

Modular F.R.L. Units



Modular Design with Uniform Body Style

Better visibility & environmental resistance



The bowl is covered with a transparent bowl guard!

* Body sizes 30 and larger

- The inside is visible from 360°.
- The inner bowl is protected from the environment, allowing for improved safety.

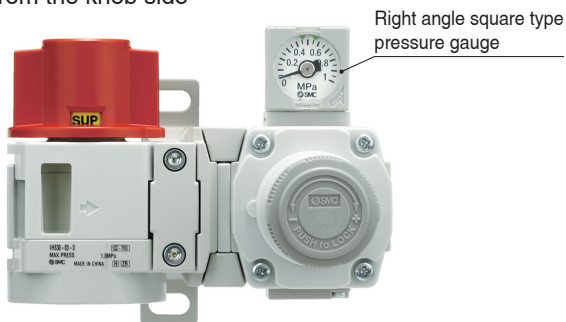
- Inner bowl**
Material: Polycarbonate
- Transparent bowl guard**
Material: Polycarbonate



New A right angle square type pressure gauge and various attachments have been added.

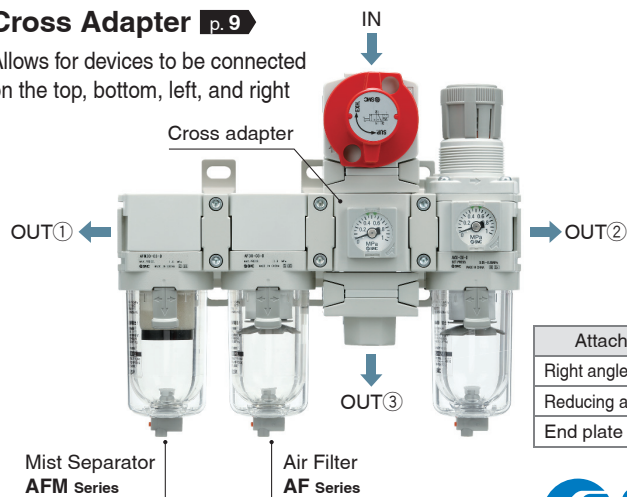
Right Angle Square Type Pressure Gauge [p. 8](#)

Allows for pressure confirmation from the knob side



Cross Adapter [p. 9](#)

Allows for devices to be connected on the top, bottom, left, and right



Attachment	Page
Right angle adapter	7
Reducing adapter	10
End plate	70

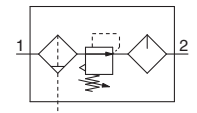
AC Series



CAT.EUS40-69D-UK

AC20-D to AC60-D

Symbol



How to Order

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

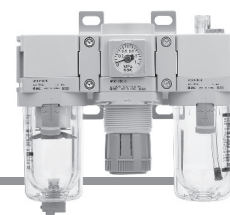
① ② ③ ④ ⑤ ⑥

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) AC30-F03DE1-16NR-D

	Symbol	Description	①							
			Body size							
			20	30	40	50	60			
②	—	Rc	●	●	●	●	●			
	N*1	NPT	●	●	●	●	●			
	F*2	G	●	●	●	●	●			
+										
③	01	1/8	●	—	—	—	—			
	02	1/4	●	●	●	—	—			
	03	3/8	—	●	●	—	—			
	04	1/2	—	—	●	—	—			
	06	3/4	—	—	●	●	—			
	10	1	—	—	—	●	●			
+										
④	a	—	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	—	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 colour 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	—	Without attachment		●	●	●	●	●	
		V	Mounting position: AF + AR + AL + V		●	●	●	●	—	
+										
⑥	d	—	0.05 to 0.85 MPa setting		●	●	●	●	●	
		1	0.02 to 0.2 MPa setting		●	●	●	●	●	
	+									
	e	Bowl*8	—	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	—	With drain cock		●	●	●	●	●
			J*12	Drain guide 1/8		●	—	—	—	—
			—	Drain guide 1/4		—	●	●	●	●
			W*13	Drain cock with barb fitting (for Ø 6 x Ø 4 nylon tube)		—	●	●	●	●
	+									
	g	Lubricator lubricant exhaust port	—	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	—	Relieving type	●	●	●	●	●
		N	Non-relieving type	●	●	●	●	●
			+					
	i	—	Flow direction: Left to right	●	●	●	●	●
		R	Flow direction: Right to left	●	●	●	●	●
			+					
j	Unit	—	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 O 3/8" 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 colour 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	AF60-D
	Regulator [AR]	AR20-D	AR30-D	AR40-D	AR40-06-D	AR50-D	AR60-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 [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.

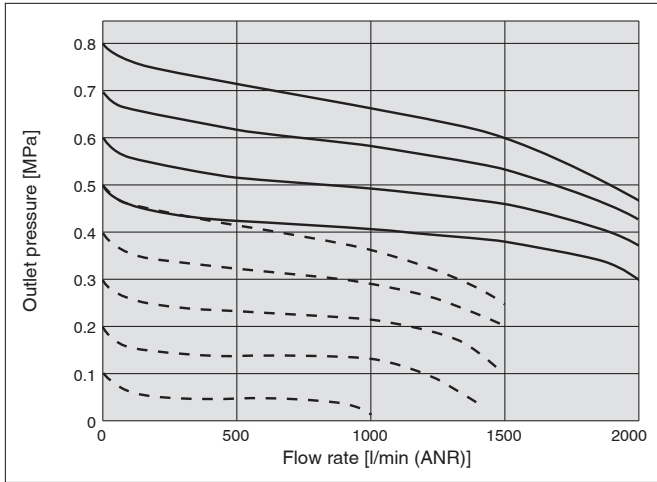
AC20-D to AC60-D Series

Flow Rate Characteristics (Representative values)

— Inlet pressure: 1.0 MPa
 - - - Inlet pressure: 0.7 MPa

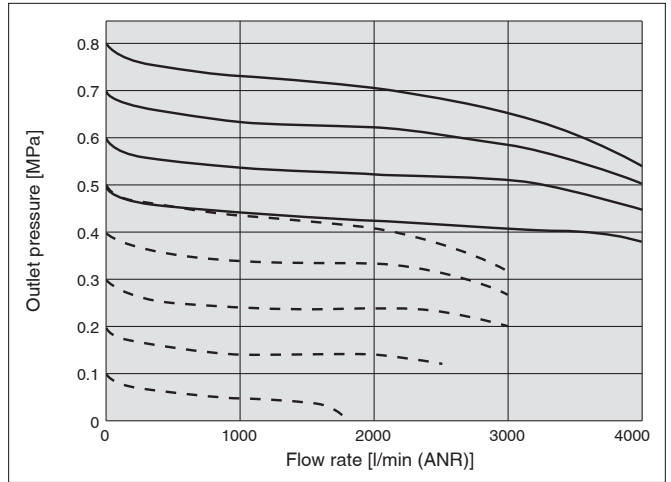
AC20-D

Rc1/4



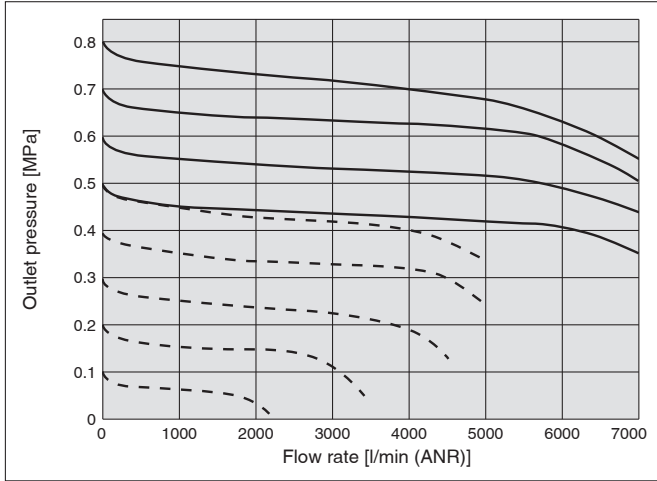
AC30-D

Rc3/8



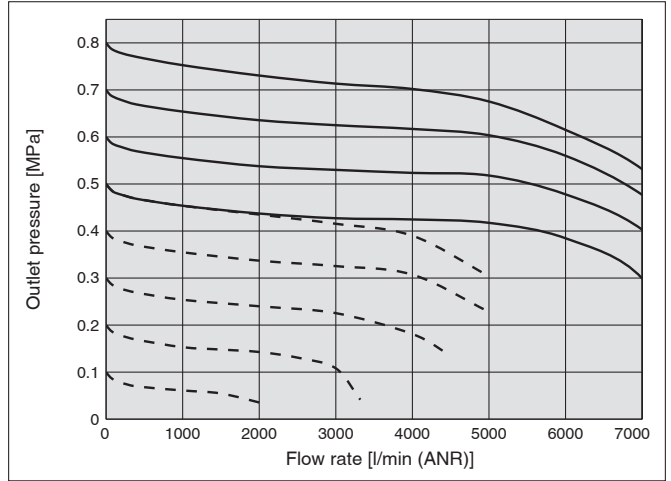
AC40-D

Rc1/2



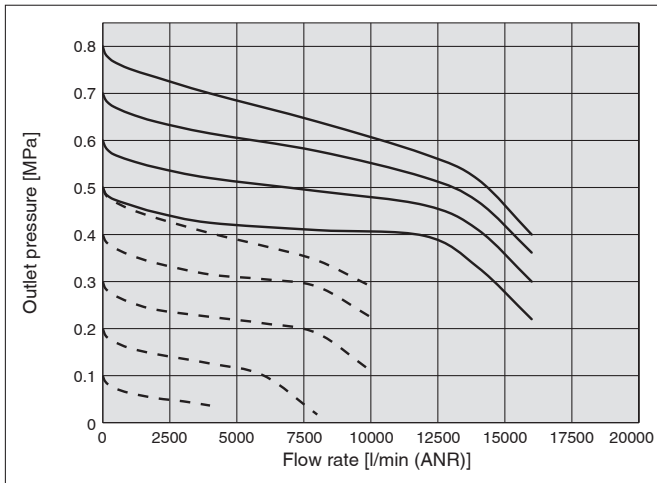
AC40-06-D

Rc3/4



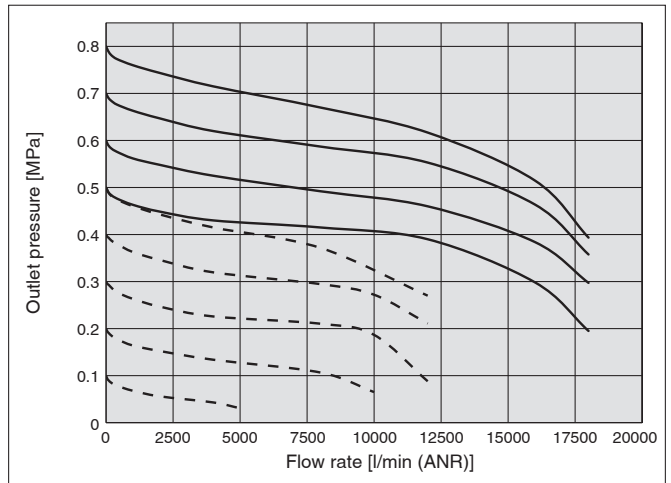
AC50-D

Rc1



AC60-D

Rc1

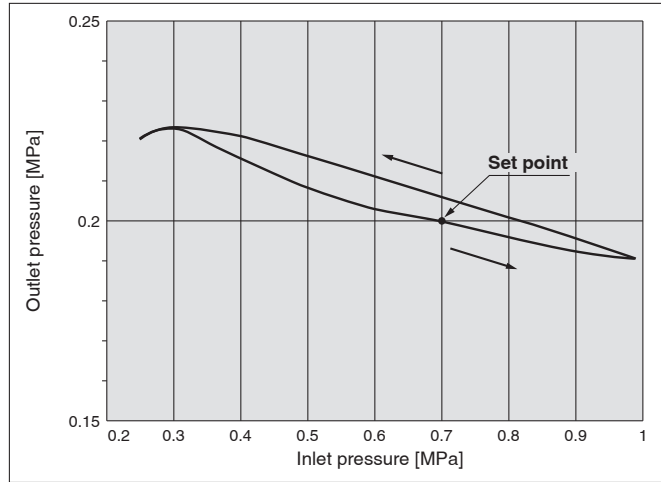


Air Combination **AC20-D to AC60-D Series**

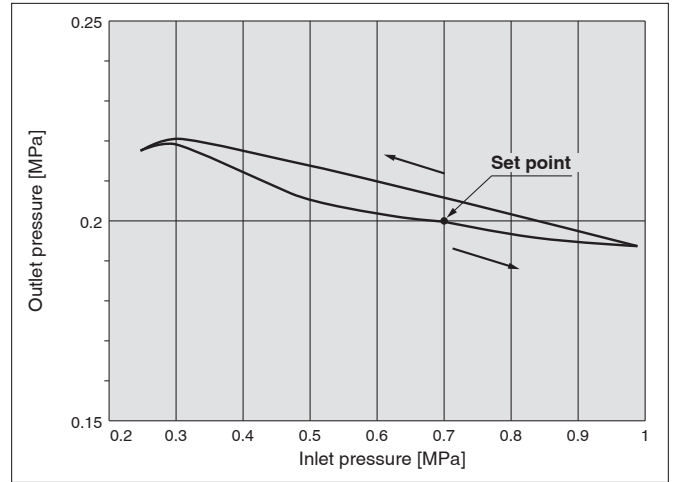
Pressure Characteristics (Representative values)

