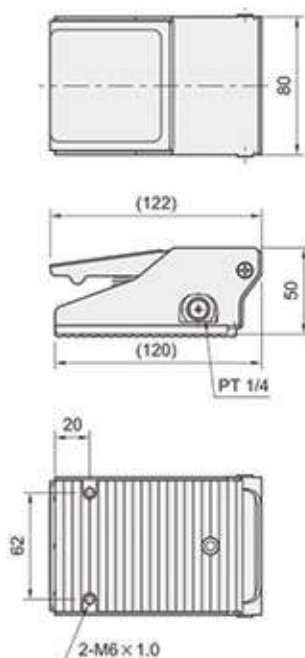


### Order Code

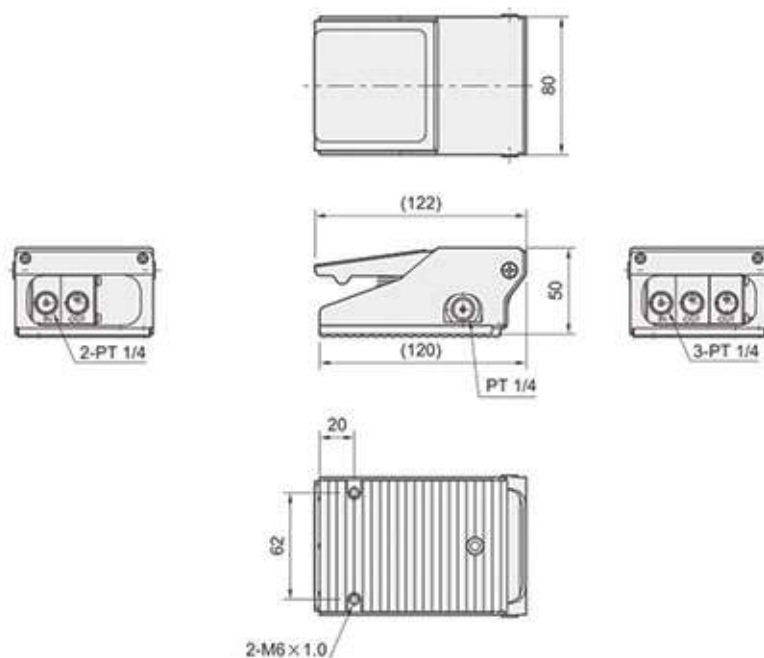


### Dimension(mm)

FV320



FV320



## 4F/FOV series Foot Valve

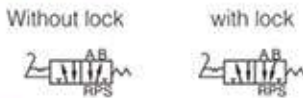


### Technical Specification

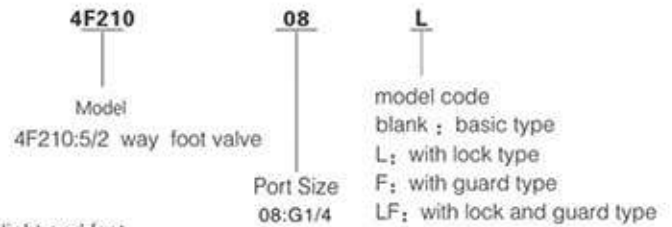
Model	4F210-08	4F210-08L	4F210-08F	4F210-08LF
Working Fluid	Air(to be filtered by 40 μm filter element)			
Action Mode	foot control directly-action type			
Port Size <sup>①</sup>	PT1/4			
Position	5/2 way			
Pressure Range	0-0.8MPa ( 0-114psi )			
Proof pressure	1.5MPa(15bar)(215psi)			
Temperature Range	-5~60°C(Not Frozen)			
body material	Aluminum alloy			
lubrication	No need			

①port thread have NPT G thread option

### Symbol



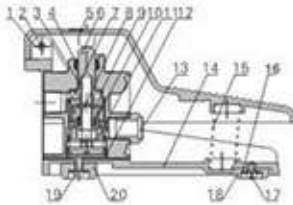
### Order Code



### Product feature

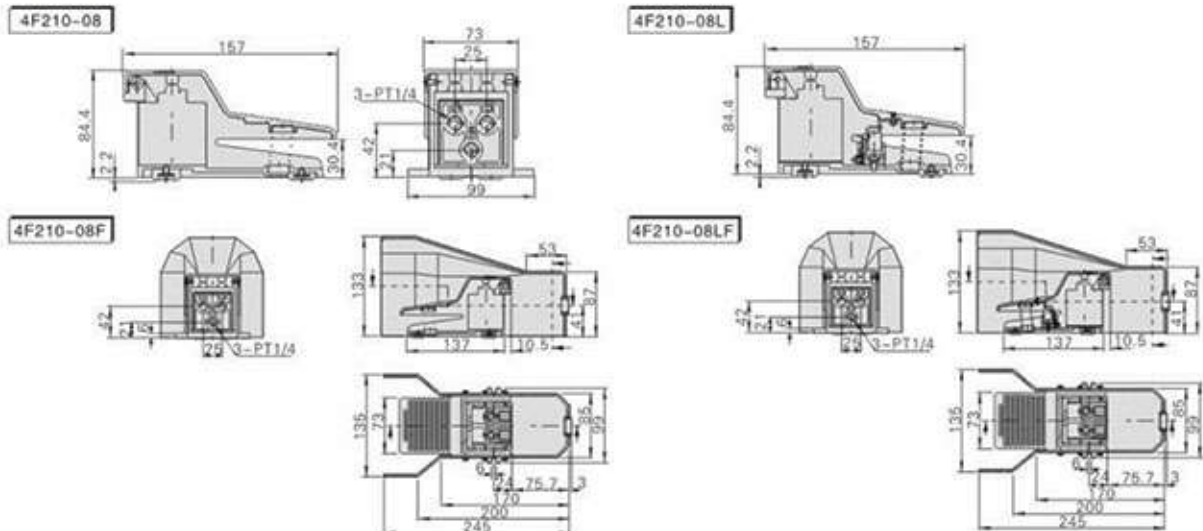
1. aluminum pedal, directly-action design, stable and reliable.
2. if the reversing time is longer, you can choose the lock type.
3. The locking mechanism is stable and reliable, and the unlocking is light and fast. But limited by the size of the structure, can not withstand frequent strong shocks
4. High strength plastic protective cover available

### inner construct



No.	item	No.	item	No.	item
1	axle pin	8	O Ring	15	spring
2	countersunk screw snap ring	9	front cover	16	washer
3	spring	10	piston	17	round-head screw
4	E type snap ring	11	bottom cover	18	small foot shim
5	pedal	12	C type snap ring	19	round-head screw
6	Axis core	13	silencer	20	big foot shim
7	O Ring	14	base		

### Dimension(mm)



## FV/3F/3FM series Foot Valve

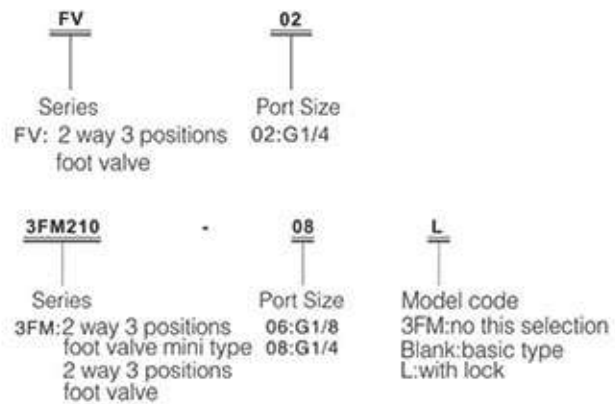


### Technical Specification

Model	FV-02	3F210-06	3FM210-06	3F210-08	3FM210-08
Working Fluid	Air(to be filtered by 40 μm filter element)				
Action Mode	foot control directly-action normal closed type				
Port Size(1)	G1/8	PT1/8	G1/8	PT1/4	G1/4
Position	3/2 way				
Pressure Range	0~0.8MPa(0~114psi)				
Proof pressure	1.5MPa(15bar)(215psi)				
Temperature Range	-5~60°C(Not Frozen)				
body material	3FM:plastic; 3F:Aluminum alloy				
lubrication	No need				

① port thread have NPT G thread option

### Order Code

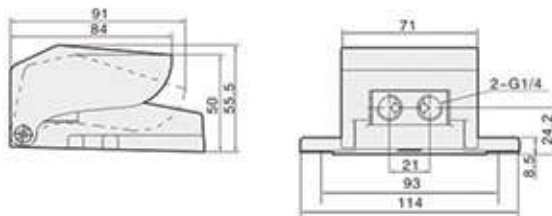


### Symbol



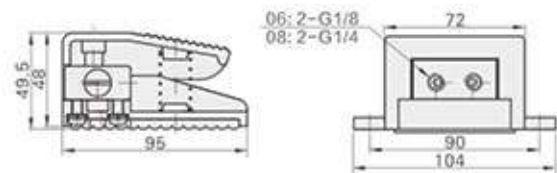
### Dimension(mm)

FV-02



3FM210-06

3FM210-08

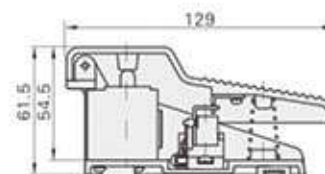
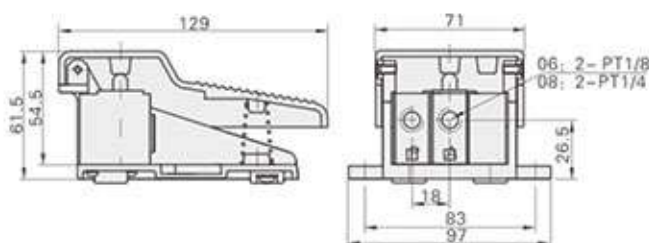


3F210-06

3F210-06L

3F210-08

3F210-08L



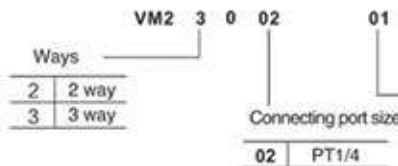
## VM200 series Mechanical Valve



### Technical Specification

Working Fluid	Air, Inert gases
Working pressure Range	0 ~ 1.0MPa
Environment and Fluid temperature	-5~60°C(Not Frozen)
Effective sectional area ( CV value )	19mm <sup>2</sup> (1.0)
Port size	PT1/4
Oil Supply	No need ( Oil supply using ISO VG32 )

### Model codes



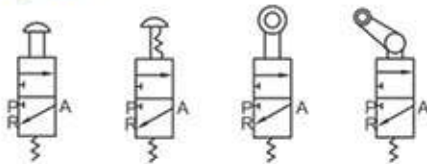
Drive type

00	Basic type
01	Roller lever type
02	Unidirectional roller lever type
05	Straight plunger
06	Roller plunger
07	Transverse plunger
08	Toggle type
30	Mushroom type
32	Button type
33	Flat type
34	Knot type(2)
35	Knot type(3)
36	Lock knot type(2)
40	Foot lever type

### Driver marks

S	Roller material. Hard steel
R	Red
B	Black
G	Green
Y	Yellow

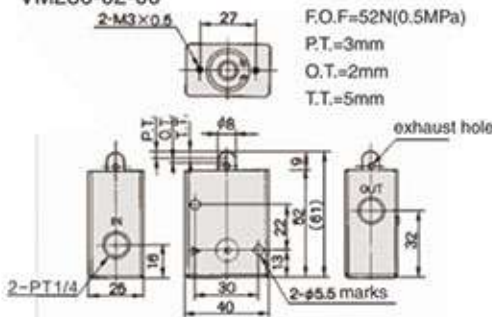
### Symbol



### Dimension(mm)

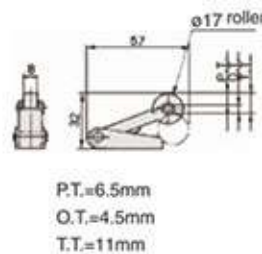
#### Basic type

VM230-02-00



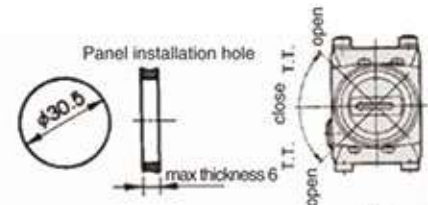
#### Roller lever

VM2 3/0-02-01(S)



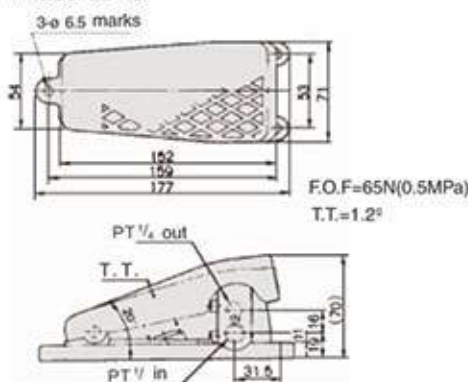
#### Kont(3ways)

VM230-02-35 □ / VM250-02-35 □



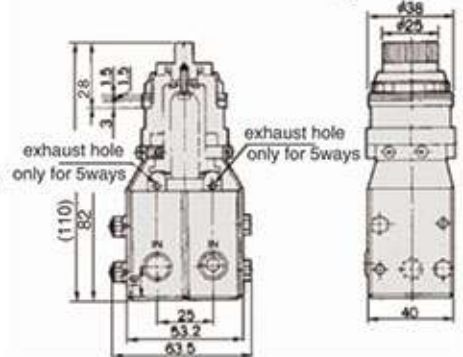
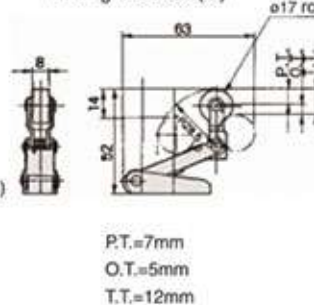
#### Pedal type

VM230-02-40



#### Unidirectional roller lever type

VM2 3/0-02-02(S)



F.O.F.=40N(0.5MPa)  
T.T.=45°

## S3 series Mechanical Valve



### Technical Specification

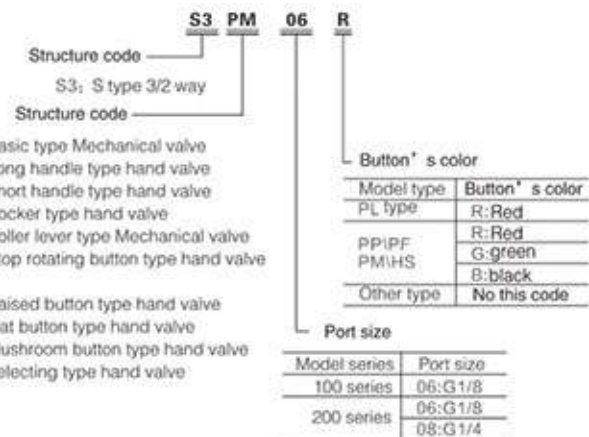
Model	S3B	S3C	S3D	S3V	S3R	S3L	S3Y	S3PM	S3PP	S3PF	S3PL	S3HS
Working Medium	Air (Filtrated by over 40um <sup>1</sup> s sieve)											
Acting type	External control direct acting											
Port size (1)	05: M5; 06: G1/8; 08: G1/4											
Effective sectional area	05: 2.5 mm <sup>2</sup> (Cv=0.14); 06: 8.0mm <sup>2</sup> (Cv=0.45); 08: 12.0mm <sup>2</sup> (Cv=0.67)											
Ways number	3/2 Way											
Lubrication (2)	No need											
Working pressure range	0-0.8MPa											
Guarantee pressure	1.5MPa(215psi)											
Working temperature °C	-5~60°C(Not Frozen)											
Body material	Aluminium alloy											

- (1) Port type has G type for choosing
- (2) If adding lubrication, don't stop midway, lubrication is ISOVG32 or same type.

### Symbol



### Order Code



### Resersing stroke

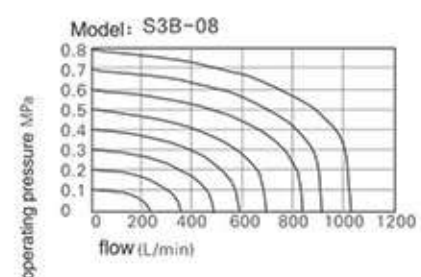
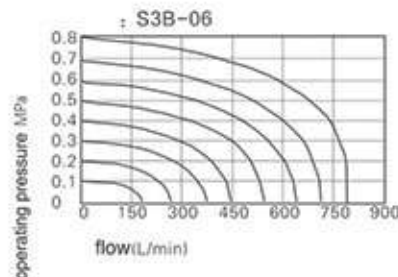
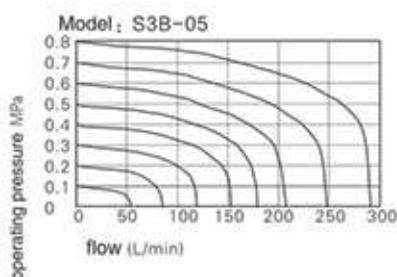
- external force required by S3B, S3R, S3L, S3V series are Provided by external agencies; used in position detection or position switch
- S3PF, S3PM, S3PP, S3PL, S3Y, S3HS, S3C, S3D series are manual type, Multiple structure shape control head, convinent for using in different conditions.
- Cut-off structure, Good sealing, Commutation flexibility, No need to add lubricating oil
- S3C, S3D, S3Y, S3R, S3L series' control head are metal type, long life, and More reliable and stable

### Resersing stroke

单位:mm

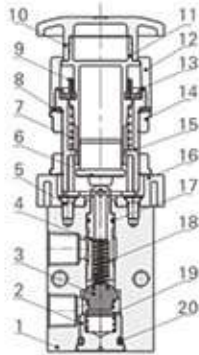
model	spool stroke	pushbutton stroke	spool stroke	pushbutton stroke	roller(hand shank)stroke
S3B	2.4~4.0	-	S3R	2.4~3.4	5.5~7.8
S3PF	2.4~4.0	3.8~5.4	S3L	2.4~3.4	6.0~8.6
S3PP	2.4~4.0	3.8~5.4	S3V	2.4~3.8	3.4~4.8
S3PM	2.4~4.0	3.8~5.4	S3C	2.4~3.8	14.4~18.4
S3PL	2.4~4.0	5.9~7.5	S3D	2.4~3.8	7.4~9.4
S3HS	2.4~4.0	5.1~6.7			

### Flow characteristics



## Inner construct

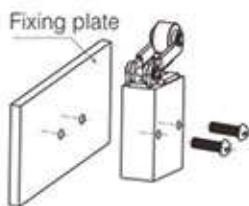
S3PM



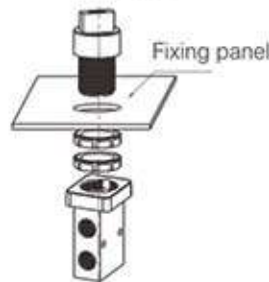
No.	Item	No.	Item	No.	Item	No.	Item
1	Valve body	6	Push button press release	11	Push button body	16	Button fixed block
2	Base	7	Spring	12	Push button cover	17	O ring
3	Nut	8	Fastening washer	13	Push button press ring	18	Spring
4	Axis core	9	Dust-proof guard	14	Fastening nut	19	Spring
5	Cross screw	10	Push button cap	15	Push button fixed	20	O ring

## installing and using

Valve body fixing type



Panel fixing type



Notice:

- 1.the control part is made of engineering plastics, only manual operation is allowed. No metal impact to switch valves s3b s3c s3d s3pm s3pf s3pp series are auto return series. s3y s3hs s3pl series hand valves are manual return series, and for m3pl, when it press into position, need rotating the knob to return back.
- 2.pay attention to the reversing stroke. When any external force makes the valve reversing, the base reversing stroke should not exceed the reversing range specified in the control stroke table, otherwise the valve body will be damaged
- 3.s3l one-way rolling-wheel valve as long as one direction can make the valve switch (from right to left impact). Invalid impact in the other direction (left to right)
- 4.control head units can order separately.

## Dimension(mm)



Model	A	B	C	D	K	KA	KB	P	PA	PB
05 type	26	16.5	36	30	M5x0.8	16	15	M5x0.8	13	9
06 type	30	16.5	47	41	M5x0.8	23	20.5	G1/8	17.5	11.5
08 type	34	17.5	52	46	M5x0.8	24	22.5	G1/4	21	12

## Common type control head external specification

Model	Long shank type		Short shank type		shake shank type	
	Order code	Specification	Order code	Specification	Order code	Specification
Order mode	M3C210-P13A	M3C210 long shank units	M3D210-P13A	M3C210 short shank units	M3Y210-P13A	M3C210 shake shank units
Applicable products	S3C110, S3C210		S3D110, S3D210		S3Y110, S3Y210	
Outer dimension						

## Vm100 series mechanical valve



### Technical specification

Working Fluid	Air, Inert gases
Working pressure Range	-0.1 - 1.0MPa
Environment and Fluid temperature	-5 - 60°C (Not Frozen)
Effective sectional area ( CV value )	2.5mm <sup>2</sup> (0.14)
Port size	side connected G1/8, below connected M5 x 0.8
Oil Supply	No need ( Oil supply using ISO VG32 )

### Order code

can combine ○, can't combine ×

Drive type	Length of rod			
	side connected long	side connected short	below connected long	below connected short
Basic type	00	○	○	○
Roller lever type	01	×	○	×
Unidirectional roller lever type	02	×	○	×
Straight plunger	05	○	×	×
Roller plunger	06	○	×	×
Transverse plunger	07	○	×	×
Toggle type	08	○	×	×
Mushroom type	30	○	×	×
lead out type	32	○	×	×
Flat type	33	○	×	×
Knot type(2ways)	34	○	×	×
Knot type(3ways)	35	×	○	×
Lock knot type(2ways)	36	○	×	×

Symbol

Order code breakdown:

- VM1: Valve model
- 3: Ways (2 or 3)
- 1: Connect pipe position and pipe length (0: long side, 1: short connected, 2: long below, 3: short connected)
- 01: Connecting port size (PT1/8)
- 01: Drive type (00: Basic, 01: Roller lever, 02: Unidirectional roller lever, 05: Straight plunger, 06: Roller plunger, 07: Transverse plunger, 08: Toggle type)
- S: Indicator light mark (with small indicator light)
- Z: Driver marks (S: Hard steel, R: Red, B: Black, G: Green, Y: Yellow)

Drive type list:

- 00 Basic type
- 01 Roller lever type
- 02 Unidirectional roller lever type
- 05 Straight plunger
- 06 Roller plunger
- 07 Transverse plunger
- 08 Toggle type
- 30 Mushroom type
- 32 Button lead out type
- 33 Flat type
- 34 Knot type (≥12)
- 35 Knot type (≥12)
- 36 Lock knot type (≥12)

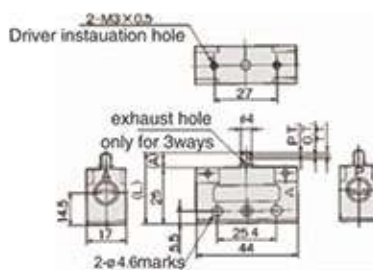
Driver marks:

- S: Roller material, Hard steel
- R: Red
- B: Button color, Black
- G: Green
- Y: Yellow

### Dimension(mm)

#### Basical type

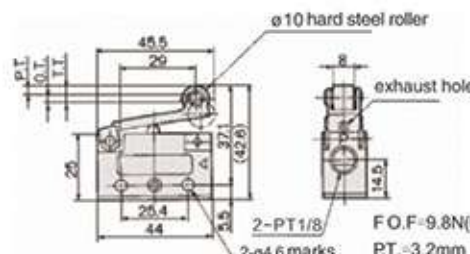
VM130-01-00/ VM131-01-00



VM130: L=37.5, A=7.5 F.O.F=19.6N(0.5MPa)  
 VM131: L=28.5, A=3.5 P.T.=1.5mm  
 O.T.=1.5mm  
 T.T.=3mm

#### Roller lever type

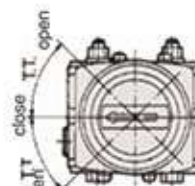
VM131-01-01(S)



F.O.F=9.8N(0.5MPa)  
 P.T.=3.2mm  
 O.T.=2.3mm  
 T.T.=5.5mm

#### Knot type (3ways)

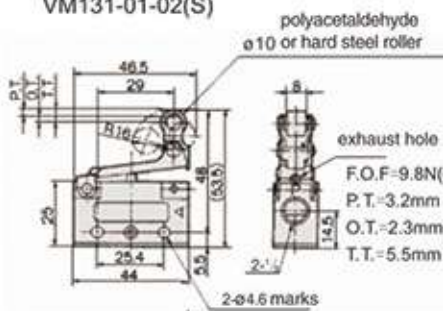
VM131-01-35 □ VM151-01-35 □



F.O.F=19.6N(0.5MPa)  
 T.T.=45°

#### Unidirectional roller lever type

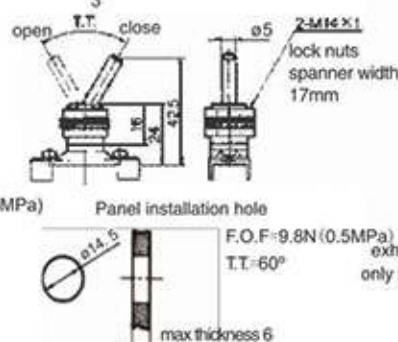
VM131-01-02(S)



F.O.F=9.8N(0.5MPa)  
 P.T.=3.2mm  
 O.T.=2.3mm  
 T.T.=5.5mm

#### Toggle type

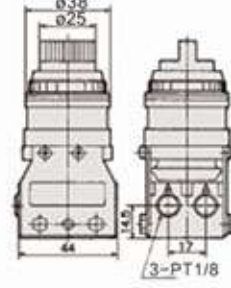
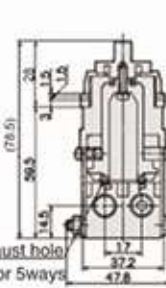
VM-130-01-08



F.O.F=9.8N(0.5MPa)  
 T.T.=60°



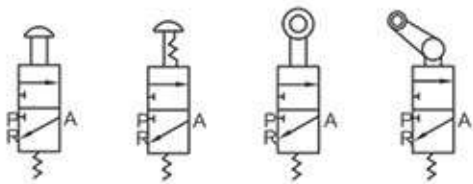
max thickness 6



## JM322 series Mechanical Valve



### Symbol



### Order Code

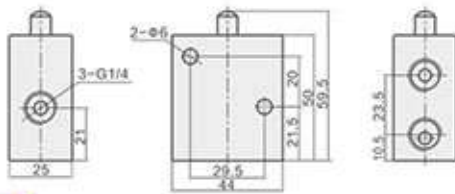
<u>JM</u>	<u>32</u>	<u>2</u>	<u>R</u>
Specification code JM series Mechanical Valve	Ways code 32:3/2 Way	Port size 2:G1/4	Button type Blank: Basic type R: Roller type TB: Selecting type button EB: Lock type button PP: Flat type button PPL: Convex type button PB: Big circle type

### Technical Specification

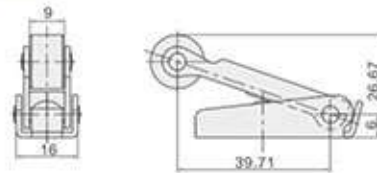
Models	JM322	JM322R	JM322PP	JM322PPL	JM322PB	JM322EB	JM322TB
Working Medium	air ( filtered by 40UM sieve )						
Acting mode	Direct type						
Port size	08:G1/4						
Working pressure	0~0.8Mpa						
Working temperature	-5~60°C(Not Frozen)						
Lubricating	No need						

