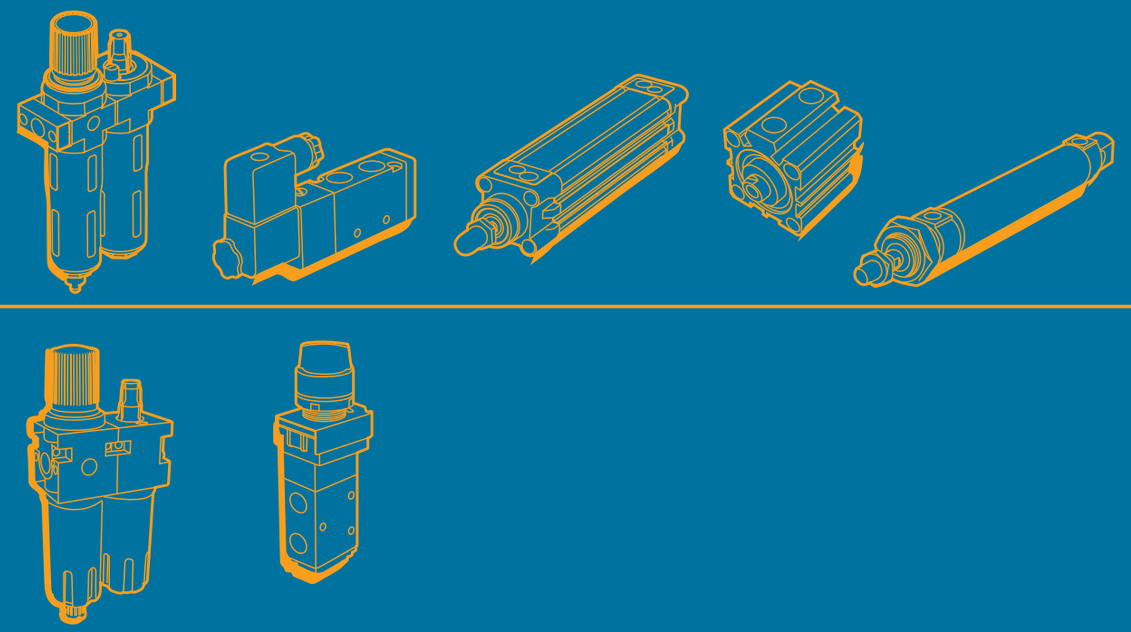
FORWARD



FORWARD

FORWARD Machinery Co., Ltd.
Pneumatic Component
Hydraulic Component

www.forwardmachinery.com

2014.

Product Content

FORWARD

Company Introductions

In FORWARD & DYNAMIC,Driving force has always been our vision and prospect: We own the courage to challenge mediocrity to create surprising products.Depend on our great perseverance ,we promote the development of Chinese fluid industry.

Welcome to FORWARD & DYNAMIC !





OU - M5 - [ ] - 5M - [ ] - MICRO - [ ]

Basic function	
OU	Filter,Regulator,Lubricator
OFR	Filter,Regulator
OR	Regulator
OF	Filter
OL	Lubricator

Connection	
M5	M5
M7	M7
1/8	1/8

Pressure regulation range	
	0.5...7bar

Grade of Filtration	
5M	5μm

Pressure gauge	
	With pressure gauge
0	Without pressure gauge

Size	
MICRO	Micro

Condensate drain	
	Turned manually

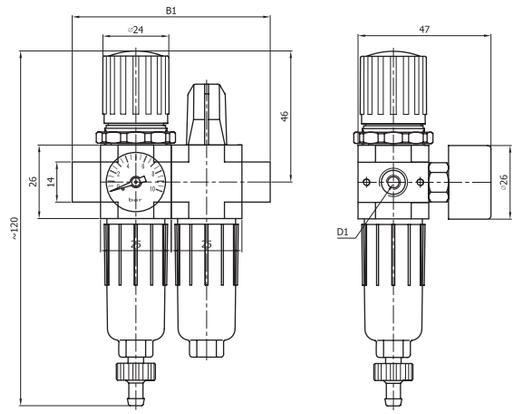
General technical data

Size		MICRO			
Medium		Compressed air			
Features of structure		Directly actuated diaphragm regulator,Sintered filter with centrifugal separation,Proportional standard mist lubricator			
Mounting type		Pipe mounting or foot mounting			
Assembly position		Vertical ±5°			
Connection		Female thread		Connecting plate	
		M5	M7	M7	1/8
Standard nominal flow rate	OU	90	130	170	140
	OFR	120	280	300	410
	OR	120	300	320	450
	OF	170	280	280	290
	OL	200	430	380	410
Primary pressure		0~10bar			
Working pressure		0.5~7bar			
Min. Standard nominal flow rate		3 l/min			
Grade of filtration		5μm			
Capacity of condensate fluid		6.5 cm			
Temperature range		0~60℃			
Materials information		Housing : Wrought aluminium alloy ; Filter bowl and oil bowl : PC ; Sealing : NBR ; Adjusting knob : POM			

