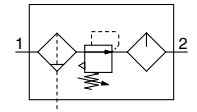


Air Combination

Air Filter + Regulator + Lubricator

AC20-D to AC60-D

Symbol



How to Order

AC **30** - **03** **DE** - **16** - **NR** - D

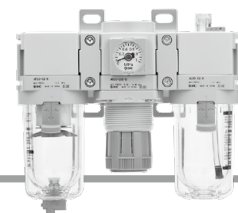
①
②
③
④
⑤
⑥

Option and Semi-standard Symbol Selection

· Select one each for a to j.
 · When more than one specification is required, indicate in alphanumeric order.
 Example) AC30-F03DE1-16NR-D

		Symbol	Description	① Body size					
				20	30	40	50	60	
②	Pipe thread type	Nil	Rc	●	●	●	●	●	
		N*1	NPT	●	●	●	●	●	
		F*2	G	●	●	●	●	●	
+									
③	Port size	01	1/8	●	—	—	—	—	
		02	1/4	●	●	●	—	—	
		03	3/8	—	●	●	—	—	
		04	1/2	—	—	●	—	—	
		06	3/4	—	—	●	●	—	
		10	1	—	—	—	●	●	
+									
④	a	Float type auto drain	Nil	Without auto drain	●	●	●	●	●
			C*4	N.C. (Normally closed) Drain port is closed when pressure is not applied.	●	●	●	●	●
			D*5	N.O. (Normally open) Drain port is open when pressure is not applied.	—	●	●	●	●
	+								
	b	Pressure gauge*6	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	Output: NPN output, Electrical entry: Wiring bottom entry	●	●	●	●	●
			E2	Output: NPN output, Electrical entry: Wiring top entry	●	●	●	●	●
			E3	Output: PNP output, Electrical entry: Wiring bottom entry	●	●	●	●	●
	E4	Output: PNP output, Electrical entry: Wiring top entry	●	●	●	●	●		
+									
⑤	c	Pressure relief 3-port valve	Nil	Without attachment	●	●	●	●	●
			V	Mounting position: AF + AR + AL + V	●	●	●	●	—
+									
⑥	d	Set pressure*7	Nil	0.05 to 0.85 MPa setting	●	●	●	●	●
			1	0.02 to 0.2 MPa setting	●	●	●	●	●
	+								
	e	Bowl*8	Nil	Polycarbonate bowl	●	●	●	●	●
			2	Metal bowl	●	●	●	●	●
			6	Nylon bowl	●	●	●	●	●
			8	Metal bowl with level gauge	—	●	●	●	●
			C	With bowl guard	●	—*9	—*9	—*9	—*9
			6C	With bowl guard (Nylon bowl)	●	—*10	—*10	—*10	—*10
	+								
	f	Air filter drain port*11	Nil	With drain cock	●	●	●	●	●
			J*12	Drain guide 1/8	●	—	—	—	—
			W*13	Drain guide 1/4	—	●	●	●	●
			W*13	Drain cock with barb fitting (for ø6 x ø4 nylon tube)	—	●	●	●	●
	+								
	g	Lubricator lubricant exhaust port	Nil	Without drain cock	●	●	●	●	●
			3*14	Lubricator with drain cock	●	●	●	●	●

Air Combination **AC20-D to AC60-D Series**



AC30-D

		Symbol	Description	①					
				Body size					
				20	30	40	50	60	
6	h	Exhaust mechanism	Nil	Relieving type	●	●	●	●	●
			N	Non-relieving type	●	●	●	●	●
	+								
	i	Flow direction	Nil	Flow direction: Left to right	●	●	●	●	●
			R	Flow direction: Right to left	●	●	●	●	●
	+								
	j	Unit	Nil	Unit on product label: MPa, °C, Pressure gauge in SI units: MPa	●	●	●	●	●
			Z*15	Unit on product label: psi, °F, Pressure gauge: MPa/psi dual scale	○*17	○*17	○*17	○*17	○*17
			ZA*16	Digital pressure switch: With unit selection function	△*18	△*18	△*18	△*18	△*18

- *1 Drain guide is NPT1/8 (applicable to the AC20-D) and NPT1/4 (applicable to the AC30-D to AC60-D). The auto drain port comes with a ø3/8" One-touch fitting (applicable to the AC30-D to AC60-D).
- *2 Drain guide is G1/8 (applicable to the AC20-D) and G1/4 (applicable to the AC30-D to AC60-D).
- *3 Options G and M are not assembled and supplied loose at the time of shipment.
- *4 When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.
- *5 If the compressor is small (0.75 kW, discharge flow is less than 100 L/min (ANR)), air leakage from the drain cock may occur during the start of operations. N.C. type is recommended.

- *6 When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.85 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type.
- *7 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
- *8 Refer to chemical data on pages 83 and 111 for chemical resistance of the bowl.
- *9 A bowl guard is provided as standard equipment (polycarbonate).
- *10 A bowl guard is provided as standard equipment (nylon).
- *11 The combination of float type auto drain C and D is not available.
- *12 Without a valve function
- *13 The combination of metal bowl 2 and 8 is not available.
- *14 When choosing with W: Air filter drain port, the drain

- cock of a lubricator will be with barb fittings.
- *15 For the pipe thread type: NPT
This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
Cannot be used with M: Round type pressure gauge (with color zone). Available by request for special. The digital pressure switch will be equipped with the unit selection function, setting to psi initially.
- *16 For options: E1, E2, E3, E4
This product is for overseas use only according to the New Measurement Act. (The SI unit is provided for use in Japan.)
- *17 ○: For the pipe thread type: NPT only
- *18 △: Select with options: E1, E2, E3, E4.

Standard Specifications

Model	AC20-D	AC30-D	AC40-D	AC40-06-D	AC50-D	AC60-D
Component	Air Filter [AF]	AF20-D	AF30-D	AF40-D	AF40-06-D	AF50-D
	Regulator [AR]	AR20-D	AR30-D	AR40-D	AR40-06-D	AR50-D
	Lubricator [AL]	AL20-D	AL30-D	AL40-D	AL40-06-D	AL50-D
Port size	1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1
Pressure gauge port size *1 [AR]	1/8					
Fluid	Air					
Ambient and fluid temperatures *2	-5 to 60°C (No freezing)					
Proof pressure	1.5 MPa					
Max. operating pressure	1.0 MPa					
Auto drain minimum operating pressure	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					
Nominal filtration rating *3 [AF]	5 μm					
Compressed air purity class *4	ISO 8573-1:2010 [6 : 4 : -]*5					
Drain capacity [AF]	8 cm ³	25 cm ³	45 cm ³			
Min. dripping flow rate *6 [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)	50 L/min (ANR)	190 L/min (ANR)	220 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	1.55 kg	3.34 kg	3.60 kg

- *1 Pressure gauge connection threads are not available for F.R.L. unit with a square embedded type pressure gauge or with a digital pressure switch.
- *2 -5 to 50°C for the products with the digital pressure switch
- *3 For the following conditions in accordance with [Test condition: ISO 8573-4:2001 compliant, Test method ISO 12500-3:2009 compliant]
Conditions: When a new element is used, and the flow capacity, inlet pressure, and the amount of solid bodies on the filter inlet side are stable
- *4 The compressed air purity class is indicated based on ISO 8573-1:2010 Compressed air – Part 1: Contaminants and purity classes.
For details on this standard, refer to page 131.
- *5 The compressed air quality class on the inlet side is [7 : 4 : 4].
- *6 · The flow rate is 5 drops or greater/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 the minimum dripping flow rate or more.