### Dimension(mm)

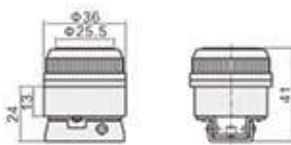
**JM322**



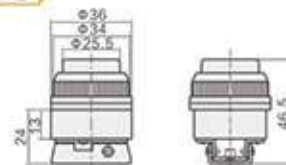
**JM322R**



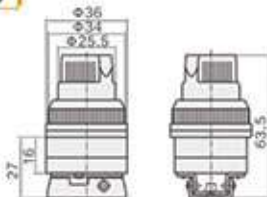
**JM322PP**



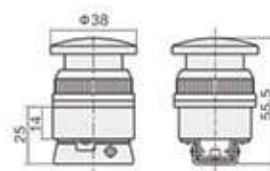
**JM322PPL**



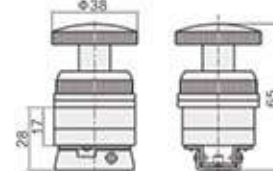
**JM322TB**



**JM322PB**



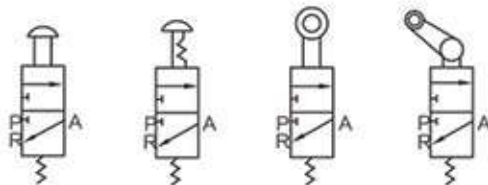
**JM322EB**



## MOV321 series Mechanical Valve



### Symbol



### Order Code

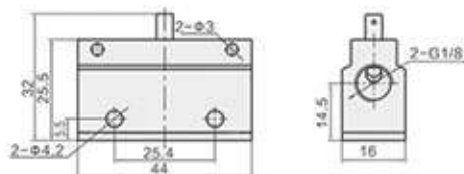
<b>MOV</b>	<b>32</b>	<b>1</b>	<b>R</b>
Specification code Mov series mechanical valve	Ways code 32: 3/2 Way	Port size 1: G1/8	Button type Blank: Basic type R: Roller type TB: Selecting type button EB: Lock type button PP: Flat type button PPL: Convex type button PB: Big circle type

### Technical Specification

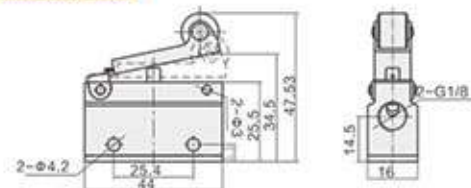
Models	MOV321	MOV321R	MOV321PP	MOV321PPL	MOV321PB	MOV321EB	MOV321TB
Working Medium	air ( filtered by 40UM sieve )						
Acting mode	Direct type						
Port size	06:G1/8						
Working pressure	0~0.8Mpa						
Working temperature	-5~60°C(Not Frozen)						
Lubricating	No need						

### Dimension(mm)

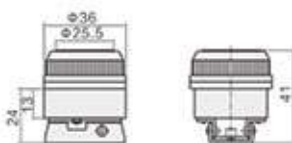
MOV321



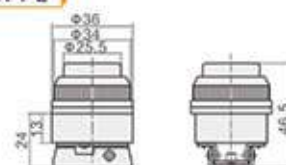
MOV321R



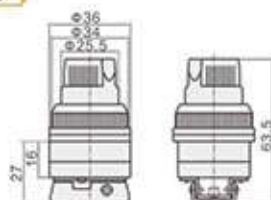
MOV321PP



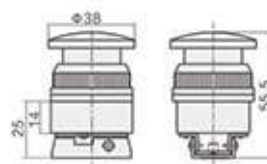
MOV321PPL



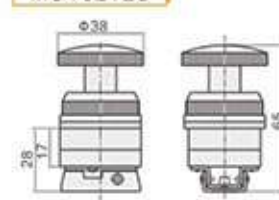
MOV321TB



MOV321PB



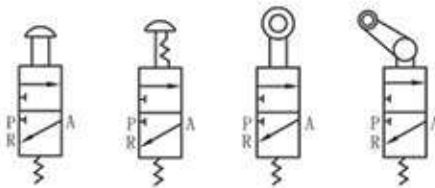
MOV321EB



## MV322 series Mechanical Valve



### Symbol



### Order Code

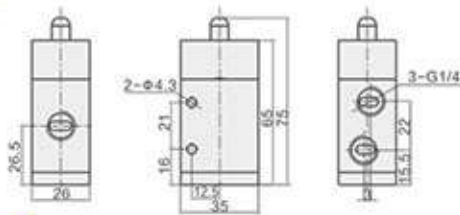
<b>MV</b>	<b>32</b>	<b>2</b>	<b>R</b>
Specification code MV series mechanical valve	Ways code 32: 3/2 Way	Port size 2: G1/4	Button type Blank: Basic type R: Roller type TB: Selecting type button EB: Lock type button PP: Flat type button PPL: Convex type button PB: Big circle type

### Technical Specification

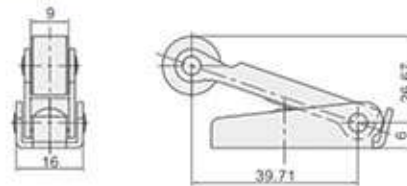
Models	MV322	MV322R	MV322PP	MV322PPL	MV322PB	MV322EB	MV322TB
Working Medium	air ( filtered by 40UM sieve )						
Acting mode	Direct type						
Port size	08:G1/4						
Working pressure	0~0.8Mpa						
Working temperature	-5~60°C(Not Frozen)						
Lubricating	No need						

### Dimension(mm)

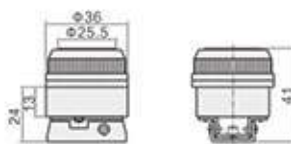
**MV322**



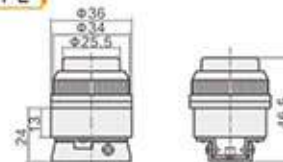
**MV322R**



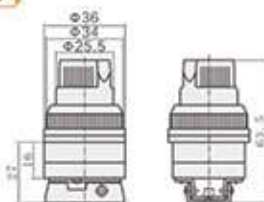
**MV322PP**



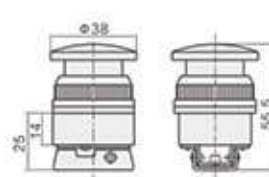
**MV322PPL**



**MV322TB**



**MV322PB**



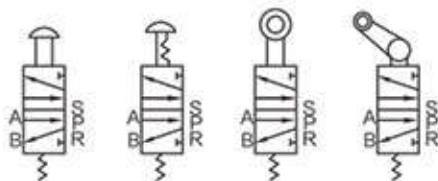
**MV322EB**



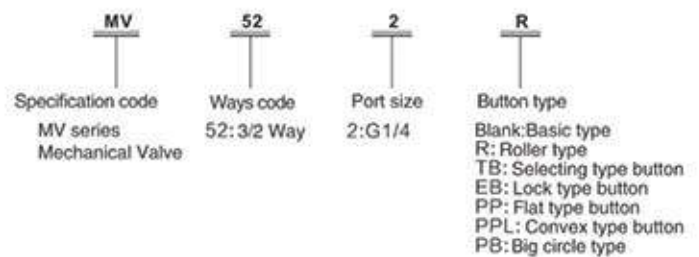
## MV522 series Mechanical Valve



### Symbol



### Order Code

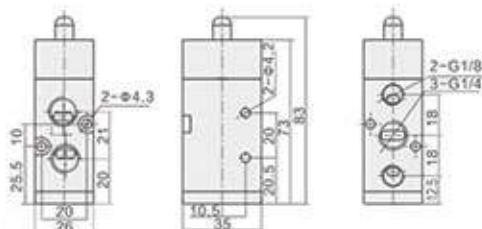


### Technical Specification

Models	MV522	MV522R	MV522PP	MV522PPL	MV522PB	MV522EB	MV522TB
Working Medium	air ( filtered by 40UM sieve )						
Acting mode	Direct type						
Port size	08:G1/4						
Working pressure	0~0.8Mpa						
Working temperature	-5~60°C(Not Frozen)						
Lubricating	No need						

### Dimension(mm)

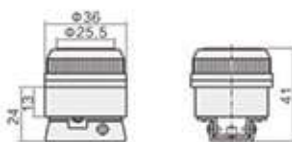
**MV522**



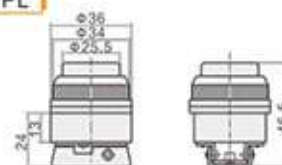
**MV522R**



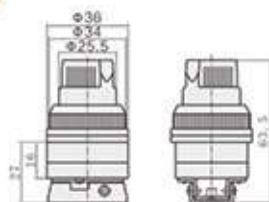
**MV522PP**



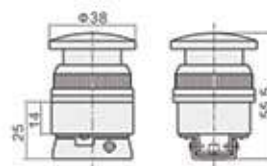
**MV522PPL**



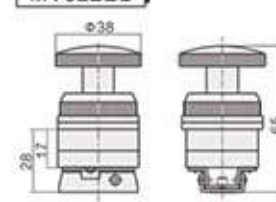
**MV522TB**



**MV522PB**



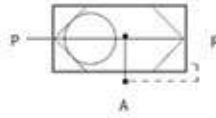
**MV522EB**



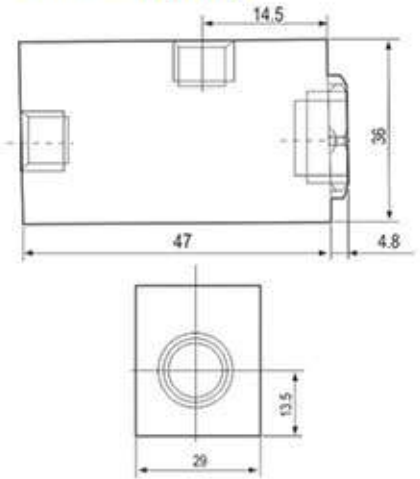
## QE series Quick Exhaust Valve



### Symbol



### Dimension(mm)



### Order Code

QE	-	02
Series Code		Port Size
		01:1/8"
		02:1/4"
		03:3/8"
		04:1/2"

### Technical Specification

Model	QE-01	QE-02	QE-03	QE-04
Working Fluid	Air			
Port Size	1/8"	1/4"	3/8"	1/2"
Working pressure range	0~1.0MPa			
Working temperature range	-5~60°C(Not Frozen)			
Weight(kg)				
Main Material	Body	Aluminum Alloy		
	O ring	NBR		

Air Source Treatment

Control Components

Auxiliary Components

Executive Components

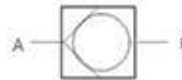
Accessories

## CV series Non-return Valve

Color: black blue red white



### Symbol



### Order Code

CV	-	01
Series Code		Port Size
		01:1/8"
		02:1/4"
		03:3/8"
		04:1/2"

### Technical Specification

Model	CV-01	CV-02	CV-03	CV-04
Working Fluid	Air			
Port Size	1/8"	1/4"	3/8"	1/2"
Working pressure range	0~1.0MPa			
Working temperature range	-5~60°C(Not Frozen)			
Weight(kg)				
Main Material	Body	Brass		
	O ring	NBR		

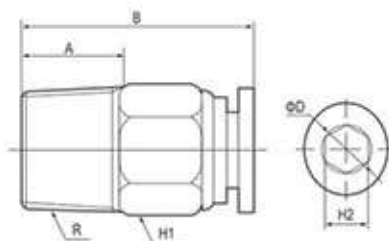


# BLCH AUXILIARY COMPONENTS

辅助元件



## PC Straight Male Thread

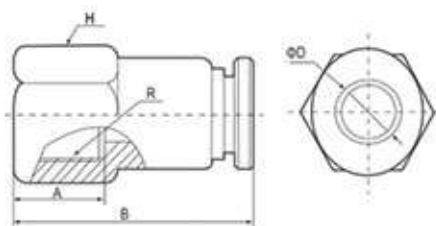


### Model

PC4-M5	PC8-04
PC4-01	PC10-01
PC4-02	PC10-02
PC6-M5	PC10-03
PC6-01	PC10-04
PC6-02	PC12-01
PC6-03	PC12-02
PC6-04	PC12-03
PC8-M5	PC12-04
PC8-01	PC16-03
PC8-02	PC16-04
PC8-03	

Metric	φD	R	A	B	H1	H2
PC4-03	4	PT3/8	8	17.6	17	4
PC4-M5	4	M5	3.5	21.8	10	3
PC4-01	4	PT1/8	65	20.5	10	3
PC4-02	4	PT1/4	8	19.5	14	4
PC6-M5	6	M5	3.5	22.8	12	4
PC6-01	6	PT1/8	6.5	22.2	12	4
PC6-02	6	PT1/4	8	22.2	14	4
PC6-03	6	PT3/8	10	21.5	17	4
PC6-04	6	PT1/2	10	23	21	4
PC8-01	8	PT1/8	7	26.8	14	6
PC8-02	8	PT1/4	9	25.2	14	6
PC8-03	8	PT3/8	10	22.2	17	6
PC8-04	8	PT1/2	11	23.7	21	4
PC10-01	10	PT1/8	7	30.7	17	6
PC10-02	10	PT1/4	10	29	17	8
PC10-03	10	PT3/8	10	29.5	17	8
PC10-04	10	PT1/2	11	25.2	21	4
PC12-01	12	PT1/8	7	31.7	19	6
PC12-02	12	PT1/4	8	33.2	19	8
PC12-03	12	PT3/8	10	28.5	19	8
PC12-04	12	PT1/2	11	29	21	8
PC14-02	14	PT1/4	9	29.3	21	6
PC14-03	14	PT3/8	10	29.3	21	8
PC14-04	14	PT1/2	11	27.3	21	12
PC16-03	16	PT3/8	10	40.5	24	10
PC16-04	16	PT1/2	12	37	24	12
PC16-06	16	PT3/4	13	38	27	12

## PCF Straight Female Thread

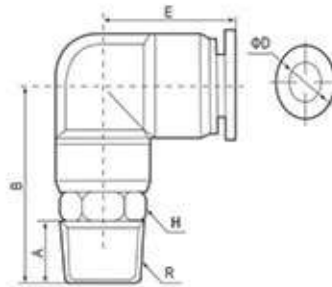


### Model

PCF4-M5	PCF8-03
PCF4-01	PCF8-04
PCF4-02	PCF10-01
PCF6-M5	PCF10-02
PCF6-01	PCF10-03
PCF6-02	PCF10-04
PCF6-03	PCF12-02
PCF6-04	PCF12-03
PCF8-01	PCF12-04
PCF8-02	

Metric	φD	R	A	B	H
PCF4-M5	4	M5	5	21	10
PCF4-01	4	PT1/8	8	24.5	12
PCF4-02	4	PT1/4	9	25.5	15
PCF6-M5	6	M5	5	20.7	12
PCF6-01	6	PT1/8	8	24.7	12
PCF6-02	6	PT1/4	9	25.5	15
PCF6-03	6	PT3/8	11	27.5	19
PCF6-04	6	PT1/2	12.5	29	24
PCF8-01	8	PT1/8	8	26	14
PCF8-02	8	PT1/4	9	27	15
PCF8-03	8	PT3/8	11	29.5	19
PCF8-04	8	PT1/2	12.5	30.5	24
PCF10-01	10	PT1/8	8	27	17
PCF10-02	10	PT1/4	10	30.5	17
PCF10-03	10	PT3/8	11	31.5	19
PCF10-04	10	PT1/2	12.5	32.5	24
PCF12-01	12	PT1/8	10	30.7	19
PCF12-02	12	PT1/4	10	32.2	19
PCF12-03	12	PT3/8	11	33.7	19
PCF12-04	12	PT1/2	12.5	34.7	24

## PL Elbow Male Thread

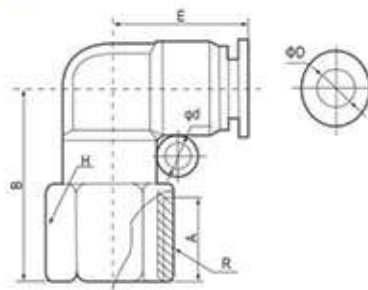


### Model

PL4-M5	PL8-03
PL4-01	PL8-04
PL4-02	PL10-01
PL6-M5	PL10-02
PL6-01	PL10-03
PL6-02	PL10-04
PL6-03	PL12-01
PL6-04	PL12-02
PL8-01	PL12-03
PL8-02	PL12-04

Metric	φD	R	A	B	H	E
PL4-M5	4	M5	3.5	25	10	19.7
PL4-01	4	PT1/8	7	20.5	10	19.7
PL4-02	4	PT1/4	9	23	14	19.7
PL6-M5	6	M5	3.5	20	10	20.8
PL6-01	6	PT1/8	7	22	10	20.8
PL6-02	6	PT1/4	9	24.5	14	20.8
PL6-03	6	PT3/8	10	25.5	17	20.8
PL6-04	6	PT1/2	11	27.5	21	20.8
PL8-01	8	PT1/8	7	22	14	23.5
PL8-02	8	PT1/4	9	24	14	23.5
PL8-03	8	PT3/8	10	26.5	17	23.5
PL8-04	8	PT1/2	11	27.5	21	23.5
PL10-01	10	PT1/8	7	28	17	25.2
PL10-02	10	PT1/4	9	30	17	25.2
PL10-03	10	PT3/8	10	31	17	25.2
PL10-04	10	PT1/2	11	32	21	25.2
PL12-01	12	PT1/8	7	31	19	30.3
PL12-02	12	PT1/4	9	33.5	19	30.3
PL12-03	12	PT3/8	10	34.5	19	30.3
PL12-04	12	PT1/2	11	35	21	30.3
PL14-02	14	PT1/4	10		21	
PL14-03	14	PT3/8	10	42.5	21	30.3
PL14-04	14	PT1/2	11	45	21	30.3
PL16-03	16	PT3/8	11	50	24	34
PL16-04	16	PT1/2	12	50.5	24	34
PL16-06	16	PT3/4	13		27	

## PLF Elbow Female Thread



### Model

PLF4-M5	PLF8-03
PLF4-01	PLF8-04
PLF4-02	PLF10-01
PLF6-M5	PLF10-02
PLF6-01	PLF10-03
PLF6-02	PLF10-04
PLF6-03	PLF12-02
PLF6-04	PLF12-03
PLF8-01	PLF12-04
PLF8-02	

Metric	φD	R	A	B	H
PLF4-M5	4	M5			19.7
PLF4-01	4	PT1/8	8	19.5	19.7
PLF4-02	4	PT1/4	10	19.5	19.7
PLF6-M5	6	M5			20.8
PLF6-01	6	PT1/8	8	21	20.6
PLF6-02	6	PT1/4	10	23	20.6
PLF6-03	6	PT3/8	11	24	20.6
PLF6-04	6	PT1/2	13	25	20.6
PLF8-01	8	PT1/8	8	21	23.5
PLF8-02	8	PT1/4	10	23	23.5
PLF8-03	8	PT3/8	11	24	23.5
PLF8-04	8	PT1/2	11	24.5	23.5
PLF10-01	10	PT1/8	8	27	25.2
PLF10-02	10	PT1/4	10	28	25.2
PLF10-03	10	PT3/8	11	29	25.2
PLF10-04	10	PT1/2	11.5	30	25.2
PLF12-02	12	PT1/4	11	28	30.3
PLF12-03	12	PT3/8	11	29	30.3
PLF12-04	12	PT1/2	13	30	30.3

Air Source Treatment

Control Components

Auxiliary Components

Executive Components

Accessories

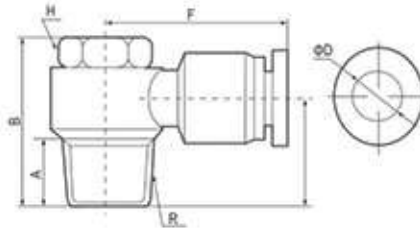
## PLL Elbow Longer Male Thread



### Model

PLL4-M5	PLL6-04	PLL10-03
PLL4-01	PLL8-01	PLL10-04
PLL4-02	PLL8-02	PLL12-02
PLL6-M5	PLL8-03	PLL12-03
PLL6-01	PLL8-04	PLL12-04
PLL6-02	PLL10-01	
PLL6-03	PLL10-02	

## PH External Hex Joint

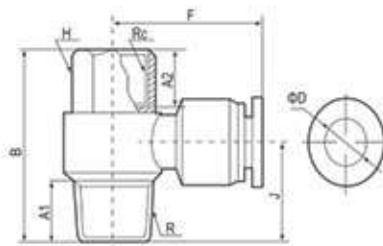


### Model

PH4-M5	PH8-03
PH4-01	PH8-04
PH4-02	PH10-01
PH6-M5	PH10-02
PH6-01	PH10-03
PH6-02	PH10-04
PH6-03	PH12-01
PH6-04	PH12-02
PH8-01	PH12-03
PH8-02	PH12-04

Metric	φD	R	A	B	H	F	J
PH4-M5	4	M5	4	19	8	23.2	12.5
PH4-01	4	PT1/8	7.5	25	12	23.2	14.5
PH4-02	4	PT1/4	11	27	15	24.7	17.8
PH6-M5	6	M5	4	19	8	22.8	12.5
PH6-01	6	PT1/8	9.5	25	12	22.8	14.5
PH6-02	6	PT1/4	11	27	15	24.8	17.5
PH6-03	6	PT3/8	11	33	19	28.3	20
PH6-04	6	PT1/2	12	35	22	30	20
PH8-01	8	PT1/8	7.5	25	12	36	13.8
PH8-02	8	PT1/4	11	27	15	38.5	16.5
PH8-03	8	PT3/8	11	33	19	28.8	19.6
PH8-04	8	PT1/2	12	35	22	30.5	20.9
PH10-01	10	PT1/8	7.5	25	12	28.7	13.8
PH10-02	10	PT1/4	11	27	15	30.7	14.8
PH10-03	10	PT3/8	11	33	19	30.7	19
PH10-04	10	PT1/2	12	35	22	34	22.9
PH12-02	12	PT1/4	11	27	15	32.2	13.8
PH12-03	12	PT3/8	11	33	19	34.2	17.7
PH12-04	12	PT1/2	12	35	22	34.2	22

## PHF Joints in Series

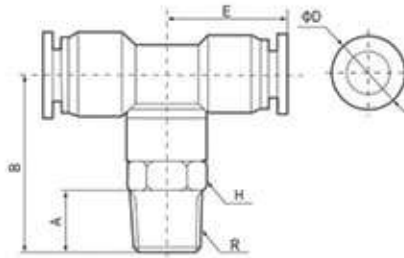


### Model

PHF4-01	PHF8-04
PHF4-02	PHF10-01
PHF6-01	PHF10-02
PHF6-02	PHF10-03
PHF6-03	PHF10-04
PHF6-04	PHF12-02
PHF8-01	PHF12-03
PHF8-02	PHF12-04
PHF8-03	

Metric	φD	R	Rc	A1	A2	B	H	F	J
PHF4-M5	4	M5	M5	4	4	19	8	23.2	12.5
PHF4-01	4	PT1/8	R1/8	8	8	30	12	23.2	14.5
PHF4-02	4	PT1/4	R1/4	9	11	33	15	24.7	17.8
PHF6-M5	6	M5	M5	4	4	19	8	22.8	12.5
PHF6-01	6	PT1/8	R1/8	8	8	30	12	22.8	14.5
PHF6-02	6	PT1/4	R1/4	9	11	33	15	24.8	17.5
PHF6-03	6	PT3/8	R3/8	11	11	40	19	28.3	20
PHF6-04	6	PT1/2	R1/2	12	12	42.5	24	30	20
PHF8-01	8	PT1/8	R1/8	8	8	30	12	26.2	13.8
PHF8-02	8	PT1/4	R1/4	9	11	33	15	28.5	16.5
PHF8-03	8	PT3/8	R3/8	11	11	40	19	28.8	19.6
PHF8-04	8	PT1/2	R1/2	12	12	43.5	24	30.5	20.9
PHF10-01	10	PT1/8	R1/8	8	8	30	12	28.7	13.8
PHF10-02	10	PT1/4	R1/4	9	11	33	15	30.7	14.8
PHF10-03	10	PT3/8	R3/8	11	11	40	19	30.7	19
PHF10-04	10	PT1/2	R1/2	12	12	43.5	24	34	22.9
PHF12-02	12	PT1/4	R1/4	9	11	33	15	32.2	13.8
PHF12-03	12	PT3/8	R3/8	11	11	40	19	34.2	17.7
PHF12-04	12	PT1/2	R1/2	12	12	43.5	24	34.2	23

### PB T-Shape Vertical Male Thread

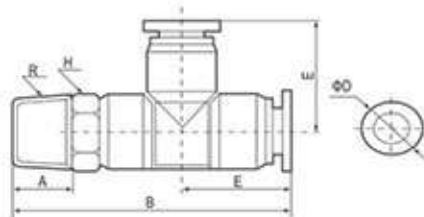


**Model**

- PB4-M5 PB8-03
- PB4-01 PB8-04
- PB4-02 PB10-01
- PB6-M5 PB10-02
- PB6-01 PB10-03
- PB6-02 PB10-04
- PB6-03 PB12-02
- PB6-04 PB12-03
- PB8-01 PB12-04
- PB8-02

Metric	$\phi D$	R	A	B	H	E
PB4-M5	4	M5	3.5		10	18.6
PB4-01	4	PT1/8	7		10	18.6
PB4-02	4	PT1/4	9		14	18.6
PB6-M5	6	M5	3.5		10	18.8
PB6-01	6	PT1/8	6.5		10	18.8
PB6-02	6	PT1/4	9	30	14	18.8
PB6-03	6	PT3/8	10	30.6	17	18.8
PB6-04	6	PT1/2	11	32.5	21	18.8
PB8-01	8	PT1/8	7	31.5	12	22.9
PB8-02	8	PT1/4	9	33	14	22.9
PB8-03	8	PT3/8	10	33.6	17	22.9
PB8-04	8	PT1/2	11	35	21	22.9
PB10-01	10	PT1/8	7	37	17	25.2
PB10-02	10	PT1/4	9	38	17	25.2
PB10-03	10	PT3/8	10	38	17	25.2
PB10-04	10	PT1/2	11	39	21	25.2
PB12-01	12	PT1/8	7	37.5	19	26.7
PB12-02	12	PT1/4	9	40	19	26.7
PB12-03	12	PT3/8	10	40	19	26.7
PB12-04	12	PT1/2	11	41	21	26.7
PB14-03	14	PT3/8	10	46.3	21	34.5
PB14-04	14	PT1/2	11	47.3	21	34.5

### PD T-Shape side Male Thread



**Model**

- PD4-M5 PD8-03
- PD4-01 PD8-04
- PD4-02 PD10-01
- PD6-M5 PD10-02
- PD6-01 PD10-03
- PD6-02 PD10-04
- PD6-03 PD12-02
- PD6-04 PD12-04
- PD8-01
- PD8-02

