Modular F.R.L.
AC20 to 40-D Series

1. Line-up

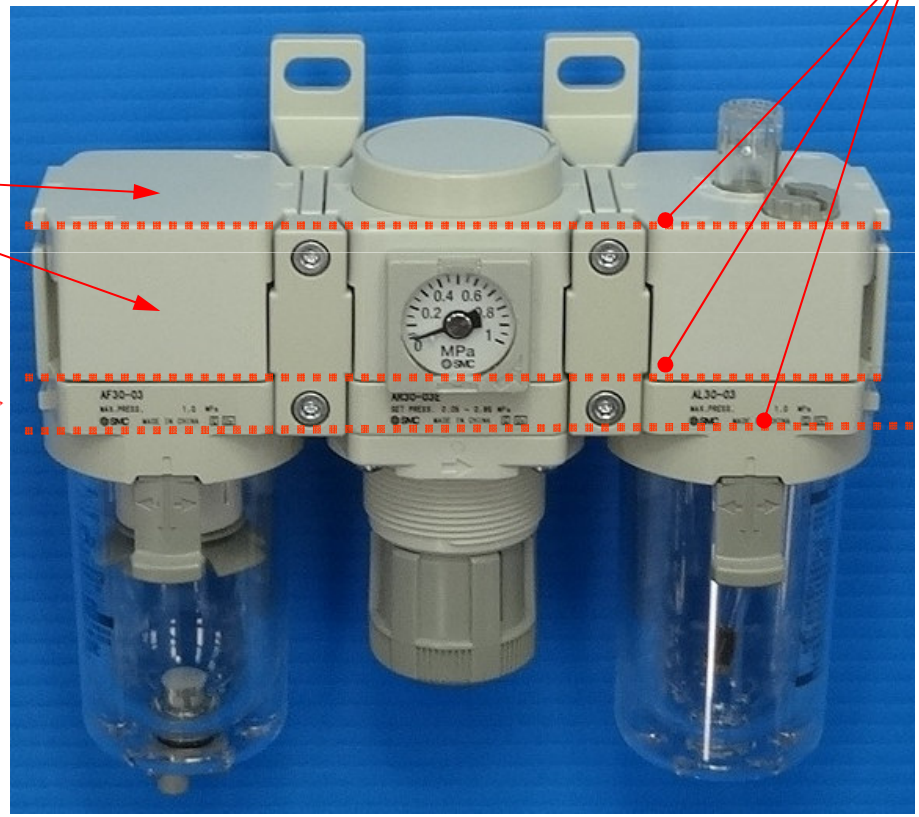
New FRL combination	Model	Port Size			
		1/8	1/4	3/8	1/2
AF+AR+AL	AC20-D	○	○		
	AC30-D		○	○	
	AC40-D		○	○	○
AW+AL	AC20A-D	○	○		
	AC30A-D		○	○	
	AC40A-D		○	○	○
AF+AR	AC20B-D	○	○		
	AC30B-D		○	○	
	AC40B-D		○	○	○
AF+AFM+AR	AC20C-D	○	○		
	AC30C-D		○	○	
	AC40C-D		○	○	○
AW+AFM	AC20D-D	○	○		
	AC30D-D		○	○	
	AC40D-D		○	○	○

Note: There is no body size 25.

2. Features (1)

Flat profile is consistent throughout components

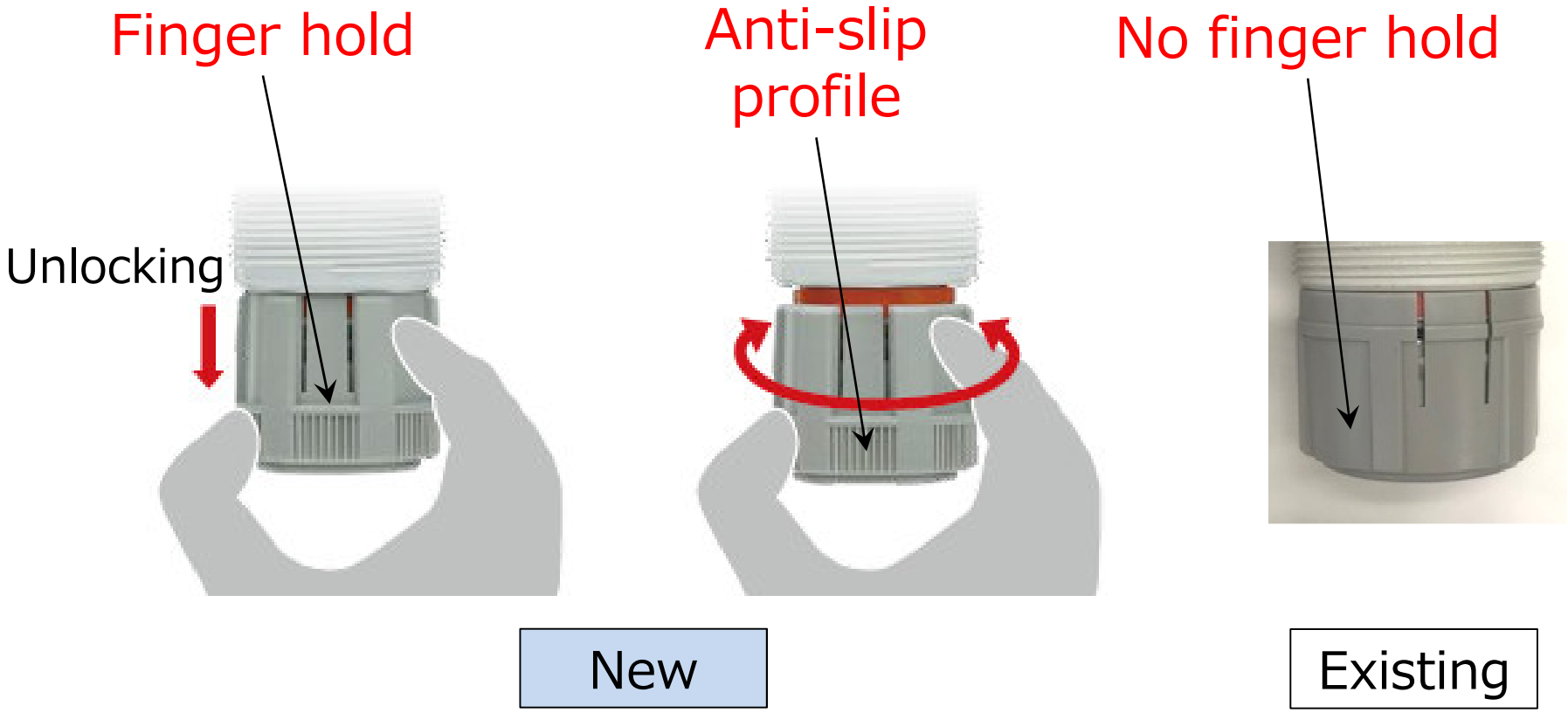
- Flat and level surfaces
- Straight line label positions
- Uniform Edges



2. Features (2)

Improved ergonomics for regulator handle

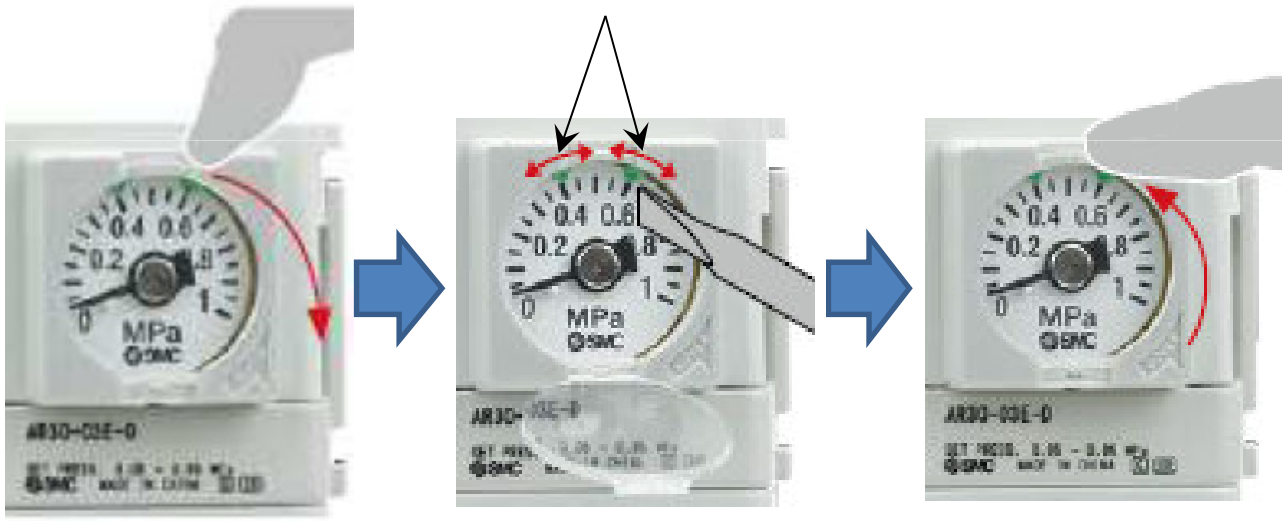
(Applicable model: AR and AW)