AC

AF + AR + AL

AF + AL

AW + AL

AF + AR

AF + AFM + AR

AF + AFM

AW + AFM

Attachments

AF

AFM / AFD

AR

AL

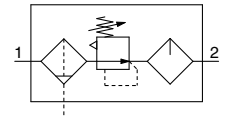
AW

Air Combination

Filter Regulator + Lubricator

AC20A-D to AC60A-D

Symbol



How to Order

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

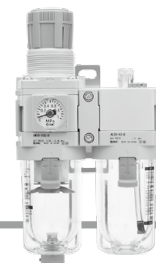
1
 2
 3
 4
 5
 6

Option and Semi-standard Symbol Selection

· Select one each for a to j.
 · When more than one specification is required, indicate in alphanumeric order.
 Example) AC30A-F03DE1-16NR-D

	Symbol	Description	① Body size					
			20	30	40	50	60	
②	Pipe thread type	Nil	Rc					
		N*1	NPT					
		F*2	G					
+								
③	Port size	01	1/8					
		02	1/4					
		03	3/8					
		04	1/2					
		06	3/4					
		10	1					
+								
④	a	Float type auto drain	Nil	Without auto drain				
			C*4	N.C. (Normally closed) Drain port is closed when pressure is not applied.				
			D*5	N.O. (Normally open) Drain port is open when pressure is not applied.				
	+							
	b	Pressure gauge*6	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	Output: NPN output, Electrical entry: Wiring bottom entry				
			E2	Output: NPN output, Electrical entry: Wiring top entry				
			E3	Output: PNP output, Electrical entry: Wiring bottom entry				
	E4	Output: PNP output, Electrical entry: Wiring top entry						
+								
⑤	c	Pressure relief 3-port valve	Nil	Without attachment				
			V	Mounting position: AW + AL + V				
+								
⑥	d	Set pressure*7	Nil	0.05 to 0.85 MPa setting				
			1	0.02 to 0.2 MPa setting				
	+							
	e	Bowl*8	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)				
	+							
	f	Filter regulator drain port*11	Nil	With drain cock				
			J*12	Drain guide 1/8				
			W*13	Drain cock with barb fitting (for ø6 x ø4 nylon tube)				
	+							
	g	Lubricator lubricant exhaust port	Nil	Without drain cock				
			3*14	Lubricator with drain cock				
	+							
	h	Exhaust mechanism	Nil	Relieving type				
N			Non-relieving type					

Air Combination **AC20A-D to AC60A-D Series**



AC30A-D

		Symbol	Description	①					
				Body size					
				20	30	40	50	60	
⑥	i	Flow direction	Nil	Flow direction: Left to right	●	●	●	●	●
			R	Flow direction: Right to left	●	●	●	●	●
				+					
Semi-standard	j	Unit	Nil	Unit on product label: MPa, °C, Pressure gauge in SI units: MPa	●	●	●	●	●
			Z*15	Unit on product label: psi, °F, Pressure gauge: MPa/psi dual scale	○*17	○*17	○*17	○*17	○*17
			ZA*16	Digital pressure switch: With unit selection function	△*18	△*18	△*18	△*18	△*18

- *1 Drain guide is NPT1/8 (applicable to the AC20A-D) and NPT1/4 (applicable to the AC30A-D to AC60A-D). The auto drain port comes with a ø3/8" One-touch fitting (applicable to the AC30A-D to AC60A-D).
- *2 Drain guide is G1/8 (applicable to the AC20A-D) and G1/4 (applicable to the AC30A-D to AC60A-D).
- *3 Options G and M are not assembled and supplied loose at the time of shipment.
- *4 When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.
- *5 If the compressor is small (0.75 kW, discharge flow is less than 100 L/min (ANR)), air leakage from the drain cock may occur during the start of operations. N.C. type is recommended.
- *6 When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.85 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type.
- *7 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
- *8 Refer to chemical data on pages 111 and 129 for chemical resistance of the bowl.
- *9 A bowl guard is provided as standard equipment (polycarbonate).
- *10 A bowl guard is provided as standard equipment (nylon).
- *11 The combination of float type auto drain C and D is not available.
- *12 Without a valve function
- *13 The combination of metal bowl 2 and 8 is not available.
- *14 When choosing with W: Filter regulator drain port, the drain cock of a lubricator will be with barb fittings.
- *15 For the pipe thread type: NPT
This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
Cannot be used with M: Round type pressure gauge (with color zone). Available by request for special.
The digital pressure switch will be equipped with the unit selection function, setting to psi initially.
- *16 For options: E1, E2, E3, E4
This product is for overseas use only according to the New Measurement Act. (The SI unit is provided for use in Japan.)
- *17 ○: For the pipe thread type: NPT only
- *18 △: Select with options: E1, E2, E3, E4.

Standard Specifications

Model		AC20A-D	AC30A-D	AC40A-D	AC40A-06-D	AC50A-D	AC60A-D
Component	Filter Regulator [AW]	AW20-D	AW30-D	AW40-D	AW40-06-D	AW60-D	AW60-D
	Lubricator [AL]	AL20-D	AL30-D	AL40-D	AL40-06-D	AL50-D	AL60-D
Port size		1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1
Pressure gauge port size*1 [AW]		1/8					
Fluid		Air					
Ambient and fluid temperatures*2		-5 to 60°C (No freezing)					
Proof pressure		1.5 MPa					
Max. operating pressure		1.0 MPa					
Auto drain minimum operating pressure	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					
Nominal filtration rating*3 [AW]		5 µm					
Compressed air purity class*4		ISO 8573-1:2010 [6 : 4 : -]*5					
Drain capacity [AW]		8 cm ³	25 cm ³	45 cm ³			
Min. dripping flow rate*6 [AL]		15 L/min (ANR)	Port size 1/4: 30 L/min (ANR)	Port size 1/4: 30 L/min (ANR)	50 L/min (ANR)	190 L/min (ANR)	220 L/min (ANR)
			Port size 3/8: 40 L/min (ANR)	Port size 3/8: 40 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	1.22 kg	2.90 kg	2.97 kg

- *1 Pressure gauge connection threads are not available for F.R.L. unit with a square embedded type pressure gauge or with a digital pressure switch.
- *2 -5 to 50°C for the products with the digital pressure switch
- *3 For the following conditions in accordance with [Test condition: ISO 8573-4:2001 compliant, Test method ISO 12500-3:2009 compliant]
Conditions: When a new element is used, and the flow capacity, inlet pressure, and the amount of solid bodies on the filter inlet side are stable
- *4 The compressed air purity class is indicated based on ISO 8573-1:2010 Compressed air - Part 1: Contaminants and purity classes.
For details on this standard, refer to page 131.
- *5 The compressed air quality class on the inlet side is [7 : 4 : 4].
- *6 The flow rate is 5 drops or greater/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 the minimum dripping flow rate or more.