Dimensions

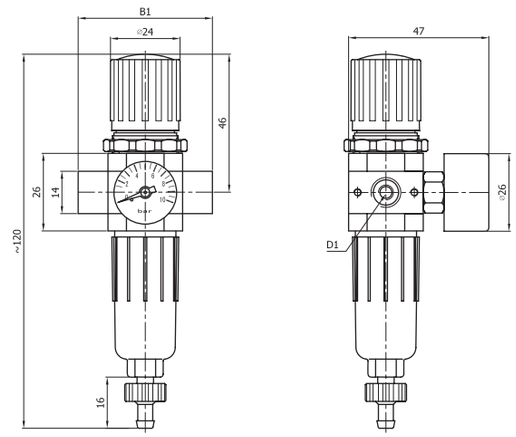
OU-MICRO

Model	B1	D1
OU-M5-MICRO	50	M5
OU-M7-MICRO		M7
OU-M7-MICRO	70	M7
OU-1/8-MICRO		1/8



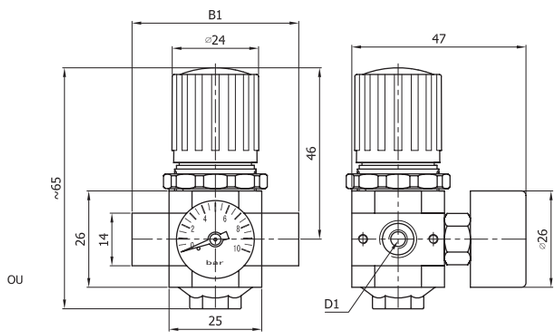
OFR-MICRO

Model	B1	D1
OFR-M5-MICRO	25	M5
OFR-M7-MICRO		M7
OFR-M7-MICRO	45	M7
OFR-1/8-MICRO		1/8



OR-MICRO

Model	B1	D1
OR-M5-MICRO	25	M5
OR-M7-MICRO		M7
OR-M7-MICRO	45	M7
OR-1/8-MICRO		1/8

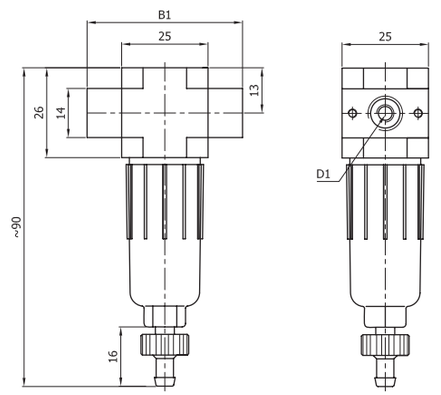


OU

Dimensions

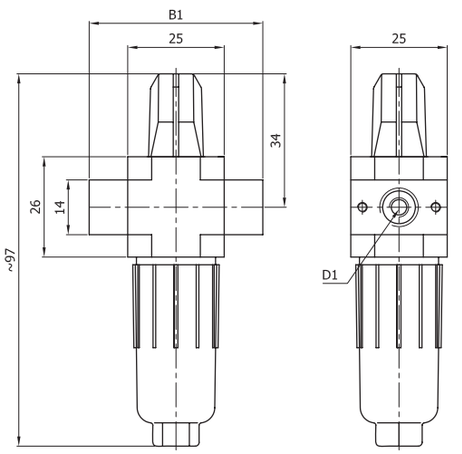
OF-MICRO

Model	B1	D1
OF-M5-MICRO	25	M5
OF-M7-MICRO		M7
OF-M7-MICRO	45	M7
OF-1/8-MICRO		1/8



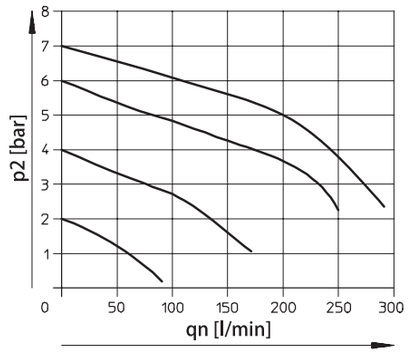
OL-MICRO

Model	B1	D1
OL-M5-MICRO	25	M5
OL-M7-MICRO		M7
OL-M7-MICRO	45	M7
OL-1/8-MICRO		1/8



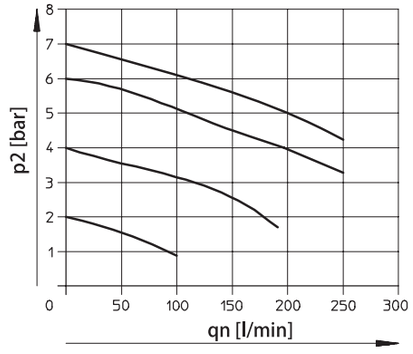
Standard flow rate qn as a function of the output pressure p2

OU-M5-7-5M-MICRO



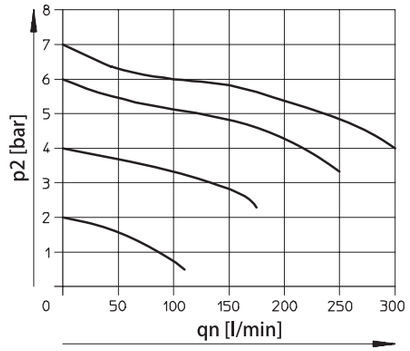
*Primary pressure: p1=10 bar

OFR-M5-7-5M-MICRO

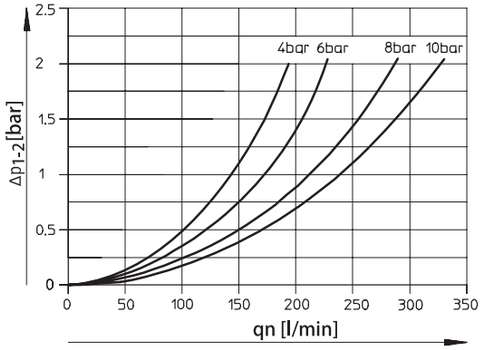


*Primary pressure: p1=10 bar

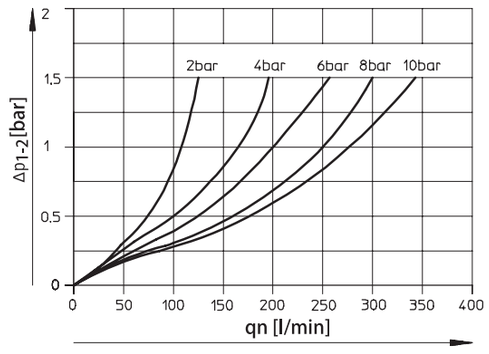
OR-M5-7-MICRO



OF-M5-5M-MICRO



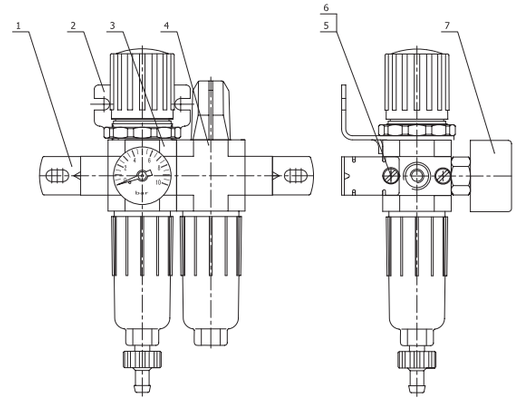
OL-M5-MICRO



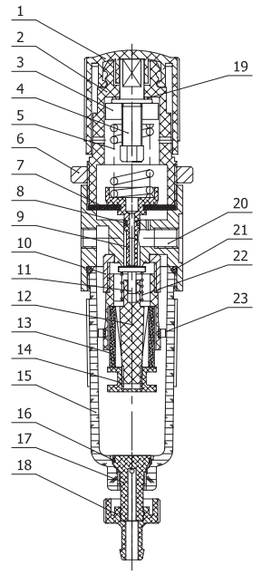
Inner structure

NO.	Item	Material
1	Mounting bracket OHC	SPCC
2	Mounting bracket OHO	SPCC
3	Filter+Regulator	
4	Lubricator	
5	Double-end bolt	S35C
6	Screw	S35C
7	Pressure guage	

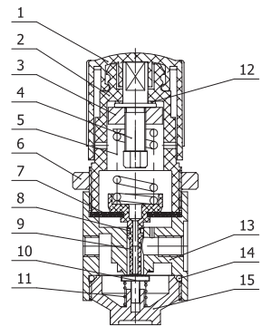
* No.1,2 is optional for mounting bracket.



NO.	Item	Material
1	Pressure knob	POM
2	Regulator cap	POM
3	Regulator nut	S35C
4	Adjusting spindle	S35C
5	Pressure spring	SWC
6	Fixed ring	6061-T6
7	Diaphragm	NBR+Nylon
8	O-ring	NBR
9	Spool	POM
10	Connecting base	6061-T6
11	Seal base	6061-T6+NBR
12	Filter element base	POM
13	Filter element	PE
14	Manger	POM
15	Filter bowl	PC
16	O-ring	NBR
17	Inner joint	POM
18	Condensate drain	POM
19	Wearing sheet	Insulation sheet
20	OR body	Zinc alloy
21	O-ring	NBR
22	Spring	SWPB
23	Whirl wind impeller	POM

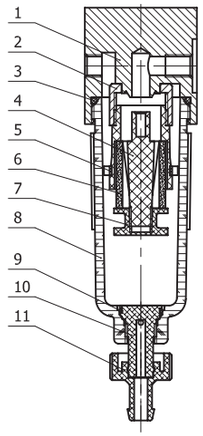


NO.	Item	Material
1	Pressure knob	POM
2	Regulator cap	POM
3	Regulator nut	S35C
4	Adjusting spindle	S35C
5	Pressure spring	SWC
6	Fixed ring	6061-T6
7	Diaphragm	NBR+Nylon
8	O-ring	NBR
9	Spool	POM
10	Seal base	6061-T6+NBR
11	Spring	SWPB
12	Wearing sheet	Insulation sheet
13	OR body	Zinc alloy
14	O-ring	NBR
15	Locker cover	ADC10