Metric	$\phi D$	R	A	B	H	E
PD4-M5	4	M5	3.5	35	10	18.7
PD4-01	4	PT1/8	7	35	10	18.7
PD4-02	4	PT1/4	9	37.5	14	18.7
PD6-M5	6	M5	3.5	38	10	20.3
PD6-01	6	PT1/8	7	38	10	20.3
PD6-02	6	PT1/4	9	40.5	14	20.3
PD6-03	6	PT3/8	10	39.5	17	20.3
PD6-04	6	PT1/2	11	43.5	21	20.3
PD8-01	8	PT1/8	7	40	12	22.8
PD8-02	8	PT1/4	9	42	14	22.8
PD8-03	8	PT3/8	10	44.5	17	22.8
PD8-04	8	PT1/2	11	45.5	21	22.8
PD10-01	10	PT1/8	7	49	17	26.2
PD10-02	10	PT1/4	9	51	17	26.2
PD10-03	10	PT3/8	10	52	17	26.2
PD10-04	10	PT1/2	11	53	21	26.2
PD12-01	12	PT1/8	7	51.5	19	28.2
PD12-02	12	PT1/4	9	53.5	19	28.2
PD12-03	12	PT3/8	10	54.5	19	28.2
PD12-04	12	PT1/2	11	55.5	21	28.2
PD14-03	14	PT3/8	10		21	35
PD14-04	14	PT1/2	11	85	21	35

Air Source Treatment

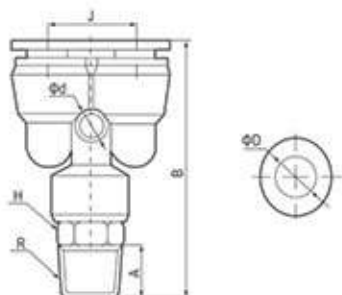
Control Components

Auxiliary Components

Executive Components

Accessories

## PX Y-Shape Three-Way Thread

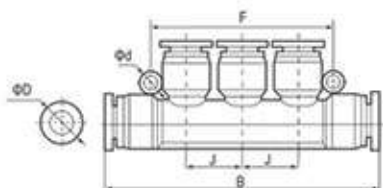


### Model

- PX4-M5    PX8-03
- PX4-01    PX8-04
- PX4-02    PX10-01
- PX6-M5    PX10-02
- PX6-01    PX10-03
- PX6-02    PX10-04
- PX6-03    PX12-02
- PX6-04    PX12-03
- PX8-01    PX12-04
- PX8-02

Metric	ϕD	R	A	B	H	J	E
PX4-M5	4	M5	3.5	37.7	10	10.8	2.5
PX4-01	4	PT1/8	7	37.7	10	10.8	2.5
PX4-02	4	PT1/4	9	40.2	14	10.8	2.5
PX6-M5	6	M5	3.5	41.5	10	13	3.5
PX6-01	6	PT1/8	6.5	40.3	10	13	3.5
PX6-02	6	PT1/4	9	42.8	14	13	3.5
PX6-03	6	PT3/8	10	44.8	17	13	3.5
PX6-04	6	PT1/2	11	45.8	21	13	3.5
PX8-01	8	PT1/8	7	45.5	12	15.2	4
PX8-02	8	PT1/4	9	47.5	14	15.2	4
PX8-03	8	PT3/8	10	50	17	15.2	4
PX8-04	8	PT1/2	11	51	21	15.2	4
PX10-01	10	PT1/8	7	49.7	17	19	4.2
PX10-02	10	PT1/4	9	51.7	17	19	4.2
PX10-03	10	PT3/8	10	52.7	17	19	4.2
PX10-04	10	PT1/2	11	53.7	21	19	4.2
PX12-01	12	PT1/8	8	54.2	19	20.5	4.2
PX12-02	12	PT1/4	10	56.2	19	20.5	4.2
PX12-03	12	PT3/8	10	57.2	19	20.5	4.2
PX12-04	12	PT1/2	11	58.2	21	20.5	4.2

## PK Five-way

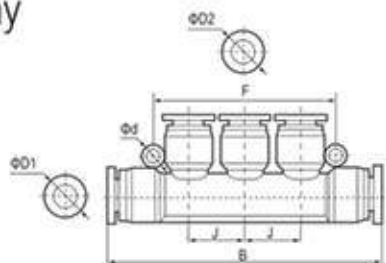


### Model

- PK4
- PK6
- PK8
- PK10
- PK12

Metric	ϕD	B	F	J	ϕd
PK-4	4	62.4	36.8	12	2.5
PK-6	6	68.6	54.8	17.5	4
PK-8	8	80.5	54.8	17.5	4
PK-10	10	91.4	62.5	20.4	4
PK-12	12	112	71	23	4

## PKG Reduced Five-way

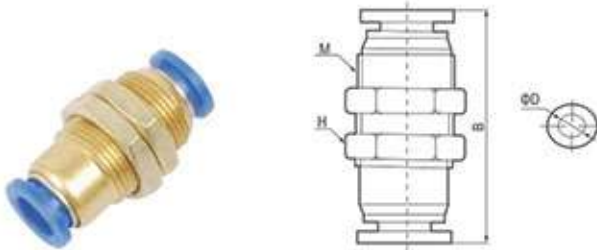


### Model

- PKG6-4
- PKG8-4
- PKG8-6
- PKG10-6
- PKG10-8
- PKG12-8
- PKG12-10

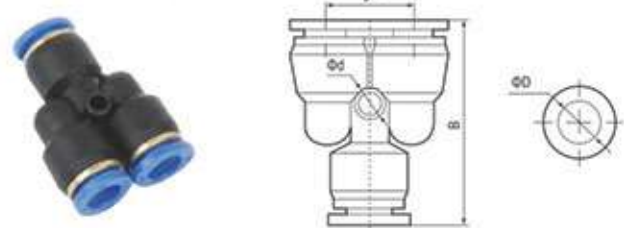
Metric	ϕD1	ϕD2	B	F	J	ϕd
PKG6-4	6	4	68.6	41.4	13.5	4
PKG8-6	8	6	80.5	52.5	17.7	4
PKG10-8	10	8	91.4	58	19.5	4
PKG12-10	12	10	101.4	67.7	22	4
PKG8-4	8	4	81	52.5	18	4.5
PKG10-6	10	6	91.4	58	19.5	4
PKG12-8	12	8	101.4	67.7	22	4

## PM Bulkhead Union



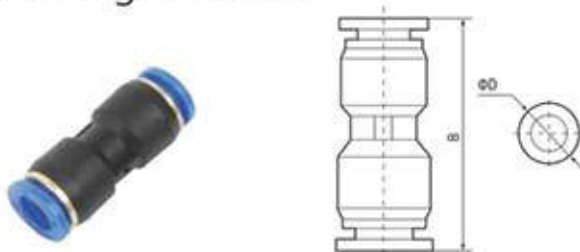
Model	Metric	ϕ D	M	B	H
PM4	PM-4	4	M12 x 1.0	34.5	15
PM6	PM-6	6	M14 x 1.0	37	17
PM8	PM-8	8	M16 x 1.0	37	19
PM10	PM-10	10	M20 x 1.0	45	24
PM12	PM-12	12	M22 x 1.0	46.4	27

## PY Y-Shape Three-Way



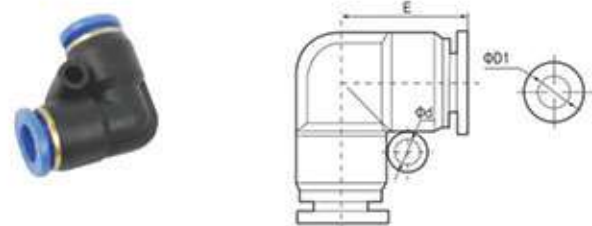
Model	Metric	ϕ D	B	J	ϕ d
PY4	PY-4	4	28	11.6	2.5
PY6	PY-6	6	30	13.3	3.5
PY8	PY-8	8	33	15.5	4
PY10	PY-10	10	48	38.5	4.2
PY12	PY-12	12	54	20.5	4.2

## PU Straight Union



Model	Metric	ϕ D	H
PU4	PU-4	4	33.4
PU6	PU-6	6	35.1
PU8	PU-8	8	39
PU10	PU-10	10	44.4
PU12	PU-12	12	46.4
PU14	PU-14	14	51
PU16	PU-16	16	57.8

## PV Elbow Two-Way



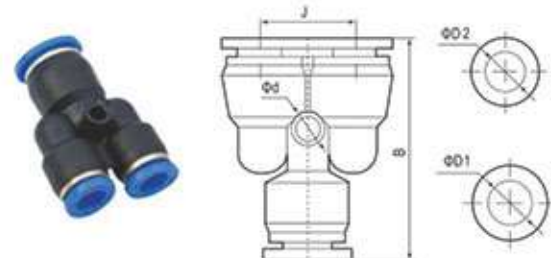
Model	Metric	ϕ D1	E	ϕ d
PV4	PV-4	4	18.7	/
PV6	PV-6	6	20.5	3.5
PV8	PV-8	8	23	4.5
PV10	PV-10	10	27	4.5
PV12	PV-12	12	28.5	5
PV14	PV-14	14	32	
PV16	PV-16	16	33.5	4

## PUG Reduced Straight Union



Model	Metric	ϕ D1	ϕ D2	B
PUG6-4	PUG6-4	6	4	35
PUG8-4	PUG8-6	8	6	36.3
PUG8-6	PUG10-8	10	8	40.2
PUG10-6	PUG12-10	12	10	44
PUG10-8	PUG16-12	16	12	47.5
PUG12-8	PUG8-4	8	4	47.5
PUG12-10	PUG10-6	10	6	67
PUG16-12	PUG12-8	12	8	67

## PYG Y-Shape Reduced Three-way



Model	Metric	ϕ D1	ϕ D2	B	J	ϕ d
PYG6-4	PYG6-4	6	4	38.5	13.5	3.5
PYG8-4	PYG8-6	8	6	42	16	4
PYG8-6	PYG10-8	10	8	47.2	18.4	4.5
PYG10-6	PYG12-10	12	10	52.4	20.5	4.5
PYG10-8	PYG8-4	8	4	42	16	4
PYG12-8	PYG10-6	10	6	47.2	18.4	4
PYG12-10	PYG12-8	12	8	52.2	20.2	4

## PE T-Shape Three-Way



Model	Metric	φD	B	E	F	φd
PE4	PE-4	4	37.4	18.7	13.5	/
PE6	PE-6	6	40.6	20.5	16	3.5
PE8	PE-8	8	46	23	20	4.5
PE10	PE-10	10	55.4	27.7	24	4.5
PE12	PE-12	12	57.4	28.7	27	5
PE14	PE-14	14	64	32	28	4
PE16	PE-16	16	69	34.5	33	4

## PEG T-Shape Reduced Three-Way



Model	Metric	φD1	φD2	B	E	F	φd
PEG6-4	PEG6-4	6	4	37.6	19.7	15	3.5
PEG8-4	PEG8-6	8	6	43	20.3	18	4.5
PEG8-6	PEG10-8	10	8	50.4	24.5	20	4.5
PEG10-6	PEG12-10	12	10	57.4	27.7	24.5	5
PEG10-8	PEG16-12	16	12	69	34	32.2	4
PEG12-8	PEG8-4	8	4	43	18	18	4.5
PEG12-10	PEG10-6	10	6	50.4	23.8	20	4
PEG16-12	PEG12-8	12	8	57.4	27.4	24.5	5

## SL Speed controller



Model		
SL4-M5	SL8-01	SL12-01
SL4-01	SL8-02	SL12-02
SL4-02	SL8-03	SL12-03
SL6-M5	SL8-04	SL12-04
SL6-01	SL10-01	SL16-04
SL6-02	SL10-02	
SL6-03	SL10-03	
SL6-04	SL10-04	

## LSA Pipe Speed controller



Model
LSA-4
LSA-6
LSA-8
LSA-10
LSA-12

## PKB Side Male Thread Five-Way



Model	
PKB4-01	PKB8-04
PKB4-02	PKB10-01
PKB6-01	PKB10-02
PKB6-02	PKB10-03
PKB6-03	PKB10-04
PKB8-01	PKB12-02
PKB8-02	PKB12-03
PKB8-03	PKB12-04

## PKD Side Female Thread



Model	
PKD4-01	PKD8-04
PKD4-02	PKD10-01
PKD6-01	PKD10-02
PKD6-02	PKD10-03
PKD6-03	PKD10-04
PKD8-01	PKD12-02
PKD8-02	PKD12-03
PKD8-03	PKD12-04

## PZA Union Cross



Model
PZA4
PZA6
PZA8
PZA10
PZA12

## HVFF series Hand Switch



Model
HVFF-4
HVFF-6
HVFF-8
HVFF-10
HVFF-12

## BUC series Hand Valves



### Model

- BUC-6
- BUC-8

## BC series Hand Valves



### Model

- BC6-01
- BC6-02
- BC6-03
- BC6-04
- BC8-01
- BC8-02
- BC8-03
- BC8-04

## BC-G series Hand Valve



### Model

- BC6-01G
- BC6-02G
- BC6-03G
- BC6-04G
- BC8-01G
- BC8-02G
- BC8-03G
- BC8-04G

## BL-G series Hand Valve



### Model

- BL6-01G
- BL6-02G
- BL6-03G
- BL6-04G
- BL8-01G
- BL8-02G
- BL8-03G
- BL8-04G

## BUL series Hand Valve



### Model

- BUL-06
- BUL-08

## KCM Push in Check valve



### Model

- KCM-04
- KCM-06
- KCM-08
- KCM-10
- KCM-12

## AN series Plastic Silencer

### Model

- AN-01
- AN-02
- AN-03
- AN-04



## AL series Plastic Silencer

### Model

- AL-01
- AL-02
- AL-03
- AL-04



## ST/SV series Brass Silencer

### Model

- PST-01
- PST-02
- PST-03
- PST-04
- PSV-01
- PSV-02
- PSV-03
- PSV-04



## PC Straight Male Thread



Model	PC4-M5B	PC8-04B
	PC4-01B	PC10-01B
	PC4-02B	PC10-02B
	PC6-M5B	PC10-03B
	PC6-01B	PC10-04B
	PC6-02B	PC12-01B
	PC6-03B	PC12-02B
	PC6-04B	PC12-03B
	PC8-01B	PC12-04B
	PC8-02B	PC16-03B
	PC8-03B	PC16-04B

## PCF Straight Female Thread



Model	PCF4-M5B	PCF8-03B
	PCF4-01B	PCF8-04B
	PCF4-02B	PCF10-01B
	PCF6-M5B	PCF10-02B
	PCF6-01B	PCF10-03B
	PCF6-02B	PCF10-04B
	PCF6-03B	PCF12-01B
	PCF6-04B	PCF12-02B
	PCF8-01B	PCF12-03B
	PCF8-02B	PCF12-04B

## PL Elbow Male Thread



Model	PL4-M5B	PL8-03B
	PL4-01B	PL8-04B
	PL4-02B	PL10-01B
	PL6-M5B	PL10-02B
	PL6-01B	PL10-03B
	PL6-02B	PL10-04B
	PL6-03B	PL12-01B
	PL6-04B	PL12-02B
	PL8-01B	PL12-03B
	PL8-02B	PL12-04B

## PLF Elbow Female Thread



Model	PLF4-M5B	PLF8-03B
	PLF4-01B	PLF8-04B
	PLF4-02B	PLF10-01B
	PLF6-M5B	PLF10-02B
	PLF6-01B	PLF10-03B
	PLF6-02B	PLF10-04B
	PLF6-03B	PLF12-01B
	PLF6-04B	PLF12-02B
	PLF8-01B	PLF12-03B
	PLF8-02B	PLF12-04B

## PY Y-Shape three-way



Model	PY4B
	PY6B
	PY8B
	PY10B
	PY12B

## PYG Y-Shape reduced three-way



Model	PYG6-4B
	PYG8-4B
	PYG8-6B
	PYG10-6B
	PYG10-8B
	PYG12-8B
	PYG12-10B

## PZA Cross four-way



Model	PZA4B
	PZA6B
	PZA8B
	PZA10B
	PZA12B

## PM Straight with partition



Model	PM4B
	PM6B
	PM8B
	PM10B
	PM12B

## PB T-Shape vertical Male Thread



Model	PB4-M5B	PB8-03B
	PB4-01B	PB8-04B
	PB4-02B	PB10-01B
	PB6-M5B	PB10-02B
	PB6-01B	PB10-03B
	PB6-02B	PB10-04B
	PB6-03B	PB12-01B
	PB6-04B	PB12-02B
	PB8-01B	PB12-03B
	PB8-02B	PB12-04B

## SL Speed controller



Model	SL4-M5B	SL8-04B
	SL4-01B	SL10-01B
	SL4-02B	SL10-02B
	SL6-M5B	SL10-03B
	SL6-01B	SL10-04B
	SL6-02B	SL12-01B
	SL6-03B	SL12-02B
	SL6-04B	SL12-03B
	SL8-01B	SL12-04B
	SL8-02B	SL16-03B
	SL8-03B	SL16-04B

## PE T-Shape three-way



Model
PE4B
PE6B
PE8B
PE10B
PE12B
PE14B
PE16B

## PEG T - Shape reduced three-way



Model
PEG6-4B
PEG8-4B
PEG8-6B
PEG10-6B
PEG10-8B
PEG12-8B
PEG12-10B
PEG16-12B

## PU Straight union



Model
PU4B
PU6B
PU8B
PU10B
PU12B
PU14B
PU16B

## PV Elbow two-way



Model
PV4B
PV6B
PV8B
PV10B
PV12B
PV14B
PV16B

## LSA Pipe speed controller



Model
LSA4B
LSA6B
LSA8B
LSA10B
LSA12B

## PK Five-way



Model
PK4B
PK6B
PK8B
PK10B
PK12B

## Brass Nickel Plating-One Touch Fittings

### PC Straight Male Thread



Model	
PC4-M5DN	PC8-041DN
PC4-01DN	PC10-01DN
PC4-02DN	PC10-02DN
PC6-M5DN	PC10-03DN
PC6-01DN	PC10-04DN
PC6-02DN	PC12-02DN
PC6-03DN	PC12-03DN
PC6-04DN	PC12-04DN
PC8-01DN	PC16-03DN
PC8-02DN	PC16-04DN
PC8-03DN	

### PL Elbow Male Thread



Model	
PL4-M5DN	PL8-041DN
PL4-01DN	PL10-01DN
PL4-02DN	PL10-02DN
PL6-M5DN	PL10-03DN
PL6-01DN	PL10-04DN
PL6-02DN	PL12-02DN
PL6-03DN	PL12-03DN
PL6-04DN	PL12-04DN
PL8-01DN	PL16-03DN
PL8-02DN	PL16-04DN
PL8-03DN	

### PB T-Shape vertical Male Thread



Model	
PB4-M5DN	PB8-041DN
PB4-01DN	PB10-01DN
PB4-02DN	PB10-02DN
PB6-M5DN	PB10-03DN
PB6-01DN	PB10-04DN
PB6-02DN	PB12-02DN
PB6-03DN	PB12-03DN
PB6-04DN	PB12-04DN
PB8-01DN	PB16-03DN
PB8-02DN	PB16-04DN
PB8-03DN	

### PX Y-Shape Three-Way Thread



Model	
PX4-M5DN	PX8-041DN
PX4-01DN	PX10-01DN
PX4-02DN	PX10-02DN
PX6-M5DN	PX10-03DN
PX6-01DN	PX10-04DN
PX6-02DN	PX12-02DN
PX6-03DN	PX12-03DN
PX6-04DN	PX12-04DN
PX8-01DN	PX16-03DN
PX8-02DN	PX16-04DN
PX8-03DN	

## Metal One Touch Fittings

### KC - PC Straight Male Thread



Model	
KC-PC4-M5	KC-PC10-01
KC-PC4-01	KC-PC10-02
KC-PC4-02	KC-PC10-03
KC-PC6-M5	KC-PC10-04
KC-PC6-01	KC-PC12-01
KC-PC6-02	KC-PC12-02
KC-PC6-03	KC-PC12-03
KC-PC6-04	KC-PC12-04
KC-PC8-01	KC-PC16-03
KC-PC8-02	KC-PC16-04
KC-PC8-03	
KC-PC8-04	

### KC - PL Elbow Male Thread



Model	
KC-PL4-M5	KC-PL10-01
KC-PL4-01	KC-PL10-02
KC-PL4-02	KC-PL10-03
KC-PL6-M5	KC-PL10-04
KC-PL6-01	KC-PL12-01
KC-PL6-02	KC-PL12-02
KC-PL6-03	KC-PL12-03
KC-PL6-04	KC-PL12-04
KC-PL8-01	KC-PL16-03
KC-PL8-02	KC-PL16-04
KC-PL8-03	
KC-PL8-04	

### KC - PB T-Shape vertical Male Thread



Model	
KC-PB4-M5	KC-PB10-01
KC-PB4-01	KC-PB10-02
KC-PB4-02	KC-PB10-03
KC-PB6-M5	KC-PB10-04
KC-PB6-01	KC-PB12-01
KC-PB6-02	KC-PB12-02
KC-PB6-03	KC-PB12-03
KC-PB6-04	KC-PB12-04
KC-PB8-01	KC-PB16-03
KC-PB8-02	KC-PB16-04
KC-PB8-03	
KC-PB8-04	

### KC - PLF Elbow Female Thread



Model	
KC-PLF4-M5	KC-PLF10-01
KC-PLF4-01	KC-PLF10-02
KC-PLF4-02	KC-PLF10-03
KC-PLF6-M5	KC-PLF10-04
KC-PLF6-01	KC-PLF12-01
KC-PLF6-02	KC-PLF12-02
KC-PLF6-03	KC-PLF12-03
KC-PLF6-04	KC-PLF12-04
KC-PLF8-01	KC-PLF16-03
KC-PLF8-02	KC-PLF16-04
KC-PLF8-03	
KC-PLF8-04	

## Quick Pipe Connectors

### KN - PC Straight Male Thread



#### Model

KN-PC4-M5	KN-PC10-01
KN-PC4-01	KN-PC10-02
KN-PC4-02	KN-PC10-03
KN-PC6-M5	KN-PC10-04
KN-PC6-01	KN-PC12-01
KN-PC6-02	KN-PC12-02
KN-PC6-03	KN-PC12-03
KN-PC6-04	KN-PC12-04
KN-PC8-01	KN-PC16-03
KN-PC8-02	KN-PC16-04
KN-PC8-03	
KN-PC8-04	

### KN - PL Elbow Male Thread



#### Model

KN-PL4-M5	KN-PL10-01
KN-PL4-01	KN-PL10-02
KN-PL4-02	KN-PL10-03
KN-PL6-M5	KN-PL10-04
KN-PL6-01	KN-PL12-01
KN-PL6-02	KN-PL12-02
KN-PL6-03	KN-PL12-03
KN-PL6-04	KN-PL12-04
KN-PL8-01	KN-PL16-03
KN-PL8-02	KN-PL16-04
KN-PL8-03	
KN-PL8-04	

### KN - PB T-Shape Vertical Male Thread



#### Model

KN-PB4-M5	KN-PB10-01
KN-PB4-01	KN-PB10-02
KN-PB4-02	KN-PB10-03
KN-PB6-M5	KN-PB10-04
KN-PB6-01	KN-PB12-01
KN-PB6-02	KN-PB12-02
KN-PB6-03	KN-PB12-03
KN-PB6-04	KN-PB12-04
KN-PB8-01	KN-PB16-03
KN-PB8-02	KN-PB16-04
KN-PB8-03	
KN-PB8-04	

### KN - PD T-Shape Side Male Thread



#### Model

KN-PD4-M5	KN-PD10-01
KN-PD4-01	KN-PD10-02
KN-PD4-02	KN-PD10-03
KN-PD6-M5	KN-PD10-04
KN-PD6-01	KN-PD12-01
KN-PD6-02	KN-PD12-02
KN-PD6-03	KN-PD12-03
KN-PD6-04	KN-PD12-04
KN-PD8-01	KN-PD16-03
KN-PD8-02	KN-PD16-04
KN-PD8-03	
KN-PD8-04	

### KN - PU Straight Union



#### Model

KN-PU4
KN-PU6
KN-PU8
KN-PU10
KN-PU12
KN-PU14
KN-PU16

### KN - PV Elbow Union



#### Model

KN-PV4
KN-PV6
KN-PV8
KN-PV10
KN-PV12
KN-PV14
KN-PV16

### KN - PM Straight with Partition



#### Model

KN-PM4
KN-PM6
KN-PM8
KN-PM10
KN-PM12
KN-PM14
KN-PM16

### KN - SL Speed Controller



#### Model

KN-SL4-M5	KN-SL10-01
KN-SL4-01	KN-SL10-02
KN-SL4-02	KN-SL10-03
KN-SL6-M5	KN-SL10-04
KN-SL6-01	KN-SL12-01
KN-SL6-02	KN-SL12-02
KN-SL6-03	KN-SL12-03
KN-SL6-04	KN-SL12-04
KN-SL8-01	KN-SL16-03
KN-SL8-02	KN-SL16-04
KN-SL8-03	
KN-SL8-04	

## Micro Quick Fittings



SPL-C

external diameter of pipe \* thread  
 3-M3 4-M5 5-M5 6-M5  
 3-M5 4-01 5-01 6-01  
 3-01 4-02 5-02 6-02



SPC-C

external diameter of pipe \* thread  
 3-M3 4-M5 5-M5 6-M5  
 3-M5 4-01 5-01 6-01  
 3-01 4-02 5-02 6-02

## Spp Series Plug



Model  
 SPP-4  
 SPP-6  
 SPP-8  
 SPP-10  
 SPP-12

## Rotation Fittings



Model (low Speed)	Rotation Speed	Model (high Speed)	Rotation Speed	Model (low Speed)	Rotation Speed	Model (high Speed)	Rotation Speed
NRC 04-M5	500	NHRC 04-M5	1500	NRL 04-M5	500	NHRL 04-M5	1500
NRC 04-M6		NHRC 04-M6		NRL 04-M6		NHRL 04-M6	
NRC 04-01		NHRC 04-01		NRL 04-01		NHRL 04-01	
NRC 06-01	400	NHRC 06-01	1200	NRL 06-01	400	NHRL 06-01	1200
NRC 06-02		NHRC 06-02		NRL 06-02		NHRL 06-02	
NRC 06-03		NHRC 06-03		NRL 06-03		NHRL 06-03	
NRC 06-04		NHRC 06-04		NRL 06-04		NHRL 06-04	
NRC 08-01	300	NHRC 08-01	1000	NRL 08-01	300	NHRL 08-01	1000
NRC 08-02		NHRC 08-02		NRL 08-02		NHRL 08-02	
NRC 08-03		NHRC 08-03		NRL 08-03		NHRL 08-03	
NRC 08-04		NHRC 08-04		NRL 08-04		NHRL 08-04	
NRC 10-03	200	NHRC 10-03	1000	NRL 10-03	200	NHRL 10-03	1000
NRC 10-04		NHRC 10-04		NRL 10-04		NHRL 10-04	
NRC 12-03	200	NHRC 12-03	1000	NRL 12-03	200	NHRL 12-03	1000
NRC 12-04		NHRC 12-04		NRL 12-04		NHRL 12-04	

## Oil Pipe



Model	OEL-01	OEL-02	OEL-03S小	OEL-03S大	OEL-04
Nozzle Type					
Thread Port Size	1/8"	1/4"	3/8"	3/8"	1/2"

### Order Code

OEL	-	O2	F
Series		Thread Port Size	Nozzle Type
		01:1/8"	O:Round
		02:1/4"	F:Flat
		03:3/8"	
		04:1/2"	

### Applicable Range

It Suitable For Lathe, Hydraulic Machinery, Cnc Machine, Water Cooling System. The Product Is Assembled By Manual. Can Be Regulated The Length ,nozzle Diameter, Position Arbitrarily, It Having The Features Of Beautiful Appearance, Big Capacity, Non Conducting, Anti-corrosion, Heat-resistant. Etc.