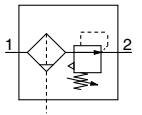
AC
 AF + AR + AL
 AF + AL
 AW + AL
 AF + AR
 AF + AR
 AF + AFM + AR
 AF + AFM
 AW + AFM
 Attachments
 AF
 AFM / AFD
 AR
 AL
 AW

Air Combination

Air Filter + Regulator

AC20B-D to AC60B-D

Symbol



How to Order

AC **30** B - **03** DE - **01** - **01** - D

1 2 3 4 5 6

Option and Semi-standard Symbol Selection

· Select one each for a to i.
 · When more than one specification is required, indicate in alphanumeric order.
 Example) AC30B-F03DE1-16NR-D

	Symbol	Description	① Body size					
			20	30	40	50	60	
②	Pipe thread type	Nil	Rc					
		N*1	NPT					
		F*2	G					
+								
③	Port size	01	1/8					
		02	1/4					
		03	3/8					
		04	1/2					
		06	3/4					
		10	1					
+								
④	a	Float type auto drain	Nil	Without auto drain				
			C*4	N.C. (Normally closed) Drain port is closed when pressure is not applied.				
			D*5	N.O. (Normally open) Drain port is open when pressure is not applied.				
	+							
	b	Pressure gauge*6	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	Output: NPN output, Electrical entry: Wiring bottom entry				
			E2	Output: NPN output, Electrical entry: Wiring top entry				
			E3	Output: PNP output, Electrical entry: Wiring bottom entry				
	E4	Output: PNP output, Electrical entry: Wiring top entry						
+								
⑤	c	Pressure relief 3-port valve	Nil	Without attachment				
			V	Mounting position: AF + AR + V				
			V1*7	Mounting position: V + AF + AR□K				
+								
⑥	d	Set pressure*8	Nil	0.05 to 0.85 MPa setting				
			1	0.02 to 0.2 MPa setting				
	+							
	e	Bowl*9	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)				
	+							
	f	Air filter drain port*12	Nil	With drain cock				
			J*13	Drain guide 1/8				
Drain guide 1/4								
W*14			Drain cock with barb fitting (for ø6 x ø4 nylon tube)					
+								
g	Exhaust mechanism	Nil	Relieving type					
		N	Non-relieving type					

Air Combination **AC20B-D to AC60B-D Series**



AC30B-D

		Symbol	Description	① Body size				
				20	30	40	50	60
⑥	h	Nil	Flow direction: Left to right	●	●	●	●	●
		R	Flow direction: Right to left	●	●	●	●	●
			+					
	i	Unit	Nil	Unit on product label: MPa, °C, Pressure gauge in SI units: MPa	●	●	●	●
Z*15			Unit on product label: psi, °F, Pressure gauge: MPa/psi dual scale	○*17	○*17	○*17	○*17	○*17
ZA*16			Digital pressure switch: With unit selection function	△*18	△*18	△*18	△*18	△*18

- *1 Drain guide is NPT1/8 (applicable to the AC20B-D) and NPT1/4 (applicable to the AC30B-D to AC60B-D). The auto drain port comes with a ø3/8" One-touch fitting (applicable to the AC30B-D to AC60B-D).
- *2 Drain guide is G1/8 (applicable to the AC20B-D) and G1/4 (applicable to the AC30B-D to AC60B-D).
- *3 Options G and M are not assembled and supplied loose at the time of shipment.
- *4 When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.
- *5 If the compressor is small (0.75 kW, discharge flow is less than 100 L/min (ANR)), air leakage from the drain cock may occur during the start of operations. N.C. type is recommended.
- *6 When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.85 MPa type. 0.4 MPa pressure gauge for 0.2 MPa type.
- *7 The regulator is equipped with a backflow function in this configuration. Additionally, when performing maintenance work, make sure that the outlet pressure is released to atmospheric pressure using a pressure gauge.
- *8 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
- *9 Refer to chemical data on page 83 for chemical resistance of the bowl.
- *10 A bowl guard is provided as standard equipment (polycarbonate).
- *11 A bowl guard is provided as standard equipment (nylon).
- *12 The combination of float type auto drain C and D is not available.
- *13 Without a valve function
- *14 The combination of metal bowl 2 and 8 is not available.
- *15 For the pipe thread type: NPT
This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
Cannot be used with M: Round type pressure gauge (with color zone). Available by request for special. The digital pressure switch will be equipped with the unit selection function, setting to psi initially.
- *16 For options: E1, E2, E3, E4
This product is for overseas use only according to the New Measurement Act. (The SI unit is provided for use in Japan.)
- *17 ○: For the pipe thread type: NPT only
- *18 △: Select with options: E1, E2, E3, E4.

Standard Specifications

Model		AC20B-D	AC30B-D	AC40B-D	AC40B-06-D	AC50B-D	AC60B-D
Component	Air Filter [AF]	AF20-D	AF30-D	AF40-D	AF40-06-D	AF50-D	AF60-D
	Regulator [AR]	AR20-D	AR30-D	AR40-D	AR40-06-D	AR50-D	AR60-D
Port size		1/8, 1/4		1/4, 3/8, 1/2		3/4, 1	
Pressure gauge port size*1 [AR]		1/8					
Fluid		Air					
Ambient and fluid temperatures*2		-5 to 60°C (No freezing)					
Proof pressure		1.5 MPa					
Max. operating pressure		1.0 MPa					
Auto drain minimum operating pressure	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					
Nominal filtration rating*3 [AF]		5 μm					
Compressed air purity class*4		ISO 8573-1:2010 [6 : 4 : 4]*5					
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	1.02 kg	2.20 kg	2.39 kg

- *1 Pressure gauge connection threads are not available for F.R.L. unit with a square embedded type pressure gauge or with a digital pressure switch.
- *2 -5 to 50°C for the products with the digital pressure switch
- *3 For the following conditions in accordance with [Test condition: ISO 8573-4:2001 compliant, Test method ISO 12500-3:2009 compliant]
Conditions: When a new element is used, and the flow capacity, inlet pressure, and the amount of solid bodies on the filter inlet side are stable
- *4 The compressed air purity class is indicated based on ISO 8573-1:2010 Compressed air – Part 1: Contaminants and purity classes.
For details on this standard, refer to page 131.
- *5 The compressed air purity class on the inlet side is [7 : 4 : 4].