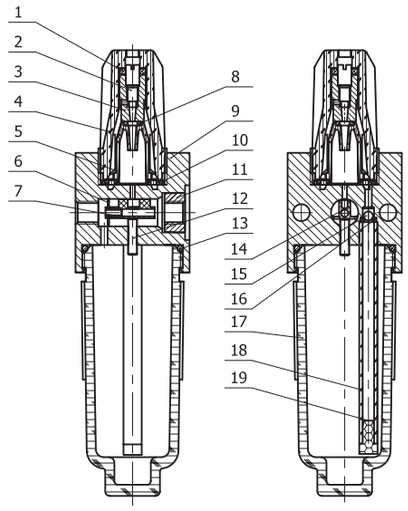


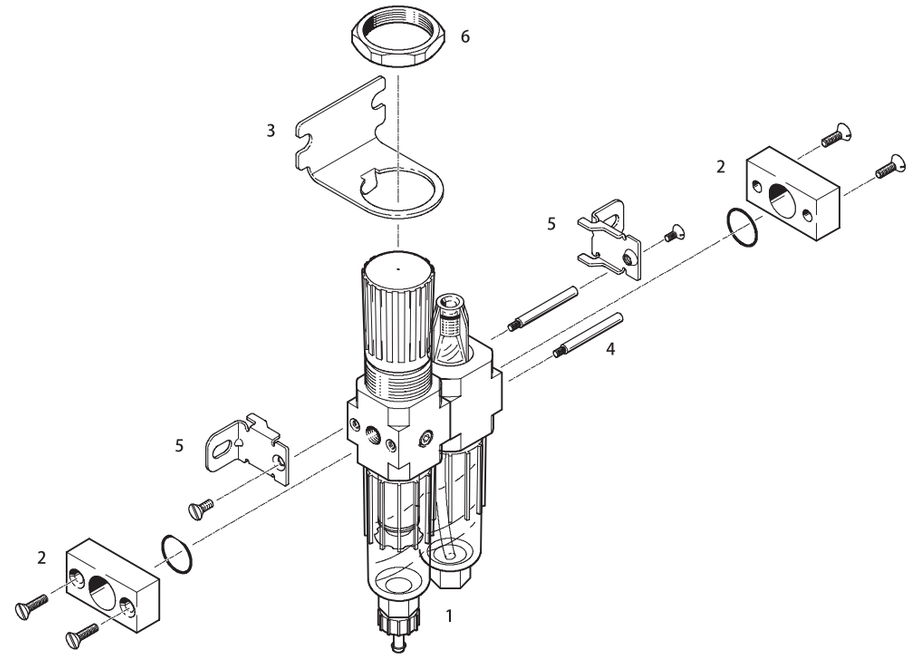
Inner structure

NO.	Item	Material
1	OF Body	Zinc alloy
2	Connecting base	6061-T6
3	O-ring	NBR
4	Filter element base	POM
5	Whirl wind impeller	POM
6	Filter element	PE
7	Manger	POM
8	Filter bowl	PC
9	O-ring	NBR
10	Inner joint	POM
11	Condensate drain	POM

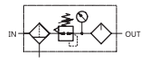


NO.	Item	Material
1	O-ring	NBR
2	Adjust screw	Brass
3	Screw base	Brass
4	Upper glass	PC
5	Oil dropping	PC
6	Windshield chip	NBR
7	Sleeve	Brass
8	O-ring	NBR
9	OL Body	Zinc alloy
10	Seal piece	NBR
11	M5 Fitting	6061-T6
12	Ending screw	S35C
13	O-ring	NBR
14	Windshield base	POM
15	Steel ball	SUS304
16	O-ring	NBR
17	Lubricator bowl	PC
18	Oil tube	PU
19	Oil-filter plug	Brass powder sintered

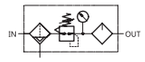




NO.	Item	Brief description
1	OU-MICRO	MICRO: M5,M7 The port of inner housing
2	Connecting plate kit PBL	Connecting G1/8
3	Mounting bracket OHO	To assemble with equipments
4	double-end bolt	Combination of seperate unit
5	Mounting bracket OHC	For equipment installation
6	Hexagon nut HMR	Necessary for OHO bracket



* Condensate drain
Turned manually



* Condensate drain
Semi-or fully automatic

The OU consisted of OFR and OL,each unit can be ordered separately. The OF with water separator cleans the compressed air of fluid oil,condensation and dirt particles.For special application,the standard 40μm filter element may easily be replaced by a 5μm filter element. The OR maintain imputting constant operating pressure despite fluctuation in line pressure and the amount of air consumed. The proportional lubricator adds a regulated quantity of oil to the filtered air.The oil-mist content proportional to the flow and oil can be added during operation.The oil drip rate is controlled by the adjust-able bolt.Normally,1to 12 drops /1000L of the air is sufficient.

OU - 1/4 - [ ] - [ ] - [ ] - MINI - [ ]

Basic function	
OU	Filter,Regulator,Lubricator

Connection	
1/8	G1/8
1/4	G1/4
3/8	G3/8
1/2	G1/2
3/4	G3/4
1	G1

Pressure regulation range	
	0.5...12bar
7	0.5...7bar

Grade of Filtration	
	40μm
5M	5μm

Pressure gauge	
	With pressure gauge
0	Without pressure gauge

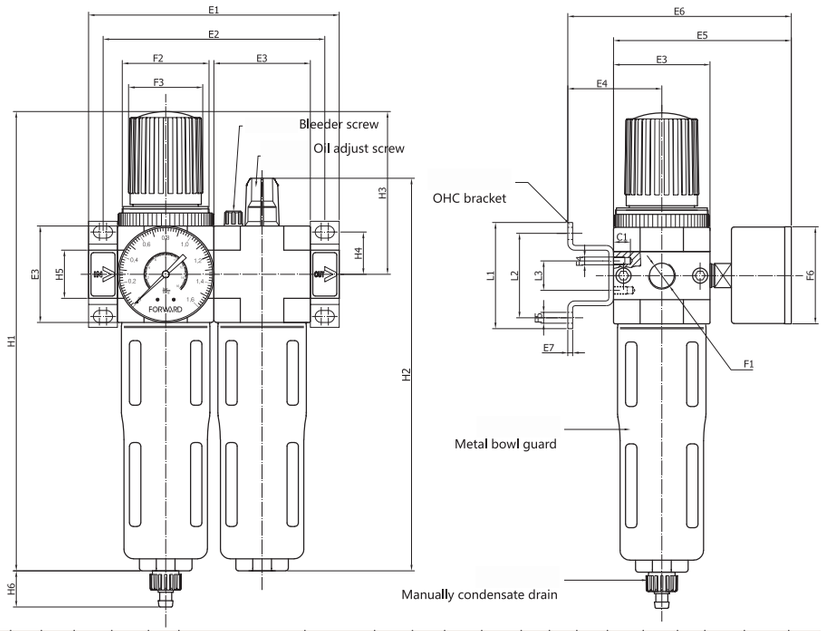
Size	
MINI	MINI
MIDI	MIDI
MAXI	MAXI

Condensate drain	
	Turned manually
S	Semi-automatic
A	Fully automatic

General technical data

Size		MINI		MIDI		MAXI			
Medium		Compressed air							
Features of structure		Sintered filter with water separator ; MINI/MIDI : Diaphragm type regulator ; MAXI : Piston regulator ; Direct constant-density lubricator							
Mounting type		Pipe mounting or foot mounting							
Assembly position		Vertical ±5°							
Connection		G1/8	G1/4	G3/8	G3/8	G1/2	G3/4	G3/4	G1
Standard nominal flow rate	OU-... (-A)	700	1000	1200	2000	2600	2600	8300	8500
	OU-...-7- (-A)	800	1300	1500	2000	2800	2800	8500	8700
	OU-...-5M- (-A)	600	850	1050	1700	1800	2100	7000	7200
Primary pressure	Manual condensate drain	1~16bar							
	Automatic condensate drain	1.5~12bar							
Working pressure		0.5~12bar / 0.5~7bar							
Min. Standard nominal flow rate		3 l/min		6 l/min		10 l/min			
Grade of filtration		40μm / 5μm							
Capacity of condensate fluid		22ml		43ml		80ml			
Temperature range		0~60℃							
Materials information		Housing : Zinc die-casting ; Filter bowl and oil bowl : PC ; Metal bowl guard : Aluminium alloy ; Sealing : NBR ; Adjusting knob : POM							

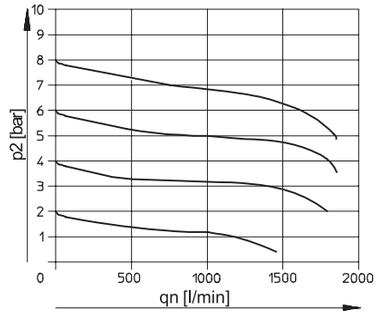
Dimensions



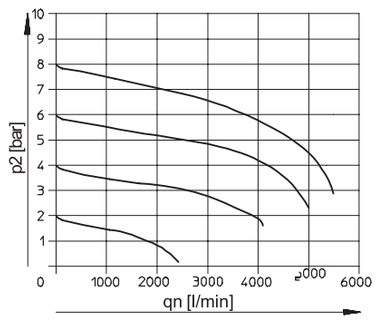
Model	E1	E2	E3	E4	E5	E6	E7	F1	F2	F3Ø	F4	F5Ø	F6Ø	L1	L2	L3	H1	H2	H3	H4	H5	H6
OU-...-MINI	104	92	40	39	76	95	2	G1/8,G1/4,G3/8	M36*1.5	31	M4	4.5	40	44	35	11	194	169	69	17.5	20	15
OU-...-MIDI	140	125	55	47	93	112	3	G1/8,G1/2,G3/4	M52*1.5	50	M5	5.5	52	71	60	22	250	206	97	24.5	32	15
OU-...-MAXI	162,182	146,157	66	53	104	124	3	G3/4,G1	M36*1.5	31	M5	5.5	63	71	60	22	252	223	80	24.5	32,40	15