Conditions: Inlet pressure of 0.7 MPa, Outlet pressure of 0.2 MPa, Flow rate 20 l/min (ANR)

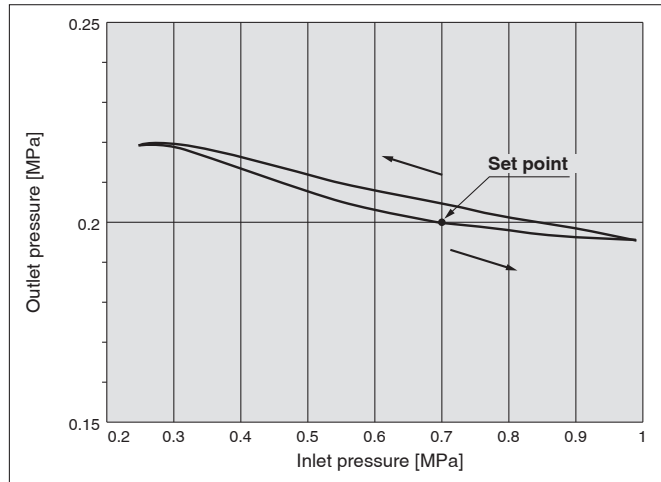
AC20-D



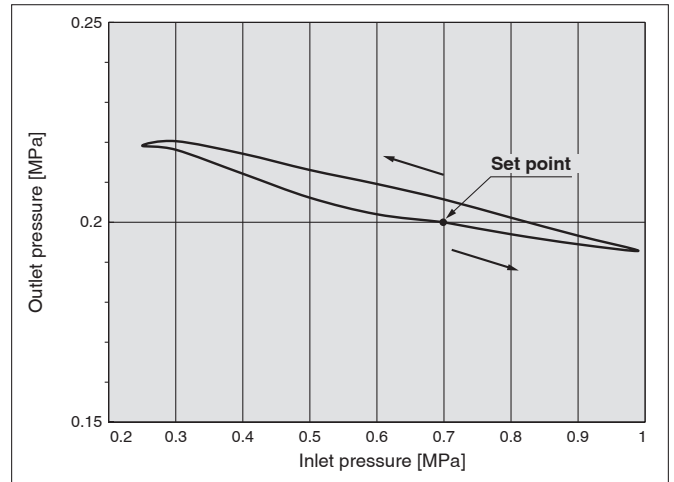
AC30-D



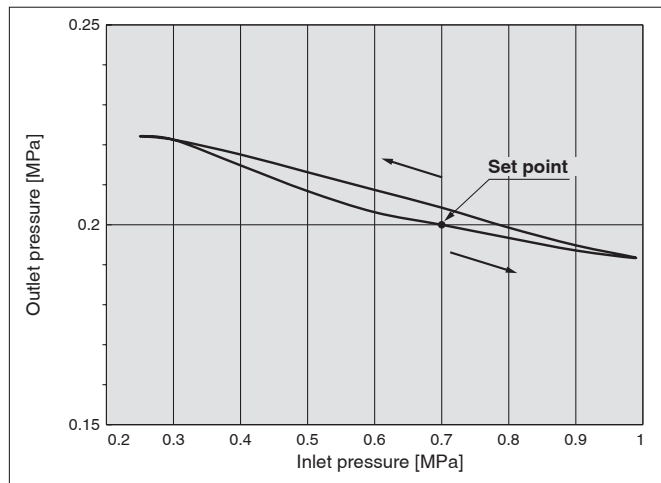
AC40-D



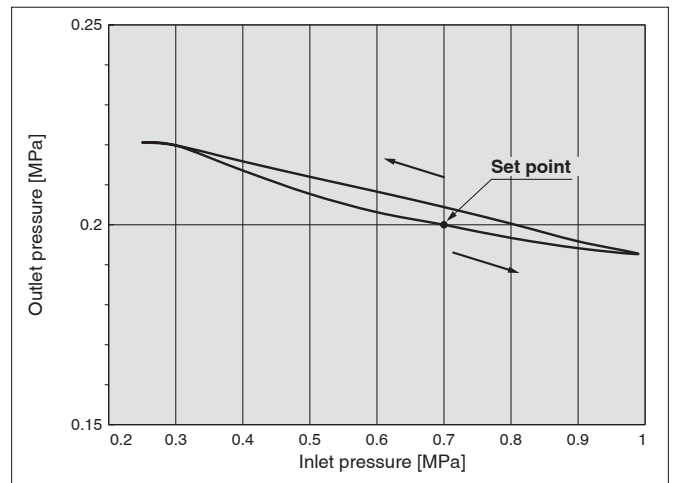
AC40-06-D



AC50-D



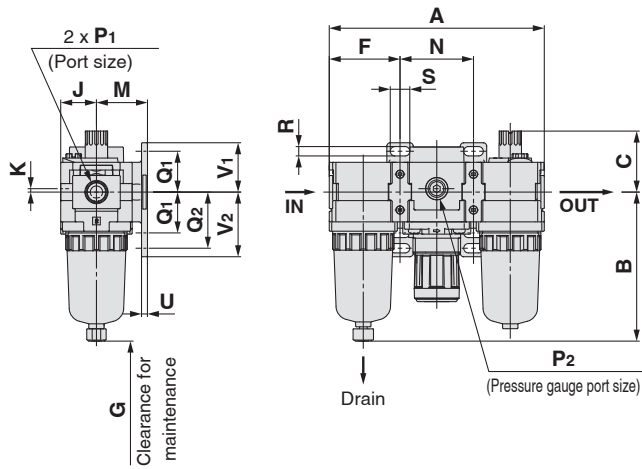
AC60-D



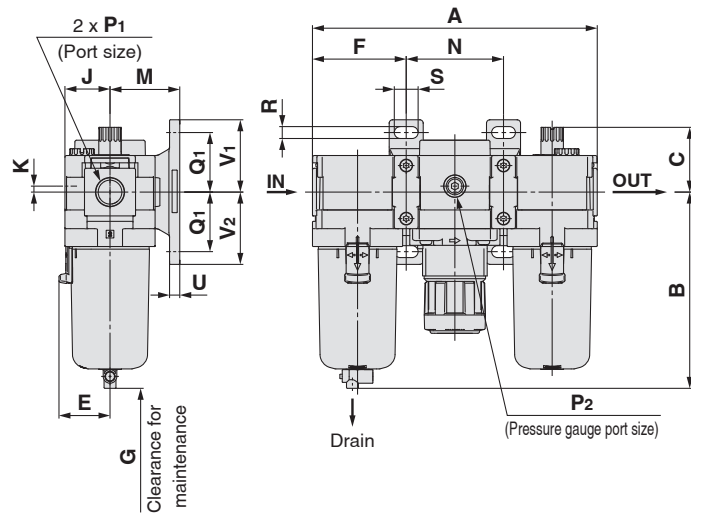
AC20-D to AC60-D Series

Dimensions

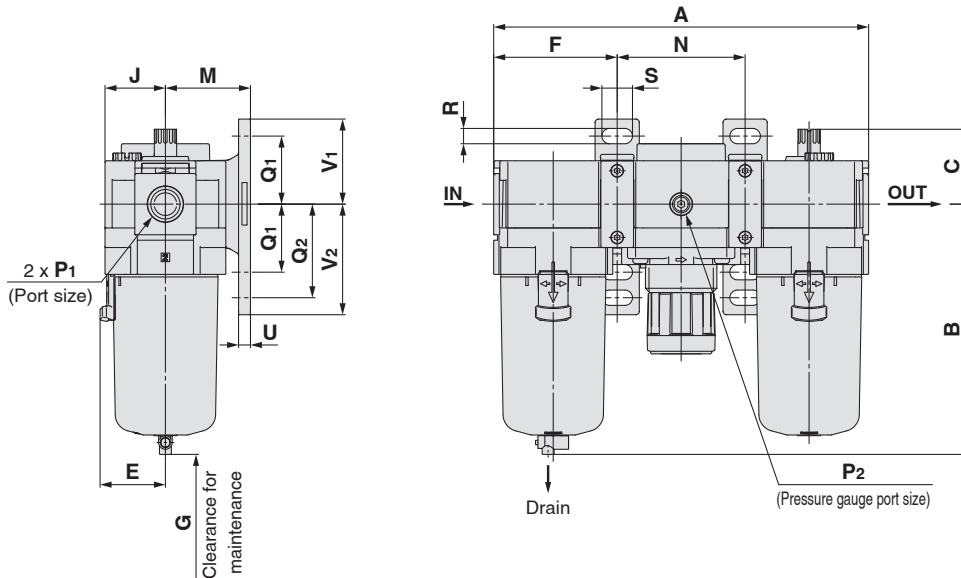
AC20-D



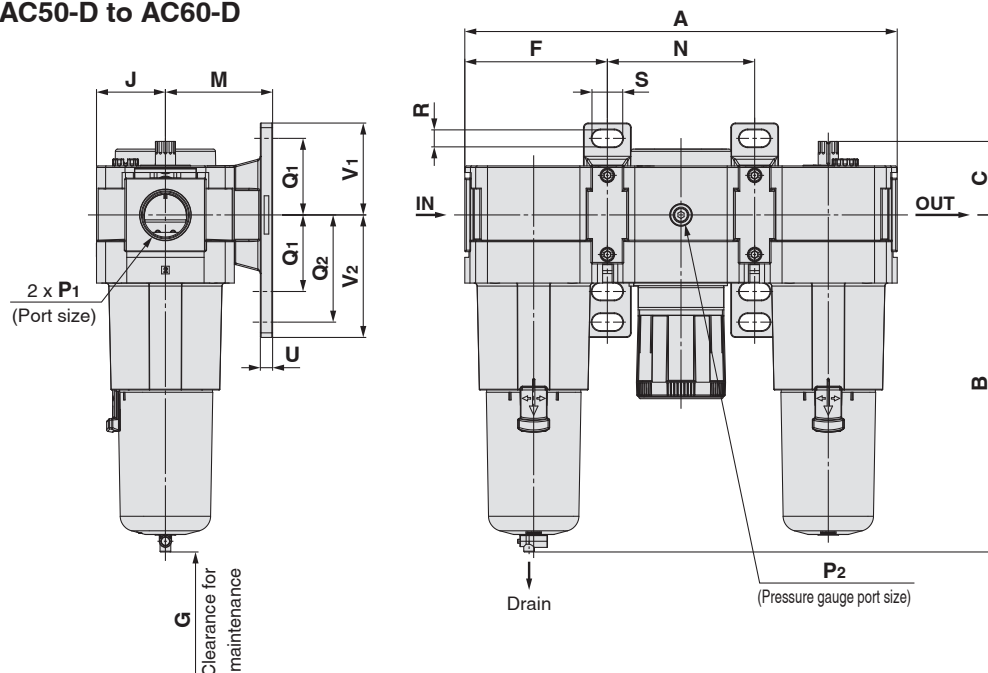
AC30-D



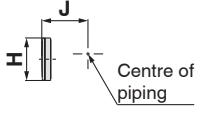
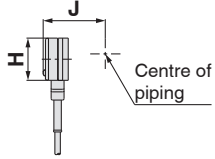
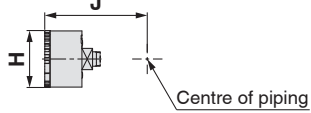
AC40-D to AC40-06-D

