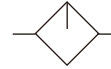




Symbol



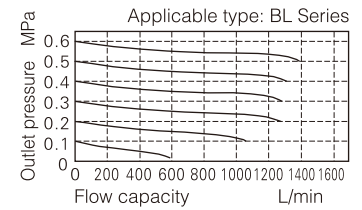
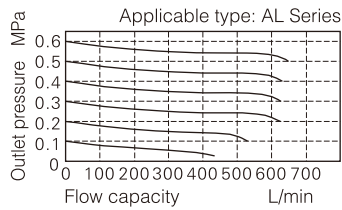
Product feature

1. The structure is delicate and compact.
2. The quantity of oil dripping can be directly observed through transparent inspection sheet.
3. BL has high-strength plastic shields, which is more safe and reliable to use.
4. The pressure loss and the flow of mist start is low.

Ordering code

AL		2000			
Model		Port size		Thread type	
AL	A Series lubricator	Series	Port size	Blank	PT
BL	B Series lubricator	AL	1500: 1/8"	G	G
		BL	2000: 1/4"	T	NPT
			2000: 1/4"		
			3000: 3/8"		
			4000: 1/2"		

Flow chart

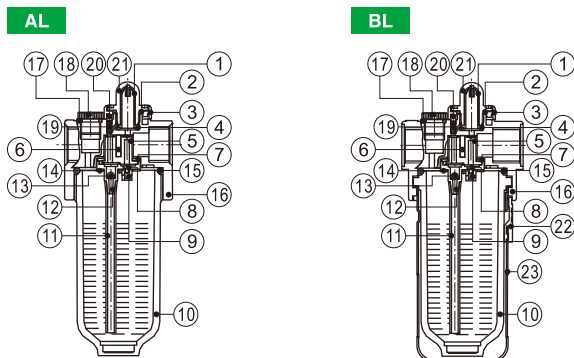


Specification

Model	AL1500	AL2000	BL2000	BL3000	BL4000
Fluid	Air				
Port size	1/8"	1/4"	1/4"	3/8"	1/2"
Pressure range	0.05~1.0MPa(7~145psi)				
Proof pressure	1.5MPa(215psi)				
Temperature range	-5~70℃				
Capacity of drain bowl	25CC		90CC		
Recommended	ISO VG 32 or equivalent				
Weight	170g		250g		

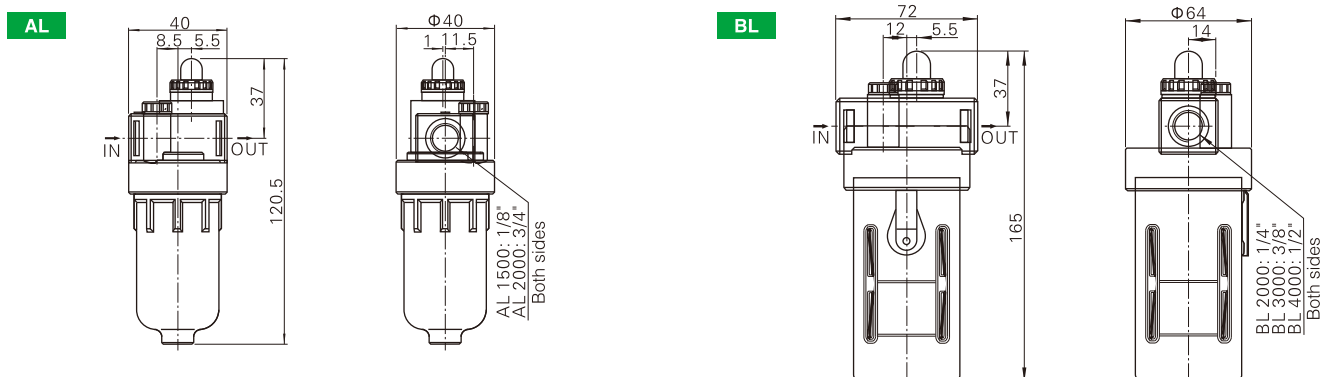
Note: PT thread, G thread and NPT thread are available.