AC

AF + AR + AL

AF + AR

AW + AL

AW + AR

AF + AR

AF + AFM + AR

AF + AFM

AW + AFM

Attachments

AF

AFM / AFD

AR

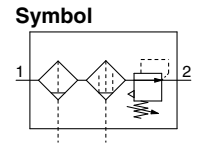
AL

AW

Air Combination

Air Filter + Mist Separator + Regulator

AC20C-D to AC40C-D



How to Order

AC **30** C - **03** **DE** - **01** - **01** - **01** - D

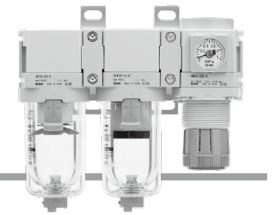
①
②
③
④
⑤
⑥

Option and Semi-standard Symbol Selection

· Select one each for a to i.
 · When more than one specification is required, indicate in alphanumeric order.
 Example) AC30C-F03DE1-16NR-D

		Symbol	Description	①			
				Body size			
				20	30	40	
②	Pipe thread type	Nil	Rc	●	●	●	
		N*1	NPT	●	●	●	
		F*2	G	●	●	●	
+							
③	Port size	01	1/8	●	—	—	
		02	1/4	●	●	●	
		03	3/8	—	●	●	
		04	1/2	—	—	●	
		06	3/4	—	—	●	
+							
④	a	Float type auto drain	Nil	Without auto drain	●	●	●
			C*4	N.C. (Normally closed) Drain port is closed when pressure is not applied.	●	●	●
			D*5	N.O. (Normally open) Drain port is open when pressure is not applied.	—	●	●
	+						
	b	Pressure gauge*6	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	Output: NPN output, Electrical entry: Wiring bottom entry	●	●	●
			E2	Output: NPN output, Electrical entry: Wiring top entry	●	●	●
E3			Output: PNP output, Electrical entry: Wiring bottom entry	●	●	●	
E4	Output: PNP output, Electrical entry: Wiring top entry	●	●	●			
+							
⑤	c	Pressure relief 3-port valve	Nil	Without attachment	●	●	●
			V	Mounting position: AF + AFM + AR + V	●	●	●
			V1*7	Mounting position: V + AF + AFM + AR□K	●	●	●
+							
⑥	d	Set pressure*8	Nil	0.05 to 0.85 MPa setting	●	●	●
			1	0.02 to 0.2 MPa setting	●	●	●
	+						
	e	Bowl*9	Nil	Polycarbonate bowl	●	●	●
			2	Metal bowl	●	●	●
			6	Nylon bowl	●	●	●
			8	Metal bowl with level gauge	—	●	●
			C	With bowl guard	●	—*10	—*10
			6C	With bowl guard (Nylon bowl)	●	—*11	—*11
	+						
	f	Air filter Mist separator drain port*12	Nil	With drain cock	●	●	●
			J*13	Drain guide 1/8	●	—	—
				Drain guide 1/4	—	●	●
W*14			Drain cock with barb fitting (for ø6 x ø4 nylon tube)	—	●	●	
+							
g	Exhaust mechanism	Nil	Relieving type	●	●	●	
		N	Non-relieving type	●	●	●	

Air Combination **AC20C-D to AC40C-D Series**



AC30C-D

		Symbol	Description	①		
				Body size		
				20	30	40
⑥	h	Flow direction	Nil	Flow direction: Left to right		
		R	Flow direction: Right to left			
	+			●	●	●
	i	Unit	Nil	Unit on product label: MPa, °C, Pressure gauge in SI units: MPa		
Z ^{*15}			Unit on product label: psi, °F, Pressure gauge: MPa/psi dual scale			
ZA ^{*16}			Digital pressure switch: With unit selection function			
			●	●	●	●
			○ ^{*17}	○ ^{*17}	○ ^{*17}	○ ^{*17}
			△ ^{*18}	△ ^{*18}	△ ^{*18}	△ ^{*18}

- *1 Drain guide is NPT1/8 (applicable to the AC20C-D) and NPT1/4 (applicable to the AC30C-D to AC40C-D). The auto drain port comes with a ø3/8" One-touch fitting (applicable to the AC30C-D to AC40C-D).
- *2 Drain guide is G1/8 (applicable to the AC20C-D) and G1/4 (applicable to the AC30C-D to AC40C-D).
- *3 Options G and M are not assembled and supplied loose at the time of shipment.
- *4 When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.
- *5 If the compressor is small (0.75 kW, discharge flow is less than 100 L/min (ANR)), air leakage from the drain cock may occur during the start of operations. N.C. type is recommended.
- *6 When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.85 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type.
- *7 The regulator is equipped with a backflow function in this configuration. Additionally, when performing maintenance work, make sure that the outlet pressure is released to atmospheric pressure using a pressure gauge.
- *8 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
- *9 Refer to chemical data on pages 83 and 91 for chemical resistance of the bowl.
- *10 A bowl guard is provided as standard equipment (polycarbonate).
- *11 A bowl guard is provided as standard equipment (nylon).
- *12 The combination of float type auto drain C and D is not available.
- *13 Without a valve function
- *14 The combination of metal bowl 2 and 8 is not available.
- *15 For the pipe thread type: NPT
This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
Cannot be used with M: Round type pressure gauge (with color zone). Available by request for special.
The digital pressure switch will be equipped with the unit selection function, setting to psi initially.
- *16 For options: E1, E2, E3, E4
This product is for overseas use only according to the New Measurement Act. (The SI unit is provided for use in Japan.)
- *17 ○: For the pipe thread type: NPT only
- *18 △: Select with options: E1, E2, E3, E4.

Standard Specifications

Model		AC20C-D	AC30C-D	AC40C-D	AC40C-06-D
Component	Air Filter [AF]	AF20-D	AF30-D	AF40-D	AF40-06-D
	Mist Separator [AFM]	AFM20-D	AFM30-D	AFM40-D	AFM40-06-D
	Regulator [AR]	AR20-D	AR30-D	AR40-D	AR40-06-D
Port size		1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4
Pressure gauge port size ^{*1} [AR]		1/8			
Fluid		Air			
Ambient and fluid temperatures ^{*2}		-5 to 60°C (No freezing)			
Proof pressure		1.5 MPa			
Max. operating pressure		1.0 MPa			
Auto drain minimum operating pressure	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. flow capacity ^{*3} [AFM]		200 L/min (ANR)	450 L/min (ANR)	1100 L/min (ANR)	
Nominal filtration rating ^{*4} [AF]		5 μm			
		0.3 μm (99.9% filtered particle size)			
Outlet side oil mist concentration ^{*5, *6} [AFM]		Max. 1.0 mg/m ³ (≈ 0.8 ppm)			
Compressed air purity class ^{*7}		ISO 8573-1:2010 [3 : 4 : 3] ^{*8}			
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	1.54 kg

- *1 Pressure gauge connection threads are not available for F.R.L. unit with a square embedded type pressure gauge or with a digital pressure switch.
- *2 -5 to 50°C for the products with the digital pressure switch
- *3 Mist separator inlet pressure: 0.7 MPa. Flow at 20°C, atmospheric pressure, and 65% of the relative humidity
The maximum flow capacity varies depending on the inlet pressure.
Keep the air flow within the maximum flow capacity to prevent an outflow of lubricant to the outlet side.
- *4 For the following conditions in accordance with [Test condition: ISO 8573-4:2001, Test method ISO 12500-3:2009 compliant] in addition to the conditions above
Conditions: When a new element is used, and the flow capacity, inlet pressure, and the amount of solid bodies on the filter inlet side are stable
- *5 The outlet side oil mist concentration for the following conditions in accordance with [Test condition: ISO 8573-2:2007, Test method ISO 12500-1:2007 compliant] in addition to the conditions above
Conditions: When a new element is used, the oil mist concentration on the filter inlet side is 10 mg/m³, and the flow capacity, inlet pressure, and the oil mist concentration on the filter inlet side are stable
- *6 The bowl seal and other O-rings are slightly lubricated.
- *7 The compressed air purity class is indicated based on ISO 8573-1:2010 Compressed air – Part 1: Contaminants and purity classes.
For details on this standard, refer to page 131.
- *8 The compressed air quality class on the inlet side is [7 : 4 : 4].