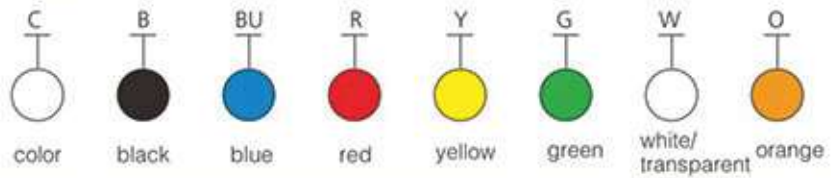


## Pu Tube

### Order Code

PU
08.06
B  
 Series    standard specification    tube color

### tube color



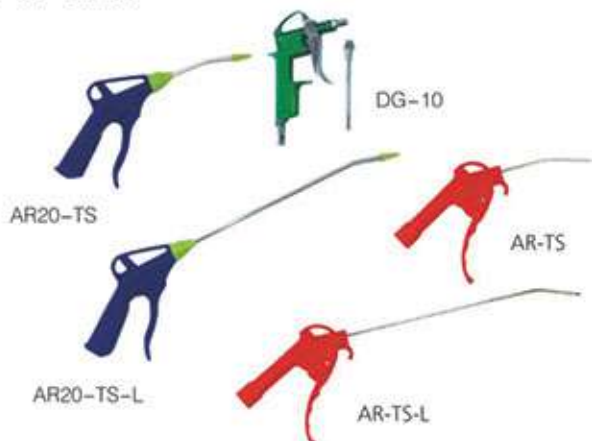
### Pu tube specification sheet

Model	PU0320	PU0425	PU0530	PU0640	PU0850	PU0860	PU1065	PU1080	PU1280	PU1290	PU1410	PU1611	PU1612
outer diameter mm	φ 3.0	φ 4.0	φ 5.0	φ 6.0	φ 8.0	φ 8.0	φ 10.0	φ 10.0	φ 12.0	φ 12.0	φ 14.0	φ 16.0	φ 16.0
inner diameter mm	φ 2.0	φ 2.5	φ 3.0	φ 4.0	φ 5.0	φ 6.0	φ 6.5	φ 8.0	φ 8.0	φ 9.0	φ 10.0	φ 11.0	φ 12.0

## Spiral Tube

outer diameter × inner diameter	length
6 x 4	3, 6, 9, 12, 15
8 x 5	3, 6, 9, 12, 15
10 x 6.5	3, 6, 9, 12, 15
12 x 8	3, 6, 9, 12, 15

## Air Gun



Each type of air gun provides users with safe, effective and easy to operate products for different needs of industry. Users can order different types of products according to their needs.

working fluid	compressed air
Max working pressure	10bar max
Working temperature	compressed air(dired)-20°C~ +80°C
material	Wrench And Body : Engineering Plastic

## C Type Quick Coupler

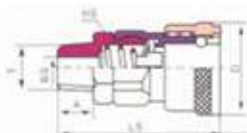
### Order Code

S	M	20
S:Main body P:Sub-body	M:male thread F:female thread H:pipe plug-in P:pipe locking	Port size 10:1/8" 20:1/4" 30:3/8" 40:1/2"

### Technical Specification

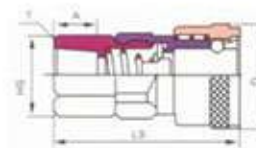
Working fluid	Air
Max withstand pressure	1.32Mpa(1.35kgf/cm <sup>2</sup> )
Max operating pressure	0-0.9Mpa(0-9.2kgf/cm <sup>2</sup> )
Ambient and fluid temperature	-5~60°C(Not Frozen)
Applicable soft pipe	PU soft pipe,Nylon pipe
Material	Zinc alloy

### SM



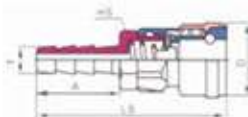
Models	A	BS	D	HS	LS	T
SM-10	9.7	6	26	19H	50.2	1/8PT
SM-20	9.4	6	26	19H	50.2	1/4PT
SM-30	15	8	26	19H	55.8	3/8PT
SM-40	16.5	11.5	26	21H	57.3	1/2PT
SM-60						

### SF



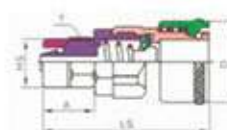
Models	A	BS	D	HS	LS	T
SF-10	9.4	6	26	19H	50.2	1/8PT
SF-20	9.4	6	26	19H	50.2	1/4PT
SF-30	15	8	26	19H	55.8	3/8PT
SF-40	16.5	11.5	26	21H	57.3	1/2PT
SF-60						

### SH



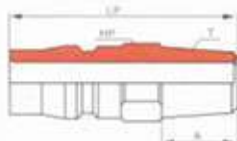
Models	Matched pipe A	D	HS	LS	T
SH-10	φ6	26	19H	66.8	7
SH-20	φ8	26	19H	66.8	9
SH-30	φ10	26	19H	66.8	11
SH-40	φ12	26	21H	66.8	13.5
SH-60					

### SP



Models	Matched pipe A	D	HS	LS	T
SP-10	φ6	14.5	26	13.3	55.3 14H
SP-20	φ8	14.5	26	13.3	55.3 14H
SP-30	φ10	15	26	13.3	57 15H
SP-40	φ12	17.5	26	15.8	58.8 19H

### PM



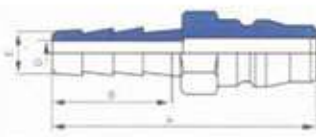
Models	A	HP	LP	T
PM-10	13.8	14H	40.8	1/8PT
PM-20	13.8	14H	40.8	1/4PT
PM-30	14.2	17H	41.2	3/8PT
PM-40	18	21H	43.8	1/2PT
PM-60				

### PF



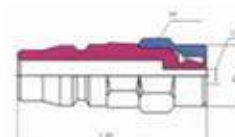
Models	HP	O	LP	T
PF-10	17H	20	36	1/8PT
PF-20	17H	20	36	1/4PT
PF-30	19H	20	36	3/8PT
PF-40	21H	20	37	1/2PT
PF-60				

### PH



Models	Matched pipe	A	B	D	E
PH-10	φ6	52.8	24	4.9	9
PH-20	φ8	52.8	24	4.9	9
PH-30	φ10	52.5	24	7.2	9.8
PH-40	φ12	52.3	24	7	12.6
PH-60					

### PP



Models	Matched pipe	B	D	H	LP
PP-10	φ6	2.9	13.3	14H	44.1
PP-20	φ8	2.9	13.3	14H	44.1
PP-30	φ10	3	13.2	15H	44.2
PP-40	φ12	5.2	15.8	19H	44.7

## Self-locked C Type Quick Coupler

### Order Code

L	S	M	-	20
Self locked	Main body	M: male thread F: female thread H: pipe plug-in P: pipe locking		Port size 10: 1/8" 20: 1/4" 30: 3/8" 40: 1/2"

### Technical Specification

Working fluid	Air
Max withstand pressure	1.32Mpa(1.35kgf/cm <sup>2</sup> )
Max operating pressure	0-0.9Mpa(0-9.2kgf/cm <sup>2</sup> )
Ambient and fluid temperature	-5~60°C(Not Frozen)
Applicable soft pipe	PU soft pipe, Nylon pipe
Material	Zinc alloy

### LSM series

Model
LSM-10
LSM-20
LSM-30
LSM-40



### LSF series

Model
LSF-10
LSF-20
LSF-30
LSF-40



### LSH series

Model
LSH-10
LSH-20
LSH-30
LSH-40



### LSP series

Model
LSP-10
LSP-20
LSP-30
LSP-40



## Multi-joint coupler

Model
SML 2
SML 3
SML 4
SML 5
SML 6



Model
SMV 2
SMY 3





# BLCH EXECUTIVE COMPONENTS

执行元件



## SC/SU Series Standard Cylinder



### Order Code

SC/SU	50x50	-	S	-	FA
Series	bore size X stroke	Magnet			Mounting type
SC: Standard double acting type		Blank: without magnet			Blank: basic type
SU: Standard double acting type		S: with magnet			CA: Single Earring type
SCD: Double rod type					CB: Double Earring type
SCJ: Double rod adjustable stroke type					FA: Front flange type
SCT: Multi-position type					FB: Back flange type
					LB: Front and back type
					TC: Central trunnion type
					TC-M: Center trunnion type with foot

### Calculation method of cylinder theoretical output : $F = P \cdot A$

F: Theoretical output of cylinder ( kgf ) P: working pressure ( kgf/cm<sup>2</sup> ) A: Pressure area of piston (cm<sup>2</sup>)

### Magnetic switch options

Type \ Bore size	32	40	50	63	80	100	125	160
Auto switch	CS1-F CS1-U							
Auto switch mounting base	F-50		F-63		F-100		F-125	F-160

### Specification

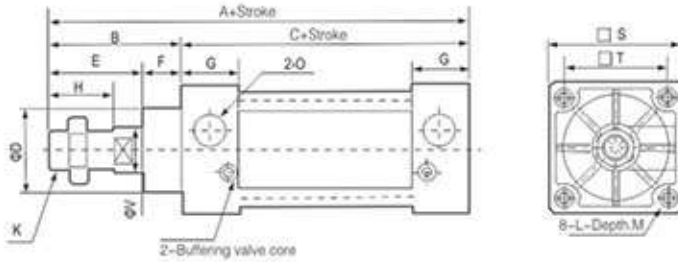
Bore size(mm)	32	40	50	63	80	100
Acting type	Double acting					
Working Medium	Air(to be filtered by 40 μ m filter element)					
Operating pressure	0.1~0.9Mpa(1~9kgf/cm <sup>2</sup> )					
Proof pressure	1.35Mpa(13.5kgf/cm <sup>2</sup> )					
Working Temperature range	-5~60°C(Unfreeze)					
Cushion type	Variable Cushion					
Adjustable cushion stroke (mm)			24			32
Port size	1/8"		1/4"		3/8"	1/2"
Body material	Aluminum alloy					

### Stroke

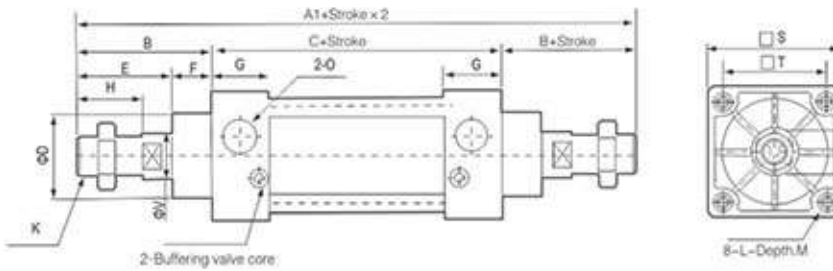
Bore size(mm)	Standard Stroke(mm)															Max std Stroke(mm)	Max Stroke(mm)			
32	25	50	75	100	125	150	175	200	250	300	350	400	500	1000	2000					
40	25	50	75	100	125	150	175	200	250	300	350	400	500	600	700	800	1200	2000		
50	25	50	75	100	125	150	175	200	250	300	350	400	500	600	700	800	900	1000	1200	2000
63	25	50	75	100	125	150	175	200	250	300	350	400	500	600	700	800	900	1000	1500	2000
80	25	50	75	100	125	150	175	200	250	300	350	400	500	600	700	800	900	1000	1500	2000
100	25	50	75	100	125	150	175	200	250	300	350	400	500	600	700	800	900	1000	1500	2000
125	25	50	75	100	125	150	175	200	250	300	350	400	500	600	700	800	900	1000	1500	2000
160	25	50	75	100	125	150	175	200	250	300	350	400	500	600	700	800	900	1000	1500	2000

## Dimensions ( mm )

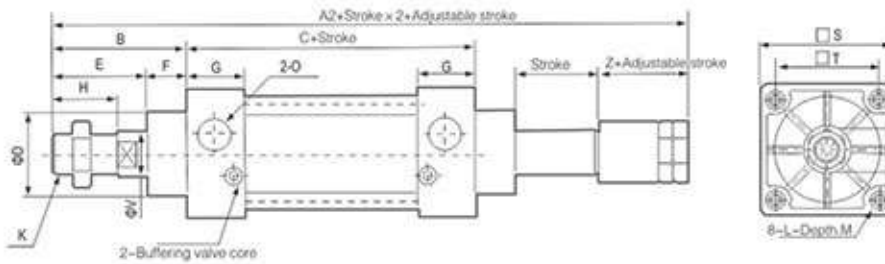
SC/SU Dimensions ( mm )



SCD/SUD



SCJ/SUJ



Bore size(mm)	A	A1	A2	B	C	D	E	F	G	H	K	L	O	S	T	V
32	140	187	182	47	93	28	32	15	27.5	22	M10x1.25	M6x1	G1/8	45	33	12
40	142	191	185	49	93	32	34	15	27.5	24	M12x1.25	M6x1	G1/4	50	37	16
50	150	207	196	57	93	38	42	15	27.5	32	M16x1.5	M6x1	G1/4	62	47	20
63	152	210	199	57	95	38	42	15	27.5	32	M16x1.5	M8x1.25	G3/8	75	56	20
80	183	258	243	75	108	47	54	21	33	40	M20x1.5	M10x1.5	G3/8	94	70	25
100	189	264	249	75	114	47	54	21	33	40	M20x1.5	M10x1.5	G1/2	112	84	25
125	251	357	348	106	145	60	74	32	40	54	M27x2	M12	G1/2	140	110	32
160	312	444	441	132	180	65	94	38	50	72	M36x2	M16	G1/2	180	140	40
200	347	509	472	162	185	75	112	50	50	72	M36x2	M16	G3/4	220	175	40
250	384			189	195	95	119	70	50	84	M42x2	M20	G3/4	280	225	50

## DNC Series Standard Cylinder



### Order Code

<b>DNC</b>	<b>63x50</b>	-	<b>PPV</b>	<b>A</b>
Series DNC: Normal type HNC: axial bumpers type FNC: Front and back flange SNCB: Double earring type SNCL: Single earring type	bore size X stroke		Blank: Without cushion PPV: with cushion	Blank: Standard A: with magnet

### Specification

Bore size(mm)	32	40	50	63	80	100
Acting type	Double acting					
Working Medium	Air(to be filtered by 40 μm filter element)					
Operating pressure	0.1~0.9Mpa(1~9kgf/cm <sup>2</sup> )					
Proof pressure	1.35Mpa(13.5kgf/cm <sup>2</sup> )					
Working Temperature range	-5~60°C(Unfreeze)					
Cushion type	Variable Cushion					
Adjustable cushion stroke (mm)	24			32		
Port size	1/8"	1/4"	3/8"		1/2"	
Body material	Aluminum alloy					

### Stroke

Bore size(mm)	Standard Stroke(mm)	Max std Stroke(mm)	Max Stroke(mm)
32	25 50 75 100 125 150 175 200 250 300 350 400 500	1000	2000
40	25 50 75 100 125 150 175 200 250 300 350 400 500 600 700 800	1200	2000
50	25 50 75 100 125 150 175 200 250 300 350 400 500 600 700 800 900 1000	1200	2000
63	25 50 75 100 125 150 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
80	25 50 75 100 125 150 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
100	25 50 75 100 125 150 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
125	25 50 75 100 125 150 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000
160	25 50 75 100 125 150 175 200 250 300 350 400 500 600 700 800 900 1000	1500	2000

Air Source Treatment

Control Components

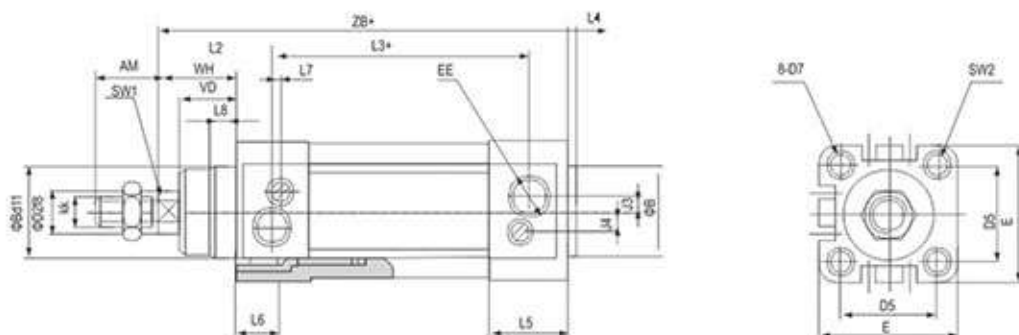
Auxiliary Components

Executive Components

Accessories

## Dimensions ( mm )

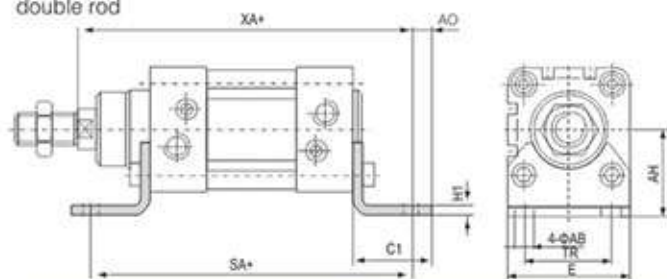
DNC...PPV-A  
Basic type



bore size(mm)	AM	E	D2	D5	D7	E	EE(G)	J3	J4	KK	L2	L3	L4	L5	L6	L7	L8	SW1	SW2	VD	WH	ZB
32	22	30	12	32.5	M6	45	1/8	6	5.2	M10x1.25	41.6	62.8	4	25.1	16	3.3	10	10	6	18	26	120
40	24	35	16	38	M6	54	1/4	8	6	M12x1.25	44	77	4	29.6	16	3.6	10.5	13	6	21.5	30	135
50	32	40	20	46.5	M8	64	1/4	10	8.5	M16x1.5	51	78	4	29.6	17	5.1	11.5	17	8	28	37	143
63	32	45	20	56.5	M8	75	3/8	12.4	10	M16x1.5	54	87	4	35.6	17	6.6	15	17	8	28.5	37	158
80	40	45	25	72	M10	93	3/8	12.5	8	M20x1.5	52.4	95.2	4	35.9	17	10.5	15.7	22	10	34.7	46	174
100	40	55	25	89	M10	100	1/2	11.8	10	M20x1.5	69.8	100.4	4	38.8	100	8	19.2	22	10	38.2	51	189

DNC...PPV-A

double rod

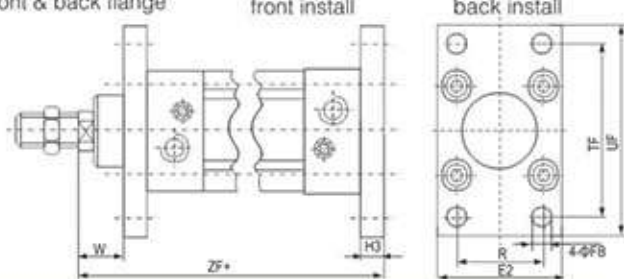


FNC...PPV-A

front & back flange

front install

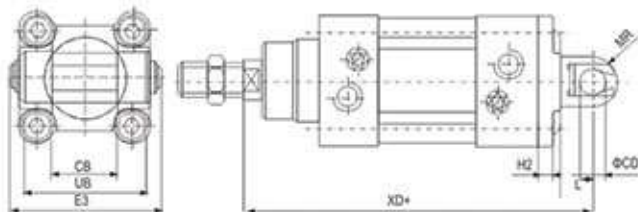
back install



bore size(mm)	AB	AH	AO	C1	E	H1	SA	TR	XA	E2	H13	H3	R	TF	UF	W	ZF
32	7	32	6.5	30.5	45	5	142	32	144	50	7	10	32	64	80	16	130
40	10	36	9	37	54	5	161	36	163	55	9	10	36	72	90	20	145
50	10	45	10.5	41.5	64	6	170	45	175	65	9	12	45	90	110	25	155
63	10	50	12.5	44.5	75	6	185	50	190	75	9	12	50	100	125	25	170
80	12	63	15	56	93	6	210	63	215	100	12	16	63	126	154	30	190
100	14	71	17.5	58.5	100	6	220	78	230	120	14	16	75	150	186	35	205

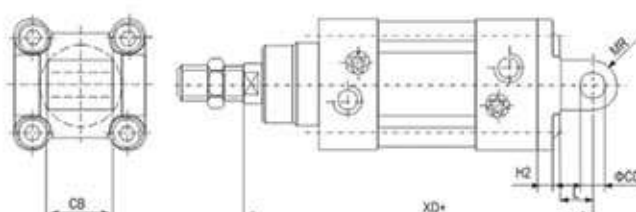
SNCB...PPV-A

Double earring



SNCL...PPV-A

Single earring

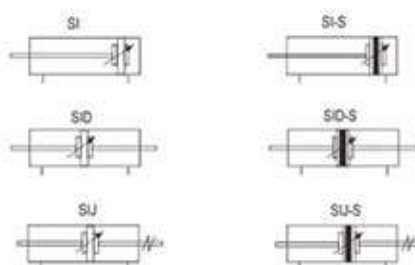


bore size(mm)	CB	DB	E3	H2	L	MR	UB	XD
32	26	10	55	6	13	10	45	142
40	28	12	63	6	16	12	52	160
50	32	12	71	7	16	12	60	170
63	40	16	83	7	21	16	70	190
80	50	16	103	10.5	22	16	90	210
100	60	20	127	10.5	27	20	110	230

## SI Series Standard Cylinder



### Symbol



### Order Code

<b>SIJ</b>	-	<b>50</b>	x	<b>50</b>	-	<b>S</b>	-	<b>20</b>	-	<b>LB*</b>
Model		bore size		strokes		Magnet		adjustable stroke		mounting type
SI: ISO6431 Standard double acting type						Blank: without magnet		10: 10mm		
SID: ISO 6431 Standard double rod acting type						S: with magnet		20: 20mm		
SIJ: ISO6431 Standard double acting with adjustable stroke								30: 30mm		
								40: 40mm		
								50: 50mm		
								75: 75mm		
								100: 100mm		

	mounting type	suit series			remark
Blank		SI	SID	SIJ	
LB		SI	SID	SIJ	
FA		SI	SID	SIJ	
FB		SI			
CA		SI			
CB		SI			
TC		SI	SID	SIJ	
TC-M-1		SI	SID	SIJ	suitable for bore size $\phi 32 \sim \phi 100$
TC-M-2		SI	SID	SIJ	

### Specification

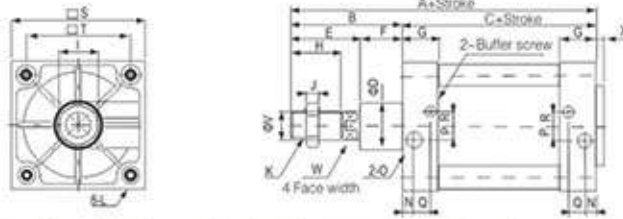
Bore size(mm)	32	40	50	63	80	100	125	160	200
Acting type	Double acting								
Working Medium	Air(to be filtered by 40 $\mu$ m filter element)								
Fixing Type	SI	Basic type FA FB CA CB LB TC TC-M-1 TC-M-2							
	SID	Basic type FA LB TC TC-M-1 TC-M-2							
	SIJ	Basic type FA LB TC TC-M-1 TC-M-2							
Operating pressure	0.1~0.9MPa(14~128Psi)								
Proof pressure	1.5MPa(213Psi)								
Working Temperature range	-5~60°C(Unfreeze)								
Using Speed Range Mm/s	SI series:50~800 other series:30~800								
Cushion type	Variable Cushion								
Adjustable cushion stroke (mm)	24							32	
Port size	PT1/8	PT1/4	PT3/8			PT1/2		PT3/4	

### Stroke

Bore Size(mm)	Standard Stroke(mm)	Max std Stroke(mm)	Max Stroke(mm)
32	25 50 75 80 100 125 150 160 175 200 250 300 400 450 500	1000	2000
40	25 50 75 80 100 125 150 160 175 200 250 300 400 450 500 600 700 800	1200	2000
50	25 50 75 80 100 125 150 160 175 200 250 300 400 450 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 150 160 175 200 250 300 400 450 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 150 160 175 200 250 300 400 450 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 150 160 175 200 250 300 400 450 500 600 700 800 900 1000	1500	2000
125	25 50 75 80 100 125 150 160 175 200 250 300 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 400 450 500 600 700 800 900 1000	1500	2000

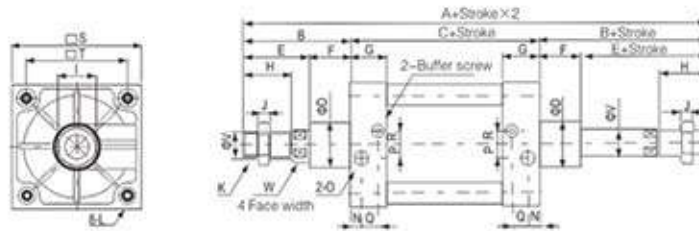
## Dimensions ( mm )

SI



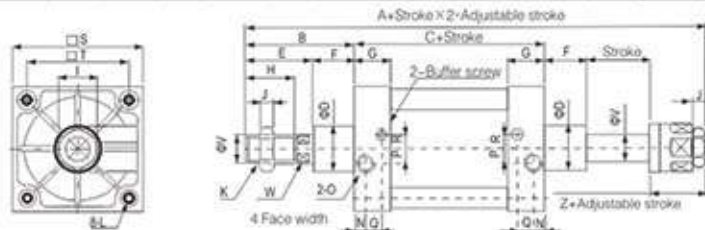
Bore Size(mm)	A	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q	R	S	T	V	W	X
32	142	48	94	30	28	20	27.5	22	17	6	M10x1.25	M6	13.5	PT1/8	4	7.5	7	47	32.5	12	10	3
40	159	54	105	35	34	22	32	24	19	7	M12x1.25	M6	16	PT1/4	6	8.5	9	53	38	16	13	3.5
50	175	69	106	40	42	27	31	32	24	8	M16x1.5	M8	15.5	PT1/4	8.5	7.5	7.5	65	46.5	20	17	3.5
63	190	69	121	45	40	29	33	32	24	8	M16x1.5	M8	16.5	PT3/8	7.5	8.5	9	75	56.5	20	17	4
80	214	86	128	45	53	33	33	40	30	10	M20x1.5	M10	16.5	PT3/8	11	8.5	13.5	95	72	25	22	4
100	229	91	138	55	55	36	37	40	30	10	M20x1.5	M10	18.5	PT1/2	13.5	9.5	14.5	115	89	25	22	4
125	279	119	160	60	74	45	46	54	41	13.5	M27x2	M12	23	PT1/2	14	12	14	140	110	32	27	4
160	332	152	180	65	94	58	50	72	55	18	M36x2	M16	25	PT3/4	15	12	20	180	140	40	36	4
200	347	167	180	75	100	67	50	72	55	18	M36x2	M16	25	PT3/4	15	12	20	220	175	40	36	5