Inner structure and material of major parts



No.	Item	Material	No.	Item	Material
1	Drip pipe	PC	13	Ball	Stainless steel
2	Dripper O-ring	NBR	14	Lubricator fixed plate	SPCC
3	Oil adjusting dial	POM	15	Oil bowl O-ring	NBR
4	Adjusting ring	NBR	16	Body	Aluminum alloy
5	Lubricator seat	POM	17	Oil filling nut O-ring	NBR
6	Partition	PU	18	Oil filling plug	Steel
7	Lubricator kit gasket	NBR	19	Needle spring	Stainless steel
8	Adjustor	HDPE	20	Injector pin	Bronze
9	Return spring	Stainless steel	21	Check-dome	PC
10	Oil bowl	PC	22	Bowl guard switch	POM
11	Sunk tube	PU	23	Bowl guard	PA6
12	Lubricator kit	POM			

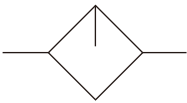
Dimensions



FRL
AC/BC
AFC/BFC
AFR/BFR
AF/BF
AR/BR
AL/BL
SR
SDR
AC
AW
AF
AR
AL
F3
F2
F1
F
R
L
USFRL
USFR/L
USFR
USF
USR
USL
QSL
QTY
QIU
QTYH
QSLH
QFRH
AFF
AF(Big)
AL(Big)
AR(Big)
AD402
AH402
AD-5
IR
ITV
ACR
F804
PG



Symbol



Ordering code

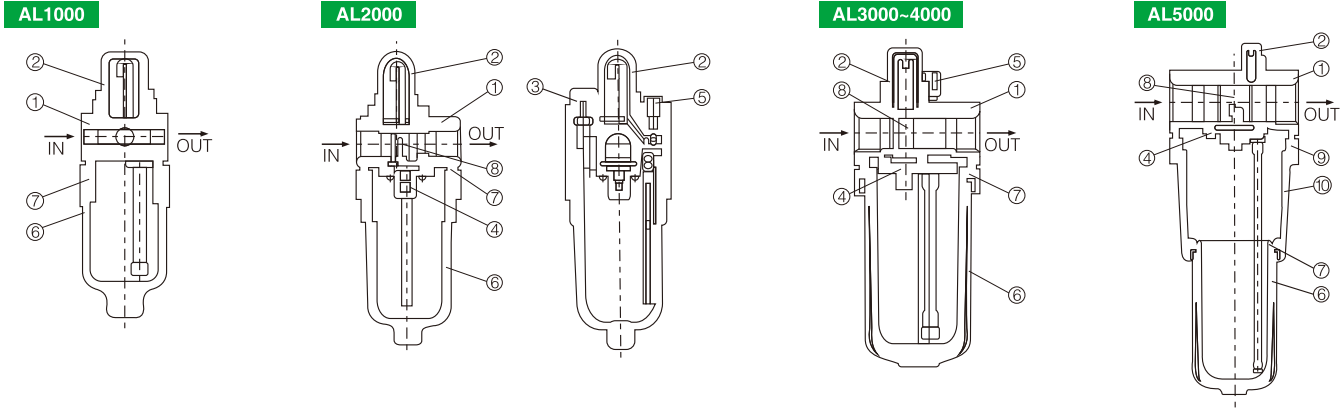
Model	Series code	Port size
AL A Series lubricator	1000 1000 Series	M5 M5
	2000 2000 Series	02 1/4"
	3000 3000 Series	03 3/8"
	4000 4000 Series	04 1/2"
	5000 5000 Series	06 3/4"
		10 1"

Specification

Model	AL1000-M5	AL2000-02	AL3000-02	AL3000-03	AL4000-03	AL4000-04	AL4000-06	AL5000-06	AL5000-10
Port size	M5×8	1/4"	1/4"	3/8"	3/8"	1/2"	3/4"	3/4"	1"
Cup capacity	7	25	50	50	50	130	130	130	130
Rated flow (L/min)	95	80	1700	1700	1700	5000	6300	7000	7000
Proof pressure	1.5MPa{15.3kgf/cm²}								
Max. pressure	1.0MPa{10.2kgf/cm²}								
Temperature range	5~60℃								
Cup material	Polycarbonate								
Cup protective cover	AL1000~2000(Without) AL3000~5000(With)								
Valve type	With overflow								
Weight(kg)	0.07	0.22	0.30	0.30	0.56	0.56	0.58	1.08	1.08

Note: 1. supply pressure is 0.5MPa (5.1kgf/cm²), oil droplet flow rate of 5 drops/minute, turbine No.1 oil (ISO VG32) temperature of 20 degrees celsius;
2. supply pressure of 0.5MPa (5.1kgf/cm²), 0.03MPa (0.3kgf/cm²) in the absence of pressure.