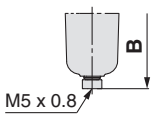
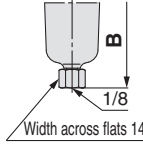
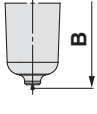
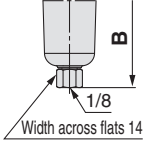
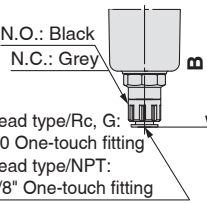
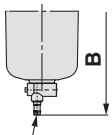
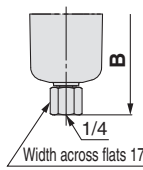
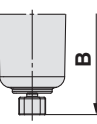
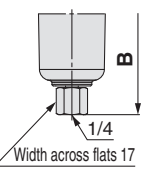
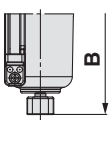
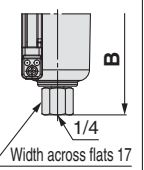


AC50-D to AC60-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20-D to AC60-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20-D							
AC30-D to AC60-D	<p>N.O.: Black N.C.: Grey</p> <p>Thread type/Rc, G: O 10 One-touch fitting Thread type/NPT: Ø 3/8" One-touch fitting</p> 	<p>Barb fitting applicable tubing: T0604</p> 					

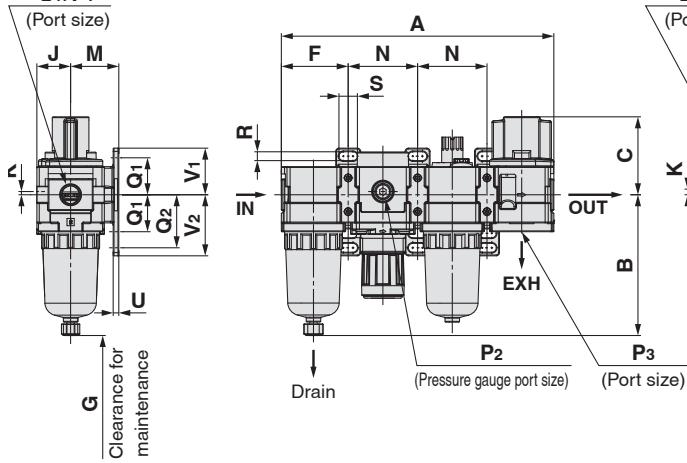
Model	Standard specifications																		
	P ₁	P ₂	A	B	C	E	F	G	J	K	Bracket mount								
											M	N	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20-D	1/8, 1/4	1/8	126.4	87.6	35.9	—	41.6	60	21	2	30	43.2	24	33	5.5	11.5	3.5	29	38
AC30-D	1/4, 3/8	1/8	167.4	115.4	38.1	30	55.1	80	26.5	3.5	41	57.2	35	—	7	14	6	42.5	42.5
AC40-D	1/4, 3/8, 1/2	1/8	220.4	147.1	44	38.4	72.6	110	35.5	—	50	75.2	40	55	9	18	7	50	65
AC40-06-D	3/4	1/8	235.4	149.1	44	38.4	77.6	110	35.5	—	50	80.2	40	55	9	18	7	50	65
AC50-D	3/4, 1	1/8	282.4	220.1	48	—	93.1	110	45	—	70	96.2	50	70	11	20	8	60	80
AC60-D	1	1/8	297.4	234.1	48	—	98.1	110	45	—	70	101.2	50	70	11	20	8	60	80

Model	Optional specifications										Semi-standard specifications						
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
	H	J	H	J	H	J	H	J	H	J		B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock
	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
AC20-D	□28	27	□27.8	37.5	○ 37.5	57.5	○ 37.5	58.5	○ 37.5	58.5	104.9	—	91.4	87.4	93.9	—	—
AC30-D	□28	32.5	□27.8	43	○ 37.5	63	○ 37.5	64	○ 37.5	64	157.1	123.9	122.2	117.8	122.3	137.8	142.3
AC40-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	186.9	155.6	153.9	149.5	154	169.5	174
AC40-06-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176
AC50-D	□28	51	□27.8	61.5	○ 42.5	82.5	○ 42.5	82.5	○ 42.5	82.5	259.9	228.6	226.9	222.5	227	242.5	247
AC60-D	□28	51	□27.8	61.5	○ 42.5	82.5	○ 42.5	82.5	○ 42.5	82.5	273.9	242.6	240.9	236.5	241	256.5	261

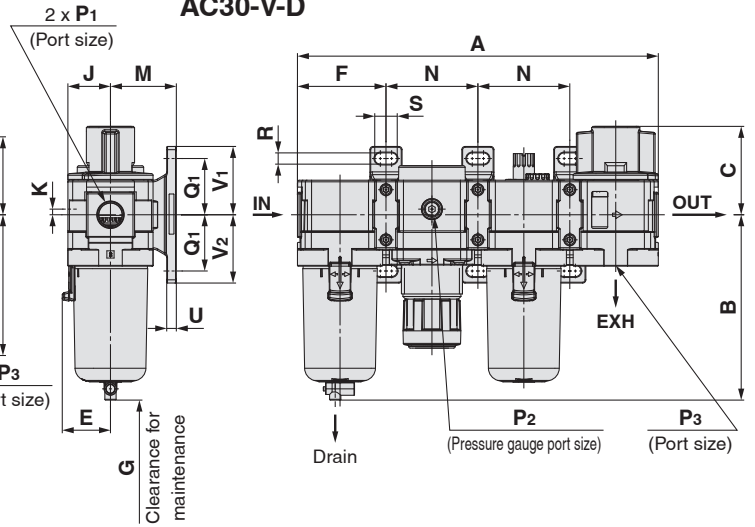
AC20-D to AC60-D Series

Dimensions: With Pressure Relief 3-Port Valve (V)

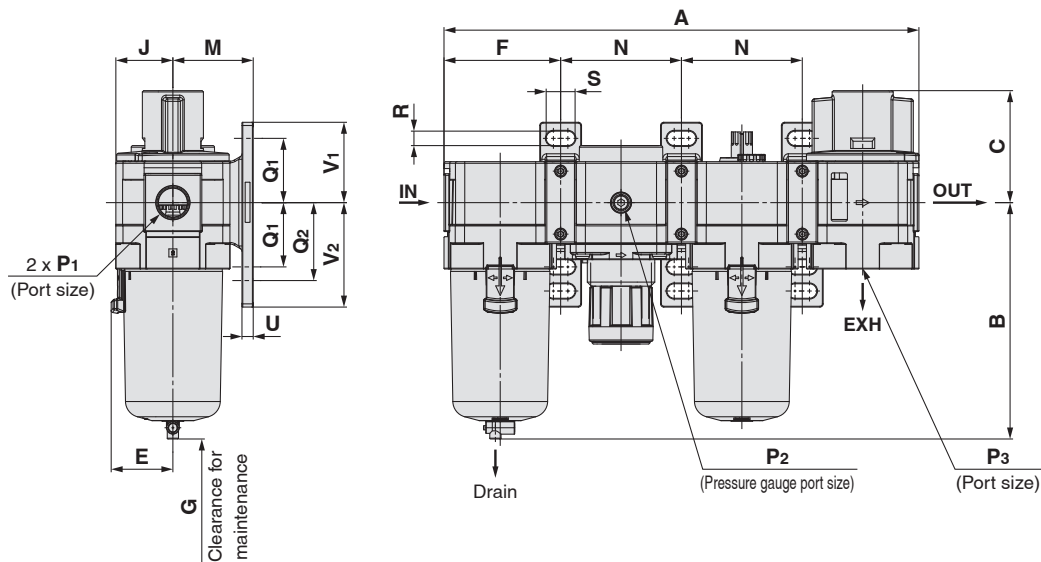
AC20-V-D



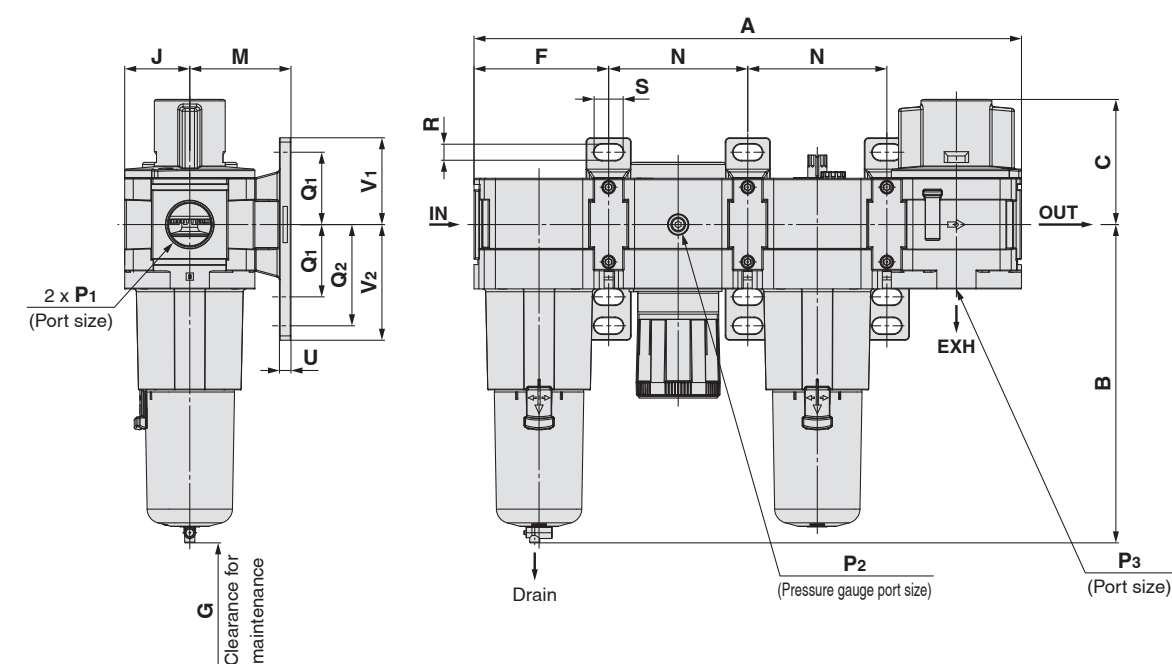
AC30-V-D



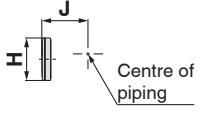
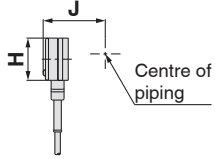
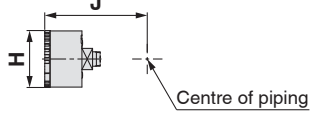
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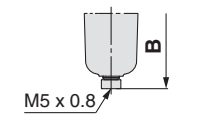
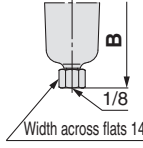
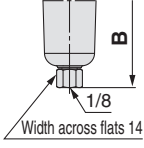
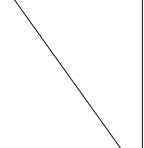
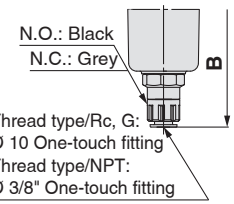
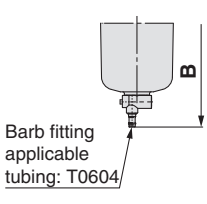
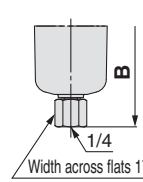
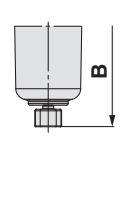
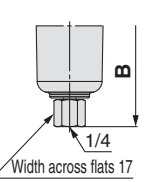
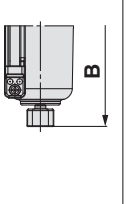
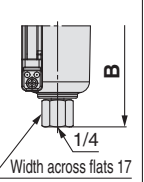