2. Features (3)

Transparent open/close window for built-in square type pressure gauge

- Transparent open/close window for easier indicator adjustment, without removing pressure gauge cover
- No disassembly required and no risk of the losing pressure gauge cover (Applicable model: AR and AW)

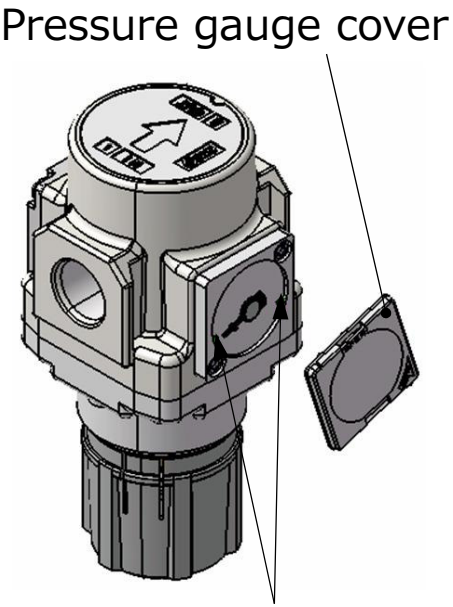


(1) Open gauge cover with finger nail.

(2) Adjust the pointer with minus driver.

(3) Push gauge cover in until hearing clicking sound to close.

New



Existing

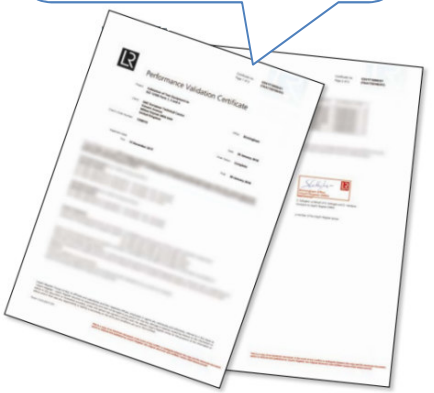
2. Features (4)

Air purity classes defined according to ISO8573-1:2010

- Tested with third party certified system.
- Classification: particles, liquid water and oil.

Component	Model	Purity classes for compressed air system			
		Particles	Water	Oil	Inlet
AF	AF20	**6**	**8**	**4**	**Particles: Water: Oil ↓ 7 : 9 : 4**
	AF30				
	AF40				
AFM	AFM20	**3**	**7**	**3**	**AF**
	AFM30				
	AFM40				
AFD	AFD20	**1**	**7**	**2**	**AF+AFM**
	AFD30				
	AFD40				

Performance Validation Certificate

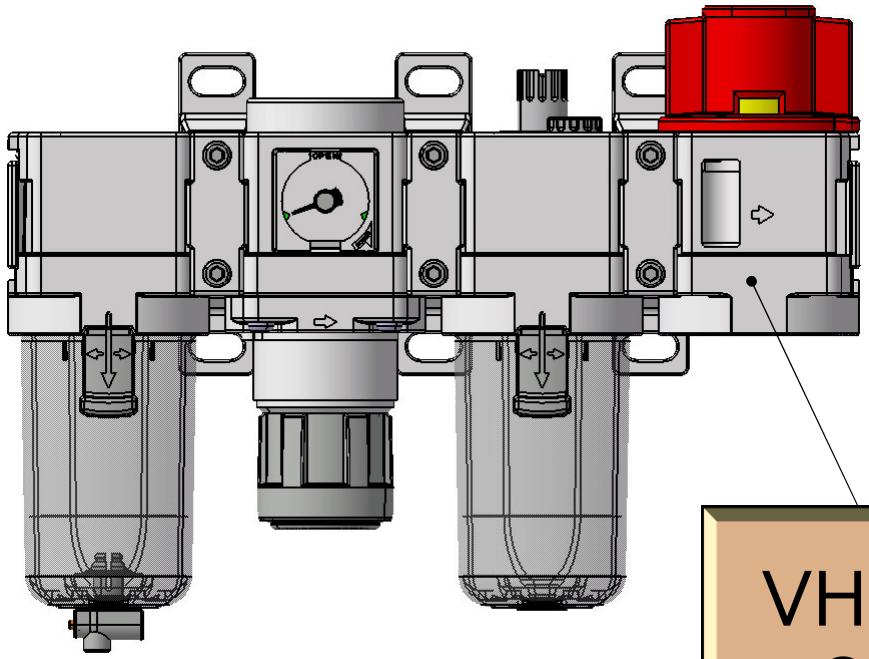


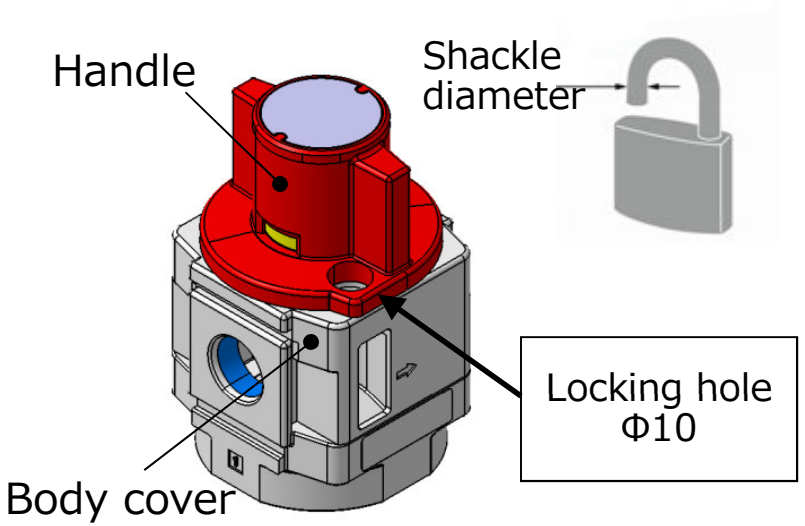
Lloyd's Register

2. Features (5)

Redesigned VHS to match appearance of new FRL.

※Recommended shackle diameter: Φ5 or more





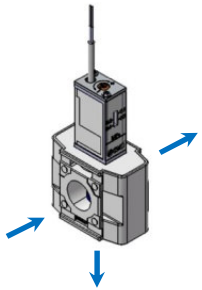
VHS-D series
OSHA compliant
Pressure release 3-port valve with locking hole