Inner structure

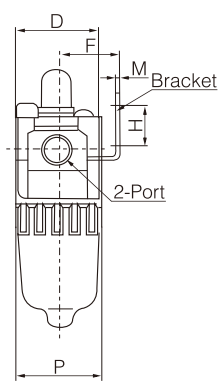
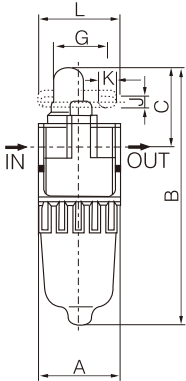


Main prtts

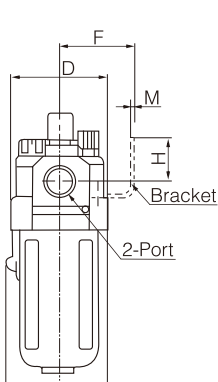
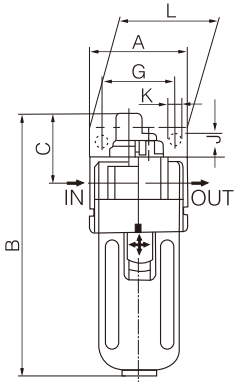
No.	Parts name	Material		
		AL1000	AL2000~4000	AL5000
1	Valve body	Zinc die casting	Aluminum die casting	
2	Oil window	Polycarbonate		
3	Oil feed plug	ABS		
4	Guide retainer	ABS		
5	Oil adjusting handle	ABS		
6	Oil cup (Protective cover)	Polycarbonate (Cold rolled sheet)		
7	O-ring	Rubber		
8	Retainer	Polyurethane		
9	O-ring	Rubber		
10	Middle part	—		Aluminum die casting

Dimensions

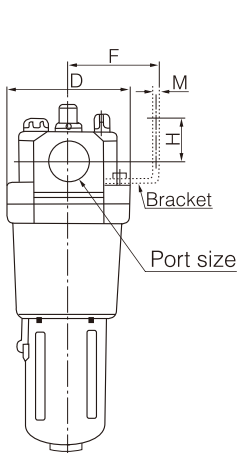
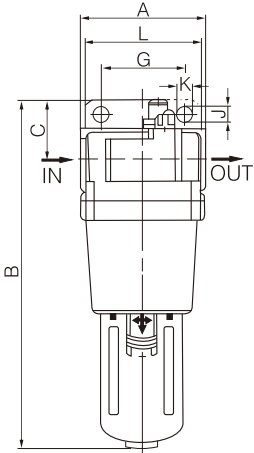
AL1000~2000



AL3000~4000



AL5000



Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	P
AL1000	M5×0.8	25	81.5	25.5	25	-	-	-	-	-	-	-	-	27
AL2000	1/4"	40	122	38	40	30	30	27	22	5.4	8.4	40	2.3	40
AL3000	1/4"·3/8"	53	142	38	53	41	41	40	23	6.5	8	53	2.3	56
AL4000	3/8"·1/2"	70	177	41	70	50	50	54	26	8.5	10.5	70	2.3	73
AL4000-06	3/4"	75	177	39	70	50	50	54	25	8.5	10.5	70	2.3	73
AL5000	3/4"·1"	90	254	45	90	70	70	66	35	11	13	90	3.2	90

FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

QSLH

QFRH

AFF

AF(Big)

AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

ACR

F804

PG

FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

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AFF

AF(Big)

AL(Big)

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AD402

AH402

AD-5

IR

ITV

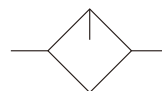
ACR

F804

PG



Symbol



Installation and usage

L series lubricator ensure the amount of the oil mist and compressed air flow was mixed in proportional. Compressed air through the nozzle and generate the pressure drop, forcing the fluid oil into small window cup, along with the compressed air in to the output port.

