

# EI Series Air Preparation Unit



## How to Order?

Series No.	Type Code	Body Size	Combination QTY	Port Size	Drain Type	Pressure Gauge Code	Bracket Code	Scale Unit	Filter Precision	Thread Type
EI: Square gauge series	C: Filter+regulator+lubricator W: Filter+regulator F: Filter R: Regulator L: Lubricator	20: 2000 body 30: 3000 body 40: 4000 body 50: 5000 body	10: Two units (Regulator+Lubricator) 00: Others 2000 01: 1/8" 02: 1/4" 3000 02: 1/4" 03: 3/8"	4000 04: 1/2" 5000 06: 3/4" 10: 1"	Blank: Manual drain type C: Semi-auto drain D: Auto Drain type	Blank: With pressure gauge N: No pressure gauge	Blank: With bracket J: No bracket	1: Mpa 2: Bar *3: Psi (*Need special made)	Blank: 25 μm 5M: 5 μm	Blank: G P: PT T: NPT

### Order Example:

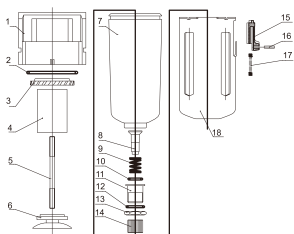
EI series regulator, 2000 body size, 1/8 port size, with pressure gauge, Mpa pressure unit, G thread, ERP code is: EIR2000-01 1

Note: 1) 2000 series is optional for manual /auto drain type;

Standard 3000/4000/5000 series are optional for manual/semi-auto/semi-auto integrated drain type.

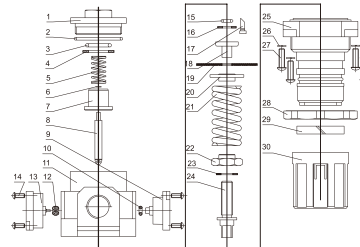
## Air Preparation Unit Kits

### EIF3000



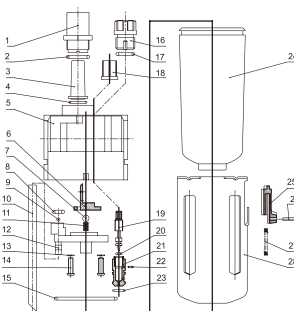
NO.	NAME	QTY	MATERIAL
18	Lock	1	ABS
17	Pin	1	ABS
16	Spring	1	Stainless steel
15	Metal bowl	1	Steel plate
14	Nut	1	HPb59-1
13	Hexagon Nut	1	HPb59-1
12	O-ring	1	NBR
11	Drain valve seat	1	HPb59-1
10	O-ring	1	NBR
9	Spring	1	Stainless steel
8	Drain valve core	1	HPb59-1
7	Water cup	1	HPb59-1
6	Drain board	1	ABS
5	Cross bolt	1	Carbon steel
4	Filter element	1	Cu
3	Blade	1	ABS
2	O-ring	1	NBR
1	Filter body	1	ADC12

### EIR3000



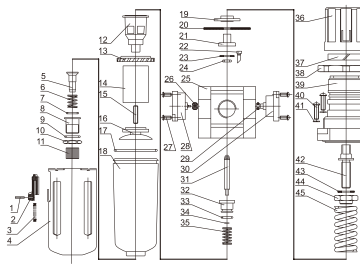
NO.	NAME	QTY	MATERIAL
30	Regulate handle	1	Reinforce nylon
29	Symbol ring	1	Reinforce nylon
28	plastic combination	1	POM
27	Cross screw	4	Carbon steel
26	Spring washer	4	Carbon steel
25	Regulator Body	1	Aluminum
24	Regulate bolt	1	Carbon steel
23	Washer	1	POM
22	Regulate Nut	1	Carbon steel
21	Spring	1	Stainless steel
20	Diaphragm-Pinjet	1	Carbon steel
19	Diaphragm	1	NBR
18	Diaphragm seal	1	Brass
17	Pipe	1	POM
16	Retainer ring	1	Steel plate
15	O-ring	1	NBR
14	Cross screw	4	Carbon steel
13	Plastic connection	1	POM
12	Seal	1	NBR
11	Regulator body	1	Aluminum
10	Seal	1	NBR
9	Connection	1	ADC12
8	Spool	1	Brass+NBR
7	Valve core	1	Brass
6	Retainer ring	1	Steel plate
5	Spring	1	Stainless steel
4	Retainer ring	1	Steel plate
3	O-ring	1	NBR
2	O-ring	1	NBR
1	Regulator seat	1	ZZnAl4-1