SID



Bore Size(mm)	A	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q	R	S	T	V	W
32	190	48	94	30	28	20	27.5	22	17	6	M10x1.25	M6	13.5	PT1/8	4	7.5	7	47	32.5	12	10
40	213	54	105	35	32	22	32	24	19	7	M12x1.25	M6	16	PT1/4	6	8.5	9	53	38	16	13
50	244	69	106	40	42	27	31	32	24	8	M16x1.5	M8	15.5	PT1/4	7.5	8.5	8.5	65	46.5	20	17
63	259	69	121	45	40	29	33	32	24	8	M16x1.5	M8	16.5	PT3/8	7.5	8.5	9	75	56.5	20	17
80	300	86	128	45	53	33	33	40	30	10	M20x1.5	M10	16.5	PT3/8	11	8.5	13.5	95	72	25	22
100	320	91	138	55	55	36	37	40	30	10	M20x1.5	M10	18.5	PT1/2	13.5	8.5	14.5	115	89	25	22
125	398	119	160	60	74	45	46	54	41	13.5	M27x2	M12	23	PT1/2	14	12	14	140	110	32	27
160	484	152	180	65	94	58	50	72	55	18	M36x2	M16	25	PT3/4	15	12	20	180	140	40	36
200	514	167	180	75	100	67	50	72	55	18	M36x2	M16	25	PT3/4	15	12	20	220	175	40	36

SIJ

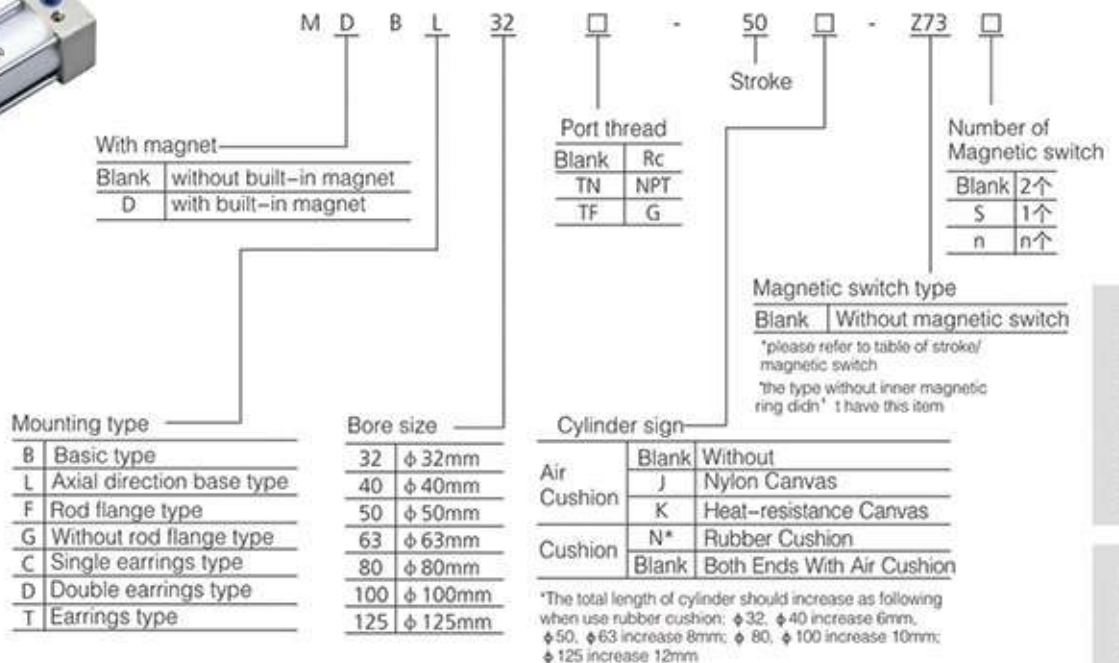


Bore Size(mm)	A	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q	R	S	T	V	W	Z
32	189	48	94	30	28	20	27.5	22	17	6	M10x1.25	M6	13.5	PT1/8	4.5	6.5	6.5	47	32.5	12	10	21
40	209	54	105	35	34	22	32	24	19	7	M12x1.25	M6	16	PT1/4	6	8.5	9	53	38	16	13	21
50	234	69	106	40	42	27	31	32	24	8	M16x1.5	M8	15.5	PT1/4	8.5	7.5	7.5	65	46.5	20	17	23
63	250	69	121	45	40	29	33	32	24	8	M16x1.5	M8	16.5	PT3/8	7.5	8.2	9	75	56.5	20	17	23
80	286	86	128	45	53	33	33	40	30	10	M20x1.5	M10	16.5	PT3/8	11	8.5	13.5	95	72	25	22	29
100	304	91	138	55	55	36	37	40	30	10	M20x1.5	M10	18.5	PT1/2	13.5	9.5	14.5	115	89	25	22	29
125	378	119	160	60	74	45	46	54	41	13.5	M27x2	M12	23	PT1/2	14	12	14	140	110	32	27	40.5
160	458	152	180	65	94	58	50	72	55	18	M36x2	M16	25	PT3/4	15	12	20	180	140	40	36	50
200	486	167	180	75	100	67	50	72	55	18	M36x2	M16	25	PT3/4	15	12	20	220	175	40	36	54

## MB Series Standard Cylinder



### Order Code



### Specification

Bore size(mm)	32	40	50	63	80	100	125
Working Medium	Air						
Acting type	double acting						
Max working pressure	1.0MPa						
Min working pressure	0.05MPa						
Ambient and Working Medium temperature	without magnetic switch:-10℃~+70℃, with magnetic switch:-10℃~+60℃						
Operating speed mm/s	50~1000						50~700
Cushion	both ends with air cushion						
Stroke tolerance mm	~250: $^{+1.0}_0$		251~1000: $^{+1.4}_0$		1001~1500: $^{+1.8}_0$		
Lubrication*	not required						
Port size Rc	1/8	1/4	1/4	3/8	3/8	1/2	1/2

\*For oil, please use Turbine No. 1 oil ISOVG32

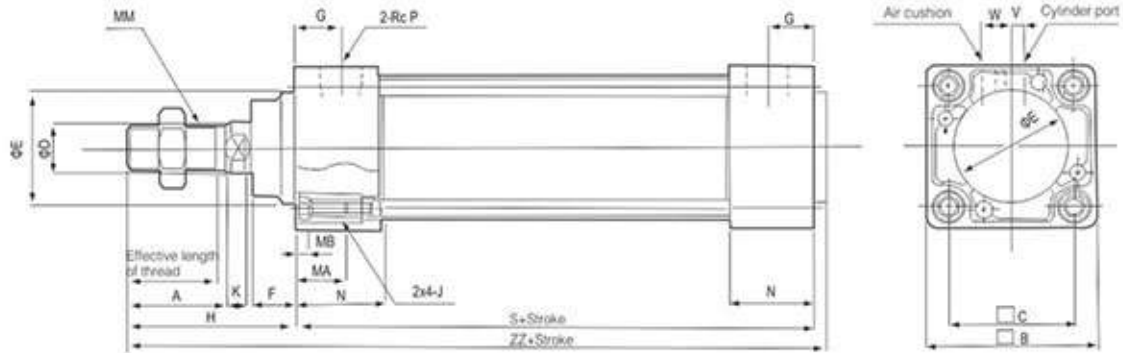
### Please refer to table of stroke/magnetic switch

Bore size(mm)	Max std Stroke(mm) <sup>1)</sup>	Magnetic switch type(mm) <sup>2)</sup> Tie-rod	Magnetic switch parts
32	25,50,75,100,125,150,175,200,250,300,	Z73, Z76, Y59A, Y59B Y7NW, Y7BA,	BMB4-032
40	350,400,450,500		BMB4-050
50	25,50,75,100,125,150,175,200,250,300,		BA4-060
63	350,400,450,500,600		BA4-080
80	25,50,75,100,125,150,175,200,250,300,		
100	350,400,450,500,600,700,800		
125			

- 1): Has Non-standard stroke
- 2): Wire length mark: no mark

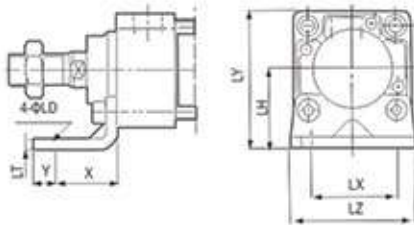
## Dimensions ( mm )

### Basic type

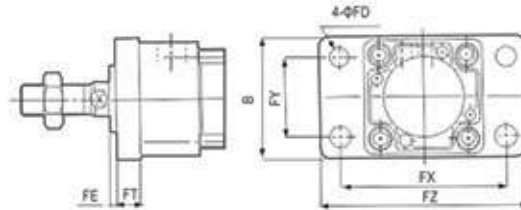


Bore size (mm)	Stroke range (mm)	Effective length of thread	A	B	C	ϕ D	ϕ E	F	G	MA	MB	J	K	MM	N	P	S	V	W	H	ZZ
32	~500	19.5	22	46	32.5	12	30	13	13	16	4	M6x1.0	6	M10x1.25	27	1/8	84	4	6.5	47	135
40	~500	27	30	52	38	16	35	13	14	16	4	M6x1.0	6	M14x1.5	27	1/4	84	4	9	51	139
50	~600	32	35	65	46.5	20	40	14	15.5	16	5	M8x1.25	7	M18x1.5	31.5	1/4	94	5	10.5	58	156
63	~600	32	35	75	56.5	20	45	14	16.5	16	5	M8x1.25	7	M18x1.5	31.5	3/8	94	9	12	58	156
80	~800	37	40	95	72	25	45	20	19	16	5	M10x1.5	10	M22x1.5	38	3/8	114	11.5	14	72	190
100	~800	37	40	114	89	30	55	20	19	16	5	M10x1.5	10	M26x1.5	38	1/2	114	17	15	72	190
125	~1000	50	54	136	110	32	60	27	19	20	6	M12x1.75	13	M27x2.0	38	1/2	120	17	15	97	223

### Foot type

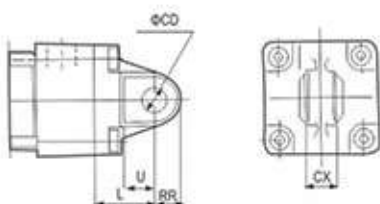


### Flange type



Bore size (mm)	Foot											Flange							
	Part Number	X	Y	ϕ LD	LH	LS	LT	LX	LY	LZ	ZZ	Part Number	B	ϕ FD	FE	FT	FX	FY	FZ
32	MB-L03	22	9	7	30	128	3.2	32	53	50	162	MB-F03	50	7	3	10	64	32	79
40	MB-L04	24	11	9	33	132	3.2	38	59	55	170	MB-F04	55	9	3	10	72	36	90
50	MB-L05	27	11	9	40	148	3.2	46	72.5	70	190	MB-F05	70	9	2	12	90	45	110
63	MB-L06	27	14	12	45	148	3.6	56	82.5	80	193	MB-F06	80	9	2	12	100	50	120
80	MB-L08	30	14	12	55	174	4.5	72	102.5	100	230	MB-F08	100	12	4	16	126	63	153
100	MB-L10	32	16	14	65	178	5	89	122	120	234	MB-F10	120	14	4	16	150	75	178
125	MB-L12	45	20	14	81	210	8	90	149	136	282	MB-F12	138	14	7	20	180	102	213

### single earring type



Bore size (mm)	Single Earring					
	Part Number	L	RR	U	ϕ CD	CX
32	MB-C03	23	10.5	13	10	14
40	MB-C04	23	11	13	10	14
50	MB-C05	30	15	17	14	20
63	MB-C06	30	15	17	14	20
80	MB-C08	42	23	26	22	30
100	MB-C10	42	23	26	22	30
125	MB-C12	50	28	30	25	32

## SDA Series compact Cylinder

### Order Code



- model code
- SDA: compact cylinder(double acting)
- SSA: compact cylinder(single acting push)1)
- STA: compact cylinder(single acting pull)2)
- SDAD: compact cylinder(double rod)
- SDAJ: compact cylinder(adjustable stroke)

Product specifications	Bore size
SSA/STA	12 16 20 25 32 40 50 63
Other specification	12 16 20 25 32 40 50 63 80 100

- SDA 20-30 S B
- SDAD20-30 S B
- SDAJ20-30-30 S B

- Thread code①
- Blank: g thread
- T: PT thread
- Rod thread
- Blank: female thread type
- B: male thread type
- Magnet
- Blank: without magnet
- S:with magnet

● Bore size

● Stroke

Please refer to table of stroke

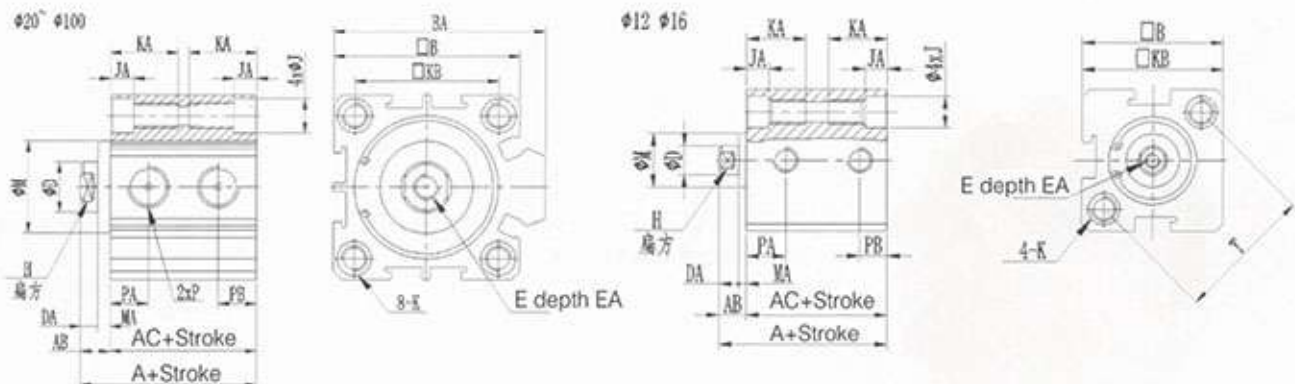
Product specifications	Adjustable stroke
SDAJ	10:10mm 20:20mm 30:30mm 40:40mm 50:50mm 75:75mm 100:100mm
Other Specification	Blank

①When the interface thread is M5jf, this code is empty  
 ②The single acting push type means that the piston rod extends during ventilation, the front spring is compressed, and retracts when the air is cut off.  
 The single acting pull type means that the piston rod retracts when the air is ventilated, the rear spring is compressed, and extends when the air is cut off.

### Specification

Bore size(mm)	12	16	20	25	32	40	50	63	80	100
Acting type	Double acting									
Working Medium	Air(to be filtered by 40 μ m filter element)									
Operating pressure range	Double Acting	0.1 ~ 1.0MPa(15 ~ 145psi)(1.0 ~ 10.0bar)(1 ~ 10kgf/cm <sup>2</sup> )								
	Single Acting	0.2 ~ 1.0MPa ( 28 ~ 145psi)(2.0 ~ 10.0bar)								
Proof pressure	1.5MPa(215psi)(15bar)									
Working Temperature range	-5~60°C(Unfreeze)									
using speed range mm/s	double acting: 30 ~ 500、single acting: 50 ~ 500									
stroke tolerance range	0~+1.0									
Cushion type	Bumper									
Port size	M5x0.8				G1/8		G1/4		G3/8	

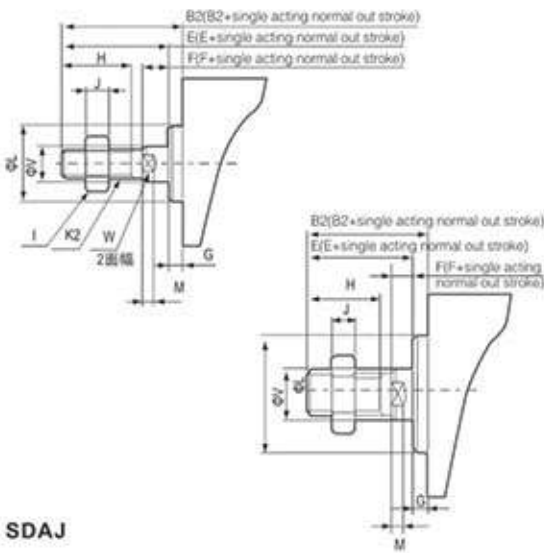
### Dimensions ( mm )



Bore size(mm)	A		AB	AC		B	BA	D	DA	E	EA	H	J	JA	KA	KB	M	MA	P	PA		PB		T
	standard	with magnet		standard	with magnet															St=5	St>5	St=5	St>5	
12	22	32	5	17	27	25	-	6	4	M3×0.5	6	5	6.5	4.5	12	16.3	10.2	1	M5×0.8	7.5	7.5	5	5	23
16	24	34	5.5	18.5	28.5	29	-	6	4	M3×0.5	6	5	6.5	4.5	12	19.8	11	1.5	M5×0.8	8	8	5	5.5	28
20	25	35	5.5	19.5	29.5	34	36	8	4	M4×0.7	8	6	6.5	4.5	14	24	13	1.5	M5×0.8	8	9	5	5.5	-
25	27	37	6	21	31	40	42	10	4	M5×0.8	10	8	8.2	5.5	15	28	17	2	M5×0.8	9	9	5.5	5.5	-
32	31.5	41.5	7	24.5	34.5	44	50	12	4.5	M6×1.0	12	10	8.2	5.5	16	34	22	2.5	PT1/8	9	9	6.5	9	-
40	33	43	7	26	36	52	58.5	16	4	M8×1.25	12	14	10.5	6.5	20	40	28	3	PT1/8	9.5	9.5	7.5	7.5	-
50	37	47	9	28	38	62	71.5	20	5	M10×1.5	15	17	10.5	6.5	25	48	38	4	PT1/4	8	10.5	8	10.5	-
63	41	51	9	32	42	75	84.5	20	5	M10×1.5	15	17	10.5	6.5	25	60	40	4	PT1/4	9.5	12	9.5	11	-
80	52	62	11	41	51	94	104	25	6	M14×1.5	20	22	17	11	25	74	45	5	PT3/8	11.5	14.5	11.5	14.5	-
100	63	73	12	51	61	114	124	32	7	M18×1.5	20	27	19	13	30	90	55	5	PT3/8	16	20.5	16	20.5	-

Φ12-Φ16

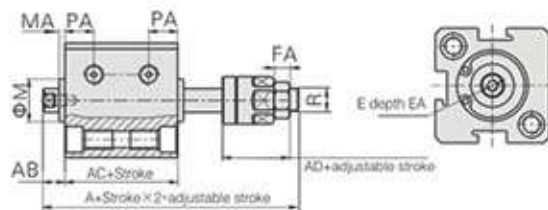
Φ20-Φ100



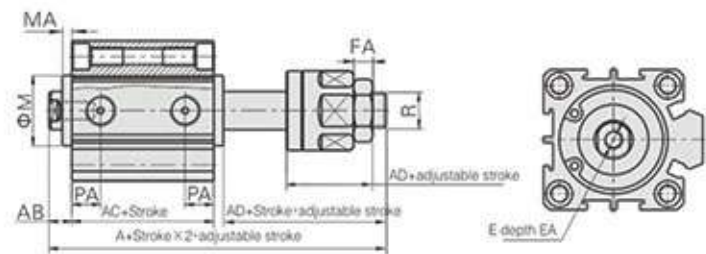
Bore size(mm)	B2	E	F	G	H	I	J	K2	L	M	V	W
12	17	16	4	1	10	8	4	M5x0.8	10.2	2.8	6	5
16	17.5	16	4	1.5	10	8	4	M5x0.8	11	2.8	6	5
20	20.5	19	4	1.5	13	10	5	M6x1.0	15	2.8	8	6
25	23	21	4	2	15	12	6	M8x1.25	17	2.8	10	8
32	25	22	4	3	15	17	6	M10x1.25	22	2.8	12	10
40	35	32	4	3	25	19	8	M14x1.5	28	2.8	16	14
50	37	33	5	4	25	27	11	M18x1.5	38	2.8	20	17
63	37	33	5	4	25	27	11	M18x1.5	40	2.8	20	17
80	44	39	6	5	30	32	13	M22x1.5	45	4	25	22
100	50	45	7	5	35	36	13	M22x1.5	55	4	25	27

SDAJ

Φ12, Φ16



Φ20-Φ100

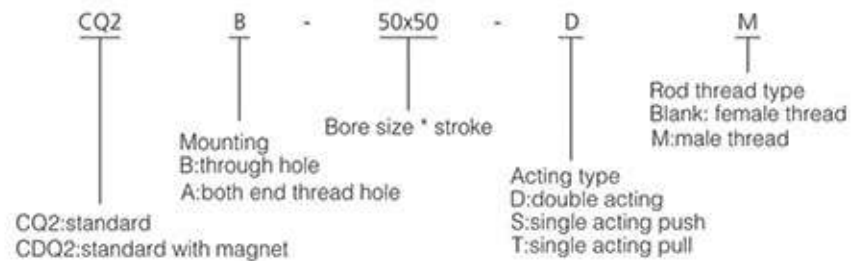


Bore size(mm)	A		AB	AC		AD	E	EA		FA	M	MA	PA		R
	standard	with magnet		standard	with magnet			St≤10	St>10				St=5	St>5	
12	40	50	5	17	27	17	M3×0.5	6	6	4	10.2	1	5.5	6.3	M5×0.8
16	42.5	52.5	5.5	18.5	28.5	17	M3×0.5	6	6	4	11	1.5	6.5	7.3	M5×0.8
20	47.5	57.5	5.5	19.5	29.5	21	M4×0.7	8(St=5時6.5)	5	15	1.5	7.5	7.5	M6×1.0	
25	54	64	6	21	31	25	M5×0.8	10(St=5時7)	6	17	2	8	8	M8×1.25	
32	61.5	71.5	7	24.5	34.5	27	M6×1.0	8	12	6	22	3	8	9	M10×1.25
40	64	74	7	26	36	28	M8×1.25	8	12	7	28	3	8	10	M12×1.25
50	70	80	9	28	38	29	M10×1.5	8	15	8	38	4	8	10.5	M16×1.5
63	74	84	9	32	42	29	M10×1.5	10	15	8	40	4	9.5	11.8	M16×1.5
80	92.5	102.5	11	41	51	35.5	M14×1.5	13	20	10	45	5	11.5	14.5	M20×1.5
100	110.5	120.5	12	51	61	42.5	M18×1.5	18	20	13.5	55	5	16	20.5	M27×2.0

## CQ2 series compact cylinder



### Order Code



### criteria for selection

type \ bore size	16	20	25	32	40	50	63	80	100	125	160
auto switch	D-A73L D-A93										

### Specification

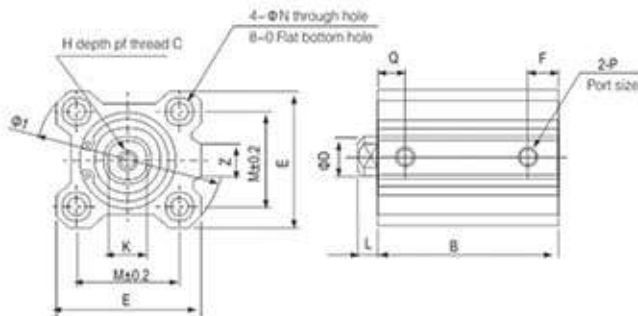
Bore size(mm)	12	16	20	25	32	40	50	63	80	100	
Acting type	Double acting										
Working Medium	Air(to be filtered by 40 μ m filter element)										
Operating pressure	0.1~0.9Mpa(1~9kgf/cm <sup>2</sup> )										
Proof pressure	1.35Mpa(13.5kgf/cm <sup>2</sup> )										
Working Temperature range	-5~60°C(Unfreeze)										
Cushion type	with Cushion										
Port size	M5				1/8"			1/4"		3/8"	
Body material	Aluminum alloy										

### Stroke

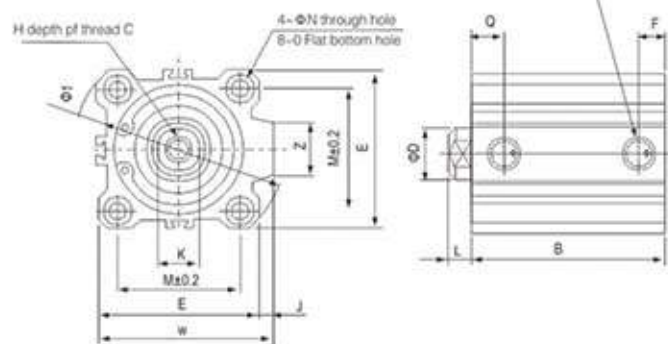
Bore size(mm)	Standard Stroke(mm)	Max std Stroke(mm)	Max Stroke(mm)
12	5 10 15 20 25 30 35 40 45 50	50	60
16	5 10 15 20 25 30 35 40 45 50	50	60
20	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80	80	90
25	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80	80	90
32	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100	130	150
40	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100	130	150
50	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100	130	150
63	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100	130	150
80	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100	130	150
100	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100	130	150

## Dimensions (mm)

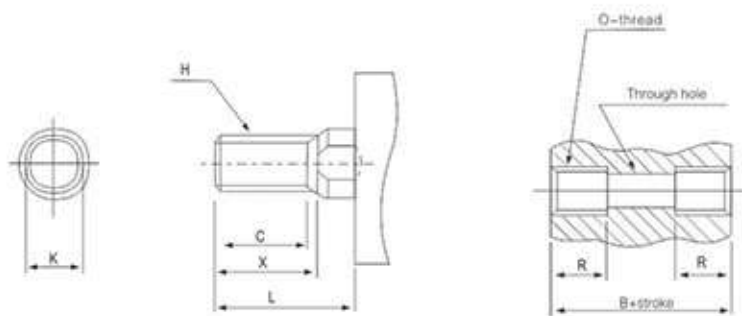
Φ12-Φ16



Φ12-Φ100



bore size(mm)	B	ΦD	E	F	H	C	I	J	K	L	M	ΦN	ΦO	P	Q	W	Z
12	17+st	6	25	5	M3x0.5	6	32	-	5	3.5	15.5	3.5	6.5depth3.5	M5x0.8	7.5	-	-
16	18.5+st	8	29	5.5	M4x0.7	8	38	-	6	3.5	20	3.5	6.5depth3.5	M5x0.8	8	-	10
20	19.5+st	10	36	5.5	M5x0.8	7	47	-	8	4.5	25.5	5.5	9depth7	M5x0.8	9	-	10
25	22.5+st	12	40	5.5	M6x1.0	12	52	-	10	5	28	5.5	9depth7	M5x0.8	11	-	10
32	23+st	16	45	7.5	M8x1.25	13	60	4.5	14	7	34	5.5	9depth7	1/8	10.5	49.5	18
40	29.5+st	16	52	8	M8x1.25	13	69	5	14	7	40	5.5	9depth7	1/8	11	57	18
50	30.5+st	20	64	10.5	M10x1.5	15	86	7	17	8	50	6.6	11depth3	1/4	10.5	74	22
63	36+st	20	77	10.5	M10x1.5	15	103	7	17	8	60	9	14depth10.5	1/4	15	84	22
80	43.5+st	25	98	12.5	M16x2.0	21	132	6	22	10	77	11	17depth13.5	3/8	16	104	26
100	53+st	30	117	13	M20x2.5	27	156	6.5	27	12	94	11	17depth13.5	3/8	23	123.5	26