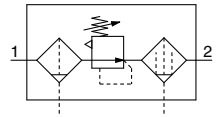
AC
 AF + AR + AL
 AF + AR
 AW + AL
 AW + AL
 AF + AR
 AF + AFM + AR
 AF + AFM
 AW + AFM
 Attachments
 AF
 AFM / AFD
 AR
 AL
 AW

Air Combination

Filter Regulator + Mist Separator

AC20D-D to AC40D-D

Symbol



How to Order

AC **30** D - **03** DE - **01** - **01** - D

① ② ③ ④ ⑤ ⑥

Option and Semi-standard Symbol Selection

· Select one each for a to i.
 · When more than one specification is required, indicate in alphanumeric order.
 Example) AC30D-F03DE1-16NR-D

		Symbol	Description	①			
				Body size			
				20	30	40	
②	Pipe thread type	Nil	Rc	●	●	●	
		N* ¹	NPT	●	●	●	
		F* ²	G	●	●	●	
+							
③	Port size	01	1/8	●	—	—	
		02	1/4	●	●	●	
		03	3/8	—	●	●	
		04	1/2	—	—	●	
		06	3/4	—	—	●	
+							
④	a	Float type auto drain	Nil	Without auto drain	●	●	●
			C* ⁴	N.C. (Normally closed) Drain port is closed when pressure is not applied.	●	●	●
			D* ⁵	N.O. (Normally open) Drain port is open when pressure is not applied.	—	●	●
	+						
	b	Pressure gauge* ⁶	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	Output: NPN output, Electrical entry: Wiring bottom entry	●	●	●
			E2	Output: NPN output, Electrical entry: Wiring top entry	●	●	●
E3			Output: PNP output, Electrical entry: Wiring bottom entry	●	●	●	
E4	Output: PNP output, Electrical entry: Wiring top entry	●	●	●			
+							
⑤	c	Pressure relief 3-port valve	Nil	Without attachment	●	●	●
			V	Mounting position: AW + AFM + V	●	●	●
			V1* ⁷	Mounting position: V + AW□K + AFM	●	●	●
+							
⑥	d	Set pressure* ⁸	Nil	0.05 to 0.85 MPa setting	●	●	●
			1	0.02 to 0.2 MPa setting	●	●	●
	+						
	e	Bowl* ⁹	Nil	Polycarbonate bowl	●	●	●
			2	Metal bowl	●	●	●
			6	Nylon bowl	●	●	●
			8	Metal bowl with level gauge	—	●	●
			C	With bowl guard	●	—* ¹⁰	—* ¹⁰
			6C	With bowl guard (Nylon bowl)	●	—* ¹¹	—* ¹¹
	+						
	f	Filter regulator Mist separator drain port* ¹²	Nil	With drain cock	●	●	●
			J* ¹³	Drain guide 1/8	●	—	—
				Drain guide 1/4	—	●	●
			W* ¹⁴	Drain cock with barb fitting (for ø6 x ø4 nylon tube)	—	●	●
	+						
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	●	●	●	

Air Combination **AC20D-D to AC40D-D Series**



AC30D-D

		Symbol	Description	①			
				Body size			
				20	30	40	
⑥	Semi-standard	i	Unit	Nil	●	●	●
				Z*15	○*17	○*17	○*17
				ZA*16	△*18	△*18	△*18

- *1 Drain guide is NPT1/8 (applicable to the AC20D-D) and NPT1/4 (applicable to the AC30D-D to AC40D-D). The auto drain port comes with a $\phi 3/8"$ One-touch fitting (applicable to the AC30D-D to AC40D-D).
- *2 Drain guide is G1/8 (applicable to the AC20D-D) and G1/4 (applicable to the AC30D-D to AC40D-D).
- *3 Options G and M are not assembled and supplied loose at the time of shipment.
- *4 When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.
- *5 If the compressor is small (0.75 kW, discharge flow is less than 100 L/min (ANR)), air leakage from the drain cock may occur during the start of operations. N.C. type is recommended.
- *6 When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.85 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type.
- *7 The filter regulator is equipped with a backflow function in this configuration. Additionally, when performing maintenance work, make sure that the outlet pressure is released to atmospheric pressure using a pressure gauge.
- *8 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
- *9 Refer to chemical data on pages 91 and 129 for chemical resistance of the bowl.
- *10 A bowl guard is provided as standard equipment (polycarbonate).
- *11 A bowl guard is provided as standard equipment (nylon).
- *12 The combination of float type auto drain C and D is not available.
- *13 Without a valve function
- *14 The combination of metal bowl 2 and 8 is not available.
- *15 For the pipe thread type: NPT
This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
Cannot be used with M: Round type pressure gauge (with color zone). Available by request for special.
The digital pressure switch will be equipped with the unit selection function, setting to psi initially.
For options: E1, E2, E3, E4
This product is for overseas use only according to the New Measurement Act. (The SI unit is provided for use in Japan.)
- *16 For options: E1, E2, E3, E4
This product is for overseas use only according to the New Measurement Act. (The SI unit is provided for use in Japan.)
- *17 ○: For the pipe thread type: NPT only
- *18 △: Select with options: E1, E2, E3, E4.

Standard Specifications

Model		AC20D-D	AC30D-D	AC40D-D	AC40D-06-D
Component	Filter Regulator [AW]	AW20-D	AW30-D	AW40-D	AW40-06-D
	Mist Separator [AFM]	AFM20-D	AFM30-D	AFM40-D	AFM40-06-D
Port size		1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4
Pressure gauge port size*1 [AW]		1/8			
Fluid		Air			
Ambient and fluid temperatures*2		-5 to 60°C (No freezing)			
Proof pressure		1.5 MPa			
Max. operating pressure		1.0 MPa			
Auto drain minimum operating pressure	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. flow capacity*3 [AFM]		200 L/min (ANR)	450 L/min (ANR)	1100 L/min (ANR)	
Nominal filtration rating*4	[AW]	5 μ m			
	[AFM]	0.3 μ m (99.9% filtered particle size)			
Outlet side oil mist concentration*5, *6 [AFM]		Max. 1.0 mg/m ³ (\approx 0.8 ppm)			
Compressed air purity class*7		ISO 8573-1:2010 [3 : 4 : 3]*8			
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	1.21 kg

- *1 Pressure gauge connection threads are not available for F.R.L. unit with a square embedded type pressure gauge or with a digital pressure switch.
- *2 -5 to 50°C for the products with the digital pressure switch
- *3 Mist separator inlet pressure: 0.7 MPa. Flow at 20°C, atmospheric pressure, and 65% of the relative humidity
The maximum flow capacity varies depending on the inlet pressure.
Keep the air flow within the maximum flow capacity to prevent an outflow of lubricant to the outlet side.
- *4 For the following conditions in accordance with [Test condition: ISO 8573-4:2001, Test method ISO 12500-3:2009 compliant] in addition to the conditions above
Conditions: When a new element is used, and the flow capacity, inlet pressure, and the amount of solid bodies on the filter inlet side are stable
- *5 The outlet side oil mist concentration for the following conditions in accordance with [Test condition: ISO 8573-2:2007, Test method ISO 12500-1:2007 compliant] in addition to the conditions above
Conditions: When a new element is used, the oil mist concentration on the filter inlet side is 10 mg/m³, and the flow capacity, inlet pressure, and the oil mist concentration on the filter inlet side are stable
- *6 The bowl seal and other O-rings are slightly lubricated.
- *7 The compressed air purity class is indicated based on ISO 8573-1:2010 Compressed air – Part 1: Contaminants and purity classes.
For details on this standard, refer to page 131.
- *8 The compressed air quality class on the inlet side is [7 : 4 : 4].