2. Features (6)-1

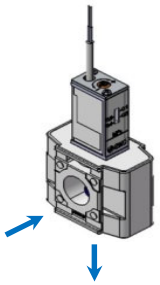
More AC attachment options

New

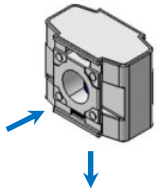
T-spacer
Pressure switch



Pressure switch
with L-shaped
piping adapter

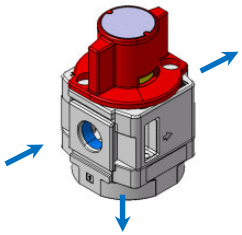


L-shaped piping
adapter

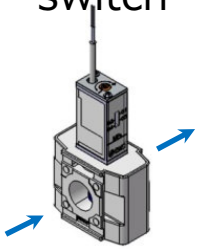


Existing

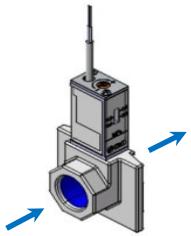
Pressure
release
3-Port valve



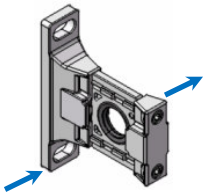
Pressure
switch



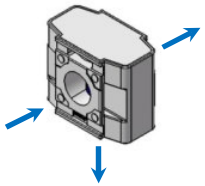
Pressure
switch with
piping adapter



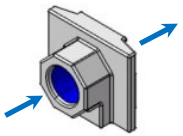
Spacer with
bracket



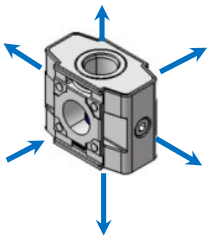
T-spacer



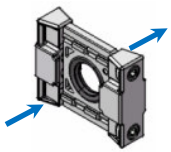
Piping adapter



Cross spacer



Spacer

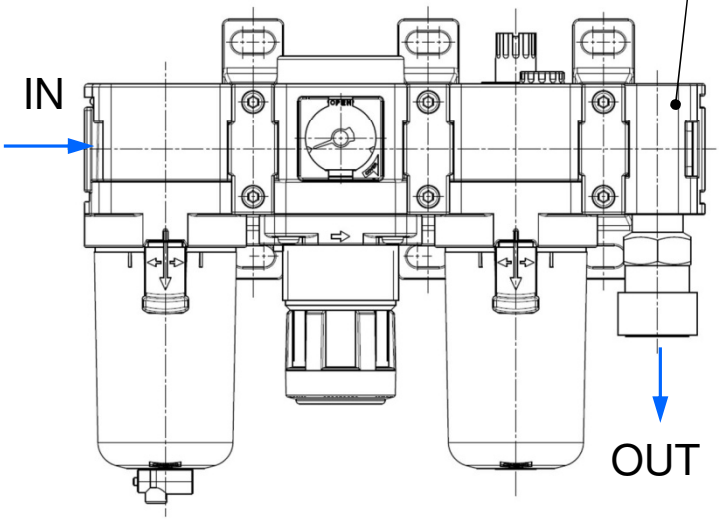


2. Features (6)-2

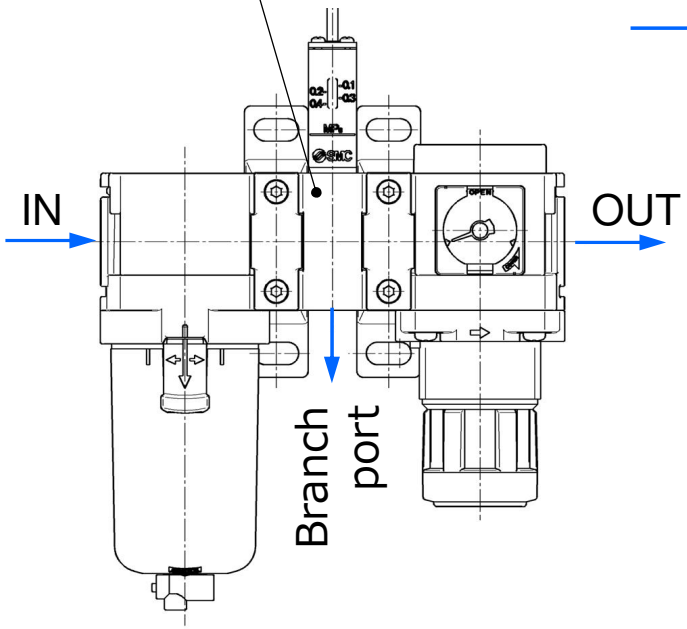
More AC attachment options

More combination varieties

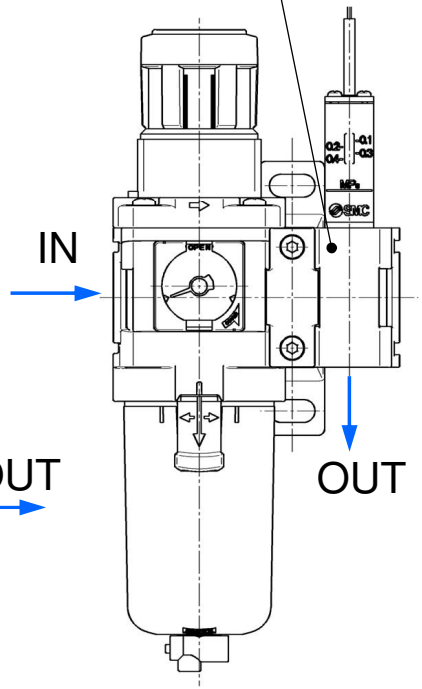
L-shaped piping adapter



Pressure switch with T-spacer



Pressure switch with L-shaped piping adapter

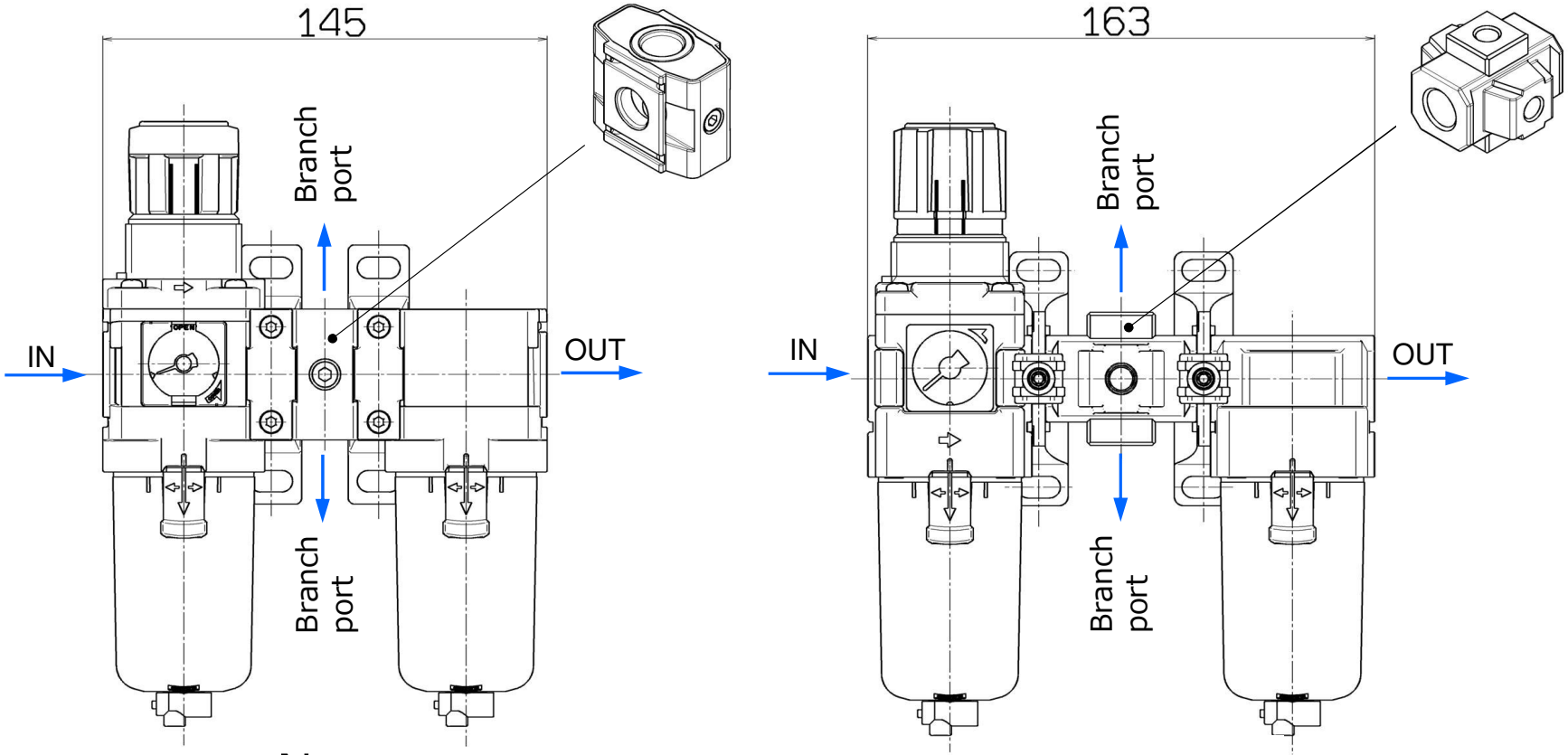


2. Features (6)-3

More AC attachment options

Cross spacer

- **Space-saving: width reduced by approx. 18mm (for size 30)**



New

Existing

2. Features (7)

Mounting compatibility

New spacer

Y*00T-D

No

AR-A AW-A

Yes

AF-A AL-A AR-B AW-B

Yes

F.R.L. Two generations ago

Existing F.R.L.