To adding oil must be achieved in the non-stop air flow.

By rotating the screw to adjust the drip volume. Usually containing 1-12 drops per 1000L of air is sufficient.

Ordering code

L

□

7

MINI

E

Series

L Lubricator

Port size

1/8"

1/4"

3/8"

1/2"

3/4"

1"

Working pressure

Blank 12bar

7 7bar

Size

MICRO

MINI

MIDI

MAXI

Shell material

Blank Zinc

E Alu.

Specification

Size	MICRO					MINI			MIDI				MAXI		
Pneumatic connection	M5	M7	1/8"	QS4	QS6	1/8"	1/4"	3/8"	1/4"	3/8"	1/2"	3/4"	1/2"	3/4"	1"
Operating medium	Filtered compressed air, unlubricated, grade of filtration 5µm					Filtered compressed air, unlubricated, grade of filtration 40µm									
Design	Standard proportional lubricator														
Type of mounting	Via accessories														
	In-line installation														
Assembly position	Vertical ±5°														
Input pressure (bar)	0...10					0...16									
Minimum flow rate for lubricator operation (l/min)	3					3			8				10		
Max. oil capacity (cm³)	6.5					45			110				190		

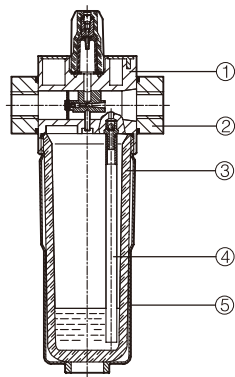
Note: This product conforms with ISO 1179-1 standard and the ISO 228-1 standard.

Standard nominal flow rate (qn[L/min])

Connection	Female thread		Connecting plate		
	M5	M7	G1/8	QS4	QS6
Micro					
L	200	430	410	16	330

Note: This product conforms with ISO 1179-1 standard and the ISO 228-1 standard.

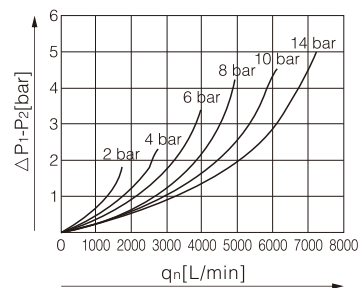
Inner structure



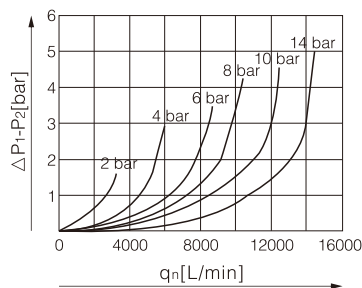
No.	Item	Material
1	Casting	Die-casting zinc
2	Connecting plate	Aluminum
3	Filter bowl	Polycarbonate
4	Metal filter	Aluminum
5	Cover, Pressure visiable type	PE
	Seal	NBR