AC
 AF + AR + AL
 AF + AL
 AW + AL
 AW + AR
 AF + AR
 AF + AR
 AF + AFM + AR
 AF + AFM
 AW + AFM
 Attachments
 AF
 AFM / AFD
 AR
 AL
 AW

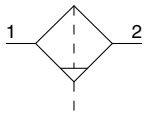
Air Filter

AF20-D to AF60-D

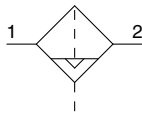


AF30-D

Symbol
Air Filter



Air Filter with Auto Drain



How to Order

AF **30** - **03** **BD** - **03** - **D**

① ② ③ ④ ⑤

Option and Semi-standard Symbol Selection

Select one each for a to g.
When more than one specification is required, indicate in alphanumeric order.
Example) AF30-F03BD-2LR-D

	Symbol	Description	① Body size						
			20	30	40	50	60		
② Pipe thread type	Nil	Rc	●	●	●	●	●		
	N	NPT	●	●	●	●	●		
	F	G	●	●	●	●	●		
③ Port size	01	1/8	●	—	—	—	—		
	02	1/4	●	●	●	—	—		
	03	3/8	—	●	●	—	—		
	04	1/2	—	—	●	—	—		
	06	3/4	—	—	●	●	—		
	10	1	—	—	—	●	●		
④ Option	a Mounting	Nil	Without mounting option		●	●	●	●	●
		B*1	With bracket		●	●	●	●	●
	b Float type auto drain*2	Nil	Without auto drain		●	●	●	●	●
		C*3	N.C. (Normally closed) Drain port is closed when pressure is not applied.		●	●	●	●	●
		D*4	N.O. (Normally open) Drain port is open when pressure is not applied.		—	●	●	●	●
	⑤ Semi-standard	c Bowl*5	Nil	Polycarbonate bowl		●	●	●	●
2			Metal bowl		●	●	●	●	●
6			Nylon bowl		●	●	●	●	●
8			Metal bowl with level gauge		—	●	●	●	●
C			With bowl guard		●	—*6	—*6	—*6	—*6
6C			With bowl guard (Nylon bowl)		●	—*7	—*7	—*7	—*7
d Indicator	Nil	Without indicator		●	●	●	●	●	
	L	With element service indicator*14		●	●	●*12	●	●	
e Drain port*8	Nil	With drain cock		●	●	●	●	●	
	J*9	Drain guide 1/8		●	—	—	—	—	
	W*10	Drain guide 1/4		—	●	●	●	●	
		Drain cock with barb fitting		—	●	●	●	●	
f Flow direction	Nil	Flow direction: Left to right		●	●	●	●	●	
	R	Flow direction: Right to left		●	●	●	●	●	
g Unit	Nil	Unit on product label: MPa, °C		●	●	●	●	●	
	Z*11	Unit on product label: psi, °F		○*13	○*13	○*13	○*13	○*13	

*1 Option B is included in the package with the product but does not come assembled. The assembly consists of 2 types of the bracket and 2 mounting screws.
 *2 The auto drain port is ø10 One-touch fitting (② Pipe thread type: Rc, G) or ø3/8" One-touch fitting (② Pipe thread type: NPT)
 *3 When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.
 *4 If the compressor is small (0.75 kW, discharge flow is less than 100 L/min (ANR)), air leakage from the drain cock may occur during the start of operations. N.C. type is recommended.
 *5 Refer to chemical data on page 83 for chemical resistance of the bowl.
 *6 A bowl guard is provided as standard equipment (polycarbonate).
 *7 A bowl guard is provided as standard equipment (nylon).
 *8 The combination of float type auto drain C and D is not available.
 *9 Without a valve function. The mounting screws are the same as the thread of ②.
 *10 The combination of metal bowl 2 and 8 is not available.
 *11 For the pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
 *12 Excludes port size "06"
 *13 ○: For the pipe thread type: NPT only
 *14 A special body type is required to mount the element service indicator. It cannot be mounted on a standard body.

AC
AF + AR + AL
AW + AL
AF + AR
AF + AFM + AR
AW + AFM
Attachments
AF
AFM / AFD
AR
AL
AW

Mist Separator

AFM20-D to AFM40-D

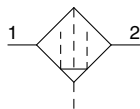
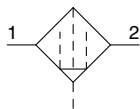
Micro Mist Separator

AFD20-D to AFD40-D

Symbol

Mist Separator

Micro Mist Separator



AFM30-D

AFD30-D

How to Order

AFM **30** - **□** **03** **BD** - **□** - **D**

AFD **30** - **□** **03** **BD** - **□** - **D**

① ② ③ ④ ⑤

Option and Semi-standard Symbol Selection

- Select one each for a to g.
- When more than one specification is required, indicate in alphanumeric order.

Example) AFM30-F03BD-2LR-D

		Symbol	Description	①			
				Body size			
				20	30	40	
②	Pipe thread type	Nil	Rc	●	●	●	
		N	NPT	●	●	●	
		F	G	●	●	●	
		+					
③	Port size	01	1/8	●	—	—	
		02	1/4	●	●	●	
		03	3/8	—	●	●	
		04	1/2	—	—	●	
		06	3/4	—	—	●	
		+					
④	a	Mounting	Nil	Without mounting option	●	●	●
			B*1	With bracket	●	●	●
			+				
	b	Float type auto drain*2	Nil	Without auto drain	●	●	●
C*3			N.C. (Normally closed) Drain port is closed when pressure is not applied.	●	●	●	
D*4			N.O. (Normally open) Drain port is open when pressure is not applied.	—	●	●	
		+					
⑤	c	Bowl*5	Nil	Polycarbonate bowl	●	●	●
			2	Metal bowl	●	●	●
			6	Nylon bowl	●	●	●
			8	Metal bowl with level gauge	—	●	●
			C	With bowl guard	●	—*6	—*6
			6C	With bowl guard (Nylon bowl)	●	—*7	—*7
			+				
	d	Indicator	Nil	Without indicator	●	●	●
			L	With element service indicator*14	●	●	●*12
			+				
	e	Drain port*8	Nil	With drain cock	●	●	●
J*9			Drain guide 1/8	●	—	—	
W*10			Drain cock with barb fitting	—	●	●	
		+					
f	Flow direction	Nil	Flow direction: Left to right	●	●	●	
		R	Flow direction: Right to left	●	●	●	
		+					
g	Unit	Nil	Unit on product label: MPa, °C	●	●	●	
		Z*11	Unit on product label: psi, °F	○*13	○*13	○*13	

*1 Option B is included in the package with the product but does not come assembled. The assembly consists of 2 types of the bracket and 2 mounting screws.

*2 The auto drain port is ø10 One-touch fitting (② Pipe thread type: Rc, G) or ø3/8" One-touch fitting (② Pipe thread type: NPT)

*3 When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.

*4 If the compressor is small (0.75 kW, discharge flow is less than 100 L/min (ANR)), air leakage from the drain cock may occur during the start of operations. N.C. type is recommended.