Standard flow rate qn as a function of the output pressure p2

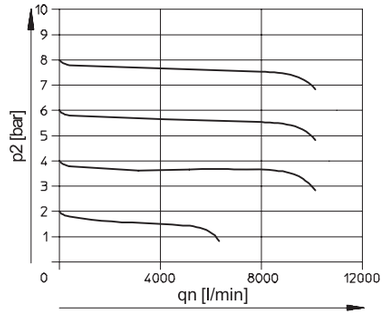
OU-1/4-MINI



OU-1/2-MIDI



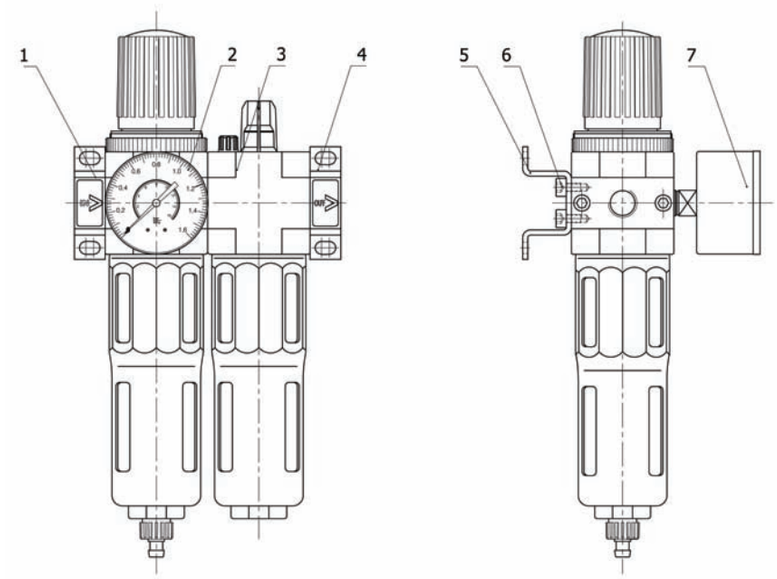
OU-1-MAXI



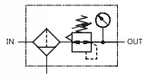
* Primary pressure: p1=10 bar

Filter,Regulator,Lubricator / OU
Technical data

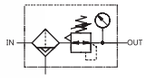
Inner structure



NO.	Item	Material	NO.	Item	Material
1	Flange - IN	Zinc alloy	5	Bracket	SPCC
2	Filter + Regulator		6	Allen screw	S35C
3	Lubricator		7	Pressure guage	
4	Flange - OUT	Zinc alloy			



* Condensate drain
Turned manually



* Condensate drain
Semi-or fully automatic

Filter and pressure regulator combine a single unit ,and cleans the compressed air of fluid oil,condensation and dirt particles.For special application,the standard 40μm filter element may easily be replaced by a 5 μm filter element.
The OR maintain imputting constant operating pressure despite fluctuation in line pressure and the amount of air consumed.

OFR - 1/4 - [ ] - [ ] - [ ] - MINI - [ ]

Basic function	
OFR	Filter regulator

Connection	
1/8	G1/8
1/4	G1/4
3/8	G3/8
1/2	G1/2
3/4	G3/4
1	G1

Pressure regulation range	
	0.5...12bar
7	0.5...7bar

Grade of Filtration	
	40μm
5M	5μm

Pressure gauge	
	With pressure gauge
0	Without pressure gauge

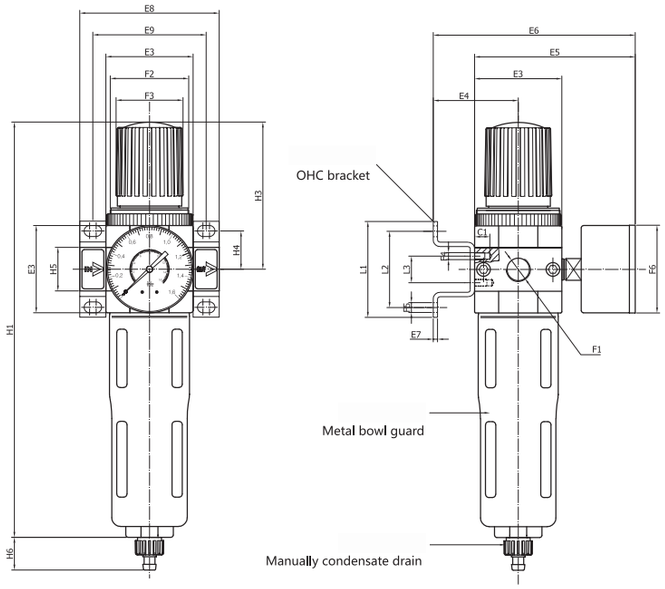
Size	
MINI	MINI
MIDI	MIDI
MAXI	MAXI

Condensate drain	
	Turned manually
S	Semi-automatic
A	Fully automatic

General technical data

Size		MINI			MIDI			MAXI
Medium		Compressed air						
Features of structure		Sintered filter with water separator ; MINI/MIDI : Diaphragm type regulator ; MAXI : Piston regulator						
Mounting type		Pipe mounting or foot mounting						
Assembly position		Vertical±5°						
Connection		G1/8	G1/4	G3/8	G3/8	G1/2	G3/4	G3/4	G1
Standard nominal flow rate	OFR-... (-A)	750	1400	1600	3100	3400	3400	9700	10000
	OFR-...-7- (-A)	900	1500	1700	3400	3900	4000	10000	11000
	OFR-...-5M- (-A)	650	1200	1350	2400	2500	2600	7600	8000
Primary pressure	Manual condensate drain	1~16bar						
	Automatic condensate drain	1.5~12bar						
Working pressure		0.5~12bar / 0.5~7bar						
Grade of filtration		40μm / 5μm						
Max.condensate capacity		22ml			43ml			80ml
Temperature range		0~60℃						
Materials information		Housing : Zinc die-casting ; Filter bowl : PC ; Metal bowl guard : Aluminium alloy ; Sealing : NBR ; Adjusting knob : POM						

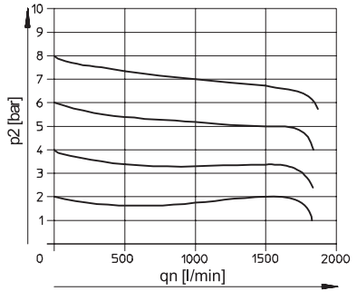
Dimensions



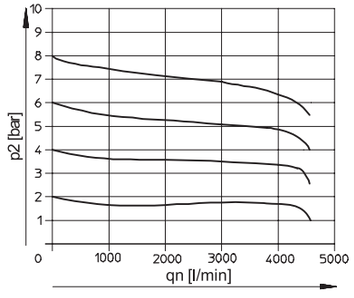
Model	E3	E4	E5	E6	E8	E9	F1	F2	F3Ø	F4	F5Ø	F6Ø	L1	L2	L3	H1	H3	H4	H5	H6
OFR-...-MINI	40	39	76	95	64	52	G1/8,G1/4,G3/8	M36*1.5	31	M4	4.5	40	44	35	11	194	69	17.5	20	15
OFR-...-MIDI	55	47	93	112	85	70	G1/8,G1/2,G3/4	M52*1.5	50	M5	5.5	52	71	60	22	250	98	24.5	32	15
OFR-...-MAXI	66	53	104	124	96,116	80,91	G3/4,G1	M36*1.5	31	M5	5.5	63	71	60	22	252	80	24.5	32,40	15