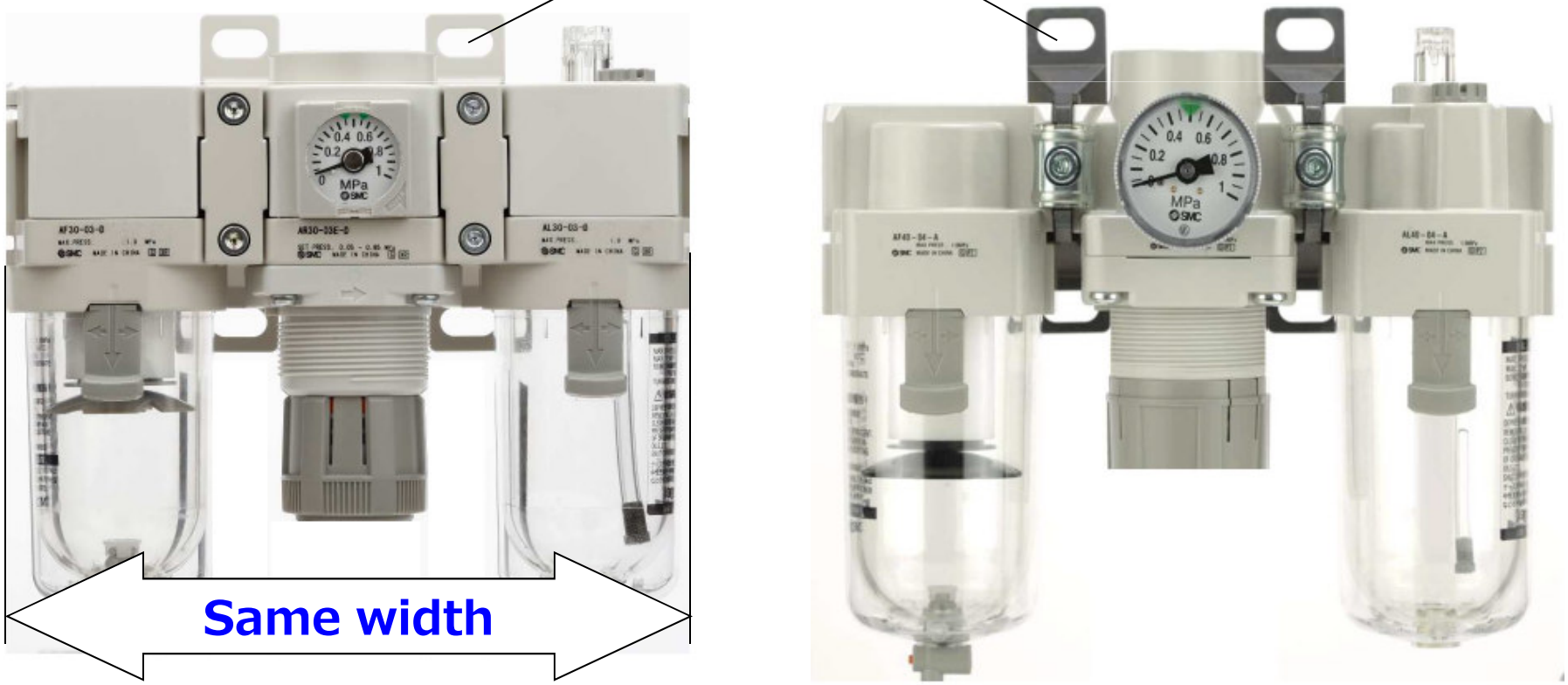
2. Features (8)

Same width and mounting manner as existing model

- **Same width and mounting bolt hole pitch**

New

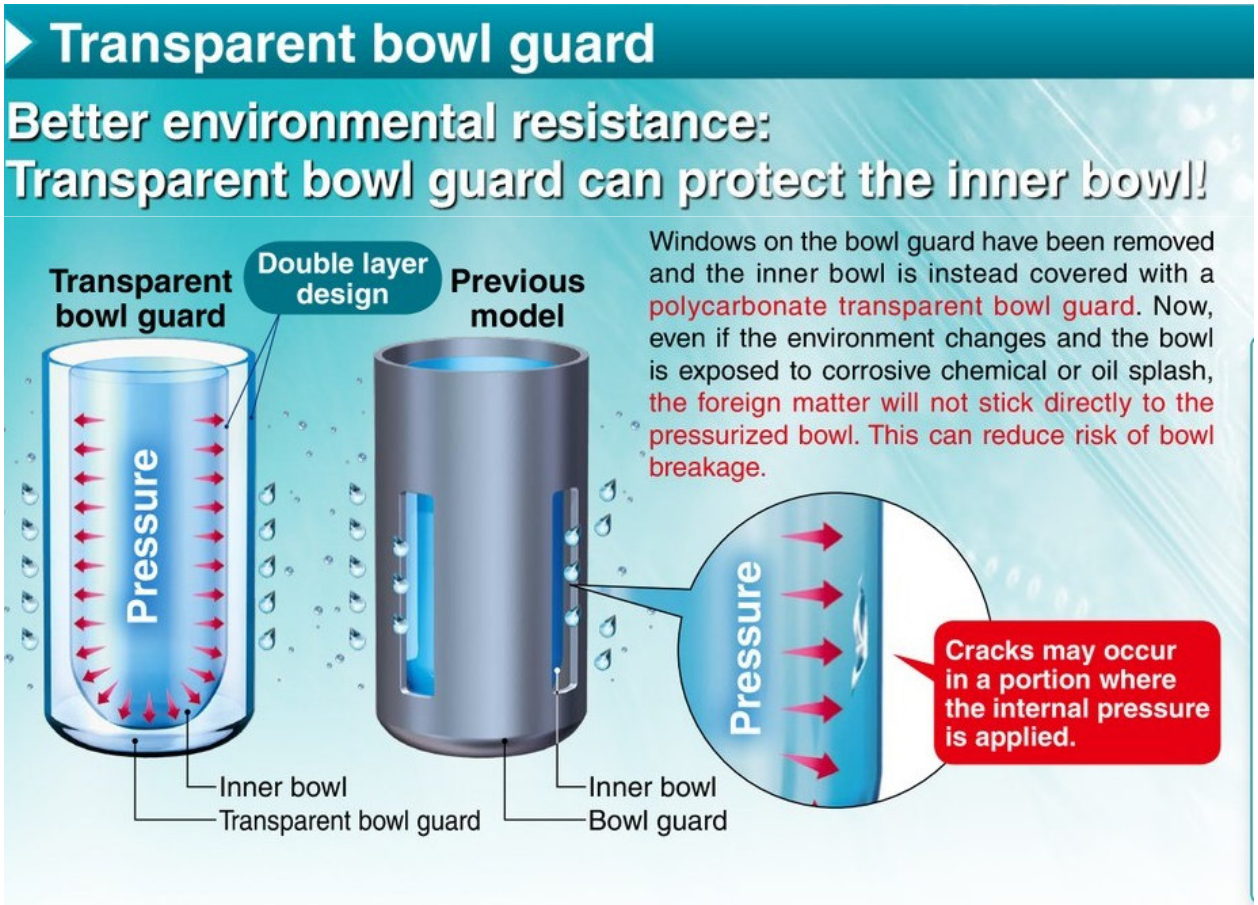
Existing



3. Same features as existing model (1)

- **Environmental resistance due to two-layer PC bowl**

(Applicable models: AF / AFM / AFD / AL / AW / AFF / AM / AMD)