AC50-V-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20-V-D to AC50-V-D				

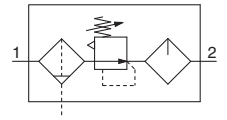
Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20-V-D							
AC30-V-D to AC50-V-D							

Model	Standard specifications																			
												Bracket mount								
	P ₁	P ₂	P ₃	A	B	C	E	F	G	J	K	M	N	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20-V-D	1/8, 1/4	1/8	1/8	169.6	87.6	48.5	—	41.6	60	21	2	30	43.2	24	33	5.5	11.5	3.5	29	38
AC30-V-D	1/4, 3/8	1/8	1/4	224.6	115.4	55	30	55.1	80	26.5	3.5	41	57.2	35	—	7	14	6	42.5	42.5
AC40-V-D	1/4, 3/8, 1/2	1/8	3/8	295.6	147.1	69.7	38.4	72.6	110	35.5	—	50	75.2	40	55	9	18	7	50	65
AC40-06-V-D	3/4	1/8	1/2	315.6	149.1	71.7	38.4	77.6	110	35.5	—	50	80.2	40	55	9	18	7	50	65
AC50-V-D	3/4, 1	1/8	1/2	378.6	220.1	86.5	—	93.1	110	45	—	70	96.2	50	70	11	20	8	60	80

Model	Optional specifications										Semi-standard specifications							
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge		
	H	J	H	J	H	J	H	J	H	J		B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
AC20-V-D	□28	27	□27.8	37.5	○ 37.5	57.5	○ 37.5	58.5	○ 37.5	58.5	104.9	—	91.4	87.4	93.9	—	—	
AC30-V-D	□28	32.5	□27.8	43	○ 37.5	63	○ 37.5	64	○ 37.5	64	157.1	123.9	122.2	117.8	122.3	137.8	142.3	
AC40-V-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	186.9	155.6	153.9	149.5	154	169.5	174	
AC40-06-V-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176	
AC50-V-D	□28	51	□27.8	61.5	○ 42.5	82.5	○ 42.5	82.5	○ 42.5	82.5	259.9	228.6	226.9	222.5	227	242.5	247	

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	—	Rc	●	●	●	●	●			
	N*1	NPT	●	●	●	●	●			
	F*2	G	●	●	●	●	●			
+										
③	01	1/8	●	—	—	—	—			
	02	1/4	●	●	●	—	—			
	03	3/8	—	●	●	—	—			
	04	1/2	—	—	●	—	—			
	06	3/4	—	—	●	●	—			
	10	1	—	—	—	●	●			
+										
④	a	—	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	—	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 colour 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	—	Without attachment		●	●	●	●	●	
		V	Mounting position: AW + AL + V		●	●	●	●	—	
+										
⑥	d	—	0.05 to 0.85 MPa setting		●	●	●	●	●	
		1	0.02 to 0.2 MPa setting		●	●	●	●	●	
	+									
	e	Bowl*8	—	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	Filter regulator drain port*11	—	With drain cock		●	●	●	●	●
			J*12	Drain guide 1/8		●	—	—	—	—
			—	Drain guide 1/4		—	●	●	●	●
			W*13	Drain cock with barb fitting (for Ø 6 x Ø 4 nylon tube)		—	●	●	●	●
	+									
	g	Lubricator lubricant exhaust port	—	Without drain cock		●	●	●	●	●
			3*14	Lubricator with drain cock		●	●	●	●	●
	+									
	h	Exhaust mechanism	—	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: Left to right	●	●	●	●	●
		R	Flow direction: Right to left	●	●	●	●	●
	j	Unit	—	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 $\text{O } 3/8$ " 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 colour 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

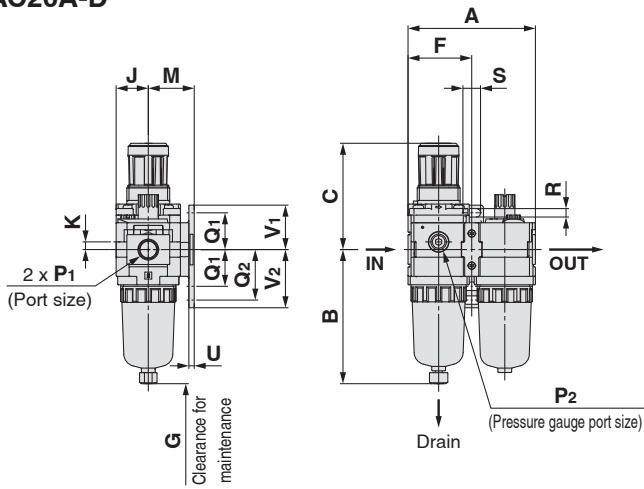
Model		AC20A-D	AC30A-D	AC40A-D	AC40A-06-D	AC50A-D	AC60A-D
Component	Filter Regulator [AW]	AW20-D	AW30-D	AW40-D	AW40-06-D	AW60-D	AW60-D
	Lubricator [AL]	AL20-D	AL30-D	AL40-D	AL40-06-D	AL50-D	AL60-D
Port size		1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1
Pressure gauge port size*1 [AW]		1/8					
Fluid		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) 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)
			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.

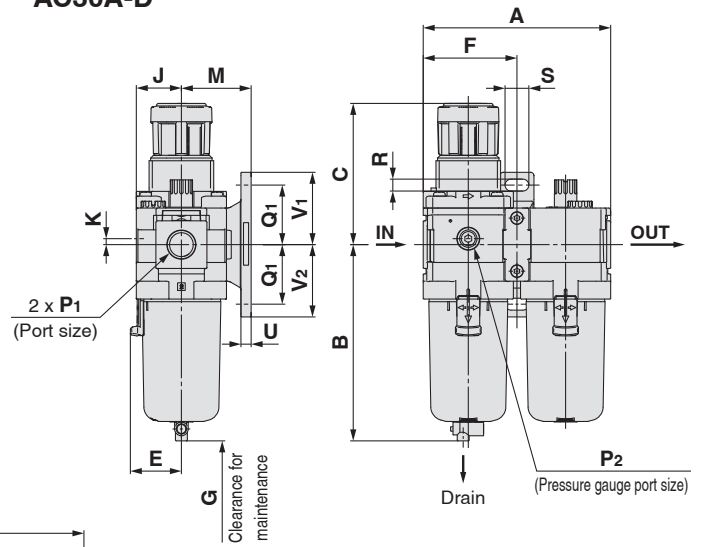
AC20A-D to AC60A-D Series

Dimensions

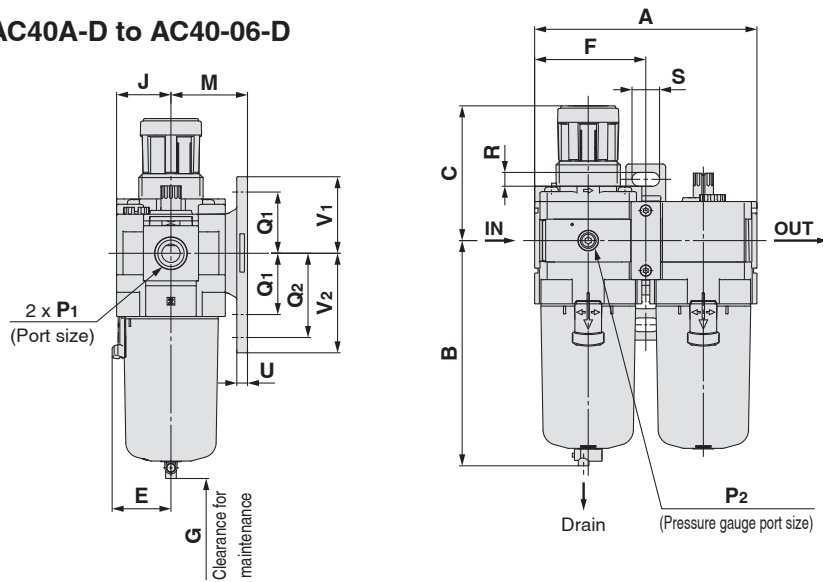
AC20A-D



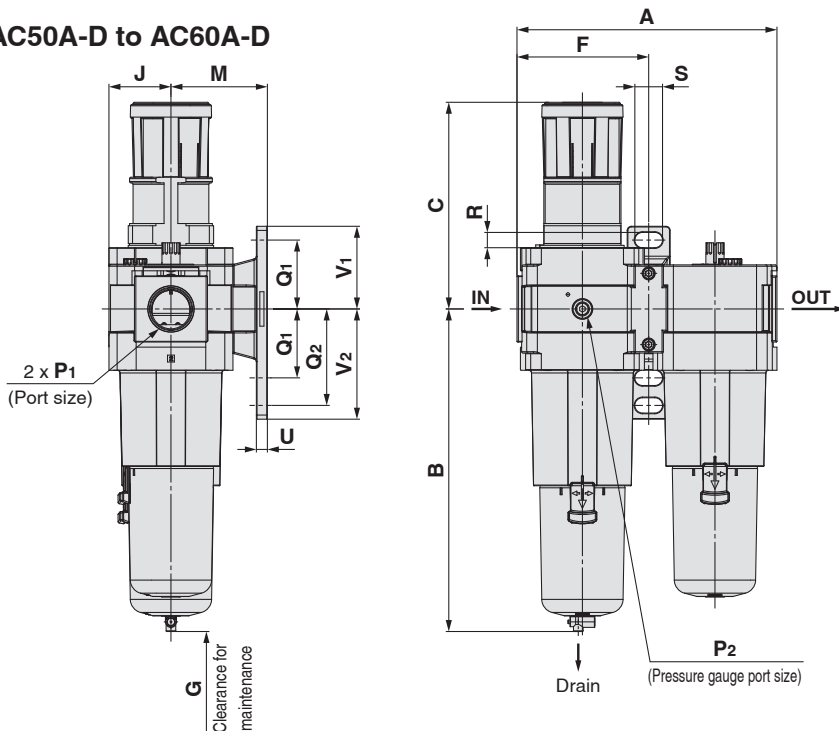
AC30A-D



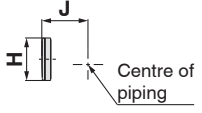
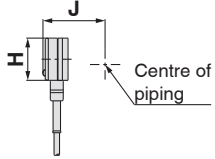
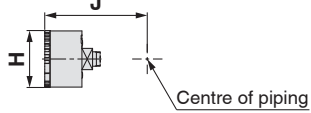
AC40A-D to AC40-06-D