### EIL3000



NO.	NAME	QTY	MATERIAL
28	Oil cup	1	Polycarbonate
27	Lock	1	ABS
26	Pin	1	ABS
25	Spring	1	Stainless steel
24	Metal bowl	1	Steel plate
23	O-ring	1	NBR
22	Pin	1	Q235
21	Oil regulate seal	1	HPb59-1
20	O-ring	1	NBR
19	Oil regulate needle	1	HPb59-1
18	Oil regulate porrier	1	ABS
17	O-ring	1	NBR
16	Plug	1	ABS
15	O-ring	1	NBR
14	Cross screw	2	Q235
13	Spring washer	2	65Mn
12	One way valve plate	1	POM
11	Spring	1	Stainless steel
10	Pipe	1	PUI tube
9	Steel ball	1	Q235
8	O-ring	1	NBR
7	Steel ball	1	Q235
6	Reed	1	Polycarbonate
5	Lubricator body	1	ADC12
4	O-ring	1	NBR
3	Oil drop tube	1	Polycarbonate
2	O-ring	1	NBR
1	Oil window	1	Polycarbonate

### EIW3000



NO.	NAME	QTY	MATERIAL
45	Spring	1	Carbon steel
44	Regulate nut	1	Carbon steel
43	Washer	1	POM
42	Regulate bolt	1	Carbon steel
41	Spring washer	4	Carbon steel
40	Cross screw	4	Carbon steel
39	Valve cover	1	Reinforce nylon
38	Nut	1	Reinforce nylon
37	Symbol ring	1	Reinforce nylon
36	Regulate handle	1	Reinforce nylon
35	Spring	1	Stainless steel
34	Retainer ring	1	Steel plate
33	O-ring	1	NBR
32	Valve core	1	Brass
31	Spool	1	HPb59-1+NBR
30	connection	1	ADC12
29	Seal	1	NBR
28	Plastic connection	1	POM
27	Cross screw	4	Carbon steel
26	Seal	1	NBR
25	Regulator Body	1	Aluminum
24	O-ring	1	NBR
23	Retainer ring	1	Carbon steel
22	Pipe	1	POM
21	Diaphragm seal	1	Brass
20	Diaphragm	1	NBR
19	Diaphragm Pinjet	1	Carbon steel
18	Water cup	1	Polycarbonate
17	O-ring	1	NBR
16	Drain board	1	ABS
15	Bolt	1	Carbon steel
14	Filter element	1	ABS
13	Whirring blade	1	ABS
12	Overbow valve seat	1	ZZnAl4-1
11	Boil guard	1	Carbon steel
10	Spring	1	Stainless steel
9	Lock	1	ABS
8	Pin	1	ABS
7	Nut	1	Brass
6	Hex Nut	1	Brass
5	O-ring	1	NBR
4	Drain valve	1	Brass
3	O-ring	1	NBR
2	Spring	1	Stainless steel
1	Valve core	1	Brass

# EIR-K Series Regulator with Backflow Function



## EIR-K

Regulator with backflow function



### How to order?

Series No.	Valve body size	Type code	Port size	Pressure Gauge code	Bracket code	Scale unit	Thread type
EIR: Regulator with square gauge		K: Backflow type		Blank: With Pressure Gauge N: Without Pressure Gauge	Blank: With bracket J: Without bracket	1: Mpa 2: Bar 3: Psi	Blank: G P: PT T: NPT
2000:2000 Series 3000:3000 Series 4000:4000 Series 5000:5000 Series		2000 3000	01: 1/8" 02: 1/4" 02: 1/4" 03: 3/8"	4000 04: 1/2" ⊕ 5000 06: 3/4" 10: 1"			

**Order Example:** Regulator with square gauge, 2000 series body, backflow type, 1/4" port size, with gauge, with bracket, MPa, G thread, ERP code is: EIR2000K-021

- Note:**
1. Backflow type regulator must work separately; the regulator knob must be upward, the air should be left port in and right port out.
  2. 2000 series must work in case of knob upward and left port in & right port out. Right port in & left port out is not available currently.
  3. Standard 3000,4000,5000 series with backflow function must conform to above 1st point. If right port in & left port out was requested, EMC can customize it.

Note: ⊕ 3/8" and 3/4" port are not available for 4000 series.

### Specification

Model	EIR2000K	EIR3000K	EIR4000K	EIR5000K
Working Medium	Clean air(After 40 μm filtration)			
Proof pressure(MPa)	1.5			
Max. Working pressure(MPa)	1.0			
Pressure adjusting range(MPa)	0.05-0.9			
Working temperature(°C)	-5-60 ( No freezing )			
Overpressure Exhaust Mechanism	With overflow			

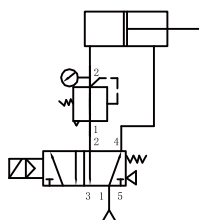
Model	Rated flow(L/min) *	Port size *
EIR2000K-01	1178	1/8"
EIR2000K-02	1200	1/4"
EIR3000K-02	2112	1/4"
EIR3000K-03	2212	3/8"
EIR4000K-04	5312	1/2"
EIR5000K-06	6400	3/4"
EIR5000K-10	6600	1"

\* Supply pressure 8.0Bar, Set pressure 6.3Bar, and pressure difference 1 Bar, testing result shows that standard type and backflow type have same flow rate.

\* G, PT, NPT is optional.