360°C Visibility

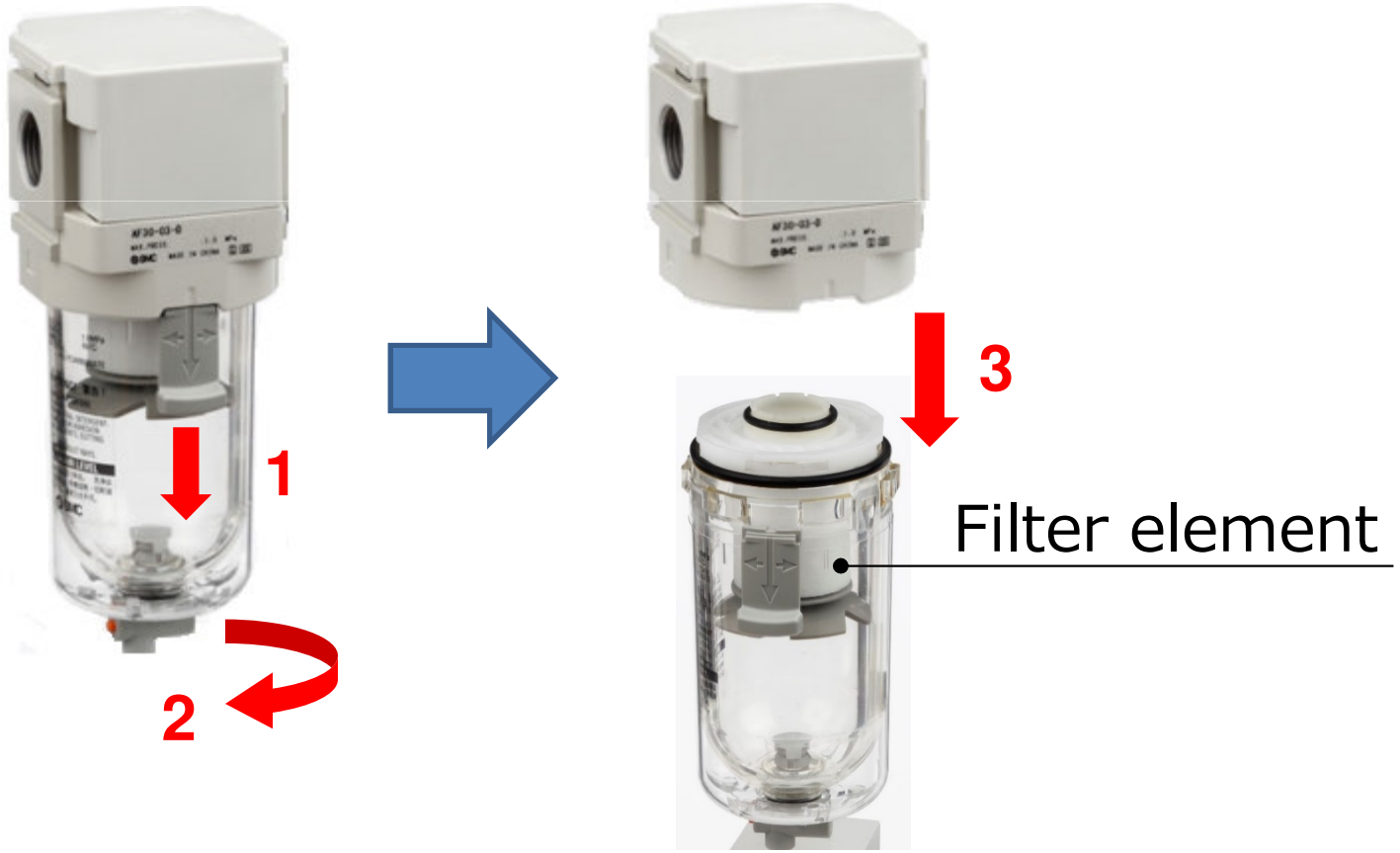
With transparent bowl guard, liquid in the bowl and oil in the lubricator at a glance.

3. Same features as existing model (2)

- **Easy maintenance of air filter**

  Element and bowl in one piece for easy replacement in hand

  (Applicable model: AF)



Supplementary Information Standard (1)

- **Air purity classes defined according to ISO8573-1:2010**
  - Users' requirement to control compressed air quality.
  - Compressed air quality based on measurement.
  - Contaminants classified into particles, water and oil

ISO8573-1:2010 [A : B : C]

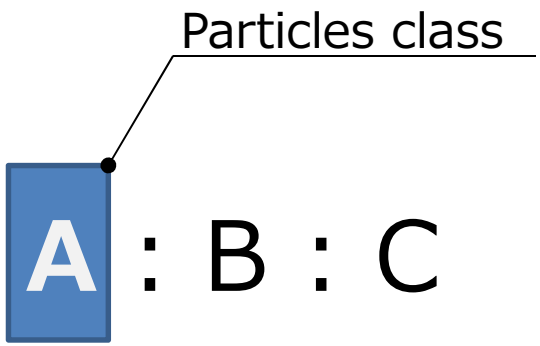
A: Purity of particles

B: Purity of liquid water and humidity

C: Purity of oil

Supplementary Information Standard (2)

• Air purity classes defined according to ISO8573-1:2010



● Selection of required class

There are no criteria and guidelines for purity levels.

The user sets the upper limit so that their product quality is not affected.

Class	Maximum number of particles per particle size d(um)/m³		
	0.1< d ≤0.5	0.5< d ≤1.0	1.0< d ≤5.0
0	As specified by the equipment user or supplier and more stringent than class 1		
1	≤20,000	≤400	≤10
2	≤400,000	≤6,000	≤100
3	No upper limit	≤90,000	≤1,000
4	No upper limit	No upper limit	≤10,000
5	No upper limit	No upper limit	≤100,000
Class	Mass concentration (mg/m³)		
6	0<Cp≤5		
7	5<Cp≤10		
X	Cp>10		

Supplementary Information Standard (3)

• Air purity classes defined according to ISO8573-1:2010

Droplets and humidity class

A : **B** : C

- Difference between 'X' and '-'

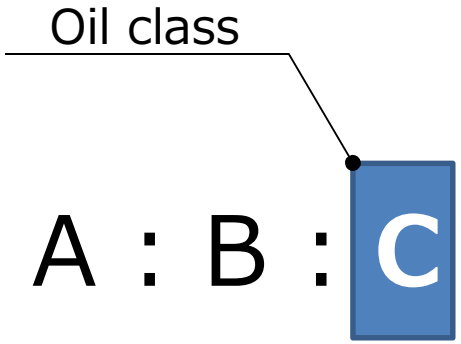
X(33): Max. 33g/m³

- : not specified

Class	Pressure dewpoint ℃
0	As specified by the equipment user or supplier and more stringent than class 1
1	≤-70
2	≤-40
3	≤-20
4	≤+3
5	≤+7
6	≤+10
Class	Mass concentration Cw (mg/m³)
7	Cw≤0.5
8	0.5<Cw≤5
9	5<Cw≤10
X	Cw>10

Supplementary Information Standard (4)

- **Air purity classes defined according to ISO8573-1:2010**



Class	Concentration of total oil (mg/m^3) Liquid oil, oil mist, oil vapour
0	As specified by the equipment user or supplier and more stringent than class 1
1	≤0.01
2	≤0.1
3	≤1
4	≤5
X	>5

2. Application

This product is used in combination with components which aim to eliminate a certain amount of water vapor and solid foreign matter in the air line, lubricating and controlling pressure of pneumatic products or solenoid valves.