Standard flow rate qn as a function of the output pressure p2

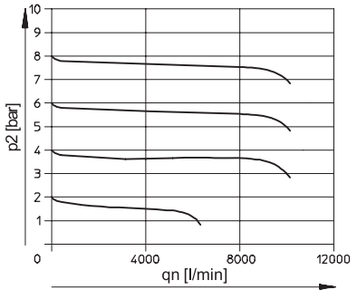
OFR-1/4-MINI



OFR-1/2-MIDI



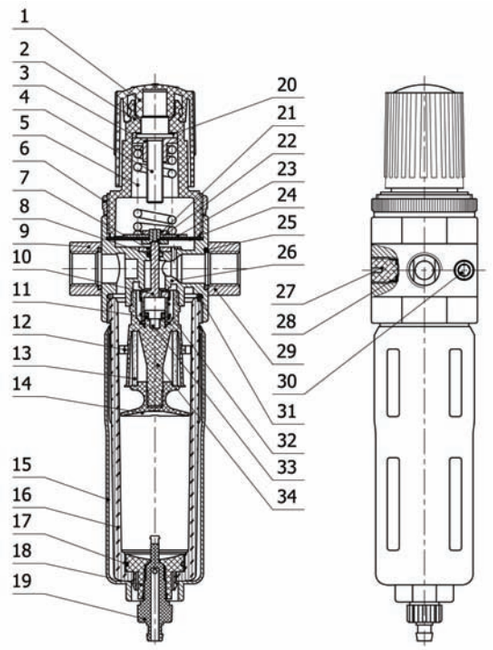
OFR-1-MAXI



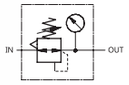
*Primary pressure: p1=10 bar

Filter regulator / OFR
Technical data
FORWARD

Inner structure



NO.	Item	Material	NO.	Item	Material
1	Pressure knob	POM	21	OR Sheet	NBR
2	Regulator cap	POM	22	Overflow base	6061-T6
3	Regulator nut	S35C	23	One part of diaphragm	SPCC
4	Adjusting spindle	S35C	24	Diaphragm	NBR
5	Pressure spring	SWC	25	O-ring	NBR
6	Fixed ring	6061-T6	26	OR Body	Zinc alloy
7	One part of membrane	PA6+G15	27	Plug	POM
8	O-ring	NBR	28	O-ring	NBR
9	Flange - IN	Zinc alloy	29	Flange - OUT	Zinc alloy
10	Spool	Brass	30	Allen screw	S35C
11	O-ring	NBR	31	O-ring	NBR
12	Whirl wind impeller	POM	32	Spring	SWPB
13	Filter element	PE	33	Fasteners	Brass
14	Manger	POM	34	Filter element base	POM
15	Metal bowl guard	Aluminium alloy			
16	Filter bowl	PC			
17	O-ring	NBR			
18	Inner joint	POM			
19	Condensate drain	POM			
20	Wearing sheet	Insulation sheet			



The OR maintain imputting constant operating pressure despite fluctuation in line pressure and the amount of air consumed.

OR - 1/4 - [ ] - [ ] - [ ] - MINI

Basic function	
OR	Regulator

Connection	
1/8	G1/8
1/4	G1/4
3/8	G3/8
1/2	G1/2
3/4	G3/4
1	G1

Pressure regulation range	
	0.5...12bar
7	0.5...7bar

Grade of Filtration	
	40μm
5M	5μm

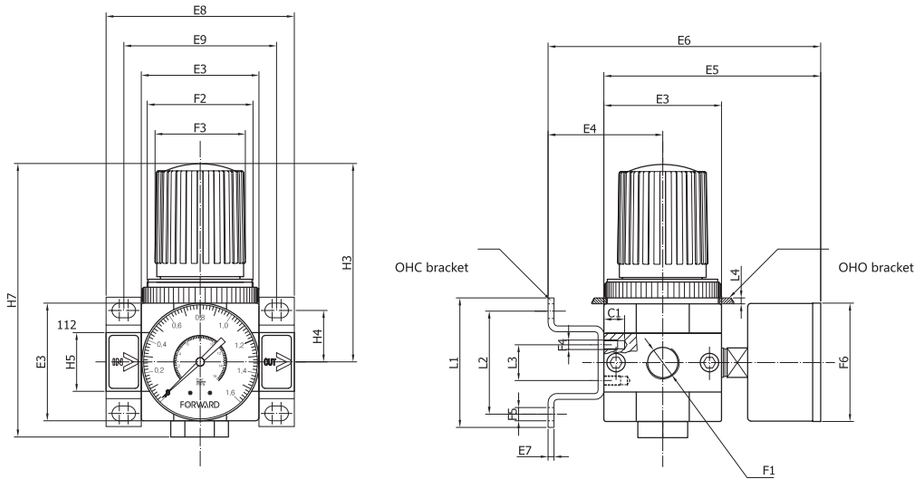
Pressure gauge	
	With pressure gauge
0	Without pressure gauge

Size	
MINI	MINI
MIDI	MIDI
MAXI	MAXI

General technical data

Size		MINI			MIDI		MAXI	
Medium		Filtered,compressed air (lubricated or unlubricated)						
Features of structure		MINI/MIDI : Diaphragm type regulator ; MAXI : Piston regulator						
Mounting type		Pipe / Foot / Plate mounting						
Assembly position		Any						
Connection		G1/8	G1/4	G3/8	G3/8	G1/2	G3/4	G3/4	G1
Standard nominal flow rate	OR-...	800	1500	1700	3200	3500	3500	11000	11500
	OR-...-7-	1000	1600	1800	3300	4000	4500	12000	12500
Primary pressure		1~16bar						
Working pressure		0.5~12bar / 0.5~7bar						
Temperature range		0~60℃						
Materials information		Housing : Zinc die-casting ; Sealing : NBR ; Adjusting knob : POM						

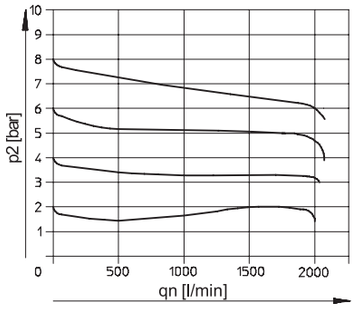
Dimensions



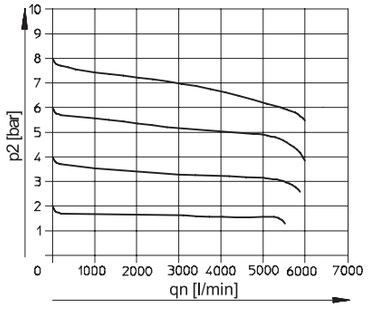
Model	E3	E4	E5	E6	E8	E9	F1	F2	F3Ø	F4	F5Ø	F6Ø	L1	L2	L3	L4	H3	H4	H7
OR-...-MINI	40	39	76	95	64	52	G1/8,G1/4,G3/8	M36*1.5	31	M4	4.5	40	44	35	11	Max.3	69	17.5	96
OR-...-MIDI	55	47	93	112	85	70	G1/8,G1/2,G3/4	M52*1.5	50	M5	5.5	52	71	60	22	Max.5	98	24.5	96
OR-...-MAXI	66	53	104	124	96,116	80,91	G3/4,G1	M36*1.5	31	M5	5.5	63	71	60	22	Max.4	80	24.5	96