Standard flow rate chart

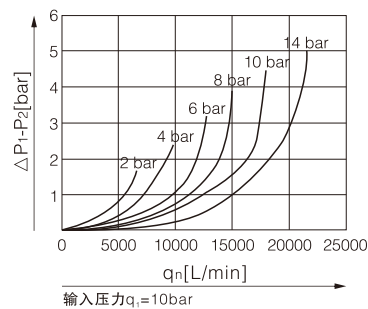
L-1/4-MINI



L-1/2-MIDI

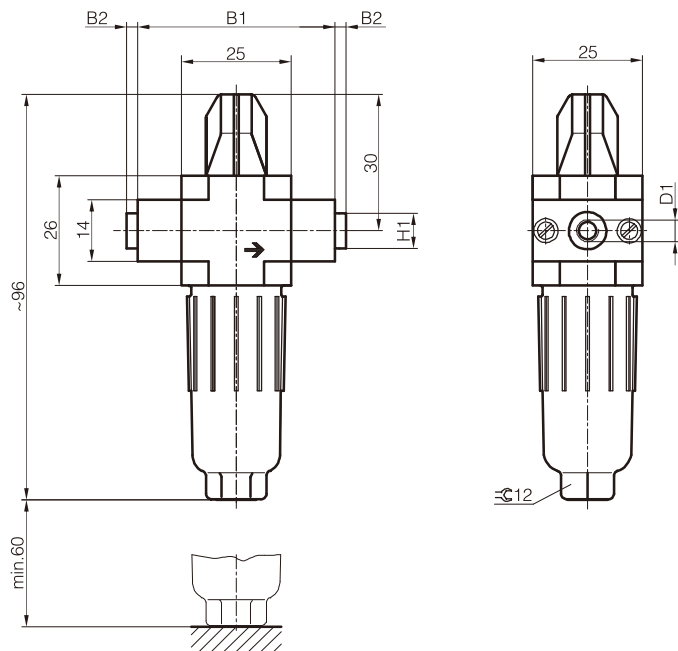


L-1-MAXI



Dimensions

MICRO



→ Flow direction

Model	B1	B2	D1	H1
L-M5-D-MICRO	25	-	M5	-
L-M7-D-MICRO			M7	
L-1/8-D-MICRO			1/8"	
L-QS4-D-MICRO	45	~2.5	QS4	~8
L-QS6-D-MICRO			QS6	~10

FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

QSLH

QFRH

AFF

AF(Big)

AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

ACR

F804

PG

FRL

AC/BC

AFC/BFC

AFF/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

QSLH

QFRH

AFF

AF(Big)

AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

ACR

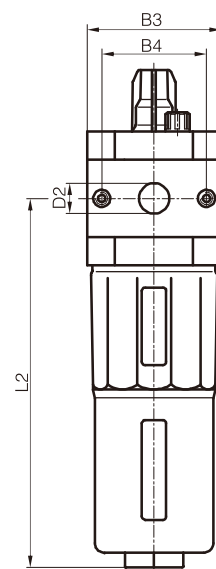
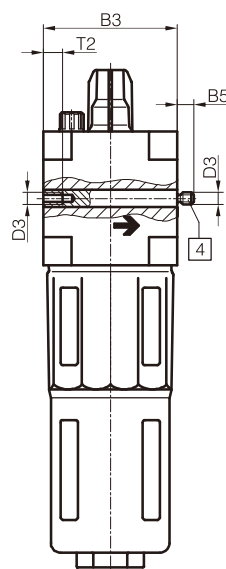
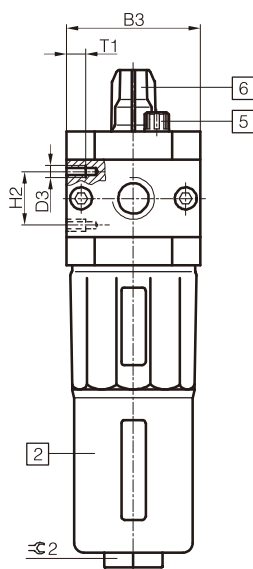
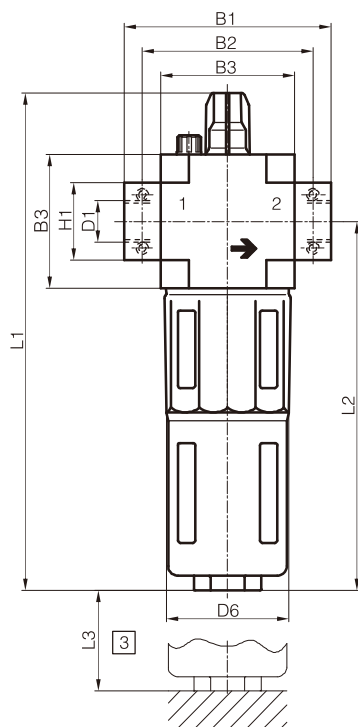
F804