3. Standard Specifications

3-1. AC20-D to AC40-D

Model			AC20-D	AC30-D	AC40-D
Component	Air filter	[AF]	AF20-D	AF30-D	AF40-D
	Regulator	[AR]	AR20-D	AR30-D	AR40-D
	Lubricator	[AL]	AL20-D	AL30-D	AL40-D
Port size			1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2
Pressure gauge port size Note 1)		[AR]	1/8		
Fluid			Air		
Ambient and fluid temperature Note 2)			-5 to 60 °C (with no freezing)		
Proof pressure			1.5 MPa		
Max. operating pressure			1.0 MPa		
Min. operating pressure of auto drain	N.C.	[AF]	0.1 MPa	0.15 MPa	
	N.O.	[AF]	–	0.1 MPa	
Set pressure range		[AR]	0.05 to 0.85 MPa		
Filtration rating		[AF]	5 μm		
Compressed air quality class Note 3)			ISO8573-1:2010 [6:4:-]		
Drain capacity		[AF]	8 cm^3	25 cm^3	45 cm^3
Min. dripping flow rate Note 4)		[AL]	15 L/min (ANR)	Port size 1/4: 30 L/min(ANR) Port size 3/8: 40 L/min(ANR)	Port size 1/4: 30 L/min(ANR) Port size 3/8: 40 L/min(ANR) Port size 1/2: 50 L/min(ANR)
Oil capacity		[AL]	25 cm^3	55 cm^3	135 cm^3
Recommended lubricant		[AL]	Class 1 turbine oil (ISO VG32)		
Bowl material		[AF/AL]	Polycarbonate		
Bowl guard		[AF/AL]	Semi-standard (Steel)	Standard (Polycarbonate)	
Construction		[AR]	Relieving type		
Weight			0.38 kg	0.75 kg	1.42 kg

Note 1) Pressure gauge connection threads are not available for F.R.L. unit with a square enbedded type pressure gauge or with a digital pressure switch.

Note 2) -5 to 50°C for the products with the digital pressure switch.

Note 3) Based on ISO8573-1:2010 Compressed air - Part 1: Contaminants and purity classes.

The compressed air quality class on the inlet side is [7:4:4].

Note 4) - The flow rate is 5 drops/min under the following conditions: Inlet pressure of 0.5 MPa; Class 1 turbine oil (ISO VG32); Temperature at 20°C; Oil adjustment valve fully open.

- For a circuit that repeatedly turns ON and OFF on the outlet side, make the adjustment so that the average air consumption per minute becomes equal to the minimum dripping flow rate or more.

3-2. AC20A-D to AC40A-D

Model			AC20A-D	AC30A-D	AC40A-D
Component	Filter regulator	[AW]	AW20-D	AW30-D	AW40-D
	Lubricator	[AL]	AL20-D	AL30-D	AL40-D
Port size			1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2
Pressure gauge port size Note 1)		[AW]	1/8		
Fluid			Air		
Ambient and fluid temperature Note 2)			-5 to 60 °C (with no freezing)		
Proof pressure			1.5 MPa		
Max. operating pressure			1.0 MPa		
Min. operating pressure of auto drain	N.C.	[AW]	0.1 MPa	0.15 MPa	
	N.O.	[AW]	–	0.1 MPa	
Set pressure range		[AW]	0.05 to 0.85 MPa		
Filtration rating		[AW]	5 µm		
Compressed air quality class Note 3)			ISO8573-1:2010 [6:4:-]		
Drain capacity		[AW]	8 cm^3	25 cm^3	45 cm^3
Min. dripping flow rate Note 4)		[AL]	15 L/min(ANR)	Port size 1/4: 30 L/min(ANR) Port size 3/8: 40 L/min(ANR)	Port size 1/4: 30 L/min(ANR) Port size 3/8: 40 L/min(ANR) Port size 1/2: 50 L/min(ANR)
Oil capacity		[AL]	25 cm^3	55 cm^3	135 cm^3
Recommended lubricant		[AL]	Class 1 turbine oil (ISO VG32)		
Bowl material		[AW/AL]	Polycarbonate		
Bowl guard		[AW/AL]	Semi-standard (Steel)	Standard (Polycarbonate)	
Construction		[AW]	Relieving type		
Weight			0.31 kg	0.58 kg	1.12 kg

Note 1) Pressure gauge connection threads are not available for F.R.L. unit with a square enbedded type pressure gauge or with a digital pressure switch.

Note 2) -5 to 50°C for the products with the digital pressure switch.

Note 3) Based on ISO8573-1:2010 Compressed air - Part 1: Contaminants and purity classes.

The compressed air quality class on the inlet side is [7:4:4].

Note 4) - The flow rate is 5 drops/min under the following conditions: Inlet pressure of 0.5 MPa; Class 1 turbine oil (ISO VG32); Temperature at 20°C; Oil adjustment valve fully open.

- For a circuit that repeatedly turns ON and OFF on the outlet side, make the adjustment so that the average air consumption per minute becomes equal to the minimum dripping flow rate or more.

3-3. AC20B-D to AC40B-D

Model			AC20B-D	AC30B-D	AC40B-D
Component	Filter	[AF]	AF20-D	AF30-D	AF40-D
	Regulator	[AR]	AR20-D	AR30-D	AR40-D
Port size			1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2
Pressure gauge port size Note 1)		[AR]	1/8		
Fluid			Air		
Ambient and fluid temperature Note 2)			-5 to 60 °C (with no freezing)		
Proof pressure			1.5 MPa		
Max. operating pressure			1.0 MPa		
Min. operating pressure of auto drain	N.C.	[AF]	0.1 MPa	0.15 MPa	
	N.O.	[AF]	–	0.1 MPa	
Set pressure range		[AR]	0.05 to 0.85 MPa		
Filtration rating		[AF]	5 µm		
Compressed air quality class Note 3)			ISO8573-1:2010 [6:4:4]		
Drain capacity		[AF]	8 cm^3	25 cm^3	45 cm^3
Bowl material		[AF]	Polycarbonate		
Bowl guard		[AF]	Semi-standard (Steel)	Standard (Polycarbonate)	
Construction		[AR]	Relieving type		
Weight			0.25 kg	0.51 kg	0.95 kg

Note 1) Pressure gauge connection threads are not available for F.R.L. unit with a square enbedded type pressure gauge or with a digital pressure switch.

Note 2) -5 to 50°C for the products with the digital pressure switch.

Note 3) Based on ISO8573-1:2010 Compressed air - Part 1: Contaminants and purity classes.

The compressed air quality class on the inlet side is [7:4:4].

3-4. AC20C-D to AC40C-D

Model			AC20C-D	AC30C-D	AC40C-D
Component	Filter	[AF]	AF20-D	AF30-D	AF40-D
	Mist separator	[AFM]	AFM20-D	AFM30-D	AFM40-D
	Regulator	[AR]	AR20-D	AR30-D	AR40-D
Port size			1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2
Pressure gauge port size Note 1)		[AR]	1/8		
Fluid			Air		
Ambient and fluid temperature Note 2)			-5 to 60 °C (with no freezing)		
Proof pressure			1.5 MPa		
Max. operating pressure			1.0 MPa		
Min. operating pressure of auto drain	N.C.	[AF/AFM]	0.1 MPa	0.15 MPa	
	N.O.	[AF/AFM]	–	0.1 MPa	
Set pressure range		[AR]	0.05 to 0.85 MPa		
Max. air flow capacity Note 3)		[AFM]	200 L/min(ANR)	450 L/min(ANR)	1,100 L/min(ANR)
Filtration rating		[AF]	5 μm		
		[AFM]	0.3 μm (99.9% filtered particle size)		
Outlet side oil mist concentration		[AFM]	Max. 1.0 mg/m^3 (≒0.8 ppm)		
Compressed air quality class Note 4)			ISO8573-1:2010 [3:4:3]		
Drain capacity		[AF/AFM]	8 cm^3	25 cm^3	45 cm^3
Bowl material		[AF/AFM]	Polycarbonate		
Bowl guard		[AF/AFM]	Semi-standard (Steel)	Standard (Polycarbonate)	
Construction		[AR]	Relieving type		
Weight			0.38 kg	0.75 kg	1.42 kg

Note 1) Pressure gauge connection threads are not available for F.R.L. unit with a square enbedded type pressure gauge or with a digital pressure switch.

Note 2) -5 to 50^{o}C for the products with the digital pressure switch.

Note 3) When the mist separator inlet pressure is: 0.7 MPa; at 20^{o}C, atmospheric pressure, and relative humidity of 65%.
The maximum air flow capacity varies depending on the inlet pressure. Keep the air flow below the maximum air flow capacity to prevent an outflow of lubricant to the outlet side.

Note 4) Based on ISO8573-1:2010 Compressed air - Part 1: Contaminants and purity classes.
The compressed air quality class on the inlet side is [7:4:4].