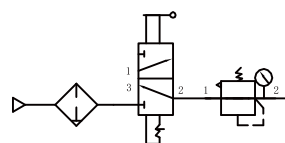
### Suitable Applications

1. The pressure is different between piston rod side and the opposite side.



2. Exhaust through the inlet port when air supply stopped. It is a safety precaution.

The residual compress air on the outlet side of pressure reducing valve can be discharged

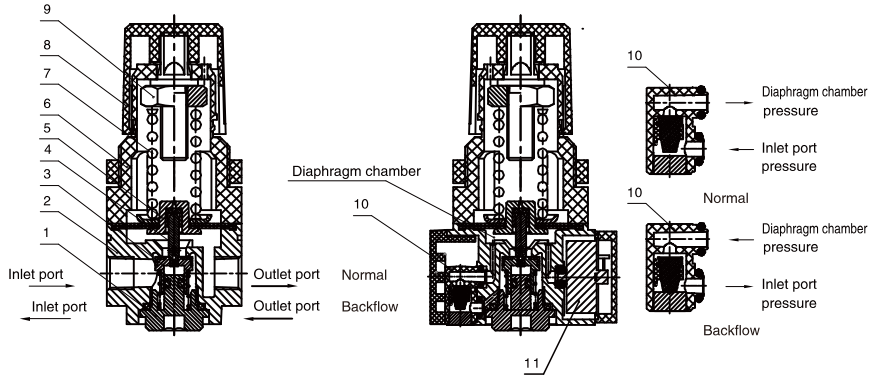


# EIR-K Series Regulator with Backflow Function

## Construction and working principle

### Working principle:

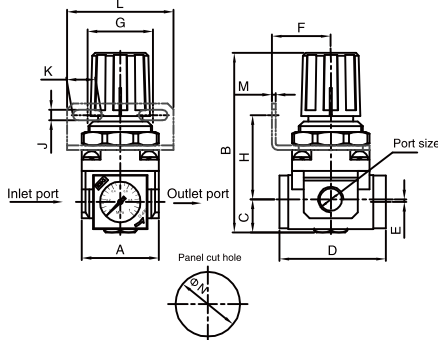
1. When inlet pressure is higher than set pressure, one-way valve 10 closes, it works as a normal regulator.
2. When the inlet pressure blocked, the one-way valve 10 opens, pressure in diaphragm chamber exhausts from the inlet side. When diaphragm chamber pressure goes down, diaphragm is pushed down by the spring force, The valve core will be open by valve rod, pressure at the outlet side exhaust through the inlet side, it works as a regulator with backflow function.



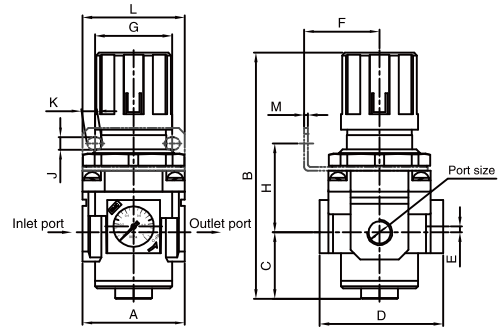
No.	Name	Material
1	Regulator seat	Aluminium
2	Regulator body	Aluminium
3	Valve core	NBR/Metal
4	Spool	Brass
5	Diaphragm components	NBR/Metal
6	Valve cover	Reinforce nylon ( 2000/3000 ) Aluminium(4000/5000)
7	Spring	SWC
8	Knob	Reinforce nylon
9	Adjustment bolt components	Free-cutting steel
10	One-way valve components	NBR/Plastic
11	Pressure gauge	Brass/Plastic

## Main Dimension

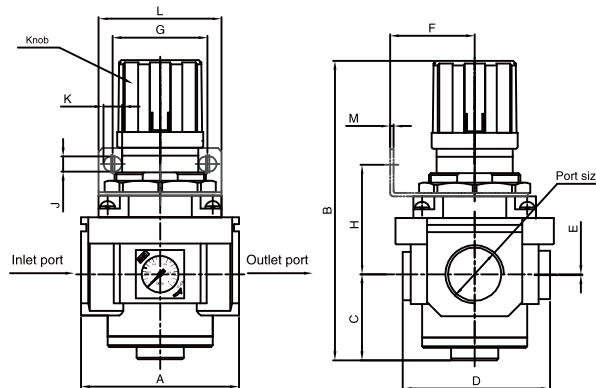
EIR2000K



EIR3000K-EIR4000K



EIR5000K



### Note:

1. Backflow type regulator knob should be upward, left port inlet and right port outlet.
2. Standard regulator knob should be downward, left port inlet and right port outlet.  
(Refer to EI series of standard type)
3. The installation size and dimensions of standard and backflow type are same.

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N
EIR2000K	1/8" - 1/4"	40	95	17	55	1.3	30.5	33.5	44	5.4	15	55	2	33
EIR3000K	1/4" - 3/8"	53	127.5	34.5	64	3	39	40	46	6.5	8	53	2	42
EIR4000K	1/2"	70	149.5	37.5	81	4	48	53.5	54.5	8.5	10.5	70	2	52
EIR5000K	3/4" - 1"	90	168	49	90	0.5	48	53.5	62	8.5	10.5	70	2	52