PG

MINI/MIDI/MAXI

With threaded connecting plates

Without threaded connecting plates



2 Metal bowl guard

4 Threaded pin (exchangeable)

5 Exhausting screw for oil reservoir

➔ Flow direction

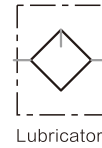
3 Installation dimensions

6 Oil adjusting screw

Model	B1	B2	B3	B4	B5	D1	D2Φ	D3	D6Φ	H1	H2	L1	L2	L3	T1	±1	±2
MINI																	
L-1/8-D-MINI	64	52	40	30	-	1/8"	-	M4	38	20	11	169	124	100	7	-	22
L-1/4-D-MINI	70	52	40	30	-	1/4"	-	M4	38	20	11	169	124	100	7	-	22
L-3/8-D-MINI	70	52	40	30	-	3/8"	-	M4	38	20	11	169	124	100	7	-	22
L-D-MINI	-	-	-	-	5.8	-	11	-	-	-	-	-	-	-	-	10	-
MIDI																	
L-1/4-D-MIDI	85	70	55	43	-	1/4"	-	M5	52	32	22	204	151	120	8	-	24
L-3/8-D-MIDI	85	70	55	43	-	3/8"	-	M5	52	32	22	204	151	120	8	-	24
L-1/2-D-MIDI	85	70	55	43	-	1/2"	-	M5	52	32	22	204	151	120	8	-	24
L-3/4-D-MIDI	85	70	55	43	-	3/4"	-	M5	52	32	22	204	151	120	8	-	24
L-D-MIDI	-	-	-	-	6.8	-	24	-	-	-	-	-	-	-	-	11	-
MAXI																	
L-1/2-D-MAXI	96	80	66	46	-	1/2"	-	M5	65	32	22	228	170	150	8	-	24
L-3/4-D-MAXI	96	80	66	46	-	3/4"	-	M5	65	32	22	228	170	150	8	-	24
L-1-D-MAXI	116	61	66	46	-	1"	-	M5	65	40	22	228	170	150	8	-	24
L-D-MAXI	-	-	-	-	6.8	-	30	-	-	-	-	-	-	-	-	11	-

Note: This product conforms with ISO 1179-1 standard and the ISO 228-1 standard.

Symbol



* Lubricator oil (Recommended): ISO-VG32

Product feature

1. For high pressure use, corrosion and chemical resistance.
2. Good performance in chemically working environments and outdoor facility.
3. Lubricator oil can be replenished without stopping air supply.
4. Oil spray in mist ensures good lubrication for machines.

Ordering code

USL		B		02		N		W	
Model		Pressure		Port size		Thread		Bowl viewer	
USL	Stainless steel lubricator	Blank	12~30kgf/cm ² (for 1/4", 3/8", 1/2")	02	1/4"	Blank	G	Blank	W/O Viewer
			12~28kgf/cm ² (for 3/4", 1")	03	3/8"	N	NPT	W	Viewer (for 3/4", 1") (See *Remark below)
				04	1/2"	R	Rc		
				06	3/4"				
		B	0.5~12kgf/cm ²	08	1"				

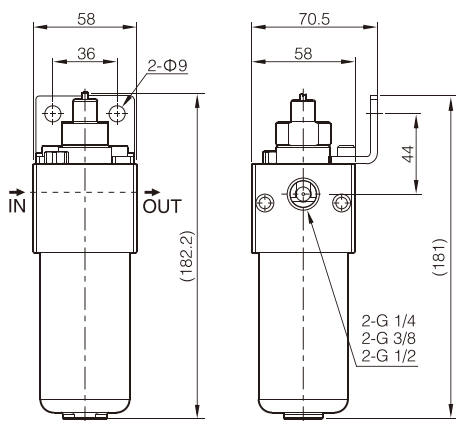
* Remark: Only for USLB (0.5~12kgf/cm²).

Specification

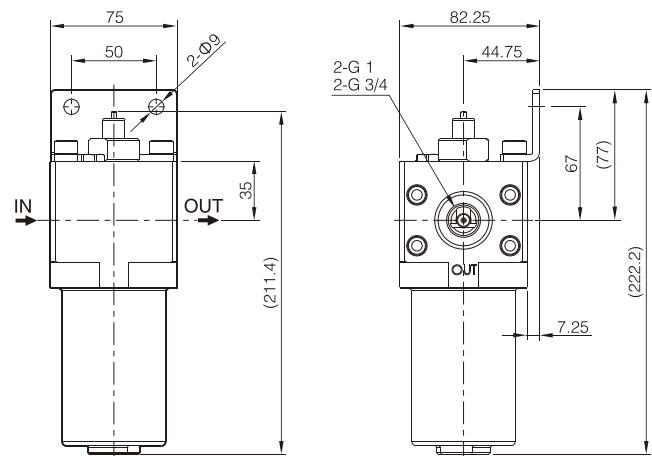
Model	USL-02	USL-03	USL-04	USL-06	USL-08
Port size	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Compressed air				
Body material	Stainless steel SUS316				
Bowl material	Stainless steel SUS316				
Operating pressure range	USLB: 0.5~12 kgf/cm ² , USL: 0.5~30 kgf/cm ²			USLB: 0.5~12 kgf/cm ² , USL: 0.5~28 kgf/cm ²	
Lubricator bowl capacity	130cc			200cc	
Max. inlet pressure	60 kgf/cm ² (Bowl viewer: 15 kgf/cm ²)				
Max. flow rate l/min (ANR)	2500	2525	4100	B13200/26400	
Ambient temperature	-10℃~70℃				
Net weight	1750g			3360g	
Accessories	Mounting bracket set				