Standard flow rate qn as a function of the output pressure p2

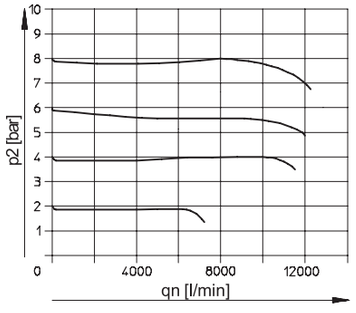
OR-1/4-MINI



OR-1/2-MIDI

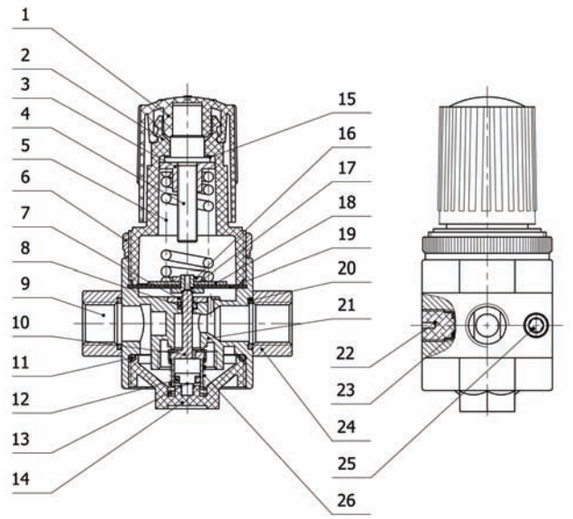


OR-1-MAXI



* Primary pressure: p1=10 bar

Inner structure



NO.	Item	Material	NO.	Item	Material
1	Pressure knob	POM	16	OR Sheet	NBR
2	Regulator cap	POM	17	Overflow base	6061-T6
3	Regulator nut	S35C	18	One part of diaphragm	SPCC
4	Adjusting spindle	S35C	19	Diaphragm	NBR
5	Pressure spring	SWC	20	O-ring	NBR
6	Fixed ring	6061-T6	21	OR Body	Zinc alloy
7	One part of membrane	NBR	22	Plug	POM
8	O-ring	NBR	23	O-ring	NBR
9	Flange - IN	Zinc alloy	24	Flange - OUT	Zinc alloy
10	Spool	Brass	25	Allen screw	S35C
11	O-ring	NBR	26	Spring	SWPB
12	O-ring	NBR			
13	Fasteners	Brass			
14	Locker cover	Zinc alloy			
15	Wearing sheet	Insulation sheet			

* Condensate drain
Turned manually

* Condensate drain
Semi-or fully automatic

The OF with water separator cleans the compressed air of fluid oil,condensation and dirt particles,for special application,the standard 40μm filter element may easily be replaced by a 5μm filter element.

OF - 1/4 - [ ] - MINI - [ ]

Basic function	
OF	Filter

Connection	
1/8	G1/8
1/4	G1/4
3/8	G3/8
1/2	G1/2
3/4	G3/4
1	G1

Grade of Filtration	
	40μm
5M	5μm

Size	
MINI	MINI
MIDI	MIDI
MAXI	MAXI

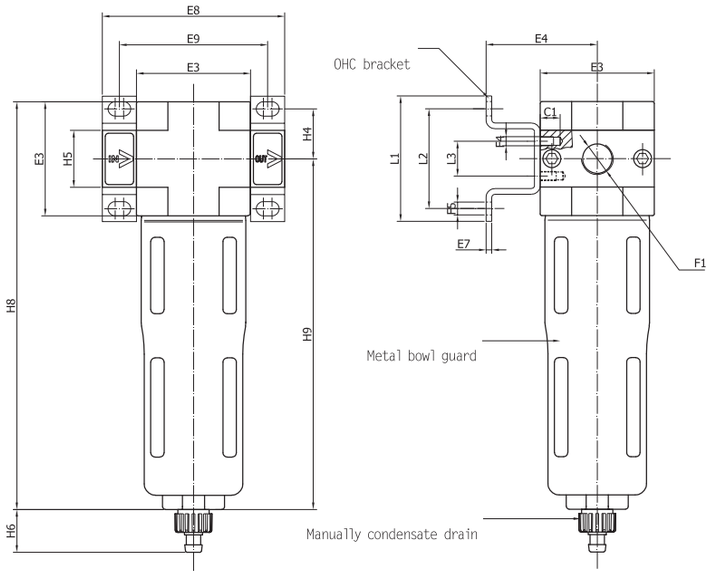
Condensate drain	
	Turned manually
S	Semi-automatic
A	Fully automatic

FORWARD

General technical data

Size		MINI			MIDI			MAXI	
Medium		Compressed air							
Features of structure		Sintered filter with water separator							
Mounting type		Pipe mounting or foot mounting							
Assembly position		Vertical±5°							
Connection		G1/8	G1/4	G3/8	G3/8	G1/2	G3/4	G3/4	G1
Standard nominal flow rate	OF-... (-A)	1000	1200	1400	2700	3000	3000	5000	5300
	OF-...-5M- (-A)	600	950	1100	1800	2000	2000	3600	3800
Primary pressure	Manual condensate drain	Max: 16bar							
	Automatic condensate drain	1.5~12bar							
Grade of filtration		40μm / 5μm							
Max.condensate capacity		22ml			43ml			80ml	
Temperature range		0~60℃							
Materials information		Housing：Zinc die-casting；Filter bowl：PC；Metal bowl guard：Aluminium alloy；Sealing：NBR							

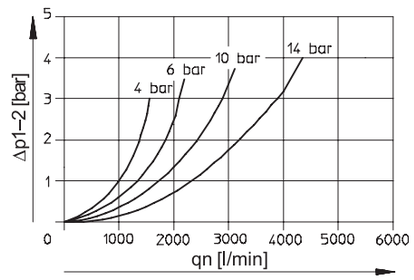
Dimensions



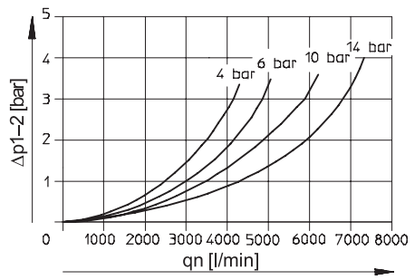
Model	E3	E4	E7	E8	E9	F1	F4	F5Ø	L1	L2	L3	H4	H5	H6	H8	H9
OF-...-MINI	40	39	2	64	52	G1/8,G1/4,G3/8	M4	4.5	44	35	11	17.5	20	15	144	129
OF-...-MIDI	55	47	3	85	70	G1/8,G1/2,G3/4	M5	5.5	71	60	22	24.5	32	15	179	156
OF-...-MAXI	66	53	3	96,116	80,91	G3/4,G1	M5	5.5	71	60	22	24.5	32,40	15	203	175

Standard flow rate qn as a function of the output pressure p2

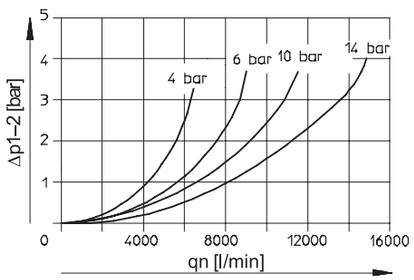
OF-1/4-MINI



OF-1/2-MIDI



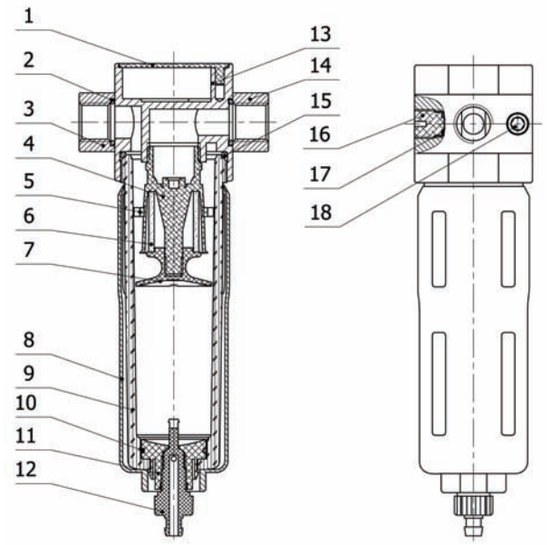
OF-1-MAXI



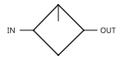
* Primary pressure: p1=10 bar

Filter / OF
Technical data

Inner structure



NO.	Item	Material	NO.	Item	Material
1	Ornament cover(round)	POM	11	Inner joint	POM
2	O-ring	NBR	12	Condensate drain	POM
3	Flange - IN	Zinc alloy	13	OF Body	Zinc alloy
4	Filter element base	POM	14	Flange -OUT	Zinc alloy
5	Whirl wind impeller	POM	15	O-ring	NBR
6	Filter element	PE	16	Plug	POM
7	Manger	POM	17	O-ring	NBR
8	Metal bowl guard	Aluminium alloy	18	Allen screw	S35C
9	Filter bowl	PC			
10	O-ring	NBR			



The direct constant-density lubricator add regulatd quantity oil to the compressed air.A valve maintains oil mist content proportional to the compressed oil flow.
The pressure drop that occurs when the air flow through a sight feed oil cup delives oil from the bowl to the sight oil indicator .The drop of the oil flows into the air channel when it is atomized.
The oil drip rate is controlled by means of the regulating screw.Normally,1 to 12 drops /1000L of the air is sufficient.