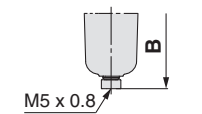
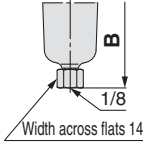
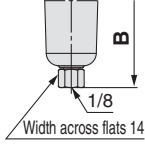
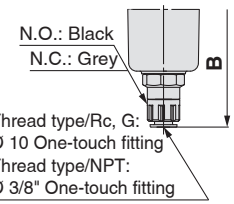
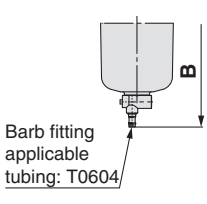
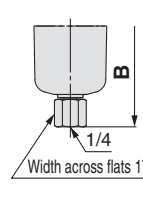
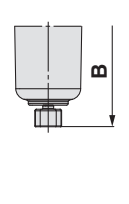
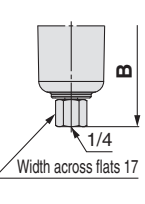
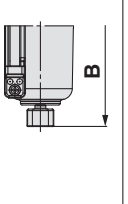
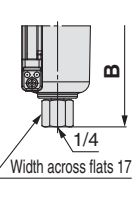


AC50A-D to AC60A-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20A-D to AC60A-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20A-D							
AC30A-D to AC60A-D	<p>N.O.: Black N.C.: Grey</p> <p>Thread type/Rc, G: O 10 One-touch fitting Thread type/NPT: O 3/8" One-touch fitting</p> 	<p>Barb fitting applicable tubing: T0604</p> 					

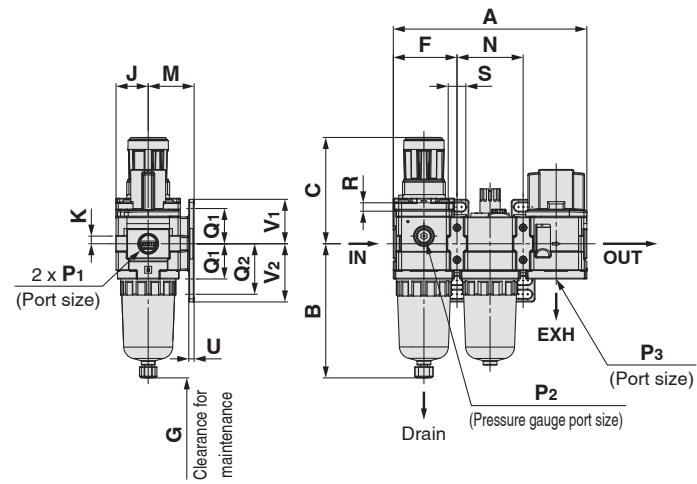
Model	Standard specifications																	
	P ₁	P ₂	A	B	C	E	F	G	J	K	Bracket mount							
											M	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20A-D	1/8, 1/4	1/8	83.2	87.6	71.8	—	41.6	60	21	5	30	24	33	5.5	11.5	3.5	29	38
AC30A-D	1/4, 3/8	1/8	110.2	115.3	86.5	30	55.1	80	26.5	3.5	41	35	—	7	14	6	42.5	42.5
AC40A-D	1/4, 3/8, 1/2	1/8	145.2	147.1	91.5	38.4	72.6	110	35.5	—	50	40	55	9	18	7	50	65
AC40A-06-D	3/4	1/8	155.2	149.1	93	38.4	77.6	110	35.5	—	50	40	55	9	18	7	50	65
AC50A-D	3/4, 1	1/8	191.2	234.1	155	—	98.1	110	45	—	70	50	70	11	20	8	60	80
AC60A-D	1	1/8	196.2	234.1	155	—	98.1	110	45	—	70	50	70	11	20	8	60	80

Model	Optional specifications										Semi-standard specifications							
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge		
	H	J	H	J	H	J	H	J	H	J		B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
AC20A-D	□28	27	□27.8	37.5	○ 37.5	57.5	○ 37.5	58.5	○ 37.5	58.5	104.9	—	91.4	87.4	93.9	—	—	
AC30A-D	□28	32.5	□27.8	43	○ 37.5	63	○ 37.5	64	○ 37.5	64	157.1	123.9	122.2	117.8	122.3	137.8	142.3	
AC40A-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	186.9	155.6	153.9	149.5	154	169.5	174	
AC40A-06-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176	
AC50A-D	□28	51	□27.8	61.5	○ 42.5	82.5	○ 42.5	82.5	○ 42.5	82.5	273.9	242.6	240.9	236.5	241	256.5	261	
AC60A-D	□28	51	□27.8	61.5	○ 42.5	82.5	○ 42.5	82.5	○ 42.5	82.5	273.9	242.6	240.9	236.5	241	256.5	261	

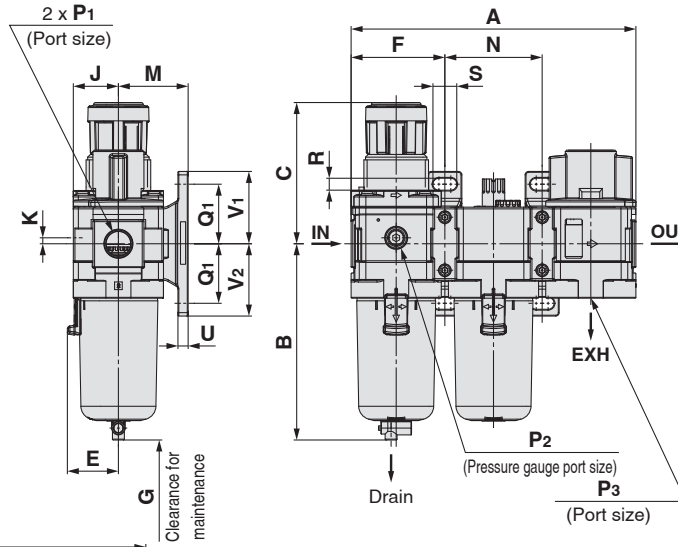
AC20A-D to AC60A-D Series

Dimensions: With Pressure Relief 3-Port Valve (V)

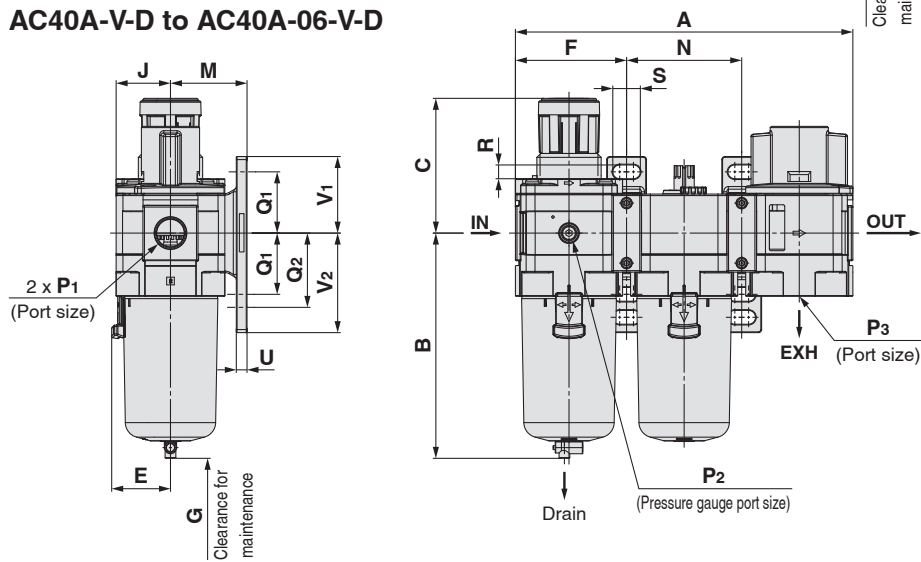
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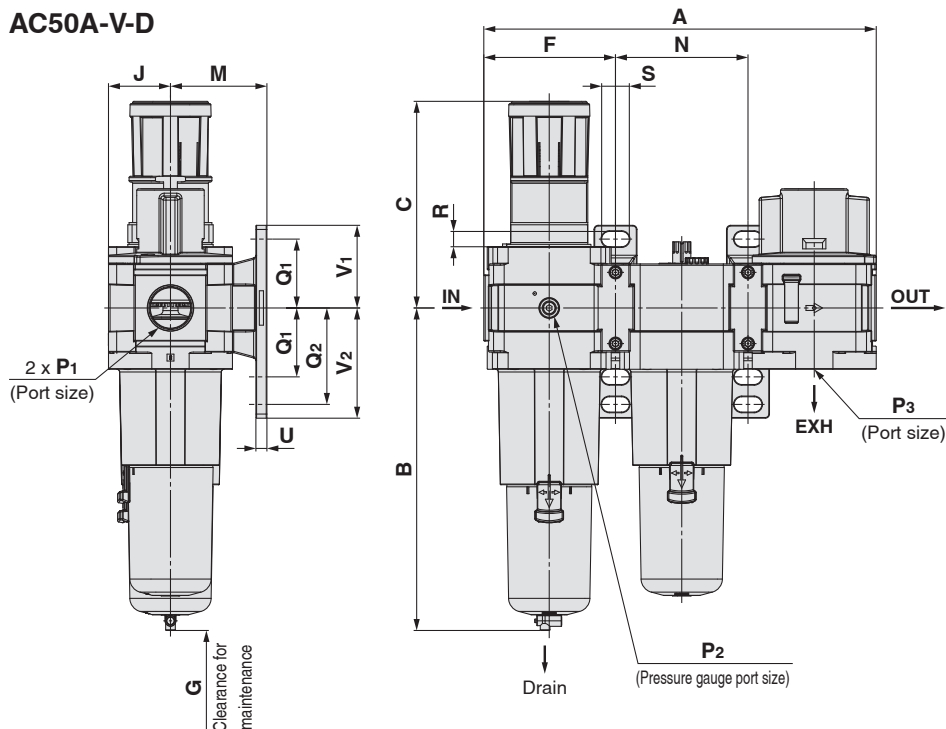
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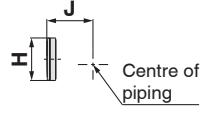
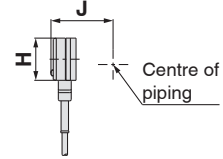
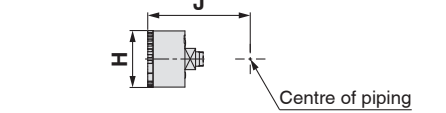
AC40A-V-D to AC40A-06-V-D

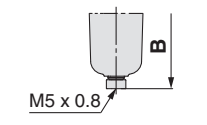
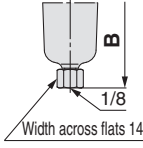
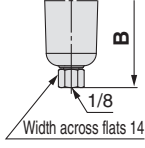
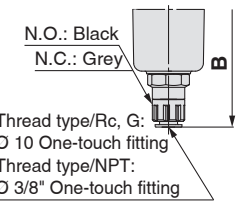
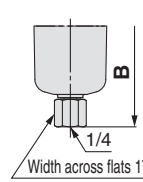
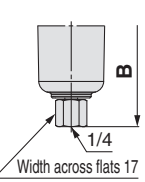
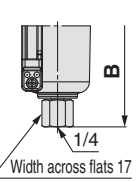


AC50A-V-D



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

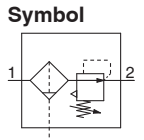
Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20A-V-D to AC50A-V-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20A-V-D							
AC30A-V-D to AC50A-V-D	N.O.: Black N.C.: Grey Thread type/Rc, G: O 10 One-touch fitting Thread type/NPT: O 3/8" One-touch fitting						