Dimensions

USL-02, 03, 04

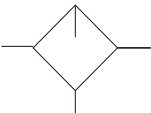


USL-06, 08





Symbol



Ordering code

Q	
Series code	
Q	Q Series air treatment component

IU	
Function code	
IU	Lubricator

20	
Port size	
6	1/8"
8	1/4"
10	3/8"
15	1/2"
20	3/4"
25	1"
40	1 1/2"

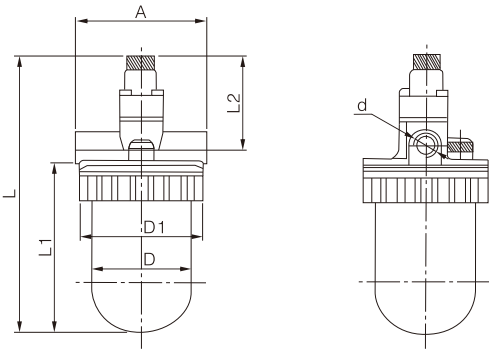
Specification

Model	QIU-6	QIU-8	QIU-10	QIU15	QIU-20	QIU-25	QIU-40
Working temperature	5~60℃						
Nominal primary pressure	1.0MPa						
Oiling pressure under air unstopped conditionl	≥0.1MPa						
Life (ten thousands times)	≥ 100						

Pressure drop-air flow rate chart

Model	Primary pressure(MPa)				
	0.25	0.4	0.63	0.8	1.0
QIU-6	70	90	120	180	220
QIU-8	75	140	220	240	300
QIU-10	120	190	300	400	470
QIU-15	140	350	480	630	650
QIU-20	350	750	1100	1400	1500
QIU-25	600	1200	1600	1800	2100
QIU-40	850	1650	2100	2200	2700

Dimensions



Model	Port size d	A	ΦD	ΦD1	L1	L2	L ≈
QIU-6	1/8"	90	70	88	114	69	173
QIU-8	1/4"						
QIU-10	3/8"						
QIU-15	1/2"						
QIU-20	3/4"	115	90	110	115	74	250
QIU-25	1"						
QIU-40	1 1/2"	130	90	110	163	60	280

FRL

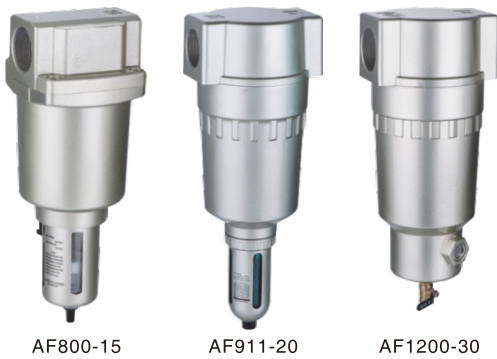
AC/BC
AFC/BFC
AFR/BFR
AF/BF
AR/BR
AL/BL
SR
SDR
AC
AW
AF
AR
AL
F3
F2
F1
F
R
L

USFRL

USFR/L
USFR
USF
USR
USL
QSL
QTY

QIU

QTYH
QSLH
QFRH
AFF
AF(Big)
AL(Big)
AR(Big)
AD402
AH402
AD-5
IR
ITV
ACR
F804
PG



Ordering code

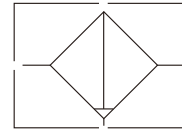
Series	Function	Body size	Automatic drainer	Port size
A	F	9	00	20
	F Filter	8 1½"	00 No automatic drain	15 1½"
		9 2"	11 Automatic drain	20 2"
		12 3"		30 3"