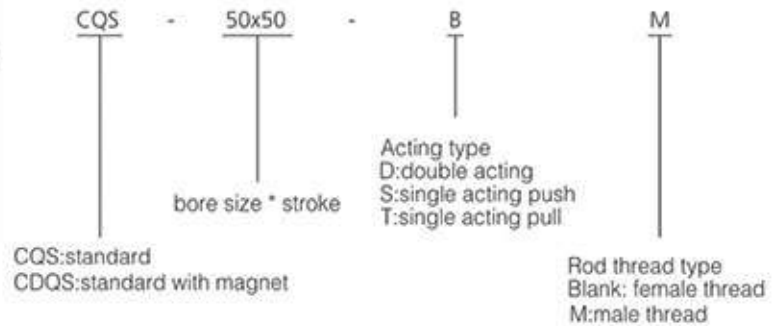


Bore size(mm)	C	X	D	H	L	K	O	R
12	9	10.5	6	M5x0.8	14	5	M4x0.7	7
16	10	12	8	M6x1.0	15.5	6	M7x0.7	7
20	13	14	10	M8x1.25	18.5	8	M6x1.0	10
25	15	17.5	12	M10x1.25	22.5	10	M6x1.0	10
32	20.5	23.5	16	M14x1.5	28.5	14	M6x1.0	10
40	20.5	23.5	16	M14x1.5	28.5	14	M6x1.0	10
50	26	28.5	20	M18x1.5	33.8	17	M8x1.25	14
63	26	28.5	20	M18x1.5	33.5	17	M10x1.5	18
80	32.5	35.5	25	M22x1.5	43.5	22	M12x1.75	22
100	32.5	35.5	30	M26x1.5	43.5	27	M12x1.75	22

## CQS series compact cylinder



### Order Code



### Criteria for selection

Bore size	12	16	20	25
Type	D-A93			
Auto switch				

### Specification

Bore size(mm)	12	16	20	25
Acting type	Double acting			
Working Medium	Air(to be filtered by 40 μm filter element)			
Operating pressure	0.1~0.9Mpa(1~9kgf/cm <sup>2</sup> )			
Proof pressure	1.35Mpa(13.5kgf/cm <sup>2</sup> )			
Working Temperature range	-5~60°C(Unfreeze)			
Cushion type	without Cushion			
Port size	M5			
Body material	Aluminum alloy			

### Stroke

bore size(mm)	Standard Stroke(mm)	Max std Stroke(mm)	Max Stroke(mm)
12	5 10 15 20 25 30	50	60
16	5 10 15 20 25 30	50	60
20	5 10 15 20 25 30 35 40 45 50	80	90
25	5 10 15 20 25 30 35 40 45 50	80	90

Air-Source Treatment

Control Components

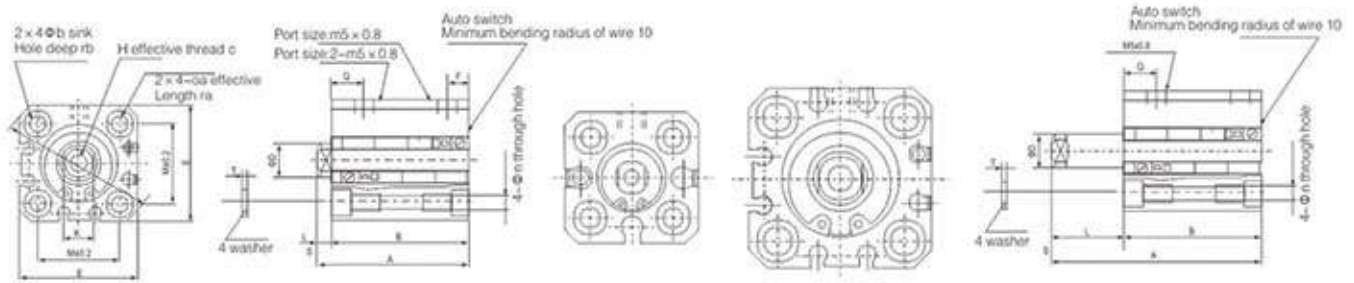
Auxiliary Components

Executive Components

Accessories

## Dimensions ( mm )

Through hole screw holes at both ends are same/cqsb cdasb



Bore size(mm)	Standard													Double acting (standard)					Built-in magnet type		
	C	D	E	H	I	K	M	N	OA	OB	RA	RB	T	Q	A	B	F	L	Q	A	B
12	6	6	25	M3x0.5	32	5	15.5	3.5	M4x0.7	6.5	7	4	0.5	7.5	20.5+st	17+st	5	3.5	7.5	25.5+st	22+st
16	8	8	29	M4x0.7	38	6	20	3.5	M4x0.7	6.5	7	4	0.5	7.5	22.5+st	17+st	5	3.5	7.5	25.5+st	22+st
20	7	10	36	M5x0.8	47	8	25.5	5.4	M6x1.0	9	10	7	1	9	24+st	19.5+st	5.5	4.5	9	34+st	29.5+st
25	12	12	40	M6x1.0	52	10	28	5.4	M6x1.0	9	10	7	1	11	27.5+st	22.5+st	5.5	5	11	37.5+st	32.5+st

### Single acting spring out

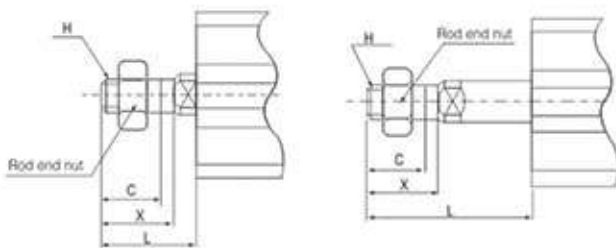
Bore size(mm)	Standard						Built-in magnet type			
	A		B		F	L	A		B	
	5st	10st	5st	10st			5st	10st	5st	10st
12	25.5	30.5	22	27	5	3.5	30.5	35.5	27	32
16	25.5	30.5	22	27	5	3.5	30.5	35.5	27	32
20	29	34	24.5	29.5	5.5	4.5	39	44	34.5	39.5
25	32.5	37.5	27.5	32.5	5.5	5	42.5	47.5	37.5	42.5

### Single acting spring back

Bore size(mm)	Standard							Built-in magnet type			
	A		B		L		Q	A		B	
	5st	10st	5st	10st	5st	10st		5st	10st	5st	10st
12	30.5	40.5	22	27	8.5	13.5	7.5	30.5	35.5	27	32
16	30.5	40.5	22	27	8.5	13.5	7.5	30.5	35.5	27	32
20	34	39	24.5	29	9.5	14.5	9	39	44	34.5	39.5
25	37.5	42.5	32.5	32.5	10	15	11	42.5	47.5	37.5	42.5

Bore size(mm)	C	H	L	X
12	90	M5x0.8	14	10.5
16	10	M6x1.0	15.5	12
20	12	M8x1.25	18.5	14
25	15	M10x1.25	22.5	17.5

Bore size(mm)	C	H	L(5XY)	L(10XY)	X
12	90	M5x0.8	19	12	10.5
16	10	M6x1.0	20.5	16	12
20	12	M8x1.25	23.5	20	14
25	15	M10x1.25	27.5	25	17.5

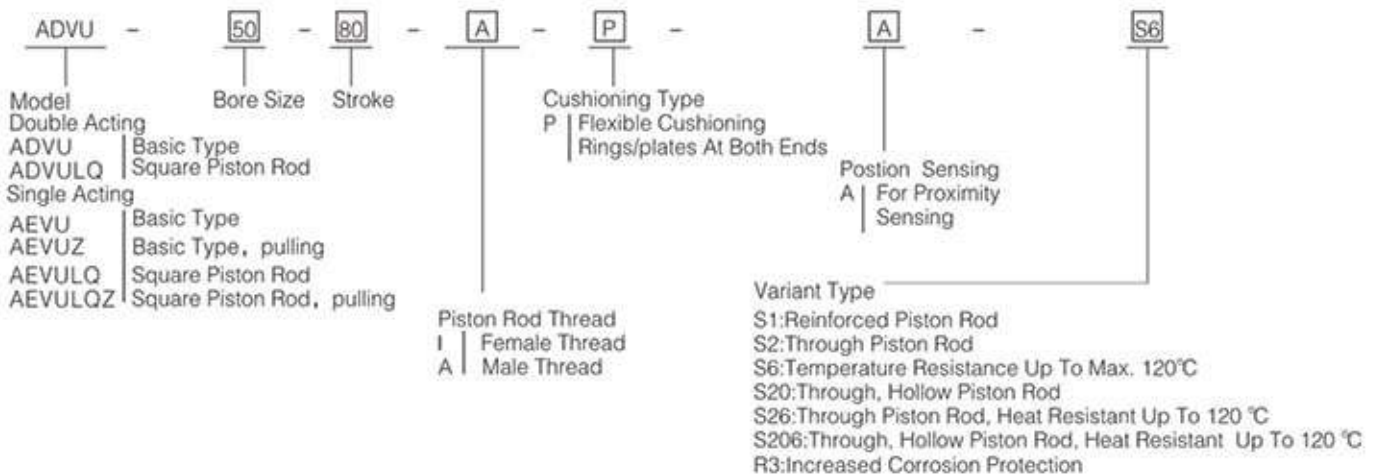


## ADVU seris compact cylinder

### Symbol



### Order Code



### Specification

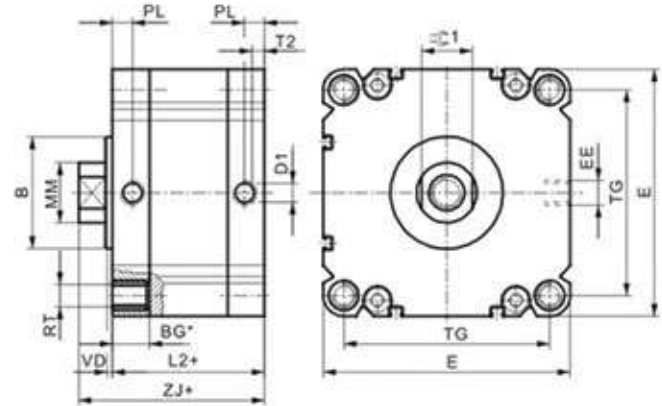
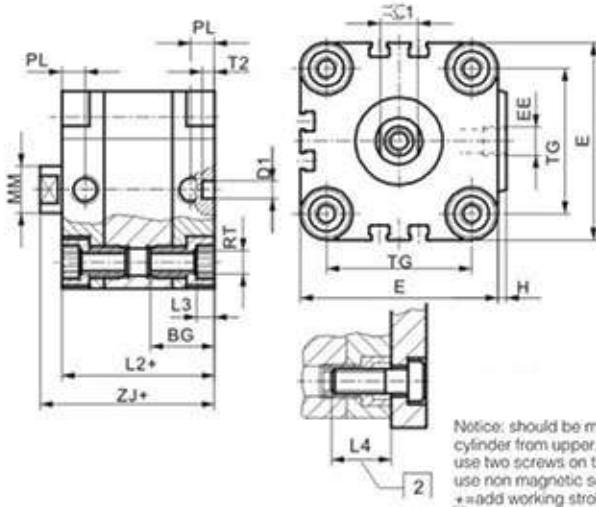
Bore size(mm)	12	16	20	25	32	40	50	63	80	100	125
Port Size	M5	M5	M5	M5	G1/8	G1/8	G1/8	G1/8	G1/8	G1/8	G1/4
Piston Rod End	female thread	M3	M4	M4	M5	M6	M6	M8	M8	M8	M12
	male thread	M6	M8	M10 x 1.5			M12 x 1.5		M16 x 1.5	M20 x 1.5	M27 x 2
Working Medium	Compressed air in accordance with ISO 85731:2010 [7:4:4]										
Note On Operating/pilot Medium:	Operation with lubricated medium possible (in which case lubricated operation will always be required)										
Theoretical Force At 6 Bar, Advancing		68	121	188	295	483	754	1178	1870	3016	4712
	S2/S20	51	90	141	247	415	686	1057	1750	2727	4418
Theoretical Force At 6 Bar, Retracting		51	90	141	247	415	686	1057	1750	2827	4418
	S2/S20	51	90	141	247	415	686	1057	1750	2827	4418
Max. Impact Energy At End Positions		0.09	0.10	0.14	0.30	0.40	0.52	0.64	0.70	0.75	1.00
	S20	0.01	0.01	0.01	0.01	0.04	0.05	0.06	0.07	0.08	0.10
Structure Feature	piston,piston rod										
Cushioning	spring cushioning at both ends										
Position Sensing	with position sensing										
Type of mounting	Via through hole										
	Via female thread										
	Via mounting plate										
Mounting position	any										

Air Source Treatment  
 Control Components  
 Auxiliary Components  
 Executive Components  
 Accessories

## Dimensions (mm)

basic type-ADVU  $\Phi$  12-100mm

$\Phi$  125mm

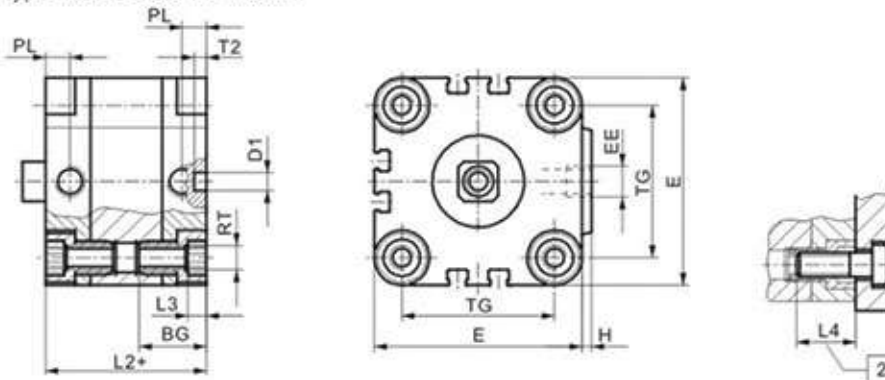


Notice: should be mount the cylinder from upper, and only use two screws on the cross or use non magnetic screw.  
+ = add working stroke  
② Mini. Rotating depth

\*Mini. Rotating depth 18mm  
Can not be screwed through with inner hex screws  
+ = add working stroke

$\Phi$ (mm)	B d11	BG	D1 $\Phi$ H9G	E	EE	H	L2	L3	L4	MM $\Phi$	PL	RT	T2 -0.2	TG	VD	ZJ	$\approx$ 1h13
12	-	18.5	6	29	M5	1	38	3	16	6	8	M4	4	18	-	42.5	5
16	-	18.5	6	29	M5	1	38	3	16	8	8	M4	4	18	-	42.5	7
20	-	18.5	6	36	M5	1.5	38	4	18	10	8	M5	4	22	-	42.5	9
25	-	18.5	6	40	M5	1.5	39.5	4	108	10	8	M5	4	26	-	45	9
32	-	21.5	6	50	G1/8	2	44.5	5	20	12	8	M6	4	32	-	50.5	10
40	-	21.5	6	60	G1/8	2.5	45.5	5	20	12	8	M6	4	42	-	52	10
50	-	22	6	68	G1/8	3	45.5	6	20	16	8	M8	4	50	-	53	13
63	-	24.5	8	87	G1/8	4	50	8	25	16	8	M10	4	62	-	57.5	13
80	-	27.5	8	107	G1/8	4	56	8	25	20	8.5	M10	4	82	-	64	17
100	-	32.5	8	128	G1/4	5	66.5	8	25	25	10.5	M10	4	103	-	76.5	22
125	60	19.5	10	132	G1/4	-	81	-	18	32	10.5	M12	6	110	4	99	27


basic type-ADVULO  $\Phi$  12-100mm



Notice: should be mount the cylinder from upper, and only use two screws on the cross or use non magnetic screw.  
+ = add working stroke  
② Mini. Rotating depth

$\Phi$ (mm)	BG	D1 $\Phi$ H9G	E	EE	H	L2	L3	L4	PL	RT	T2 -0.2	TG
12	18.5	6	29	m5	1	38	3	16	8	M4	4	18
16	18.5	6	29	m5	1	38	3	16	8	M4	4	18
20	18.5	6	36	m5	1.5	38	4	18	8	M5	4	22
25	18.54	6	40	m5	1.5	39.5	4	18	8	M5	4	26
32	21.5	6	50	G1/8	2	44.5	5	20	8	M6	4	32
40	21.5	6	60	G1/8	2.5	45.5	5	20	8	M6	4	42
50	22	6	68	G1/8	3	45.5	6	20	8	M8	4	50
63	24.5	8	87	G1/8	4	50	8	25	8	M10	4	62
80	27.5	8	107	G1/8	4	56	8	25	8.5	M10	4	82
100	32.5	8	128	G1/4	5	66.5	8	25	10.5	M10	4	103

## MAL series aluminum mini cylinder



**Order Code**

MAL CA 32x50 - B FA

Back cover  
Blank: pivot type  
Cm: round type  
U: flat-end type

Bore size\*stroke

Mounting type  
Blank: basic  
Fa: front flange type  
Sdb: back flange type  
Lb: foot bracket type

Series  
Mal: standard double acting type  
Mald: double rod double acting  
Malj: double rod adjustable stroke  
Msal: single acting push

Magnet  
Blank: without magnet  
S: with magnet

### Criteria for selection

Type \ Bore size	16	20	25	32	40
auto switch	CS1-F CS1-U				
Auto switch mounting base	MAL-16	MAL-20	MAL-25	MAL-32	MAL-40

### Specification

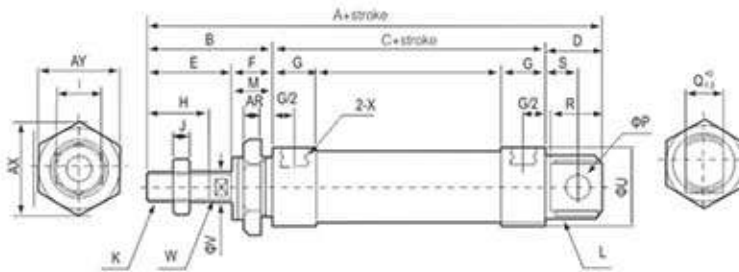
Bore size(mm)	16	20	25	32	40
Acting type	Double acting				
Working Medium	Air(to be filtered by 40 μm filter element)				
Operating pressure	0.1~0.9Mpa(1~9kgf/cm <sup>2</sup> )				
Proof pressure	1.35Mpa(13.5kgf/cm <sup>2</sup> )				
Working temperature range	-5~60°C(unfreeze)				
Cushion type	Bumper				
Port size	M5	1/8"			
Body material	Stainless steel				

### Stroke

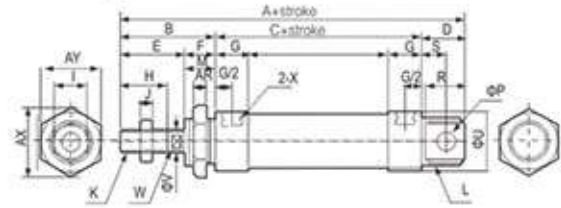
Bore size(mm)	Standard stroke(mm)	Max std stroke(mm)	Max stroke(mm)
12	25 50 75 100 125 150 175 200 250 300	500	800
16	25 50 75 100 125 150 175 200 250 300	500	800
20	25 50 75 100 125 150 175 200 250 300 350 400 500	800	1200
25	25 50 75 100 125 150 175 200 250 300 350 400 500	800	1200
40	25 50 75 100 125 150 175 200 250 300 350 400 500	1200	1500

## Dimensions (mm)

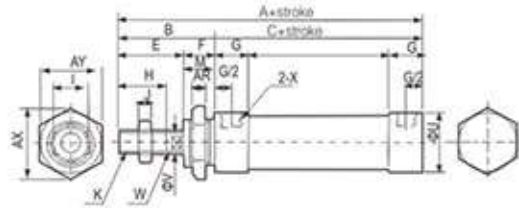
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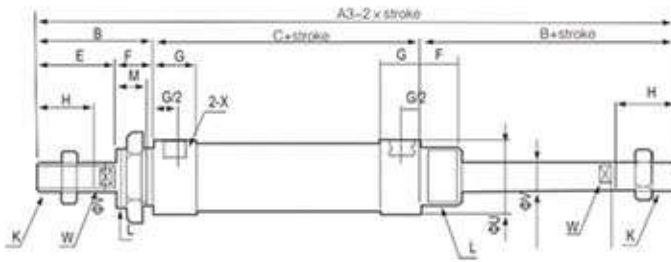
CM:round type



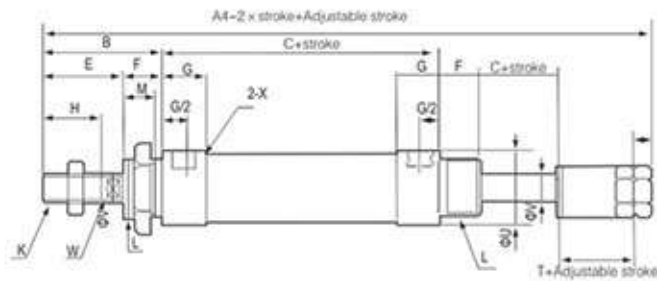
U:flat-end type



MALD:double rod double acting



MALJ:double rod adjustable stroke



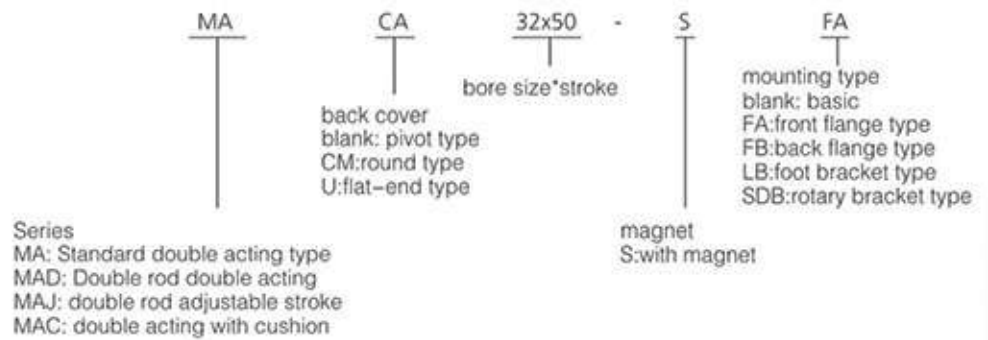
bore size(mm)	A	A1	A2	A3	A4	B	C	D	D1	E	F	G	H	I	J
16	107	108	92	131	137	40	51	16	16	24	16	10	16	10	5
20	131	122	110	150	147	40	70	21	12	28	12	16	20	12	5
25	135	128	114	158	154	44	70	21	14	30	14	16	22	17	6
32	141	128	114	158	154	44	70	21	14	30	14	-	22	17	6
40	143	130	116	162	160	46	70	27	14	32	14	-	24	19	7

bore size(mm)	K	L	M	P	Q	R	S	U	V	X	AR	AX	AY
16	M6x1	M16x1.5	14	6	12	16	10	22	6	M5	6	25	22
20	M8x1.25	M22x1.5	10	8	16	19	12	30	8	RC1/8	7	33	29
25	M10x1.25	M22x1.5	12	8	16	19	12	34	10	RC1/8	7	33	29
32	M10x1.25	M24x2.0	12	10	16	25	15	39	12	RC1/8	8	37	32
40	M12x1.25	M30x2.0	12	12	20	25	15	49	16	RC1/4	9	47	41

## MA Series stainless steel Mini Cylinder



### Order Code



### Criteria for selection

type \ bore size	16	20	25	32	40
auto switch	CS1-F CS1-U				
auto switch mounting base	MA-16	MA-20	MA-25	MA-32	MA-40

### Specification

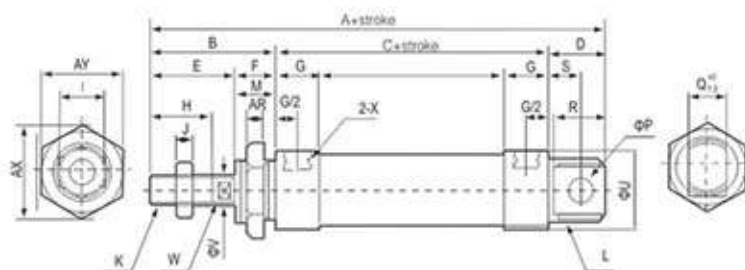
Bore size(mm)	16	20	25	32	40
Acting type	Double acting				
Working Medium	Air(to be filtered by 40 μ m filter element)				
Operating pressure	0.1~0.9Mpa(1~9kgf/cm <sup>2</sup> )				
Proof pressure	1.35Mpa(13.5kgf/cm <sup>2</sup> )				
Working Temperature range	-5~60°C(Unfreeze)				
Cushion type	without Cushion				
Port size	M5	1/8"			
Body material	stainless steel				

### Stroke

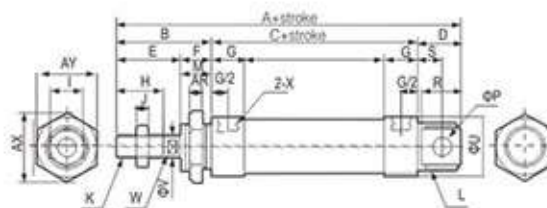
Bore size(mm)	Standard Stroke(mm)	Max std Stroke(mm)	Max Stroke(mm)
16	25 50 75 100 125 150 175 200 250 300	500	800
20	25 50 75 100 125 150 175 200 250 300	500	800
25	25 50 75 100 125 150 175 200 250 300 350 400 500	800	1200
32	25 50 75 100 125 150 175 200 250 300 350 400 500	800	1200
40	25 50 75 100 125 150 175 200 250 300 350 400 500	1200	1500

## Dimensions (mm)

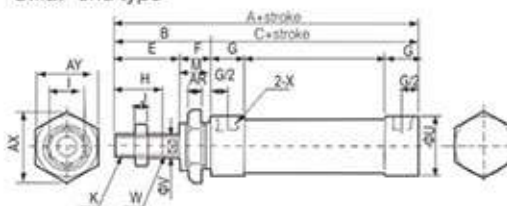
CA:blank: pivot type



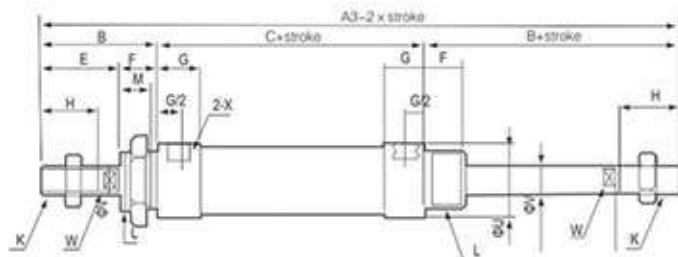
CM:round type



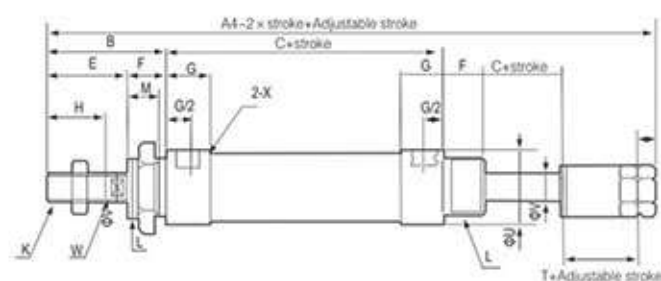
U:flat-end type



MALD:double rod double acting



MALJ:double rod adjustable stroke



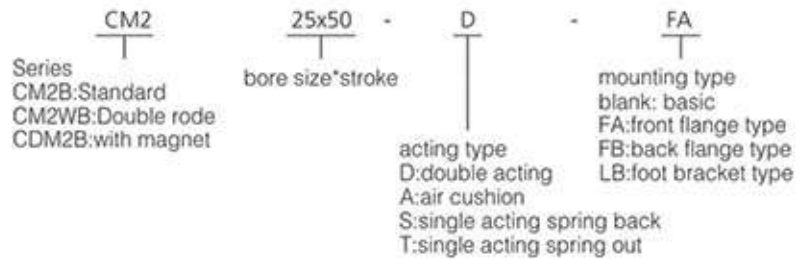
bore size(mm)	A	A1	A2	A3	A4	B	C	D	D1	E	F	G	H	I	J
16	107	108	92	131	137	40	51	16	16	24	16	10	16	10	5
20	131	122	110	150	147	40	70	21	12	28	12	16	20	12	5
25	135	128	114	158	154	44	70	21	14	30	14	16	22	17	6
32	141	128	114	158	154	44	70	21	14	30	14	16	22	17	6
40	143	130	116	162	160	46	70	27	14	32	14	16	24	19	7

bore size(mm)	K	L	M	P	Q	R	S	U	V	X	AR	AX	AY
16	M6x1	M16x1.5	14	6	12	16	10	22	6	M5	6	25	22
20	M8x1.25	M22x1.5	10	8	16	19	12	30	8	RC1/8	7	33	29
25	M10x1.25	M22x1.5	12	8	16	19	12	34	10	RC1/8	7	33	29
32	M10x1.25	M24x2.0	12	10	16	25	15	39	12	RC1/8	8	37	32
40	M12x1.25	M30x2.0	12	12	20	25	15	49	16	RC1/4	9	47	41