Model	Standard specifications																			
	P ₁	P ₂	P ₃	A	B	C	E	F	G	J	K	M	N	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20A-V-D	1/8, 1/4	1/8	1/8	126.4	87.6	71.8	—	41.6	60	21	5	30	43.2	24	33	5.5	11.5	3.5	29	38
AC30A-V-D	1/4, 3/8	1/8	1/4	167.4	115.3	86.5	30	55.1	80	26.5	3.5	41	57.2	35	—	7	14	6	42.5	42.5
AC40A-V-D	1/4, 3/8, 1/2	1/8	3/8	220.4	147.1	91.5	38.4	72.6	110	35.5	—	50	75.2	40	55	9	18	7	50	65
AC40A-06-V-D	3/4	1/8	1/2	235.4	149.1	93	38.4	77.6	110	35.5	—	50	80.2	40	55	9	18	7	50	65
AC50A-V-D	3/4, 1	1/8	1/2	287.4	234.1	155	—	98.1	110	45	—	70	96.2	50	70	11	20	8	60	80

Model	Optional specifications										Semi-standard specifications								
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge			
	H	J	H	J	H	J	H	J	H	J	B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide		
AC20A-V-D	□28	27	□27.8	37.5	○ 37.5	57.5	○ 37.5	58.5	○ 37.5	58.5	104.9	—	B	B	B	B	B	—	—
AC30A-V-D	□28	32.5	□27.8	43	○ 37.5	63	○ 37.5	64	○ 37.5	64	157.1	123.9	122.2	117.8	122.3	137.8	142.3		
AC40A-V-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	186.9	155.6	153.9	149.5	154	169.5	174		
AC40A-06-V-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176		
AC50A-V-D	□28	51	□27.8	61.5	○ 42.5	82.5	○ 42.5	82.5	○ 42.5	82.5	273.9	242.6	240.9	236.5	241	256.5	261		

AC20B-D to AC60B-D



How to Order

AC **30** B - **03** DE - **DE** - **03** - **03** - 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	—	Rc	●	●	●	●	●			
	N*1	NPT	●	●	●	●	●			
	F*2	G	●	●	●	●	●			
+										
③	01	1/8	●	—	—	—	—			
	02	1/4	●	●	●	—	—			
	03	3/8	—	●	●	—	—			
	04	1/2	—	—	●	—	—			
	06	3/4	—	—	●	●	—			
	10	1	—	—	—	●	●			
+										
④	a	—	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	—	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 colour 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	—	Without attachment		●	●	●	●	●	
		V	Mounting position: AF + AR + V		●	●	●	●	—	
		V1*7	Mounting position: V + AF + AR□K		●	●	●	●	—	
+										
⑥	d	—	0.05 to 0.85 MPa setting		●	●	●	●	●	
		1	0.02 to 0.2 MPa setting		●	●	●	●	●	
	+									
	e	Bowl*9	—	Polycarbonate bowl		●	●	●	●	●
			2	Metal bowl		●	●	●	●	●
			6	Nylon bowl		●	●	●	●	●
			8	Metal bowl with level gauge		—	●	●	●	●
			C	With bowl guard		●	—*10	—*10	—*10	—*10
			6C	With bowl guard (Nylon bowl)		●	—*11	—*11	—*11	—*11
	+									
	f	Air filter drain port*12	—	With drain cock		●	●	●	●	●
			J*13	Drain guide 1/8		●	—	—	—	—
			J*13	Drain guide 1/4		—	●	●	●	●
			W*14	Drain cock with barb fitting (for Ø 6 x Ø 4 nylon tube)		—	●	●	●	●
	+									
	g	Exhaust mechanism	—	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	—	Flow direction: Left to right	●	●	●	●	●
		R	Flow direction: Right to left	●	●	●	●	●
	+							
	i	Unit	—	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 O 3/8" 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 colour 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

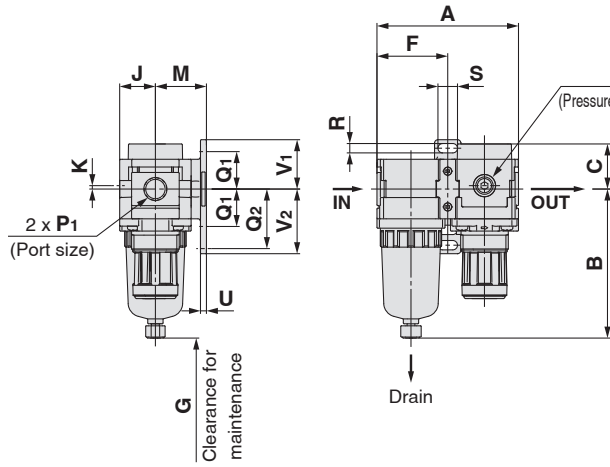
Model		AC20B-D	AC30B-D	AC40B-D	AC40B-06-D	AC50B-D	AC60B-D
Component	Air Filter [AF]	AF20-D	AF30-D	AF40-D	AF40-06-D	AF50-D	AF60-D
	Regulator [AR]	AR20-D	AR30-D	AR40-D	AR40-06-D	AR50-D	AR60-D
Port size		1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1
Pressure gauge port size*1 [AR]		1/8					
Fluid		Air					
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 : 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 quality class on the inlet side is [7 : 4 : 4].

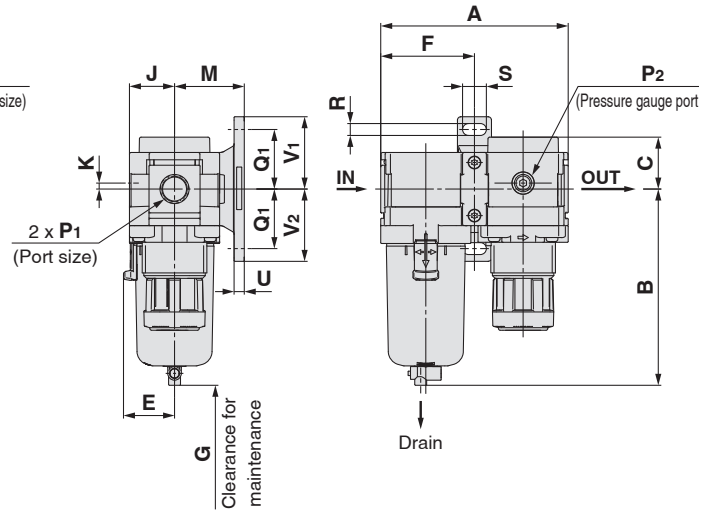
AC20B-D to AC60B-D Series

Dimensions

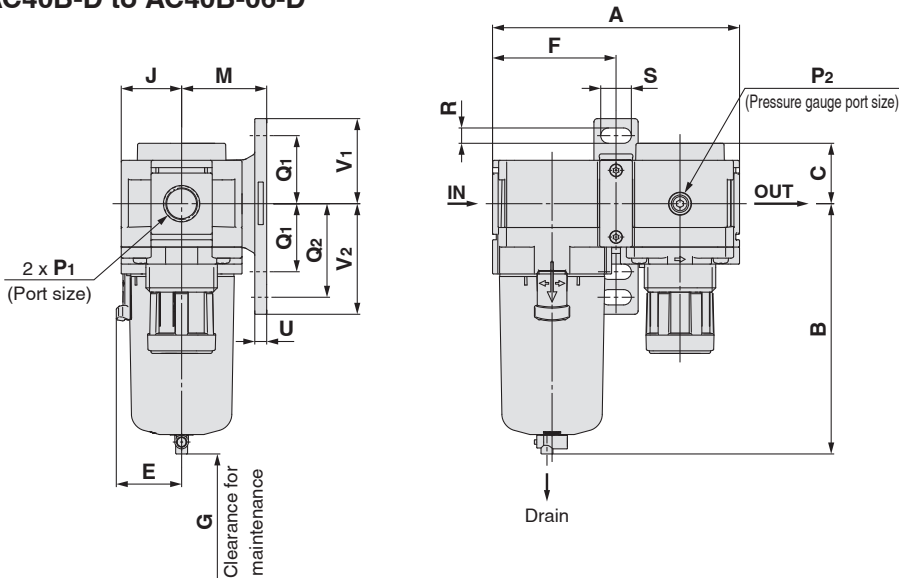
AC20B-D



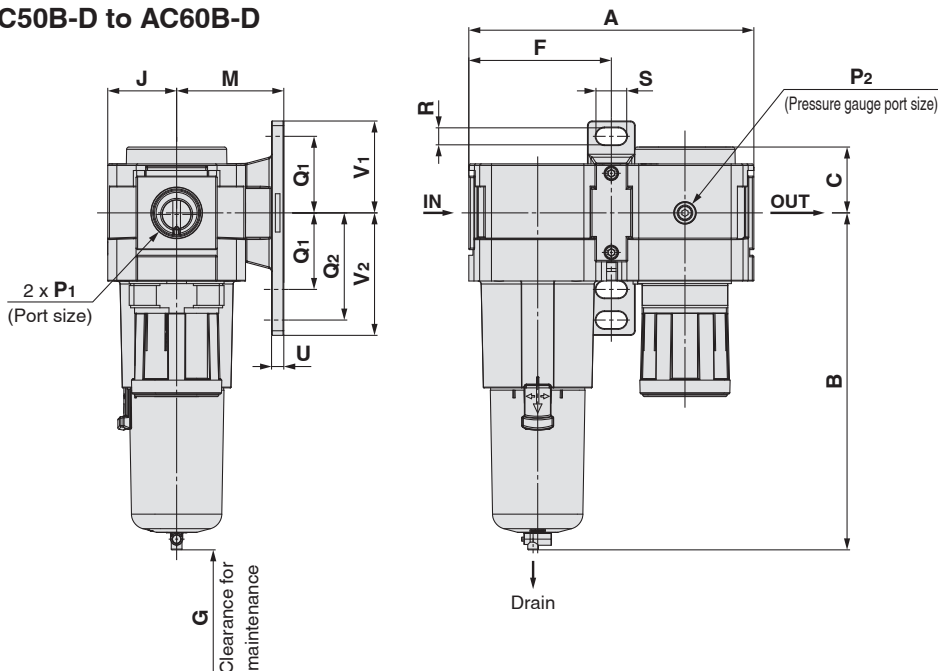
AC30B-D



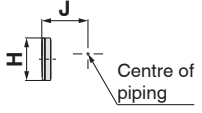
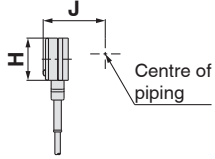
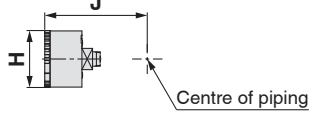
AC40B-D to AC40B-06-D

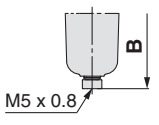
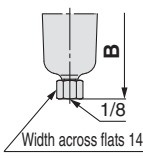
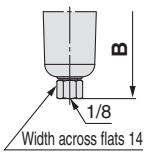
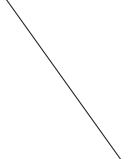
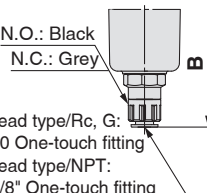
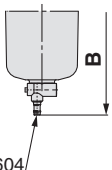
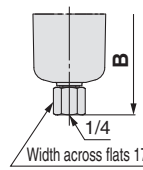
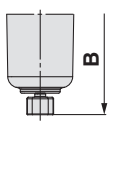
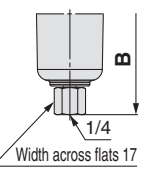
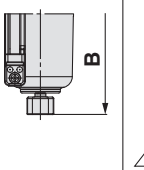
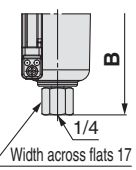


AC50B-D to AC60B-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20B-D to AC60B-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20B-D							
AC30B-D to AC60B-D	<p>N.O.: Black N.C.: Grey</p> <p>Thread type/Rc, G: O 10 One-touch fitting Thread type/NPT: O 3/8" One-touch fitting</p> 	<p>Barb fitting applicable tubing: T0604</p> 					