Specification

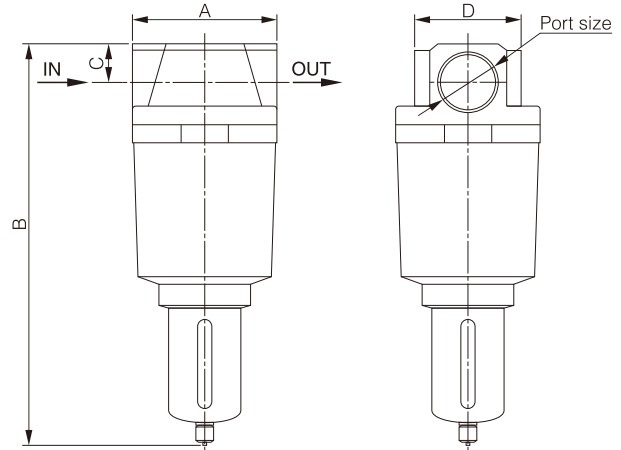
Model	AF800-15	AF900-20	AF1200-30
Port size	1½"	2"	3"
Max. working pressure	1.0MPa		
Ensure pressure resistance	1.5MPa		
Environment & fluid temperature	-5~60°C (Not frozen)		
Filter precision	Standard: 5µm		
Protective cover	Yes		
Material of water cup	PC		
Rating flow (L/min)	12000	20000	28000

Note: PT thread, G thread and NPT thread are available.

Symbol



Dimensions



Model	Port size	Standard specification			
		A	B	C	D
AF800-15	1½"	120	331	31.5	88
AF900-20	2"	200.5	517.5	47	91
AF1200-30	3"	257	600	68	225

AL Series High Flow Rate Lubricator



Ordering code

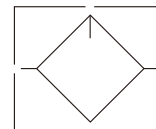
Series	Function	Body size	Port size
A	L	900	20
	L Lubricator	800 1½"	15 1½"
		900 2"	20 2"

Specification

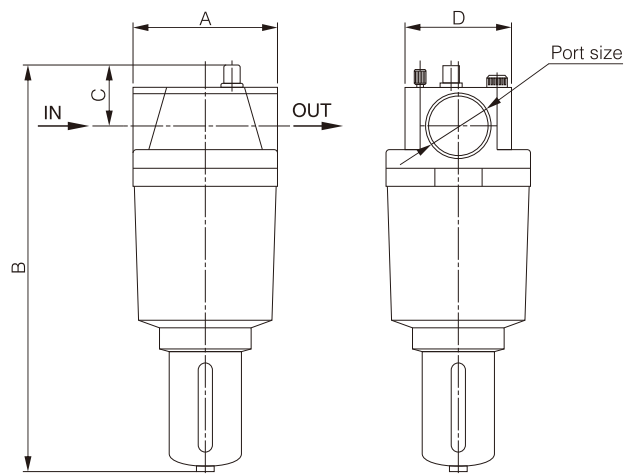
Model	AL800-15	AL900-20
Port size	1½"	2"
Max. working pressure	1.0MPa	
Environment & fluid temperature	-5~60°C (Not frozen)	
Min. flow of oil drop (L/min)	650	1800
Recommended oil	Turbine NO.1 oil ISO VG32	
Protective cover	Yes	

Note: PT thread, G thread and NPT thread are available.

Symbol



Dimensions



Model	Port size	Standard specification			
		A	B	C	D
AL800-15	1½"	120.5	318	47	91
AL900-20	2"	120.5	338	58	91

FRL

AC/BC

AFC/BFC

AFR/BFR

AF/BF

AR/BR

AL/BL

SR

SDR

AC

AW

AF

AR

AL

F3

F2

F1

F

R

L

USFRL

USFR/L

USFR

USF

USR

USL

QSL

QTY

QIU

QTYH

QSLH

QFRH

AFF

AF(Big)

AL(Big)

AR(Big)

AD402

AH402

AD-5

IR

ITV

ACR

F804

PG