3-5. AC20D-D to AC40D-D

Model			AC20D-D	AC30D-D	AC40D-D
Component	Filter regulator	[AW]	AW20-D	AW30-D	AW40-D
	Mist separator	[AFM]	AFM20-D	AFM30-D	AFM40-D
Port size			1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2
Pressure gauge port size Note 1)		[AW]	1/8		
Fluid			Air		
Ambient and fluid temperature Note 2)			-5 to 60 °C (with no freezing)		
Proof pressure			1.5 MPa		
Max. operating pressure			1.0 MPa		
Min. operating pressure of auto drain	N.C.	[AW/AFM]	0.1 MPa	0.15 MPa	
	N.O.	[AW/AFM]	–	0.1 MPa	
Set pressure range		[AW]	0.05 to 0.85 MPa		
Max. air flow capacity Note 3)		[AFM]	200 L/min(ANR)	450 L/min(ANR)	1,100 L/min(ANR)
Filtration rating		[AW]	5 μm		
		[AFM]	0.3 μm (99.9% filtered particle size)		
Outlet oil mist concentration		[AFM]	MAX. 1.0mg/m^3 (≒0.8ppm)		
Compressed air quality class Note 4)			ISO8573-1:2010 [2:4:3]		
Drain capacity		[AW/AFM]	8 cm^3	25 cm^3	45 cm^3
Bowl material		[AW/AFM]	Polycarbonate		
Bowl guard		[AW/AFM]	Semi-standard (Steel)	Standard (Polycarbonate)	
Construction		[AW]	Relieving type		
Weight			0.30 kg	0.58 kg	1.12 kg

Note 1) Pressure gauge connection threads are not available for F.R.L. unit with a square enbedded type pressure gauge or with a digital pressure switch.

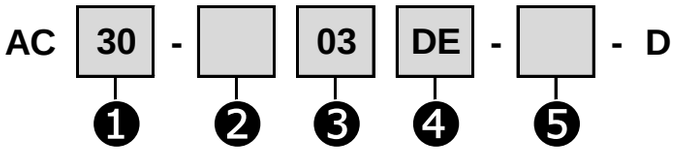
Note 2) -5 to 50°C for the products with the digital pressure switch.

Note 3) When the mist separator inlet pressure is: 0.7 MPa; at 20°C, atmospheric pressure, and relative humidity of 65%.
The maximum air flow capacity varies depending on the inlet pressure. Keep the air flow below the maximum air flow capacity to prevent an outflow of lubricant to the outlet side.

Note 4) Based on ISO8573-1:2010 Compressed air - Part 1: Contaminants and purity classes.
The compressed air quality class on the inlet side is [7:4:4].

4. How to Order

4-1. AC20-D to AC40-D



				Symbol	Description	❶ Body size		
						20	30	40
❷	Thread type			Nil	Rc	●	●	●
				N	NPT	●	●	●
				F	G	●	●	●
❸	Port size			01	1/8	●	-	-
				02	1/4	●	●	●
				03	3/8	-	●	●
				04	1/2	-	-	●
❹	Option	a	Float type auto drain	Nil	Without auto drain	●	●	●
				C	N.C. (Normally closed) Drain port is closed when pressure is not supplied.	●	●	●
				D	N.O. (Normally opened) Drain port is opened when pressure is not supplied.	-	●	●
		b	Pressure gauge	Nil	Without pressure gauge	●	●	●
				E	Square embedded type pressure gauge (with limit indicator)	●	●	●
				G	Round type pressure gauge (with limit indicator)	●	●	●
				M	Round type pressure gauge (with color zone)	●	●	●
			Digital pressure switch	E1	NPN output / Wiring bottom entry	●	●	●
				E2	NPN output/ Wiring top entry	●	●	●
				E3	PNP output / Wiring bottom entry	●	●	●
				E4	PNP output/ Wiring top entry	●	●	●
❺	Semi-standard	c	Set pressure	Nil	0.05 to 0.85 MPa setting	●	●	●
				1	0.02 to 0.2 MPa setting	●	●	●
		d	Bowl	Nil	Polycarbonate bowl	●	●	●
				2	Metal bowl	●	●	●
				6	Nylon bowl	●	●	●
				8	Metal bowl with level gauge	-	●	●
				C	With bowl guard	●	-	-
				6C	With bowl guard (Nylon bowl)	●	-	-
		e	Air filter drain port	Nil	With drain cock	●	●	●
				J	Drain guide 1/8	●	-	-
					Drain guide 1/4	-	●	●
				W	Drain cock with barb fitting	-	●	●
		f	Lubricator lubricant exhaust port	Nil	Without drain cock	●	●	●
				3	Lubricator with drain cock	●	●	●
		g	Exhaust mechanism	Nil	Relieving type	●	●	●
				N	Non-relieving type	●	●	●
		h	Flow direction	Nil	Flow direction: Left to right	●	●	●
				R	Flow direction: Right to left	●	●	●
		i	Unit indication	Nil	Product: MPa, °C Pressure gauge: MPa	●	●	●
				Z	Product: psi, °F Pressure gauge: psi (and MPa)	○ Note 2)	○ Note 2)	○ Note 2)
				ZA	Digital pressure switch: With unit selection function	△ Note3)	△ Note3)	△ Note3)

Note 1) ❹Option and ❺Semi-standard: Select one each for a to i.

Note 2) ○: For NPT thread type only.

Note 3) △: Select with an option E1, E2, E3 or E4.

4-2. AC20A-D to AC40A-D

AC [30] **A** - [ ] [03] [DE] - [ ] - **D**

❶ ❷ ❸ ❹ ❺

				Symbol	Description	❶ Body size		
						20	30	40
❷	Thread type			Nil	Rc	●	●	●
				N	NPT	●	●	●
				F	G	●	●	●
❸	Port size			01	1/8	●	-	-
				02	1/4	●	●	●
				03	3/8	-	●	●
				04	1/2	-	-	●
❹	Option	**a**	Float type auto drain	Nil	Without auto drain	●	●	●
				C	N.C. (Normally closed) Drain port is closed when pressure is not supplied.	●	●	●
				D	N.O. (Normally opened) Drain port is opened when pressure is not supplied.	-	●	●
		b	Pressure gauge	Nil	Without pressure gauge	●	●	●
				E	Square embedded type pressure gauge (with limit indicator)	●	●	●
				G	Round type pressure gauge (with limit indicator)	●	●	●
				M	Round type pressure gauge (with color zone)	●	●	●
			Digital pressure switch	E1	NPN output / Wiring bottom entry	●	●	●
				E2	NPN output/ Wiring top entry	●	●	●
				E3	PNP output / Wiring bottom entry	●	●	●
				E4	PNP output/ Wiring top entry	●	●	●
❺	Semi-standard	**c**	Set pressure	Nil	0.05 to 0.85 MPa setting	●	●	●
				1	0.02 to 0.2 MPa setting	●	●	●
		d	Bowl	Nil	Polycarbonate bowl	●	●	●
				2	Metal bowl	●	●	●
				6	Nylon bowl	●	●	●
				8	Metal bowl with level gauge	-	●	●
				C	With bowl guard	●	-	-
				6C	With bowl guard (Nylon bowl)	●	-	-
		e	Filter regulator drain port	Nil	With drain cock	●	●	●
				J	Drain guide 1/8	●	-	-
					Drain guide 1/4	-	●	●
				W	Drain cock with barb fitting	-	●	●
		f	Lubricator lubricant exhaust port	Nil	Without drain cock	●	●	●
				3	Lubricator with drain cock	●	●	●
		g	Exhaust mechanism	Nil	Relieving type	●	●	●
				N	Non-relieving type	●	●	●
		h	Flow direction	Nil	Flow direction: Left to right	●	●	●
				R	Flow direction: Right to left	●	●	●
		i	Unit indication	Nil	Product: MPa, °C Pressure gauge: MPa	●	●	●
				Z	Product: psi, °F Pressure gauge: psi (and MPa)	○ Note 2)	○ Note 2)	○ Note 2)
				ZA	Digital pressure switch: With unit selection function	△ Note3)	△ Note3)	△ Note3)

Note 1) ❹Option and ❺Semi-standard: Select one each for a to i.

Note 2) ○: For NPT thread type only.

Note 3) △: Select with an option E1, E2, E3 or E4.