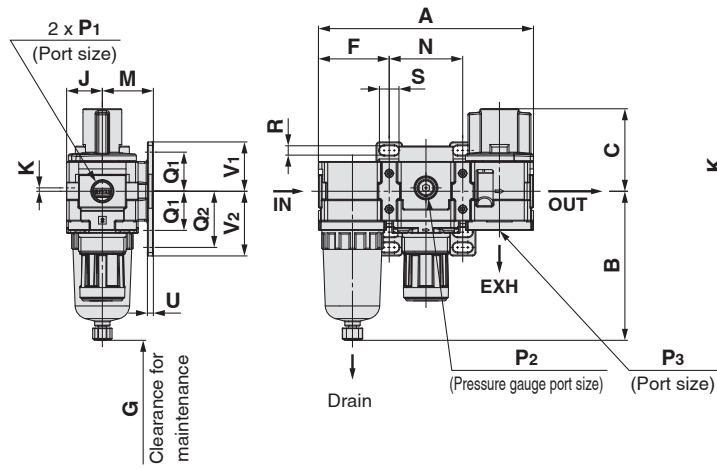
Model	Standard specifications																	
	P ₁	P ₂	A	B	C	E	F	G	J	K	Bracket mount							
											M	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20B-D	1/8, 1/4	1/8	83.2	87.6	26.5	—	41.6	25	21	2	30	24	33	5.5	11.5	3.5	29	38
AC30B-D	1/4, 3/8	1/8	110.2	115.4	30.5	30	55.1	35	26.5	3.5	41	35	—	7	14	6	42.5	42.5
AC40B-D	1/4, 3/8, 1/2	1/8	145.2	147.1	35.5	38.4	72.6	40	35.5	—	50	40	55	9	18	7	50	65
AC40B-06-D	3/4	1/8	155.2	149.1	35.5	38.4	77.6	40	35.5	—	50	40	55	9	18	7	50	65
AC50B-D	3/4, 1	1/8	186.2	220.1	43	—	93.1	30	45	—	70	50	70	11	20	8	60	80
AC60B-D	1	1/8	196.2	234.1	45	—	98.1	30	45	—	70	50	70	11	20	8	60	80

Model	Optional specifications										Semi-standard specifications						
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
	H	J	H	J	H	J	H	J	H	J		B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock
													B	B	B	B	B
AC20B-D	□28	27	□27.8	37.5	○ 37.5	57.5	○ 37.5	58.5	○ 37.5	58.5	104.9	—	91.4	87.4	93.9	—	—
AC30B-D	□28	32.5	□27.8	43	○ 37.5	63	○ 37.5	64	○ 37.5	64	157.1	123.9	122.2	117.8	122.3	137.8	142.3
AC40B-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	186.9	155.6	153.9	149.5	154	169.5	174
AC40B-06-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176
AC50B-D	□28	51	□27.8	61.5	○ 42.5	82.5	○ 42.5	82.5	○ 42.5	82.5	259.9	228.6	226.9	222.5	227	242.5	247
AC60B-D	□28	51	□27.8	61.5	○ 42.5	82.5	○ 42.5	82.5	○ 42.5	82.5	273.9	242.6	240.9	236.5	241	256.5	261

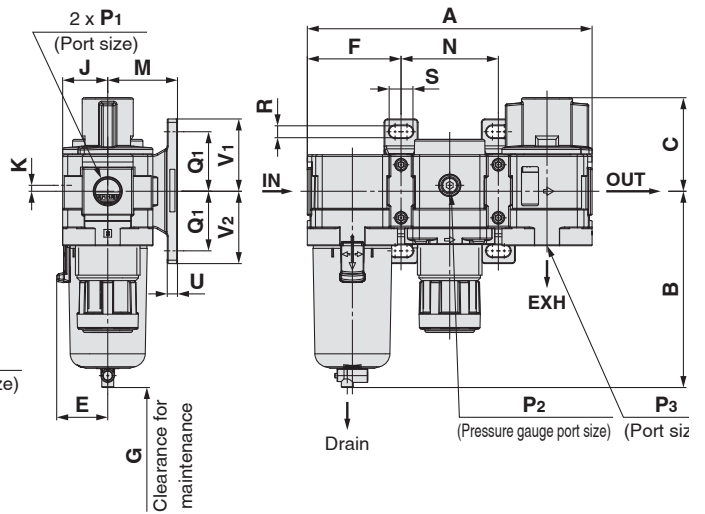
AC20B-D to AC60B-D Series

Dimensions: With Pressure Relief 3-Port Valve (V)

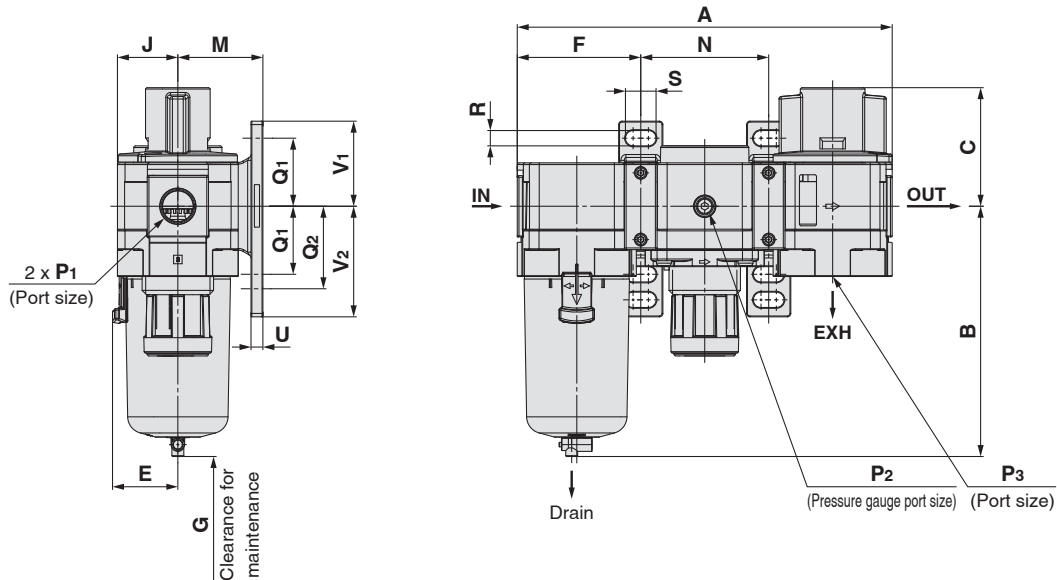
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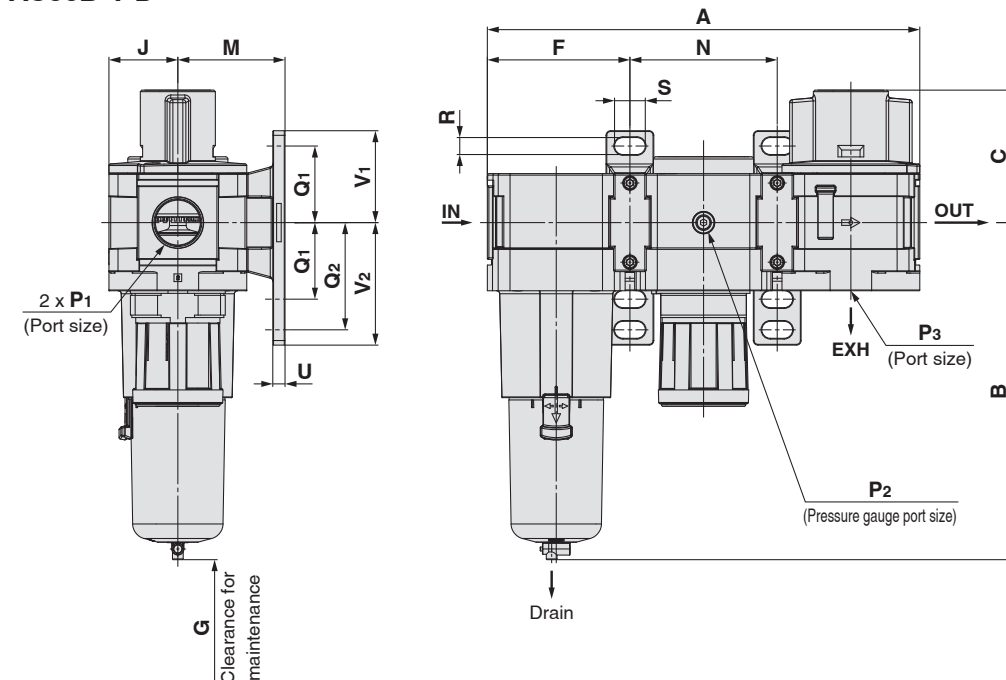
AC30B-V-D



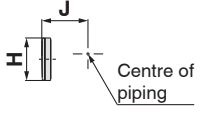
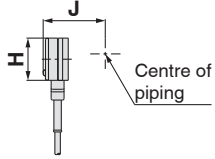
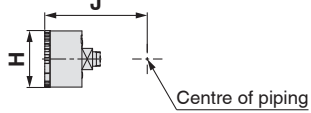
AC40B-V-D to AC40B-06-V-D

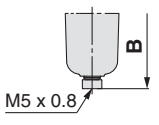
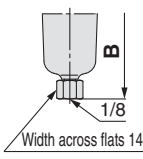
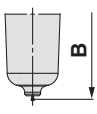
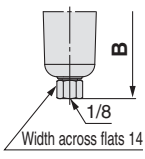
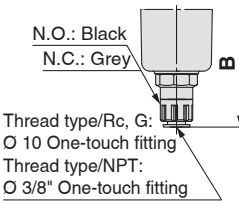
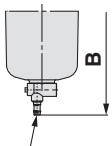
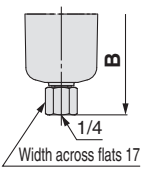
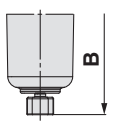
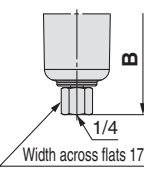
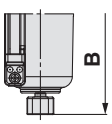
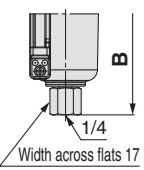


AC50B-V-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20B-V-D to AC50B-V-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20B-V-D							
AC30B-V-D to AC50B-V-D							

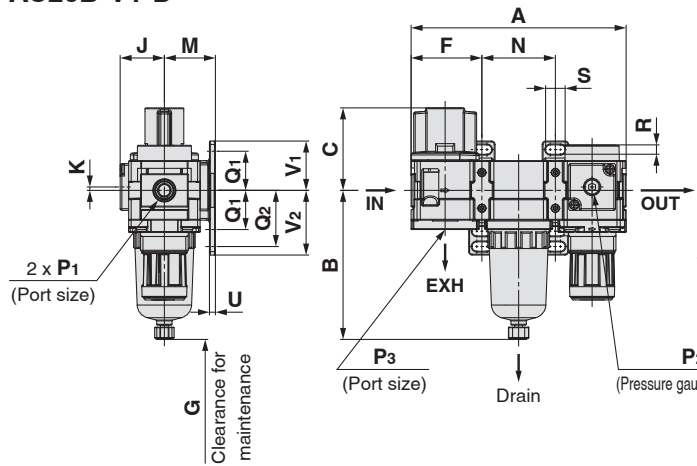
Model	Standard specifications																			
	P ₁	P ₂	P ₃	A	B	C	E	F	G	J	K	M	N	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20B-V-D	1/8, 1/4	1/8	1/8	126.4	87.6	48.5	—	41.6	25	21	2	30	43.2	24	33	5.5	11.5	3.5	29	38
AC30B-V-D	1/4, 3/8	1/8	1/4	167.4	115.4	55	30	55.1	35	26.5	3.5	41	57.2	35	—	7	14	6	42.5	42.5
AC40B-V-D	1/4, 3/8, 1/2	1/8	3/8	220.4	147.1	69.7	38.4	72.6	40	35.5	—	50	75.2	40	55	9	18	7	50	65
AC40B-06-V-D	3/4	1/8	1/2	235.4	149.1	71.7	38.4	77.6	40	35.5	—	50	80.2	40	55	9	18	7	50	65
AC50B-V-D	3/4, 1	1/8	1/2	282.4	220.1	86.5	—	93.1	30	45	—	70	96.2	50	70	11	20	8	60	80