## CM2 Series stainless steel Mini Cylinder



### Order Code



### Criteria for selection

type \ bore size	16	20	25	32	40
auto switch	CS1-F CS1-U				
auto switch mounting base	MA-16	MA-20	MA-25	MA-32	MA-40

### Specification

Bore size(mm)	16	20	25	32	40
Acting type	Double acting				
Working Medium	Air(to be filtered by 40 μ m filter element)				
Operating pressure	0.1~0.9Mpa(1~9kgf/cm <sup>2</sup> )				
Proof pressure	1.35Mpa(13.5kgf/cm <sup>2</sup> )				
Working Temperature range	-5~60°C(Unfreeze)				
Cushion type	without Cushion				
Port size	M5	1/8"			1/4"
Body material	stainless steel				

### Stroke

Bore size(mm)	Standard Stroke(mm)	Max std Stroke(mm)	Max Stroke(mm)
16	25 50 75 100 125 150 175 200	300	500
20	25 50 75 100 125 150 175 200	500	1000
25	25 50 75 100 125 150 175 200 250 300	500	1000
32	25 50 75 100 125 150 175 200 250 300	500	1000
40	25 50 75 100 125 150 175 200 250 300	500	1000

Air Source Treatment

Control Components

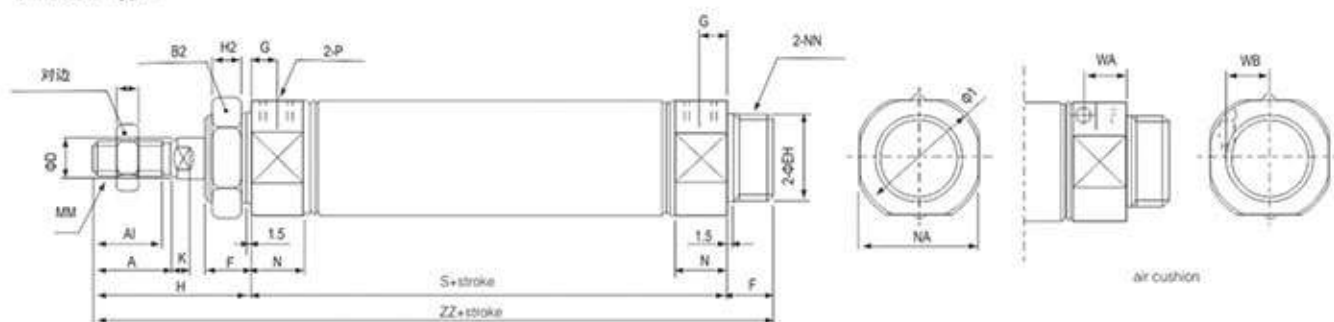
Auxiliary Components

Executive Components

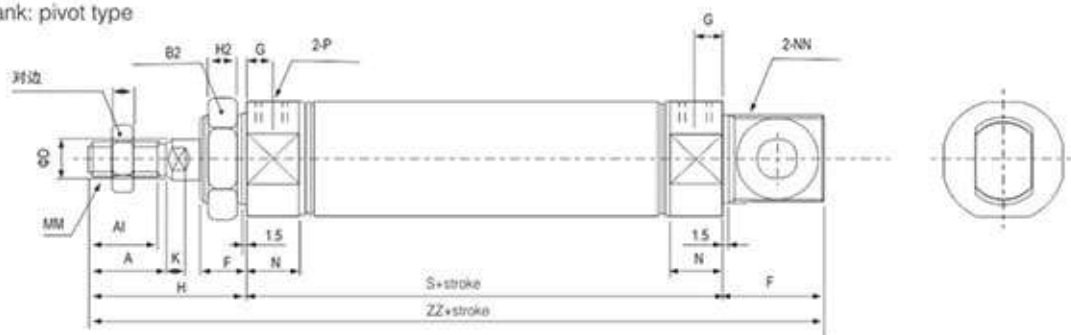
Accessories

## Dimensions (mm)

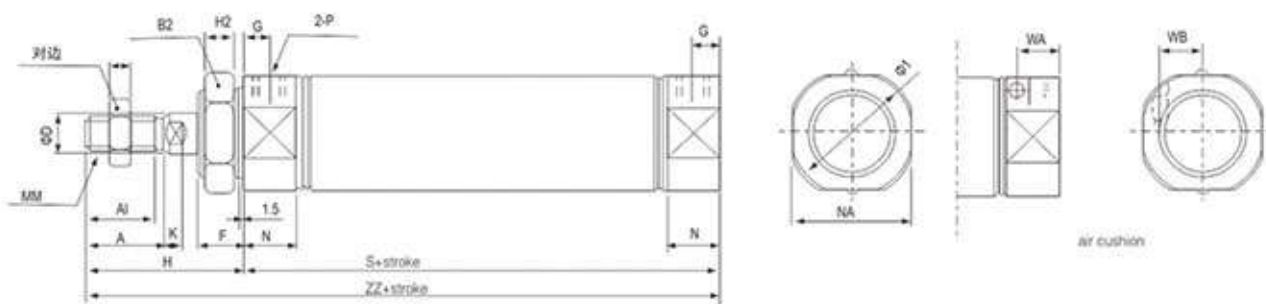
CM:round type



blank: pivot type



flat-end type



bore size(mm)	A	A1	B1	B2	D	E	F	G	H	H1	H2
16	18	15.5	13	26	8	20	13	8	41	5	8
20	18	15.5	13	26	8	20	13	8	41	5	8
25	22	19.5	17	32	10	26	13	8	45	6	8
32	22	19.5	17	32	12	26	13	8	45	6	8
40	24	21	22	41	14	32	16	11	50	8	10

bore size(mm)	K	L	I	K	N	NA	P	S	ZZ	WA	WB
16	M6x1	M20x1.5	28	5	15	24	M5	62	116	11.5	8.5
20	M8x1.25	M20x1.5	28	5	15	24	1/8	62	116	11.5	8.5
25	M10x1.25	M26x1.5	33.5	5.5	15	30	1/8	62	120	11.5	10
32	M10x1.25	M24x1.5	37.5	5.5	15	34.5	1/8	64	122	11.5	11.5
40	M14x1.5	M32x2.0	46.5	7	21.5	42.5	1/4	88	154	14	15

## CJ2 Series stainless steel Mini Cylinder



### Order Code

<u>CJ2B</u>	<u>25x50</u>	-	<u>D</u>
Series	bore size*stroke		acting type
CJ2B:Standard			D:double acting
CDJ2B:with magnet			S:single acting spring back
CDJ2D:double earing with magnet			T:single acting spring out

### Criteria for selection

type	bore size		
	6	10	16
auto switch	CS1-F CS1-U		

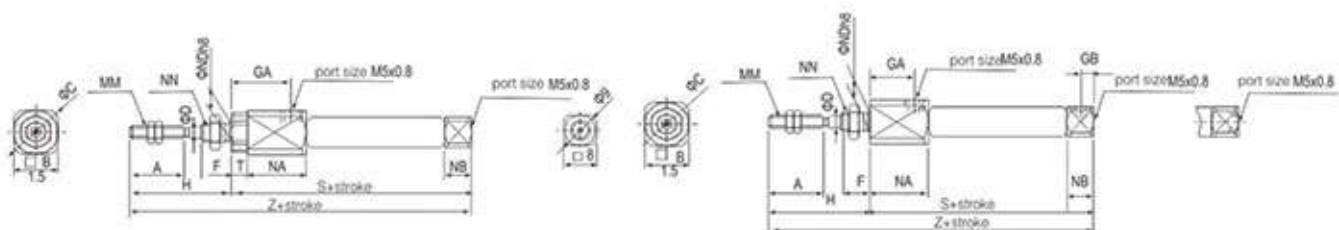
### Specification

Bore size(mm)	6	10	16
Acting type	Double acting		
Working Medium	Air(to be filtered by 40 μ m filter element)		
Operating pressure	0.1~0.7Mpa(1~7kgf/cm <sup>2</sup> )		
Proof pressure	1.05Mpa(10.5kgf/cm <sup>2</sup> )		
Working Temperature	-5~60°C(Unfreeze)		
Cushion type	without Cushion		
Port size	M5		
Body material	stainless steel		

### Stroke

Bore size(mm)	Standard Stroke(mm)
6	15 20 25 30 35 40 45 50 55 60
10	15 20 25 30 35 40 45 50 55 60
16	15 20 25 30 35 40 45 50 55 60 75 100 125

### Dimensions (mm)



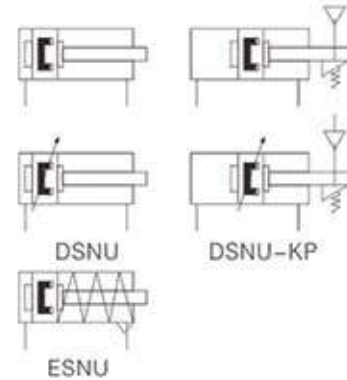
Bore size(mm)	A	B	C	D	F	GA	GB	H	MM	NA	NB	ND h8	MM	S	T	Z
6	15	12	14	3	8	14.5		28	M3x0.5	16	7	6	M6x1.0	49	3	77
10	15	12	14	4	8	8	5	28	M4x0.7	12.5	9.5	8	M8x1.0	46		74
16	15	18	20	5	8	8	5	28	M5x0.8	12.5	9.5	10	M10x1.0	47		75

## DSN series round cylinder

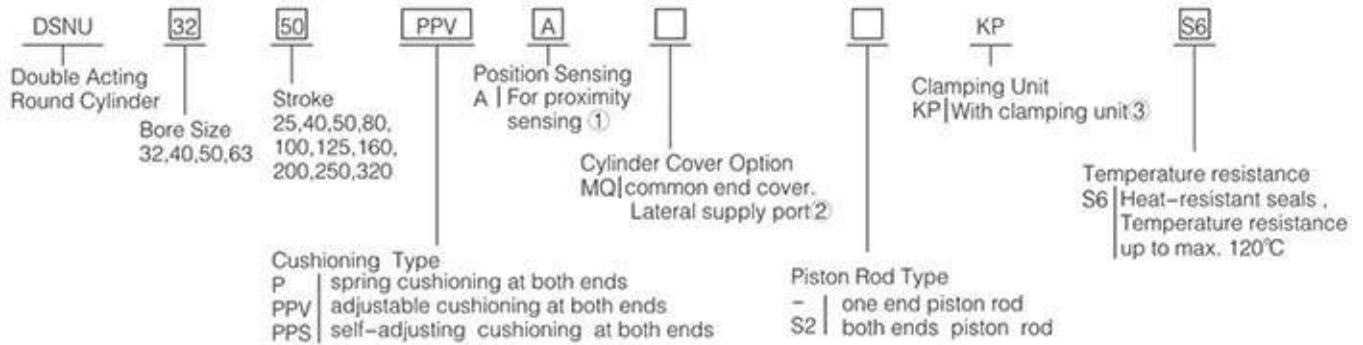


Good running performance and long service life  
Wide range of variants for customised applications  
Extensive range of accessories makes it possible to install the cylinder virtually anywhere

### Symbol



### Order Code



- 1)Mini. Stroke is 10mm
- 2)not suit for piston rod S2 cylinders
- 3)suit for the cylinders With clamping unit (KP)

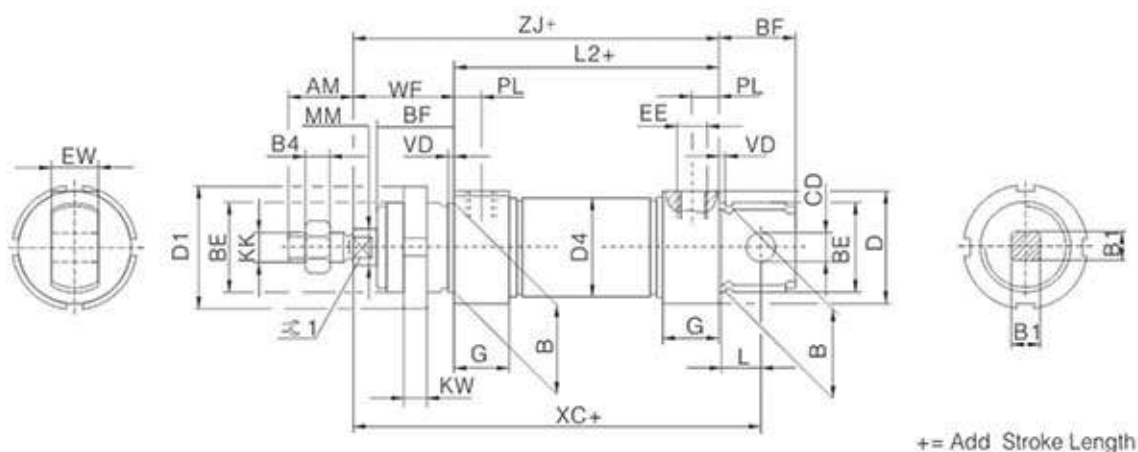
### Specification

Bore size(mm)	16	20	25	32	
Port Size	G1/8	G1/4	G1/4	G3/8	
Gripping Holder Port Size	M5	G1/8	G1/8	G1/8	
Piston Rod End	female thread				
Piston Rod Thread	M10 × 1.25	M12 × 1.25	M16 × 1.5	M16 × 1.5	
Cushioning Type	P	spring cushioning at both ends			
	PPV	adjustable cushioning at both ends			
	PPS	self-adjusting cushioning at both ends			
Cushioning Length(mm)	PPV	14	18	20	21
	PPS	14	18	20	21
Theoretical force at 6 bar, advancing(N)	483	753	1178	1870	
Theoretical force at 6 bar, retracting(N)	415	633	990	1682	
piston rod Max. Torsion ( Nm)	0.8	1.1	1.5	1.5	
material	End Cover:wrought Aluminium Alloy Piston Rod:high-alloy Stainless Steel		Cylinder Barrel:high-alloy Stainless Steel Seals:polyurethane, Nbr Spring:spring Steel		
	DSNU,basic type,variant type		DSNU,S6	DSNU-...-KP	
Working Pressure	1...10			3...10	
Ambient temperature	-20...+80		0...+120	-10...+80	

## Dimensions (mm)

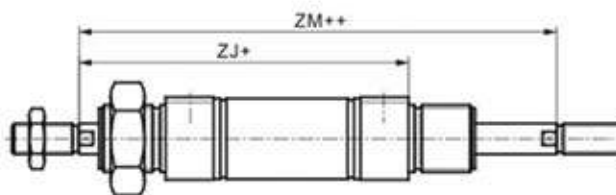
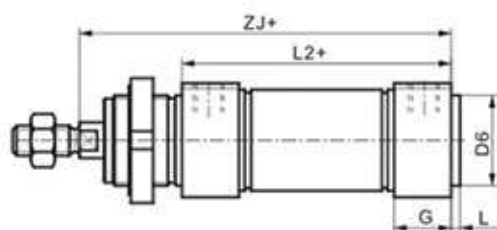
Basic Type

Q-square Piston Rod



Mq-lateral Supply Port

S2-both Ends Piston Rod



+= add stroke length  
 +=+ add twice stroke length

Both ends of the piston rod have the same thread structure. When combined with the variant type Q, the piston rod on the left side is square and the piston rod on the right side is round.

Φ(mm)	AM	B Φ h9	B1 □	BE	BF	CD Φ E10	D Φ	D1Φ	D4 Φ	EE	EW	G
32	22	30	10	M30 × 1.5	26	10	38	42	33.6	G1/8	16	19
40	24	38	12	M38 × 1.5	30	12	46	50	41.6	G1/4	18	25
50	32	45	16	M45 × 1.5	33	16	57	60	52.4		G3/8	
63							70		65.4			

Φ(mm)	KK	KW	L	L2	MmΦ	PL	VD	WF	XC ±1	ZJ	ZM	∠1
32	M10 × 1.25	8	13	69.5	12	9	2	34	117.5	103.5	137.5	10
40	M12 × 1.25	10	15	84.6	16	12	3	39	139.6	123.6	162.6	13
50	M16 × 1.5		16	86.2	20			13	44	147.2	130.2	174.2
63				94.2		45			156.2	139.2	184.2	

## TN Series double rod Cylinder



### Order Code

TN - 25x20  
Series - bore size X stroke

### Specification

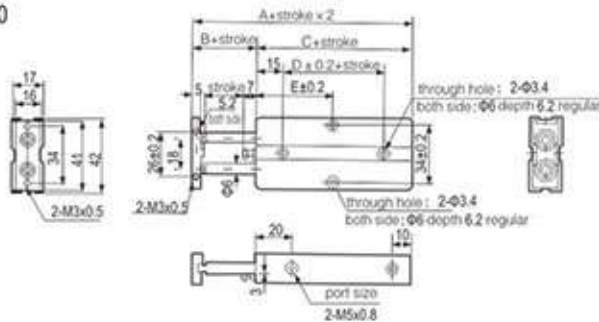
Bore size(mm)	10	16	20	25	32
Acting type	Double acting				
Working Medium	Air(to be filtered by 40 μm filter element)				
Operating pressure	0.1~0.9Mpa(1~9kgf/cm <sup>2</sup> )				
Proof pressure	1.35Mpa(13.5kgf/cm <sup>2</sup> )				
Working Temperature	-5~60°C(Unfreeze)				
Cushion type	bumper				
Port size	M5x0.8				G1/8"
Body material	Aluminum alloy				

### criteria for selection

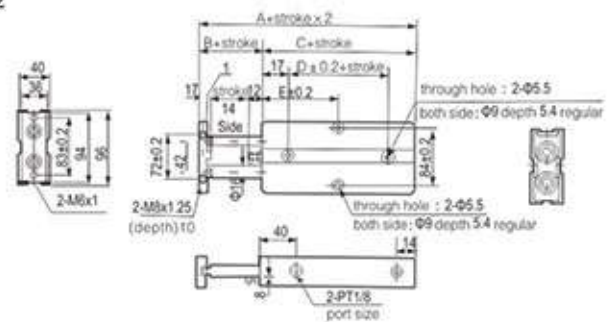
Bore size(mm)	Standard Stroke(mm)	Tolerate Stoke(mm)	Max. Stroke(mm)	Sensor Switch
10	10 20 30 40 50 60 70	70	100	CS1-G
16	10 20 30 40 50 60 70 80 90 100 125 150	150	200	
20	10 20 30 40 50 60 70 80 90 100 125 150	150	200	
25	10 20 30 40 50 60 70 80 90 100 125 150	150	200	
32	10 20 30 40 50 60 70 80 90 100 125 150	150	200	

### Dimensions ( mm )

Φ10



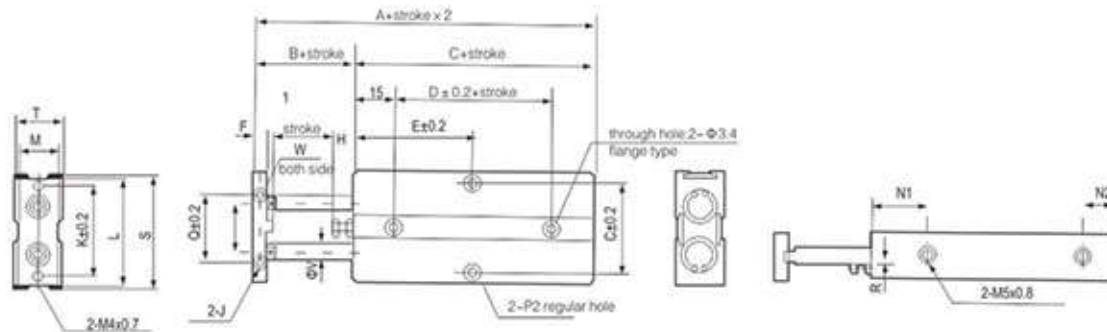
Φ32



Bore size (mm)	A	B	C	D	stroke ≤	10	20	30	40	50	60	70
10	58	12	46	10	E	30	30	35	40	45	50	55

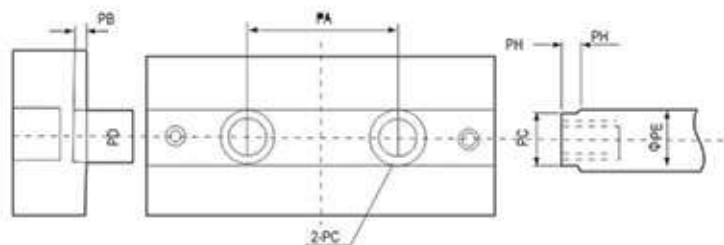
Bore size (mm)	A	B	C	D	stroke ≤	10	20	30	40	50	60	70	80	90	100	125	150	175
10	108	30	78	35	E	45	50	55	60	65	70	75	80	85	95	102.5	115	122.5

Φ 16 Φ 25 Bore size



Bore size(mm)	A	B	C	D	stroke	10	20	30	40	50	60	70	80	90	100	125	150	F	G	H	I
16	68	15	53	20	E	30	35	40	45	50	55	60	65	70	75	87.5	100	8	47	6	6
20	78	20	58	20	E	35	35	40	45	50	55	60	65	70	75	87.5	100	10	55	9	9
25	81	19	62	30	E	40	40	45	50	55	60	65	70	75	80	92.5	100	10	66	8	8

Bore size(mm)	J	K	L	M	N1	N2	P1	P2	Q	R	S	T	V	W
16	M4 x 0.7 depth 5	47	53	20	22	10	both side Φ7.5 depth 7.2mm through hole Φ4.5	both side Φ8 depth 4.4mm through hole Φ4.5	34	4	54	21	8	6.2
20	M4 x 0.7 depth 5	55	61	24	25	12	both side Φ7.5 depth 7.2mm through hole Φ4.5	both side Φ8 depth 4.4mm through hole Φ4.5	44	6	62	25	10	8.2
25	M4 x 0.7 depth 5	66	72	29	30	12	both side Φ7.5 depth 7.2mm through hole Φ4.5	both side Φ8 depth 4.4mm through hole Φ4.5	56	7	73	30	12	10.2

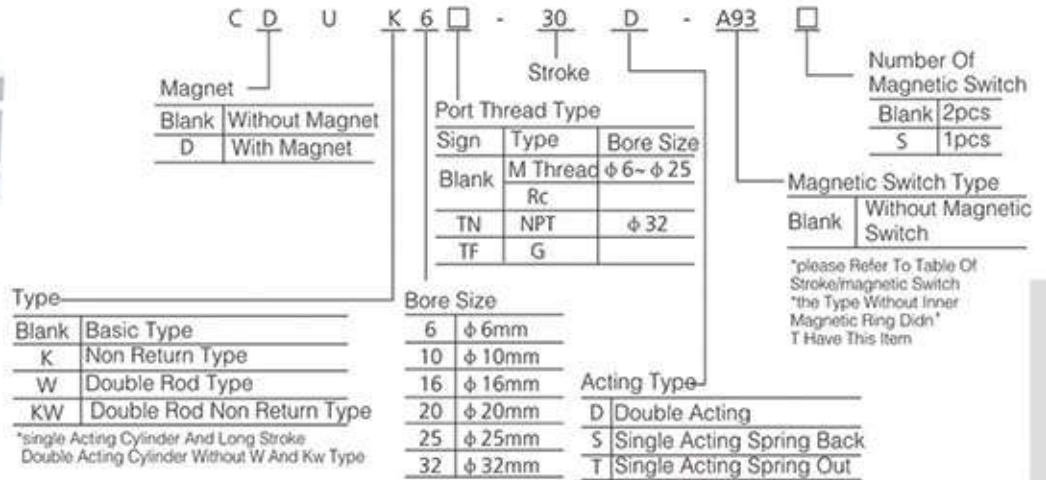


Bore size(mm)	PA	PB	PC	PD	PE	PF	PG	PH
10	18	0.5	Φ6.2 depth 3.5mm through hole Φ3.5	5.2	6	3	5.2	M3x0.5 depth 5mm
16	24	1	Φ7.8 depth 4.6mm through hole Φ4.5	6.2	8	3	6.2	M4x0.7 depth 6mm
20	28	1	Φ11 depth 6.8mm through hole Φ6.5	8.2	10	3	8.2	M6x1 depth 8mm
25	34	1	Φ11 depth 6.8mm through hole Φ6.5	10.5	12	3	10.5	M6x1 depth 8mm
32	42	2	Φ17 depth 12mm through hole Φ10.5	14	16	3	14	M10x1.5 depth 1mm



## CU Series Free Mount Cylinder

### Order Code



### Specification

Bore Size(mm)		6	10	16	20	25	32
Working Medium		Air					
Acting Type		Double Acting Single Acting Spring Back Spring Out					
Max Working Pressure		0.7MPa					
Min Working Pressure Mpa	Double	Single Acting	0.12	0.06		0.05	
		Double Rod Non Return Air Cushion	0.15	0.10		0.08	
Mpa	Acting	Double Rod Non Return	0.18	0.13		0.11	
		Standard	0.20	0.15		0.13	
		Non Return	0.23	0.18		0.16	
Ambient And Working Medium Temperature		Without Magnetic Switch: -10°C~60°C, with Magnetic Switch: -10°C~70°C					
Cushion		Both Ends With Rubber Cushion					
Operating Speed Mm/s		50~500mm/s					
Stroke Tolerance Mm		+0.10 0					
Lubrication*		Not Required					
Mount Type		Free Mount ( multi-sided Installation )					
Rod Non-rotation Accuracy		± 0.8°			± 0.5°		
Port Size		M5x0.8					1/8

\*For Oil, Please Use Turbine No. 1 Oil Isovg32

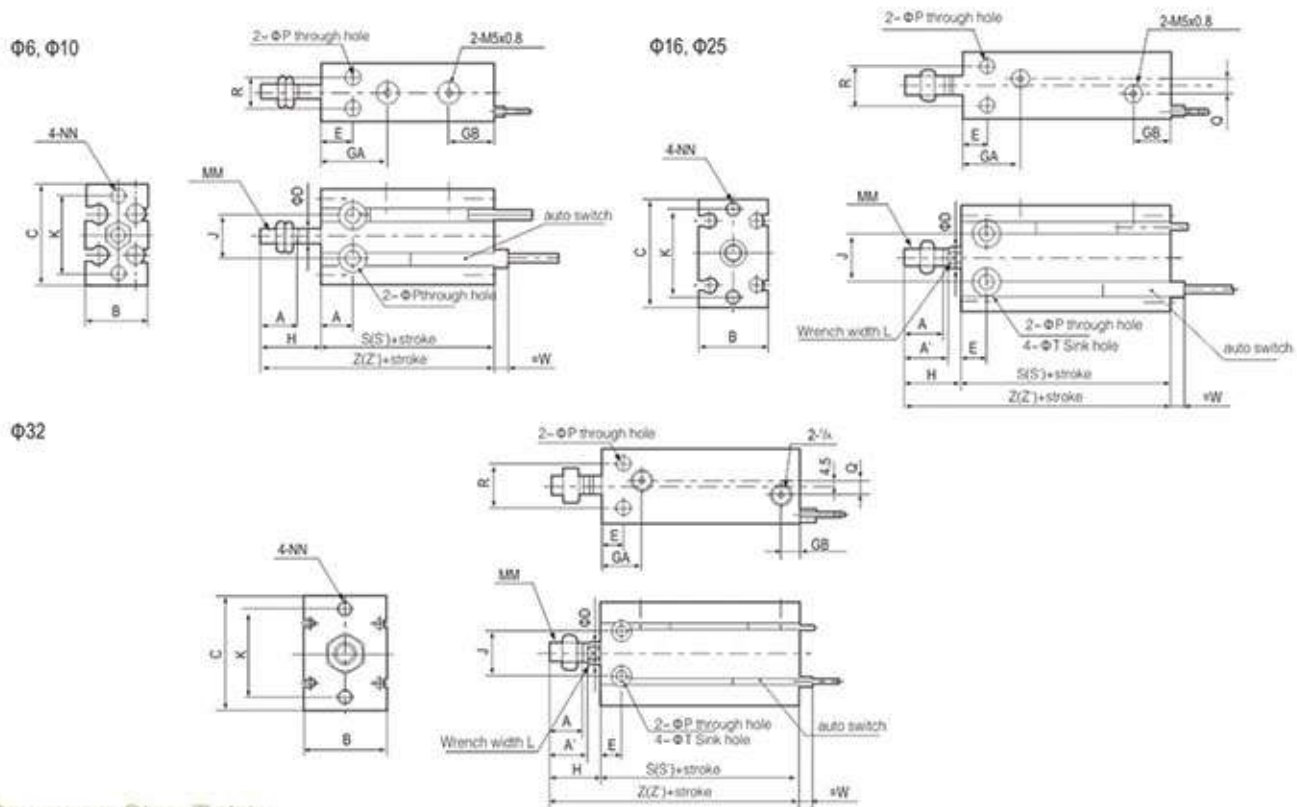
### Please Refer To Table Of Stroke/magnetic Switch

Bore Size(mm)	Standard Stroke(mm)		Long Stroke (double Acting)	Magnetic Switch Type(mm) Direct Installation
	Double Acting	Single Acting		
6	5,10,15,20,25,30	5,10,15	40,50,60	A93,A96,M9N, M9B,M9P,F9NW
10				
16				
20	5,10,15,20,25, 30,40,50		60,70,80,90,100	
25				
32				

\*Please Refer To Table Of Stroke/magnetic Switch

Wire Length Mark: No Mark- 0.5m, L - 3m, Z - 5m For Example M9N, M9NL.