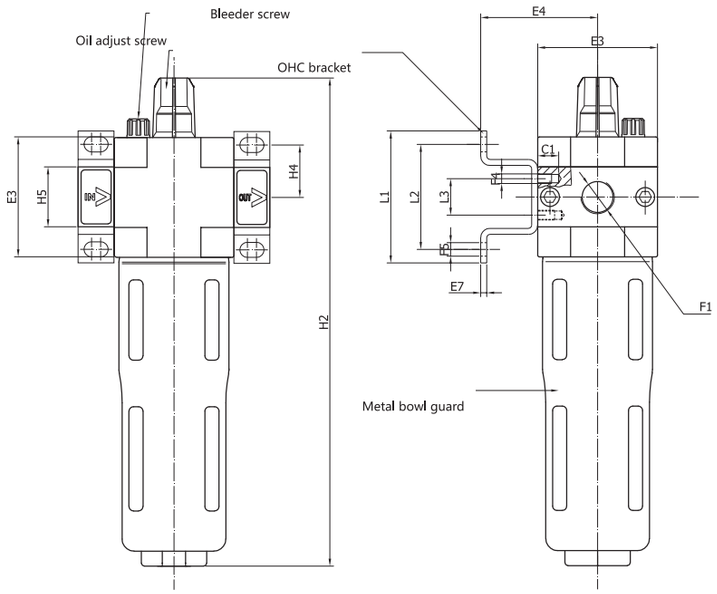
OL - 1/4 - MINI

Basic function	
OL	Lubricator
Connection	
1/8	G1/8
1/4	G1/4
3/8	G3/8
1/2	G1/2
3/4	G3/4
1	G1
Size	
MINI	MINI
MIDI	MIDI
MAXI	MAXI

General technical data

Size	MINI			MIDI			MAXI	
Medium	Compressed air							
Features of structure	The direct constant-density lubricator							
Mounting type	Pipe or Foot mounting							
Assembly position	Vertical ±5°							
Connection	G1/8	G1/4	G3/8	G3/8	G1/2	G3/4	G3/4	G1
Standard nominal flow rate	1300	2300	2700	5500	6100	6300	8400	9000
Max. Working pressure	16bar							
Min. Standard nominal flow rate	3 l/min			6 l/min			10 l/min	
Max.Condensate capacity	22ml			43ml			80ml	
Temperature range	0~60℃							
Materials information	Housing : Zinc die-casting ; Oil bowl and Drip cap : PC ; Metal bowl guard : Aluminium alloy ; Sealing : NBR							
Recommended oil	ISO VG 32 or the same grade							

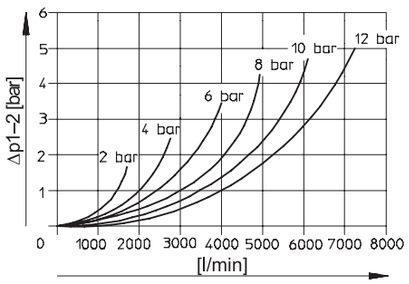
Dimensions



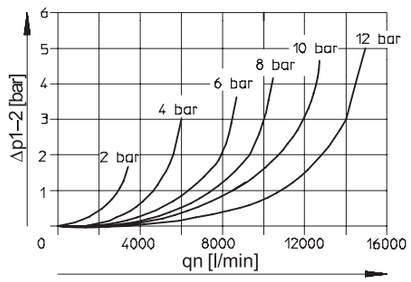
Model	E3	E4	E7	F1	F4	F5Ø	L1	L2	L3	H4	H5
OL-...-MINI	40	39	2	G1/8,G1/4,G3/8	M4	4.5	44	35	11	17.5	20
OL-...-MIDI	55	47	3	G1/8,G1/2,G3/4	M5	5.5	71	60	22	24.5	32
OL-...-MAXI	66	53	3	G3/4,G1	M5	5.5	71	60	22	24.5	32,40

Standard flow rate qn as a function of the output pressure p2

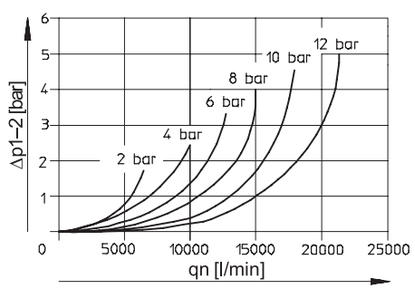
OL-1/4-MINI



OL-1/2-MIDI



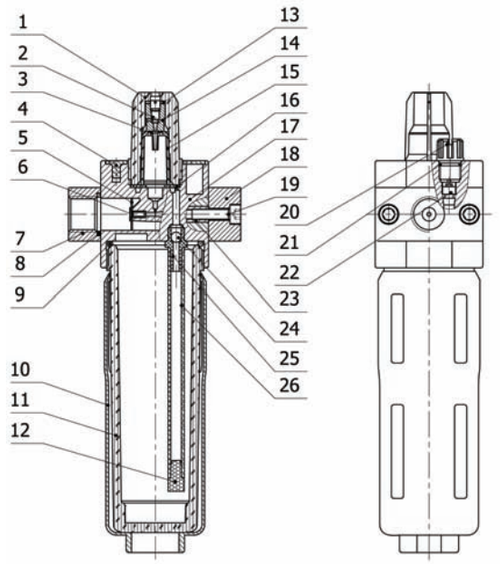
OL-1-MAXI



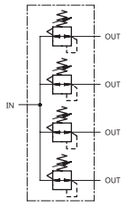
* Primary pressure: p1=10 bar

Lubricator / OL
Technical data
FORWARD

Inner structure



NO.	Item	Material	NO.	Item	Material
1	Upper glass	PC	16	Seal piece	NBR
2	Adjust screw	Brass	17	OL Body	Zinc alloy
3	O-ring	NBR	18	Flange - OUT	Zinc alloy
4	Ornament cover (circular)	PO	19	Allen screw	S35C
5	Windshield chip	NBR	20	Bleeder screw	POM
6	Windshield base	Brass	21	O-ring	NBR
7	Flange - IN	Zinc alloy	22	Valve pin	Brass
8	O-ring	NBR	23	Double-end bolt	SUS
9	O-ring	NBR	24	Steel ball	SUS304
10	Metal bowl guard	Aluminium alloy	25	Oil tube connection	POM
11	Lubricator bowl	PC	26	Oil tube	PU
12	Oil-filter plug	Brass powder sintered			
13	O-ring	NBR			
14	Screw base	Brass			
15	Oil dropping	PC			



The regulator for an integrated installation,can provide a variety of different pressure gas source,the front and rear sides of each one has a output connection.