*5 Refer to chemical data on page 91 for chemical resistance of the bowl.

*6 A bowl guard is provided as standard equipment (polycarbonate).

*7 A bowl guard is provided as standard equipment (nylon).

*8 The combination of float type auto drain C and D is not available.

*9 Without a valve function. The mounting screws are the same as the thread of ②.

*10 The combination of metal bowl 2 and 8 is not available.

*11 For the pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)

*12 Excludes port size "06"

*13 ○: For the pipe thread type: NPT only

*14 A special body type is required to mount the element service indicator. It cannot be mounted on a standard body.

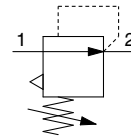
Regulator

AR20-D to AR60-D

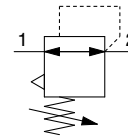
Regulator with Backflow Function

AR20K-D to AR60K-D

Symbol
Regulator



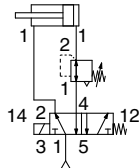
Regulator with Backflow Function



- Models with the backflow function include a mechanism which allows for the air pressure in the outlet side to be released to the inlet side.

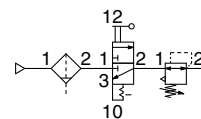
Example 1)

When the pressure in the rear and the front of the cylinder differs:



Example 2)

When the air supply is cut off and releasing the inlet pressure to the atmosphere, the residual pressure release of the outlet side can be ensured.



How to Order

AR 30 - 03 BE - - D

1
 2
 3
 4
 5
 6

Option and Semi-standard Symbol Selection

- Select one each for a to g.
- When more than one specification is required, indicate in alphanumeric order.
- Example) AR30K-F03BE-1NR-D

	Symbol	Description	① Body size						
			20	30	40	50	60		
② With backflow function	Nil	Without backflow function	●	●	●	●	●		
	K*1	With backflow function	●	●	●	●	●		
+									
③ Pipe thread type	Nil	Rc	●	●	●	●	●		
	N	NPT	●	●	●	●	●		
	F	G	●	●	●	●	●		
+									
④ Port size	01	1/8	●	—	—	—	—		
	02	1/4	●	●	●	—	—		
	03	3/8	—	●	●	—	—		
	04	1/2	—	—	●	—	—		
	06	3/4	—	—	●	●	—		
	10	1	—	—	—	●	●		
+									
a	Mounting	Nil	Without mounting option	●	●	●	●	●	
		B*3	With bracket	●	●	●	●	●	
		H	With set nut (for panel mount)	●	●	●	—	—	
+									
⑤ Option*2	b	Pressure gauge*4	Nil	Without pressure gauge	●	●	●	●	●
			E	Square embedded type pressure gauge (with limit indicator)	●	●	●	●	●
			G	Round type pressure gauge (with limit indicator)	●	●	●	●	●
			J*5,*6	Right angle square type pressure gauge (with limit indicator)	●	●	●	—	—
			M	Round type pressure gauge (with color zone)	●	●	●	●	●
	Digital pressure switch*7	E1	Output: NPN output, Electrical entry: Wiring bottom entry	●	●	●	●	●	
		E2	Output: NPN output, Electrical entry: Wiring top entry	●	●	●	●	●	
		E3	Output: PNP output, Electrical entry: Wiring bottom entry	●	●	●	●	●	
		E4	Output: PNP output, Electrical entry: Wiring top entry	●	●	●	●	●	

Regulator **AR20-D to AR60-D Series**

Regulator with Backflow Function **AR20K-D to AR60K-D Series**



AR30-D

- AC
- AF + AR + AL
- AW + AL
- AF + AR
- AF + AR
- AF + AFM + AR
- AF + AFM
- AW + AFM
- Attachments
- AF
- AFM / AFD
- AR
- AL
- AW

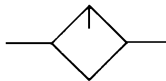
	Symbol	Description	①					
			Body size					
			20	30	40	50	60	
6 Semi-standard	c	Set pressure* ⁸	Nil	0.05 to 0.85 MPa setting				
		1	0.02 to 0.2 MPa setting					
			+					
	d	Exhaust mechanism	Nil	Relieving type				
			N	Non-relieving type				
			+					
	e	Flow direction	Nil	Flow direction: Left to right				
			R	Flow direction: Right to left				
			+					
	f	Knob	Nil	Downward				
			Y	Upward				
			+					
g	Unit	Nil	Unit on product label: MPa, Pressure gauge in SI units: MPa					
		Z* ⁹	Unit on product label: psi, Pressure gauge: MPa/psi dual scale					
		ZA* ¹⁰	Digital pressure switch: With unit selection function					
			●	●	●	●	●	
			○* ¹¹	○* ¹¹	○* ¹¹	○* ¹¹	○* ¹¹	
			△* ¹²	△* ¹²	△* ¹²	△* ¹²	△* ¹²	

*1 Set the inlet pressure to at least 0.05 MPa higher than the set pressure.
 *2 Options B, G, H, and M are not assembled and supplied loose at the time of shipment.
 *3 The assembly consists of a bracket and set nuts (applicable to the AR20(K)-D to AR40(K)-D).
 For the AR50(K)-D and AR60(K)-D, the assembly consists of 2 types of the bracket and 2 mounting screws.
 *4 When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.85 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type.
 *5 Cannot be selected for the type with a set nut (option "H")
 *6 The direction the pressure gauge scale plate faces is from the knob side.
 *7 When choosing with H (panel mount), the installation space for lead wires will not be secured. In this case, select "wiring top entry" for the electrical entry. (Select "wiring bottom entry" when the semi-standard Y is chosen simultaneously.)
 *8 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
 *9 For the pipe thread type: NPT
 This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.) Cannot be used with M: Round type pressure gauge (with color zone). Available by request for special. The digital pressure switch will be equipped with the unit selection function, setting to psi initially.
 *10 For options: E1, E2, E3, E4
 This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
 *11 ○: For the pipe thread type: NPT only
 *12 △: Select with options: E1, E2, E3, E4.

Lubricator

AL20-D to AL60-D

Symbol



AL30-D

How to Order

AL **30** - **03** **B** - **03** - **D**

① ② ③ ④ ⑤

Semi-standard Symbol Selection

· Select one each for a to d.
 · When more than one specification is required, indicate in alphanumeric order.
 Example) AL30-F03B-3RW-D

	Symbol	Description	①						
			Body size						
			20	30	40	50	60		
②	Pipe thread type	Nil	Rc	●	●	●	●	●	
		N	NPT	●	●	●	●	●	
		F	G	●	●	●	●	●	
+									
③	Port size	01	1/8	●	—	—	—	—	
		02	1/4	●	●	●	—	—	
		03	3/8	—	●	●	—	—	
		04	1/2	—	—	●	—	—	
		06	3/4	—	—	●	●	—	
		10	1	—	—	—	●	●	
+									
④	Option (Mounting)	Nil	Without mounting option	●	●	●	●	●	
		B*1	With bracket	●	●	●	●	●	
+									
⑤	a	Bowl*2	Nil	Polycarbonate bowl	●	●	●	●	●
			2	Metal bowl	●	●	●	●	●
			6	Nylon bowl	●	●	●	●	●
			8	Metal bowl with level gauge	—	●	●	●	●
			C	With bowl guard	●	—*3	—*3	—*3	—*3
			6C	With bowl guard (Nylon bowl)	●	—*4	—*4	—*4	—*4
	+								
	b	Lubricant exhaust port	Nil	Without drain cock	●	●	●	●	●
			3	With drain cock	●	●	●	●	●
			3W*5	Drain cock with barb fitting	—	●	●	●	●
	+								
	c	Flow direction	Nil	Flow direction: Left to right	●	●	●	●	●
R			Flow direction: Right to left	●	●	●	●	●	
+									
d	Unit	Nil	Unit on product label: MPa, °C	●	●	●	●	●	
		Z*6	Unit on product label: psi, °F	○*7	○*7	○*7	○*7	○*7	

*1 Option B is included in the package with the product but does not come assembled. The assembly consists of 2 types of the bracket and 2 mounting screws.