## Dimensions ( mm )



## Common Size Table

Model	A	A'	B	C	φD	E	GA	GB	J	K	L	MM	NN	φP	Q	R	φT
C□U6	7	-	13	22	3	7	15	10	10	17	-	M3x0.5	M3 x 0.5 depth 5	3.2	-	7	6 depth 4.8
C□U10	10	-	15	24	4	7	16.5	10	11	18	-	M4x0.7	M3 x 0.5 depth 5	3.2	-	9	6 depth 5
C□U16	11	12.5	20	32	6	7	16.5	11.5	14	25	5	M5x0.8	M4 x 0.7 depth 6	4.5	4	12	7.6 depth 6.5
C□U20	12	14	26	40	8	9	19	12.5	16	30	6	M6x1.0	M5 x 0.8 depth 8	5.5	9	16	9.3 depth 8
C□U25	15.5	18	32	50	10	10	21.5	13	20	38	8	M8x1.25	M5 x 0.8 depth 8	5.5	9	20	9.3 depth 9
C□U32	19.5	22	40	62	12	11	23	13	24	48	10	M10x1.25	M6 x 1.0 depth 9	6.6	13.5	24	11 depth 11.5

## Double Acting Size Table

Model	H	Standard Type		With Magnet Type		
		S	Z	W	S'	Z'
		C□U6-□D	13	33	46	2.5
C□U10-□D	16	36	52	1	36	52
C□U16-□D	16	30	46	0	40	56
C□U20-□D	19	36	55	1	46	65
C□U25-□D	23	40	63	-1	50	73
C□U32-□D	27	42	69	-4	52	79

## Single Acting Spring Back Size Table

model	H	Standard Type						With Magnet Type						
		S			Z			W	S'			Z'		
		5st	10st	15st	5st	10st	15st		5st	10st	15st	5st	10st	15st
C□U6-□S	13	38	38	48	51	56	61	2.5	38	43	48	51	56	61
C□U10-□S	16	41	41	56	57	62	72	1	41	46	56	57	62	72
C□U16-□S	16	35	35	50	51	56	66	0	45	50	60	61	66	76
C□U20-□S	19	41	41	56	60	65	75	1	51	56	66	70	75	85
C□U25-□S	23	45	45	60	68	73	83	-1	55	60	70	78	83	93
C□U32-□S	27	47	47	62	74	79	89	-4	57	62	72	84	89	99

## Single Acting Spring Out Size Table

Model	H			Standard Type						With Magnet Type						
	5st	10st	15st	S			Z			W	S'			Z'		
				5st	10st	15st	5st	10st	15st		5st	10st	15st	5st	10st	15st
C□U6-□T	18	23	28	38	43	48	56	66	76	2.5	38	43	48	56	66	76
C□U10-□T	21	26	31	41	46	56	62	72	87	1	41	46	56	62	72	87
C□U16-□T	21	26	31	45	50	60	66	76	91	0	45	50	60	66	76	91
C□U20-□T	24	29	34	41	46	56	65	75	90	1	51	56	66	75	85	100
C□U25-□T	28	33	38	45	50	60	73	83	98	-1	55	60	70	83	93	108
C□U32-□T	32	37	42	47	52	62	79	89	104	-4	57	62	72	89	99	114

## MGP Series Compact Guide Cylinder



### Order Code

<u>MPG</u>	<u>M</u>	-	<u>25x300</u>
Series	M:Sliding bearing L:ball bearing		bore size*stroke

### Magnetic switch options

Type \ Bore size	12	16	20	25	32	40	50	63	80	100
Auto switch	D-273									

### Specification

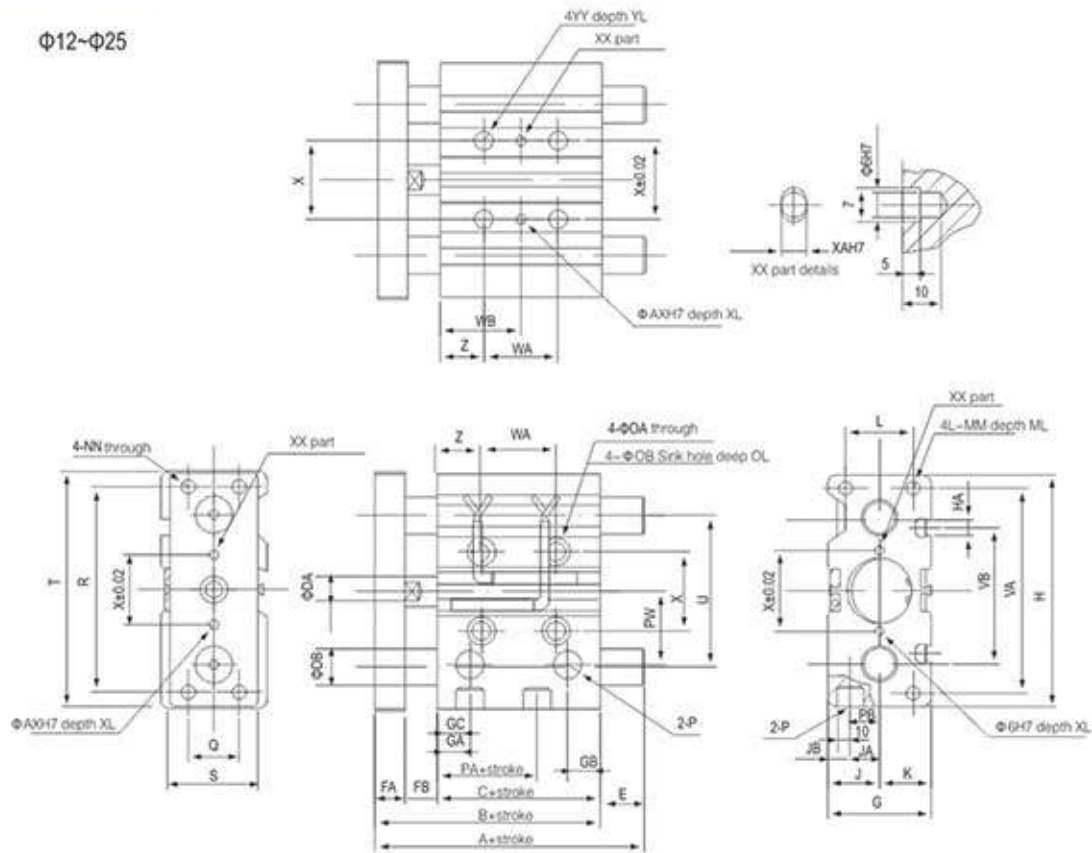
Bore size(mm)	12	16	20	25	32	40	50	63	80	100
Working Medium	Air(to be filtered by 40 μ m filter element)									
Acting type	double acting									
Max working pressure	1.0Mpa									
Min working pressure	0.12Mpa		0.1Mpa							
Ambient and Working Medium temperature	-5~60°C(Unfreeze)									
Operating speed mm/s	50-1000mm/s									
Cushion	Both Ends With Rubber Cushion									
Stroke tolerance mm	0+1.5									
Lubrication*	Not Required									
bearing	Sliding oil/ball bearing									
Rod Non-rotation Accuracy	Sliding bearing	± 0.08°		± 0.07°		± 0.06°		± 0.05°		± 0.05°
	Ball Bearing	± 0.10°		± 0.09°		± 0.08°		± 0.06°		± 0.06°
Port size	M5x0.8			1/8			1/4		3/8	
Body Material	Aluminum alloy									

### Stroke

Bore size(mm)	Standard Stroke(mm)
12	10 20 30 40 50 100
16	10 20 30 40 50 100 125 150 175 200
20	20 30 40 50 75 125 150 175 200 250 300
25	20 30 40 50 75 125 150 175 200 250 300
32	25 50 75 100 125 150 175 200 250 300
40	25 50 75 100 125 150 175 200 250 300
50	25 50 75 100 125 150 175 200 250 300
63	25 50 75 100 125 150 175 200 250 300
80	25 50 75 100 125 150 175 200 250 300 350 400
100	25 50 75 100 125 150 175 200 250 300 350 400

## Dimensions ( mm )

Φ12-Φ25



### MGPM, MGPL Common size

Bore Size(mm)	Stroke(mm)	B	C	DA	FA	FB	G	GA	GB	H	HA	J	K	L	MM	ML	NM	OA	OB	OL	P	PA	PB	PW
12	10,20,30,40,50,75,100,125	42	29	6	8	5	26	11	7.5	58	M4	13	13	18	M4x0.7	10	M4x0.7	4.3	8	4.5	M5x0.8	13	8	18
16	150,175,200,250	46	33	8	8	5	30	11	8	65	M4	15	15	22	M5x0.8	12	M5x0.8	4.3	8	4.5	M5x0.8	15	10	19
20	20,30,40,50,75,100,125,150	53	37	10	10	6	36	10.5	8.5	83	M5	18	18	24	M5x0.8	13	M5x0.8	5.6	9.5	5.5	1/8	12.5	10.5	25
25	175,200,250,300,350,400	53.5	37.5	12	10	6	42	11.5	9	93	M5	21	21	30	M6x1.0	15	M6x1.0	5.6	9.5	5.5	1/8	12.5	13.5	28.5

Bore Size(mm)	R	S	T	U	VA	VB	WA					WB					X	XA	XB	XC	XL	YY	YL	Z
							30st- or less	30st- 100st	100st- 200st	200st- 300st	over 300st	30st- or less	30st- 100st	100st- 200st	200st- 300st	over 300st								
12	48	22	56	41	50	37	20	40	110	200	-	15	25	60	105	-	23	3	3.5	3	6	M5x0.8	10	5
16	54	25	62	46	56	38	24	44	110	200	-	17	27	60	105	-	27	3	3.5	3	6	M5x0.8	10	5
20	70	30	81	54	72	44	24	44	120	200	300	29	39	77	117	167	28	3	3.5	3	6	M6x1.0	12	17
25	78	38	91	64	82	55	24	44	120	200	300	29	39	77	117	167	34	4	4.5	3	6	M6x1.0	12	17

### MGPM(Sliding bearing)A,DB,E

Bore Size(mm)	A			DB	E		
	50st- or less	50st- 100st	over 100st		50st- or less	50st- 100st	over 100st
12	42	60.5	60.5	8	0	18.5	43
16	46	64.5	64.5	10	0	18.5	49

### MGPL(ball bearing)A,DB,E

Bore Size(mm)	A			DB	E		
	50st- or less	50st- 100st	over 100st		50st- or less	50st- 100st	over 100st
12	43	55	85	6	1	13	43
16	49	65	95	8	3	19	49

### MGPM(Sliding bearing)A,DB,E

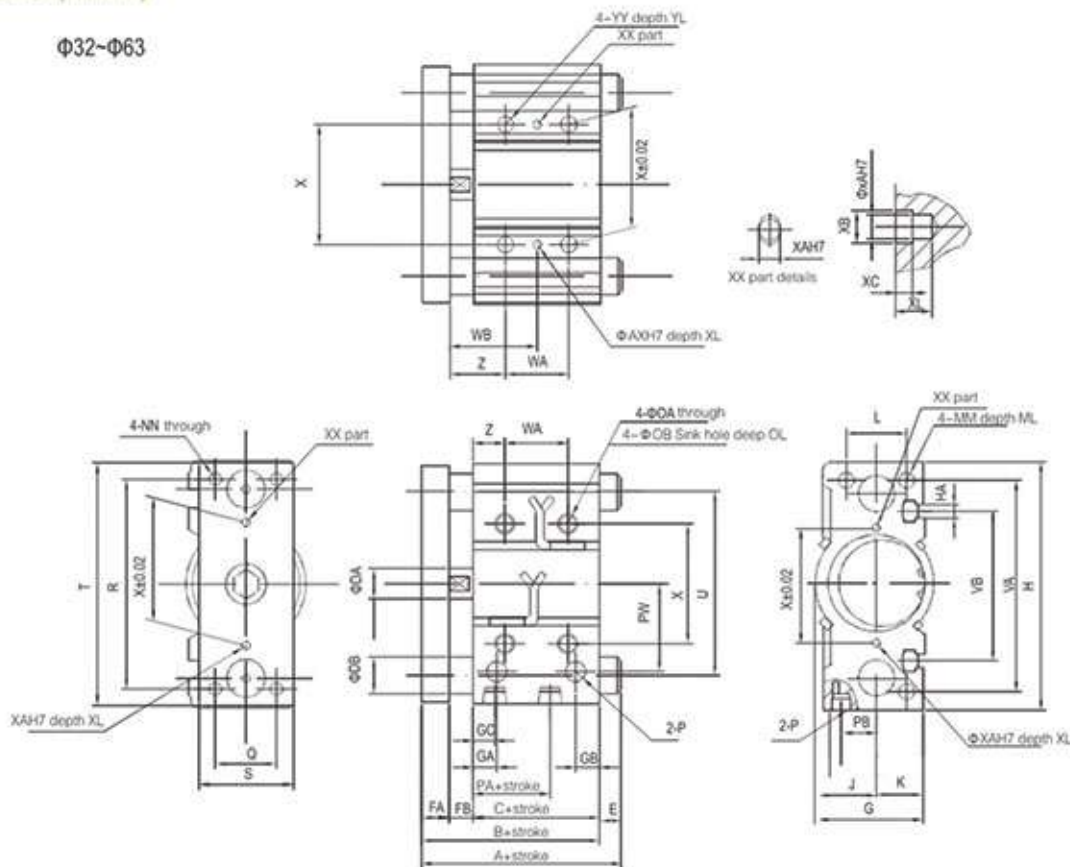
Bore Size(mm)	A			DB	E		
	50st- or less	50st- 100st	over 100st		50st- or less	50st- 100st	over 100st
12	53	84.5	122	12	0	31.5	69
16	53.5	85	122	16	0	31.5	68.5

### MGPL(ball bearing)A,DB,E

Bore Size(mm)	A				DB	E			
	30st- or less	30st- 100st	100st- 200st	over 200st		30st- or less	30st- 100st	100st- 200st	over 200st
12	63	80	104	122	10	10	27	51	69
16	69.5	85.5	104.5	122	13	10	32	51	68.5

## Dimensions ( mm )

Φ32-Φ63



### MGPM, MGPL Common size

Bore Size(mm)	Stroke(mm)	B	C	DA	FA	FB	G	GA	GB	H	HA	J	K	L	MM	ML	NM	OA	OB	OL	P	PA	PB	PW	Q
32	10,20,30,40,50,75,100,125	59.5	37.5	16	12	10	48	12.5	9	112	M6	24	24	34	M8x1.25	20	M8x1.25	6.6	11	7.5	1/8	7	15	34	30
40	150,175,200,250	66	44	16	12	10	54	14	10	120	M6	27	27	40	M8x1.25	20	M8x1.25	6.6	11	7.5	1/8	13	18	38	30
50	20,30,40,50,75,100,125,150	72	44	20	16	12	64	14	11	148	M8	32	32	46	M10x1.5	22	M10x1.5	8.6	14	9	1/4	9	21.5	47	40
63	175,200,250,300,350,400	77	49	20	16	12	78	16.5	13.5	162	M10	39	39	58	M10x1.5	22	M10x1.5	8.6	14	9	1/4	14	28	55	50

Bore Size(mm)	R	S	T	U	VA	VB	WA					WB					X	XA	XB	XC	XL	YY	YL	Z
							30st- or less	30st- 100st	100st- 200st	200st- 300st	over 300st	30st- or less	30st- 100st	100st- 200st	200st- 300st	over 300st								
32	96	44	110	78	98	63	24	48	124	200	300	33	45	83	121	171	42	4	4.5	3	6	M8x1.25	16	21
40	104	44	118	86	106	72	24	48	124	200	300	34	46	84	122	172	50	4	4.5	3	6	M8x1.25	16	22
50	130	60	146	110	130	92	24	48	124	200	300	36	48	86	124	174	66	5	6	4	8	M10x1.5	20	24
63	130	70	158	124	142	110	28	52	128	200	300	38	50	88	124	174	80	5	6	4	8	M10x1.5	20	24

### MGPM(Sliding bearing)A,DB,E

Bore Size(mm)	A			DB	E		
	50st- or less	50st- 100st	over 100st		50st- or less	50st- 100st	over 100st
32	97	102	140	20	37.5	42.5	80.5
40	97	102	140	20	31	36	71
60	106.5	118	161	25	34.5	46	89
63	106.5	118	161	25	29.5	41	84

### MGPL(ball bearing)A,DB,E

Bore Size(mm)	A				DB	E			
	50st- or less	50st- 100st	100st- 200st	over 200st		50st- or less	50st- 100st	100st- 200st	over 200st
32	81	98	118	140	16	21.5	38.5	58.5	50.8
40	81	98	118	140	16	15	27	52	74
50	93	114	134	61	20	21	42	52	89
63	93	114	134	61	20	16	76	57	84

## Air Combination Accessories

### Cup Series



Model	2000-5000 Type
Cup Material	Polycarbonate
unit Material	Brass(2000 Type Can Choose Plastic)

### Connect Plate/Middle Plate/Hanger



Model	2000-5000 Type
Body Material	Die-casting aluminum(2000 type zinc)

### Af Series Bracket



Model	f Series 2000-5000 Type
body material	Iron With Nickel Plated

### Filter Element



Model	body material	filter Accuracy
2000-5000 Type	Sintered Brass	40 μm(standard)
A/B Series 2000-4000 Type		
U Series 02-08 Type		
200-400 Series		

## Accessories



2000-5000 Type Auto Drain Series



Regulated Handle

Air Source Treatment

Control Components

Auxiliary Components

Executive Components

Accessories

## Cylinder Accessories



Model

CS1 Series Sensor Switch



Model

D Series Sensor Switch



Model

Sensor Switch Bracket



Model

Sensor Switch Bangage



Model

Floating Joint



Model

Fisheye Joint



Model

LB type bracket



Model

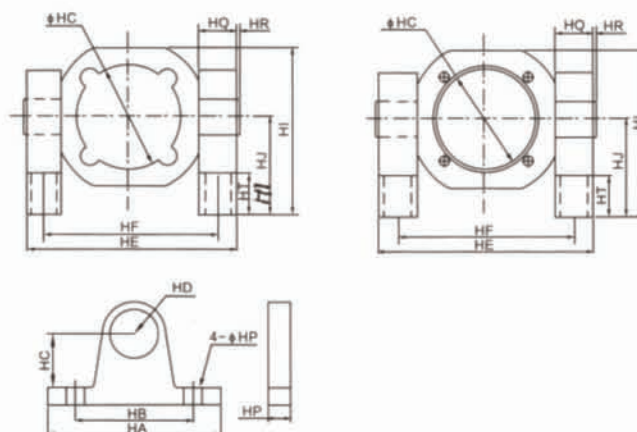
SDB Single earring with base (MAL type)



Model

LB bracket

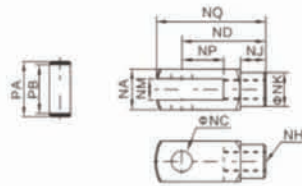
## SC Series TC-M



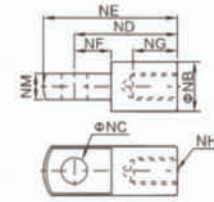
bore size/mark	32	40	50	63	80	100	125	160	200
HA	110	112	112	112	121	121	146	187	187
HB	80	83	83	83	86	86	110	140	140
HP	11	11	11	11	14	14	16	22	22
HD	12	25	25	25	25	25	30	32	32
HC	50	50	50	50	70	70	85	132	132
HI	23	23	23	23	23	23	24	32	32

## SC Series Standard Cylinder Accessories

Y Joint TIE-IN

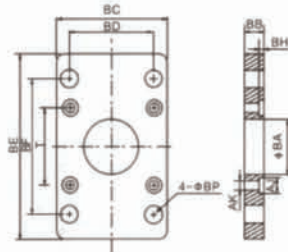


I Joint TIE-IN



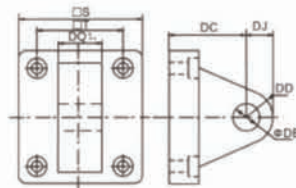
Bore Size/mark	NA	NC	ND	NH	NJ	NK	NM	NP	NQ	PA	PB	NB	NC	ND	NE	NF	NG	NH	NM
32	19	Φ10	40	M10X1.25	14	17	10	20	52	28	19.5	18	10	43	52	16	20	M10X1.25	10
40	23	Φ12	48	M12X1.25	17	22	12	24	62	32	26	22	12	52	63	21	20	M12X1.25	12
50/63	31	Φ16	64	M16X1.5	24	26	16	31	80	41	33	26	16	59	73	23	23	M16X1.5	16
80/100	39	Φ20	80	M20X1.5	31	32	21	39	100	48	45	32	20	86	102	35	30	M20X1.5	20
125	60	Φ25	98	M27X2	31	38	36	40	119	71	51	49	25	100	127	44	45	M27X2	34
160/200	75	Φ30	125	M36X2	45	51	43	43	150	86	81	67	30	133	167	40	50	M36X2	40
250	90	Φ40	130	M42X2	60	69	52	50	170	107		80	40	135	175	50	70	M42X2	50

FA/FB Flange



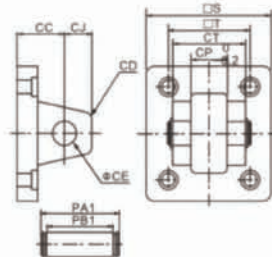
Bore Size/mark	32	40	50	63	80	100	125	160	200	250
BA	29.5	34	40	40	50	50	62	66	81	93
BB	10	10	10	12	15	16	18	20	25	30
BC	47	50	65	75	95	115	140	180	220	280
BD	33	36	47	56	70	84	90	115	135	165
BE	72	84	104	116	143	162	224	280	320	385
BF	58	70	86	98	119	138	180	230	270	330
BH	6.5	6.5	6.5	8.5	10.5	10.5	15	20	20	-
AJ	10.5	10.5	10.5	13.5	16.5	16.5	19	25	25	-
AK	6.5	6.5	6.5	8.5	10.5	10.5	12.5	16.5	16.5	M20
BP	7	7	9	9	11	11	16	18	19	26
T	33	37	47	56	70	84	110	140	175	220

CA Single Earring



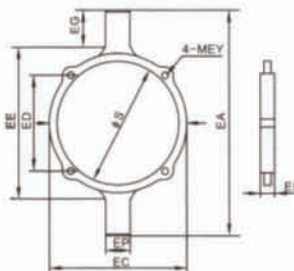
Bore Size/mark	32	40	50	63	80	100	125	160	200	250
S	48	50	62	75	94	112	140	180	220	280
T	33	37	47	56	70	84	110	145	180	225
DC	34	34	34	34	48	48	50	55	60	70
DD	14	14	15	15	20	20	25	30	30	40
DE	12	14	14	14	20	20	25	30	30	40
DJ	14	14	15	15	20	20	25	30	30	40
DQ	16	20	20	20	32	32	70	90	90	110

CB Double Earring




Bore Size/mark	32	40	50	63	80	100	125	160	200	250
CC	19	19	19	19	32	32	50	55	60	70
CD	5	5	3	3	8	8	25	30	30	40
CE	12	14	14	14	20	20	25	30	30	40
CJ	13	13	15	15	21	21	25	30	30	40
DQ	16.3	20.3	20.3	20.3	32.3	32.3	70	90	90	110
CT	32	44	52	52	64	64	120	160	160	200
PA1	4.1	52	59	63	71	71	128	180	182	240
S	48	50	62	75	94	112	140	180	220	280
T	33	37	47	56	70	84	110	145	180	225


TC Middle Swaying Shaft




Bore Size/mark	EA	EC	ED	EP	S	EG	EI	EY	EE
32	87	53	33	12	38	16	20	M6	54
40	108	60	37	25	46	24	30	M6	57
50	115	70	47	25	55	24	30	M6	67
63	138	86	56	25	70	25	30	M8	81
80	163	111	70	25	87	25	30	M10	100
100	180	130	84	25	108	25	30	M10	124
125	213	161	110	30	134	26	36	M12	146
160	266	202	145	32	174	32	40	M16	195
200	322	250	180	32	216	36	50	M16	243
250	396	300	225	40	273	40	51	M20	313

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