4-3. AC20B-D to AC40B-D

AC [30] **B** - [ ] [03] [DE] - [ ] - **D**

❶ ❷ ❸ ❹ ❺

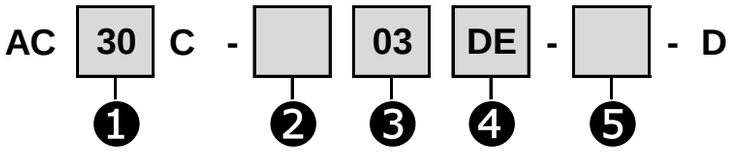
				Symbol	Description	❶ Body size		
						20	30	40
❷	Thread type			Nil	Rc	●	●	●
				N	NPT	●	●	●
				F	G	●	●	●
❸	Port size			01	1/8	●	-	-
				02	1/4	●	●	●
				03	3/8	-	●	●
				04	1/2	-	-	●
❹	Option	**a**	Float type auto drain	Nil	Without auto drain	●	●	●
				C	N.C. (Normally closed) Drain port is closed when pressure is not supplied.	●	●	●
				D	N.O. (Normally opened) Drain port is opened when pressure is not supplied.	-	●	●
		b	Pressure gauge	Nil	Without pressure gauge	●	●	●
				E	Square embedded type pressure gauge (with limit indicator)	●	●	●
				G	Round type pressure gauge (with limit indicator)	●	●	●
				M	Round type pressure gauge (with color zone)	●	●	●
			Digital pressure switch	E1	NPN output / Wiring bottom entry	●	●	●
				E2	NPN output/ Wiring top entry	●	●	●
				E3	PNP output / Wiring bottom entry	●	●	●
				E4	PNP output/ Wiring top entry	●	●	●
❺	Semi-standard	**c**	Set pressure	Nil	0.05 to 0.85 MPa setting	●	●	●
				1	0.02 to 0.2 MPa setting	●	●	●
		d	Bowl	Nil	Polycarbonate bowl	●	●	●
				2	Metal bowl	●	●	●
				6	Nylon bowl	●	●	●
				8	Metal bowl with level gauge	-	●	●
				C	With bowl guard	●	-	-
				6C	With bowl guard (Nylon bowl)	●	-	-
		e	Air filter drain port	Nil	With drain cock	●	●	●
				J	Drain guide 1/8	●	-	-
					Drain guide 1/4	-	●	●
				W	Drain cock with barb fitting	-	●	●
		f	Exhaust mechanism	Nil	Relieving type	●	●	●
				N	Non-relieving type	●	●	●
		g	Flow direction	Nil	Flow direction: Left to right	●	●	●
				R	Flow direction: Right to left	●	●	●
		h	Unit indication	Nil	Product: MPa, °C Pressure gauge: MPa	●	●	●
				Z	Product: psi, °F Pressure gauge: psi (and MPa)	○ Note 2)	○ Note 2)	○ Note 2)
				ZA	Digital pressure switch: With unit selection function	△ Note3)	△ Note3)	△ Note3)

Note 1) ❹Option and ❺Semi-standard: Select one each for a to h.

Note 2) ○: For NPT thread type only.

Note 3) △: Select with an option E1, E2, E3 or E4.

4-4. AC20C-D to AC40C-D



				Symbol	Description	❶ Body size		
						20	30	40
❷	Thread type			Nil	Rc	●	●	●
				N	NPT	●	●	●
				F	G	●	●	●
❸	Port size			01	1/8	●	-	-
				02	1/4	●	●	●
				03	3/8	-	●	●
				04	1/2	-	-	●
❹	Option	**a**	Float type auto drain	Nil	Without auto drain	●	●	●
				C	N.C. (Normally closed) Drain port is closed when pressure is not supplied.	●	●	●
				D	N.O. (Normally opened) Drain port is opened when pressure is not supplied.	-	●	●
		b	Pressure gauge	Nil	Without pressure gauge	●	●	●
				E	Square embedded type pressure gauge (with limit indicator)	●	●	●
				G	Round type pressure gauge (with limit indicator)	●	●	●
				M	Round type pressure gauge (with color zone)	●	●	●
			Digital pressure switch	E1	NPN output / Wiring bottom entry	●	●	●
				E2	NPN output/ Wiring top entry	●	●	●
				E3	PNP output / Wiring bottom entry	●	●	●
				E4	PNP output/ Wiring top entry	●	●	●
❺	Semi-standard	**c**	Set pressure	Nil	0.05 to 0.85 MPa setting	●	●	●
				1	0.02 to 0.2 MPa setting	●	●	●
		d	Bowl	Nil	Polycarbonate bowl	●	●	●
				2	Metal bowl	●	●	●
				6	Nylon bowl	●	●	●
				8	Metal bowl with level gauge	-	●	●
				C	With bowl guard	●	-	-
				6C	With bowl guard (Nylon bowl)	●	-	-
		e	Air filter and mist separator drain port	Nil	With drain cock	●	●	●
				J	Drain guide 1/8	●	-	-
					Drain guide 1/4	-	●	●
				W	Drain cock with barb fitting	-	●	●
		f	Exhaust mechanism	Nil	Relieving type	●	●	●
				N	Non-relieving type	●	●	●
		g	Flow direction	Nil	Flow direction: Left to right	●	●	●
				R	Flow direction: Right to left	●	●	●
		h	Unit indication	Nil	Product: MPa, °C Pressure gauge: MPa	●	●	●
				Z	Product: psi, °F Pressure gauge: psi (and MPa)	○ Note 2)	○ Note 2)	○ Note 2)
				ZA	Digital pressure switch: With unit selection function	△ Note3)	△ Note3)	△ Note3)

Note 1) ❹Option and ❺Semi-standard: Select one each for a to h.

Note 2) ○: For NPT thread type only.

Note 3) △: Select with an option E1, E2, E3 or E4.

4-5. AC20D-D to AC40D-D

AC [30] D - [ ] [03] [DE] - [ ] - D

❶ ❷ ❸ ❹ ❺

				Symbol	Description	❶ Body size		
						20	30	40
❷	Thread type			Nil	Rc	●	●	●
				N	NPT	●	●	●
				F	G	●	●	●
❸	Port size			01	1/8	●	-	-
				02	1/4	●	●	●
				03	3/8	-	●	●
				04	1/2	-	-	●
❹	Option	a	Float type auto drain	Nil	Without auto drain	●	●	●
				C	N.C. (Normally closed) Drain port is closed when pressure is not supplied.	●	●	●
				D	N.O. (Normally opened) Drain port is opened when pressure is not supplied.	-	●	●
		b	Pressure gauge	Nil	Without pressure gauge	●	●	●
				E	Square embedded type pressure gauge (with limit indicator)	●	●	●
				G	Round type pressure gauge (with limit indicator)	●	●	●
				M	Round type pressure gauge (with color zone)	●	●	●
			Digital pressure switch	E1	NPN output / Wiring bottom entry	●	●	●
				E2	NPN output/ Wiring top entry	●	●	●
				E3	PNP output / Wiring bottom entry	●	●	●
				E4	PNP output/ Wiring top entry	●	●	●
❺	Semi-standard	c	Set pressure	Nil	0.05 to 0.85 MPa setting	●	●	●
				1	0.02 to 0.2 MPa setting	●	●	●
		d	Bowl	Nil	Polycarbonate bowl	●	●	●
				2	Metal bowl	●	●	●
				6	Nylon bowl	●	●	●
				8	Metal bowl with level gauge	-	●	●
				C	With bowl guard	●	-	-
				6C	With bowl guard (Nylon bowl)	●	-	-
		e	Air filter and mist separator drain port	Nil	With drain cock	●	●	●
				J	Drain guide 1/8	●	-	-
					Drain guide 1/4	-	●	●
				W	Drain cock with barb fitting	-	●	●
		f	Exhaust mechanism	Nil	Relieving type	●	●	●
				N	Non-relieving type	●	●	●
		g	Flow direction	Nil	Flow direction: Left to right	●	●	●
				R	Flow direction: Right to left	●	●	●
		h	Unit indication	Nil	Product: MPa, °C Pressure gauge: MPa	●	●	●
				Z	Product: psi, °F Pressure gauge: psi (and MPa)	○ Note 2)	○ Note 2)	○ Note 2)
				ZA	Digital pressure switch: With unit selection function	△ Note3)	△ Note3)	△ Note3)

Note 1) ❹Option and ❺Semi-standard: Select one each for a to h.

Note 2) ○: For NPT thread type only.

Note 3) △: Select with an option E1, E2, E3 or E4.