*2 Refer to chemical data on page 111 for chemical resistance of the bowl.

*3 A bowl guard is provided as standard equipment (polycarbonate).

*4 A bowl guard is provided as standard equipment (nylon).

*5 The combination of metal bowl 2 and 8 is not available.

*6 For the pipe thread type: NPT

This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)

*7 ○: For the pipe thread type: NPT only

AC

AF + AR + AL

AW + AL

AF + AR

AF + AR

AF + AFM + AR

AW + AFM

Attachments

AF

AFM / AFD

AR

AL

AW

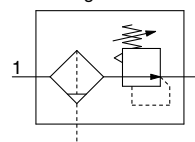
Filter Regulator

AW20-D to AW60-D

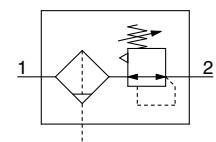
Filter Regulator with Backflow Function

AW20K-D to AW60K-D

Symbol
Filter Regulator



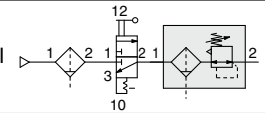
Filter Regulator with
Backflow Function



- Integrated filter and regulator units save space and require less piping.
- Models with the backflow function include a mechanism which allows for the air pressure in the outlet side to be released to the inlet side.

Example)

When the air supply is cut off and releasing the inlet pressure to the atmosphere, the residual pressure release of the outlet side can be ensured.



How to Order

AW **30** **03** **BE** - **D**

① ② ③ ④ ⑤ ⑥

Option and Semi-standard Symbol Selection

- Select one each for a to i.
 - When more than one specification is required, indicate in alphanumeric order.
- Example) AW30K-F03BE-1NR-D

	Symbol	Description	① Body size					
			20	30	40	60		
② With backflow function	Nil	Without backflow function	●	●	●	●		
	K*1	With backflow function	●	●	●	●		
③ Pipe thread type	Nil	Rc	●	●	●	●		
	N	NPT	●	●	●	●		
	F	G	●	●	●	●		
④ Port size	01	1/8	●	—	—	—		
	02	1/4	●	●	●	—		
	03	3/8	—	●	●	—		
	04	1/2	—	—	●	—		
	06	3/4	—	—	●	●		
	10	1	—	—	—	●		
⑤ Option*2	a Mounting	Nil	Without mounting option	●	●	●	●	
		B*3	With bracket	●	●	●	●	
		H	With set nut (for panel mount)	●	●	●	—	
	b Float type auto drain*4	Nil	Without auto drain	●	●	●	●	
		C*5	N.C. (Normally closed) Drain port is closed when pressure is not applied.	●	●	●	●	
		D*6	N.O. (Normally open) Drain port is open when pressure is not applied.	—	●	●	●	
	c Pressure gauge*7	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*8	E1	Output: NPN output, Electrical entry: Wiring bottom entry	●	●	●	●
			E2	Output: NPN output, Electrical entry: Wiring top entry	●	●	●	●
E3	Output: PNP output, Electrical entry: Wiring bottom entry		●	●	●	●		
d Set pressure*9	Nil	0.05 to 0.85 MPa setting	●	●	●	●		
	1	0.02 to 0.2 MPa setting	●	●	●	●		
	e Bowl*10	Nil	Polycarbonate bowl	●	●	●	●	
2		Metal bowl	●	●	●	●		
6		Nylon bowl	●	●	●	●		
8		Metal bowl with level gauge	—	●	●	●		
C		With bowl guard	●	—*11	—*11	—*11		
6C		With bowl guard (Nylon bowl)	●	—*12	—*12	—*12		
f Drain port*13	Nil	With drain cock	●	●	●	●		
	J*14	Drain guide 1/8	●	—	—	—		
		Drain guide 1/4	—	—	●	●		
	W*15	Drain cock with barb fitting	—	●	●	●		

Filter Regulator **AW20-D to AW60-D Series**

Filter Regulator with Backflow Function **AW20K-D to AW60K-D Series**



AW30-D

		Symbol	Description	①				
				Body size				
				20	30	40	60	
⑥	Semi-standard	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	Nil	Unit on product label: MPa, °C, Pressure gauge in SI units: MPa	●	●	●	●
			Z*16	Unit on product label: psi, °F, Pressure gauge: MPa/psi dual scale	○*18	○*18	○*18	○*18
			ZA*17	Digital pressure switch: With unit selection function	△*19	△*19	△*19	△*19

- *1 Set the inlet pressure to at least 0.05 MPa higher than the set pressure.
- *2 Options B, G, H, and M are not assembled and supplied loose at the time of shipment.
- *3 The assembly consists of a bracket and set nuts (applicable to the AW20(K)-D to AW40(K)-D).
For the AW60(K)-D, the assembly consists of 2 types of the bracket and 2 mounting screws.
- *4 The auto drain port is $\phi 10$ One-touch fitting (● Pipe thread type: Rc, G) or $\phi 3/8$ " One-touch fitting (⊙ Pipe thread type: NPT)
- *5 When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.
- *6 If the compressor is small (0.75 kW, discharge flow is less than 100 L/min (ANR)), air leakage from the drain cock may occur during the start of operations. N.C. type is recommended.
- *7 When the pressure gauge is attached, a 1.0 MPa pressure gauge will be fitted for standard (0.85 MPa) type. 0.4 MPa pressure gauge for 0.2 MPa type.
- *8 When choosing with H (panel mount), the installation space for lead wires will not be secured. In this case, select "wiring bottom entry" for the electrical entry.

- *9 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.
- *10 Refer to chemical data on page 129 for chemical resistance of the bowl.
- *11 A bowl guard is provided as standard equipment (polycarbonate).
- *12 A bowl guard is provided as standard equipment (nylon).
- *13 The combination of float type auto drain C and D is not available.
- *14 Without a valve function. The mounting screws are the same as the thread of ●.
- *15 The combination of metal bowl 2 and 8 is not available.
- *16 For the pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
Cannot be used with M: Round type pressure gauge (with color zone). Available by request for special. The digital pressure switch will be equipped with the unit selection function, setting to psi initially.
- *17 For options: E1, E2, E3, E4
This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
- *18 ○: For the pipe thread type: NPT only
- *19 △: Select with options: E1, E2, E3, E4.

AC

AF + AR + AL

AW + AL

AF + AR

AF + AFM + AR

AF + AFM

Attachments

AF

AFM / AFD

AR

AL

AW