ORB - 1/4 - 7 - 0 - K2 - MINI

Basic function	
ORB	Pressure regulator combination

Connection	
1/4	G1/4
3/8	G3/8
1/2	G1/2

Pressure regulation range	
	0.5...12bar
7	0.5...7bar

Pressure gauge	
	With pressure gauge
0	Without pressure gauge

Functions	
K2	Manifold with 2 pressure regulators
K3	Manifold with 3 pressure regulators
K4	Manifold with 4 pressure regulators
K5	Manifold with 5 pressure regulators

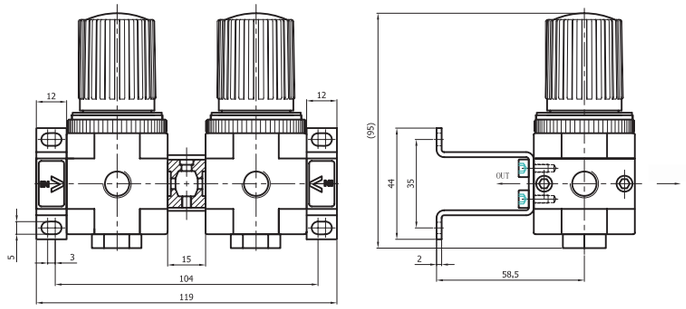
规格 Size	
MINI	MINI
MIDI	MIDI
MAXI	MAXI

General technical data

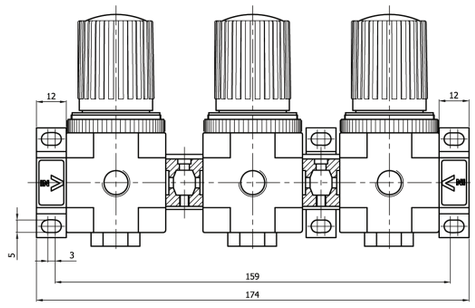
Size		MINI	MIDI
Medium		Compressed air	
Features of structure		Directly actuated diaphragm regulator with through pressure supply	
Type of mounting		Via accessory	
Assembly position		Any	
Connection		(Connection of pressure gauge) (Connection of gas outlet)	(Connection of pressure gauge) (Connection of gas outlet)
Pressure regulation range		0.5~7bar	
		0.5-12bar	
Primary pressure		1~16bar	
Standard nominal flow rate	0.5~7bar	1800	3800
	0.5~12bar	1600	3200

Dimensions

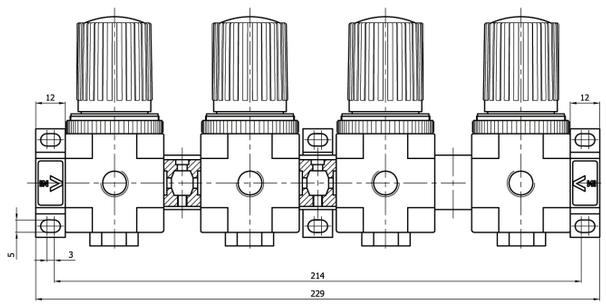
ORB-...-K2 Basic version



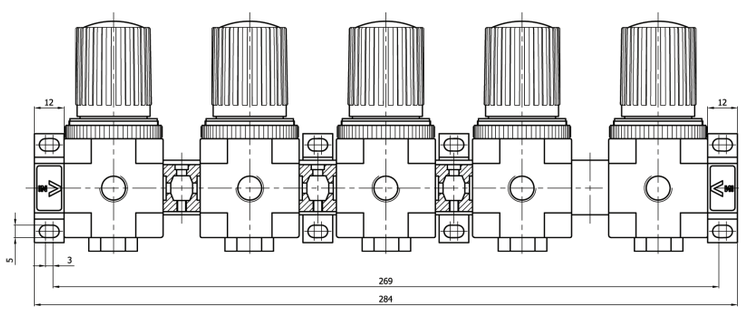
ORB-...-K3 Basic version



ORB-...-K4 Basic version

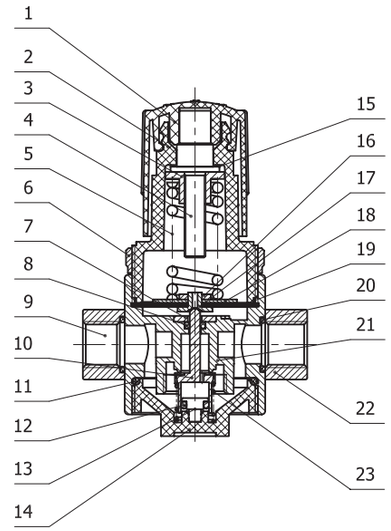


ORB-...-K5 Basic version



Pressure regulator combinations / ORB
Technical data

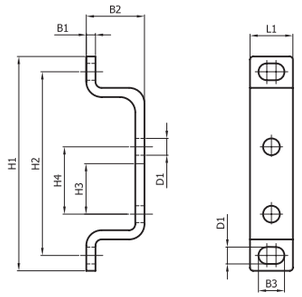
Inner structure



NO.	Item	Material	NO.	Item	Material
1	Pressure knob	POM	16	OR Sheet	NBR
2	Regulator cap	POM	17	Overflow base	6061-T6
3	Regulator nut	S35C	18	One part of diaphragm	SPCC
4	Adjusting spindle	S35C	19	Diaphragm	NBR
5	Pressure spring	SWC	20	O-ring	NBR
6	Fixed ring	6061-T6	21	OR Body	Zinc alloy
7	One part of membrane	NBR	22	Flange - OUT	Zinc alloy
8	O-ring	NBR	23	Spring	SWPB
9	Flange - IN	Zinc alloy			
10	Spool	Brass			
11	O-ring	NBR			
12	O-ring	NBR			
13	Fasteners	Brass			
14	Locker cover	Zinc alloy			
15	Wearing sheet	Insulation sheet			

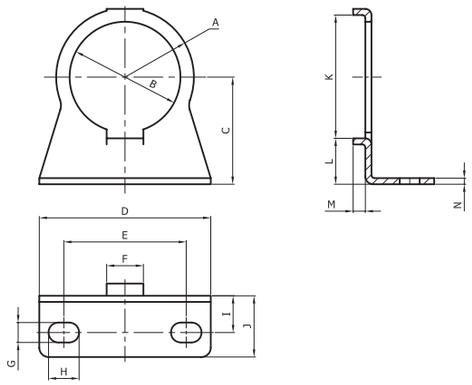
Dimensions and ordering data

Mounting bracket OHC



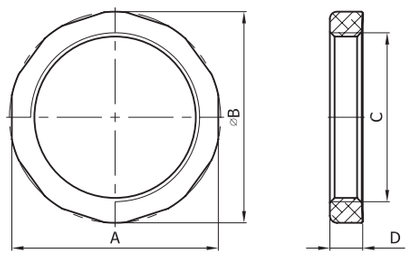
Size	B1	B2	B3	D1	H1	H2	H3	H4	L1	Type
MINI	2	19	7.3	4.3	43	35	5.5	11	12	OHC-MINI
MIDI/MAXI	3	19	8.3	5.3	70	60	16.5	22	14	OHC-MIDI/MAXI

Mounting bracket OHO



Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Type
MINI/MAXI	22.5	36.5	35	56	40	12	6.5	10	12	20	40.4	15	4	2	OHO-MINI/MAXI
MIDI	30	52.5	48	70	53	12	8.5	10.5	17.5	27	55.5	20	4	2	OHO-MIDI

Nut HMR



Size	A	B	C	D	Type
MINI/MAXI	44	45	M36*1.5	7	HMR-MINI/MAXI
MIDI	60	62	M52*1.5	8	HMR-MIDI

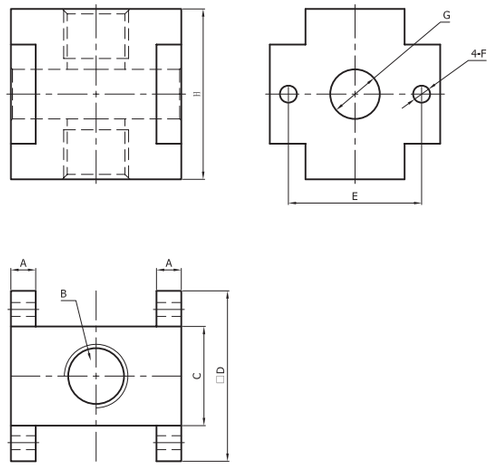
Dimensions and ordering data

Manometer OMA

The manometer is used to measure and display the pressure of the controlled system.

Type	Normal size	Pneumatic connection	Indicating range
OMA-40-10-1/8	40	G1/8	0-10 bar
OMA-40-16-1/8			0-16 bar
OMA-50-10-1/4	50	G1/4	0-10 bar
OMA-50-16-1/4			0-16 bar

Branching modules FRM



Size	A	B	C	D	E	F	G	H	Type
MINI	6	G1/8,G1/4,G3/8	22	40	30	4.3	11.5	40	FRM-...-MINI
MIDI	8	G3/8,G1/2,G3/4	32	55	43	5.5	16	55	FRM-...-MIDI