Model	Optional specifications										Semi-standard specifications						
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
	H	J	H	J	H	J	H	J	H	J	B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20B-V-D	□28	27	□27.8	37.5	○ 37.5	57.5	○ 37.5	58.5	○ 37.5	58.5	104.9	—	91.4	87.4	93.9	—	—
AC30B-V-D	□28	32.5	□27.8	43	○ 37.5	63	○ 37.5	64	○ 37.5	64	157.1	123.9	122.2	117.8	122.3	137.8	142.3
AC40B-V-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	186.9	155.6	153.9	149.5	154	169.5	174
AC40B-06-V-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176
AC50B-V-D	□28	51	□27.8	61.5	○ 42.5	82.5	○ 42.5	82.5	○ 42.5	82.5	259.9	228.6	226.9	222.5	227	242.5	247

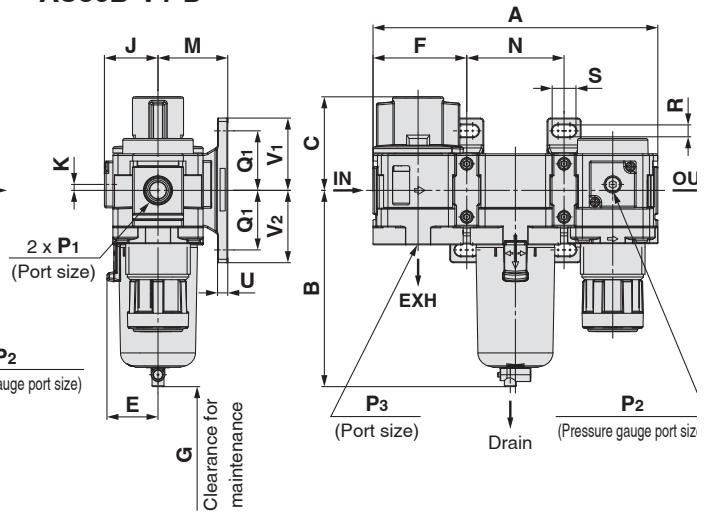
AC20B-D to AC60B-D Series

Dimensions: With Pressure Relief 3-Port Valve (V1)

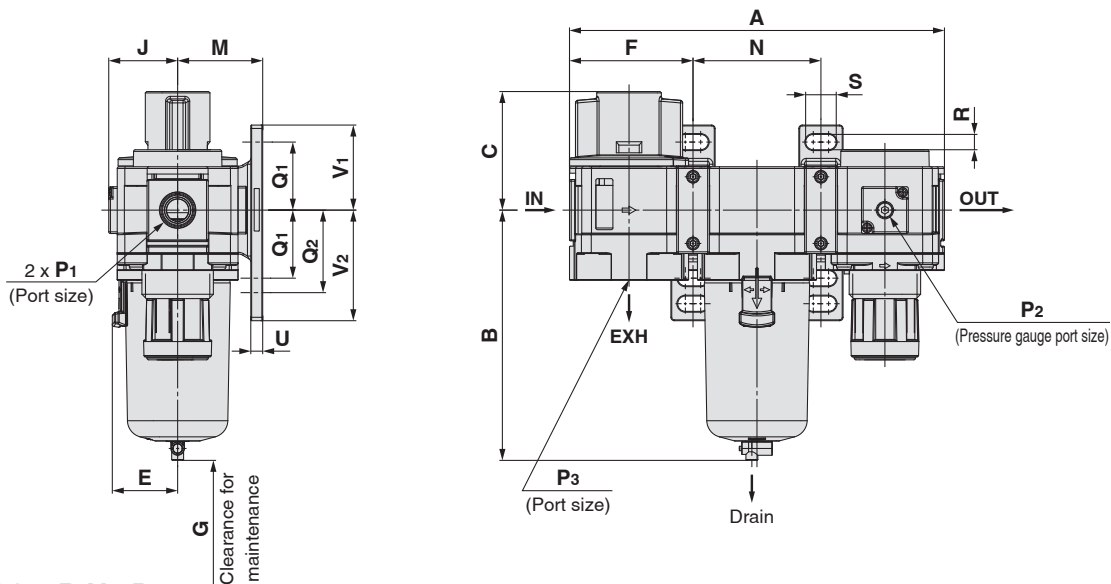
AC20B-V1-D



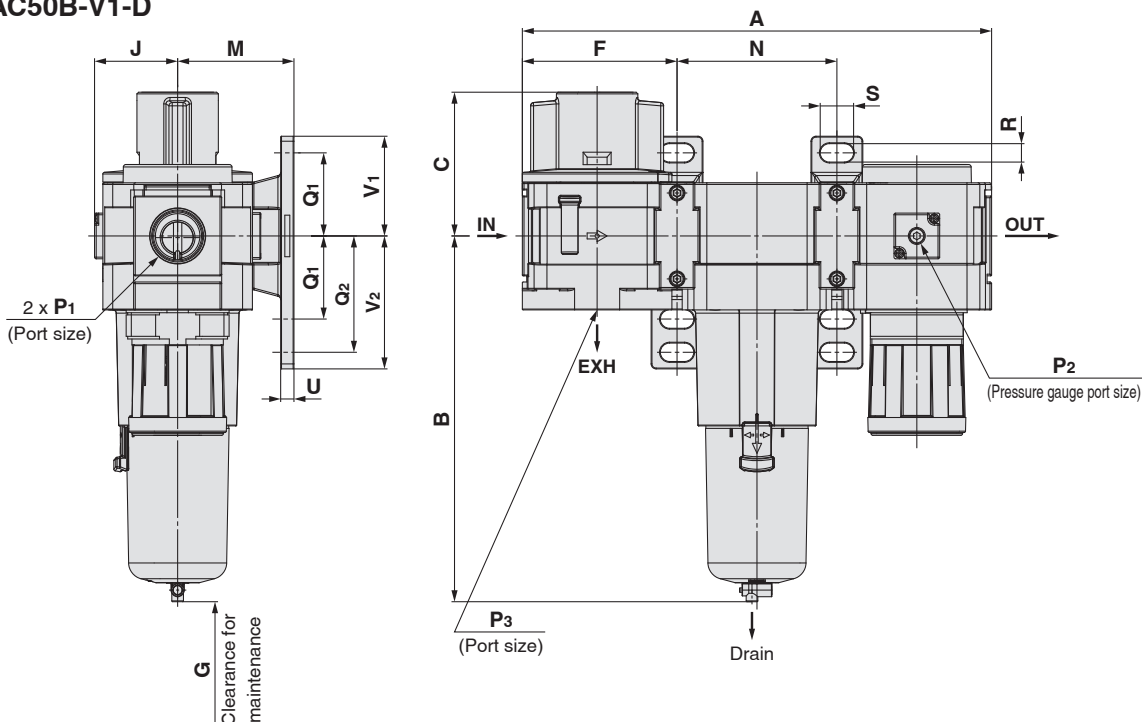
AC30B-V1-D



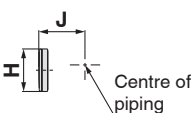
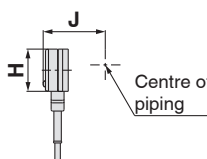
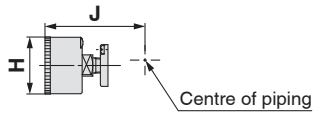
AC40B-V1-D to AC40B-06-V1-D

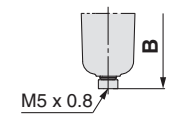
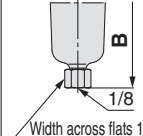
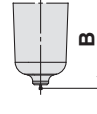
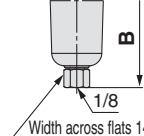
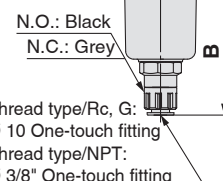
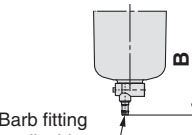
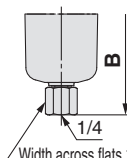
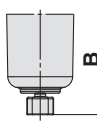
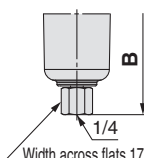
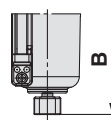
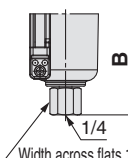


AC50B-V1-D



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

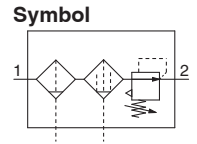
Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20B-V1-D to AC50B-V1-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20B-V1-D		/				/	/
AC30B-V1-D to AC50B-V1-D	<p>N.O.: Black N.C.: Grey</p> 						

Model	Standard specifications																			
												Bracket mount								
	P ₁	P ₂	P ₃	A	B	C	E	F	G	J	K	M	N	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20B-V1-D	1/8, 1/4	1/8	1/8	126.4	87.6	48.5	—	41.6	25	26	2	30	43.2	24	33	5.5	11.5	3.5	29	38
AC30B-V1-D	1/4, 3/8	1/8	1/4	167.4	115.4	55	30	55.1	35	31.5	3.5	41	57.2	35	—	7	14	6	42.5	42.5
AC40B-V1-D	1/4, 3/8, 1/2	1/8	3/8	220.4	147.1	69.7	38.4	72.6	40	40.5	—	50	75.2	40	55	9	18	7	50	65
AC40B-06-V1-D	3/4	1/8	1/2	235.4	149.1	71.7	38.4	77.6	40	40.5	—	50	80.2	40	55	9	18	7	50	65
AC50B-V1-D	3/4, 1	1/8	1/2	282.4	220.1	86.5	—	93.1	30	50	—	70	96.2	50	70	11	20	8	60	80

Model	Optional specifications											Semi-standard specifications					
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
	H	J	H	J	H	J	H	J	H	J	B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
AC20B-V1-D	□28	27	□27.8	37.5	○ 37.5	62.5	○ 37.5	63.5	○ 37.5	63.5	104.9	—	91.4	87.4	93.9	—	—
AC30B-V1-D	□28	32.5	□27.8	43	○ 37.5	68	○ 37.5	69	○ 37.5	69	157.1	123.9	122.2	117.8	122.3	137.8	142.3
AC40B-V1-D	□28	41.5	□27.8	52	○ 42.5	78	○ 42.5	78	○ 42.5	78	186.9	155.6	153.9	149.5	154	169.5	174
AC40B-06-V1-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176
AC50B-V1-D	□28	51	□27.8	61.5	○ 42.5	82.5	○ 42.5	82.5	○ 42.5	82.5	259.9	228.6	226.9	222.5	227	242.5	247

AC20C-D to AC40C-D



How to Order

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

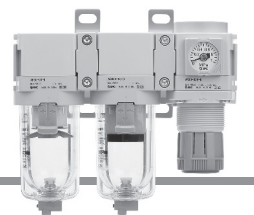
①
②
③
④
⑤
⑥

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	—	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	—	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	—	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 colour 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	—	Without attachment	●	●	●
			V	Mounting position: AF + AFM + AR + V	●	●	●
			V1*7	Mounting position: V + AF + AFM + AR□K	●	●	●
+							
⑥	d	Set pressure*8	—	0.05 to 0.85 MPa setting	●	●	●
			1	0.02 to 0.2 MPa setting	●	●	●
	+						
	e	Bowl*9	—	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	—	With drain cock	●	●	●
			J*13	Drain guide 1/8	●	—	—
				Drain guide 1/4	—	●	●
			W*14	Drain cock with barb fitting (for Ø 6 x Ø 4 nylon tube)	—	●	●
	+						
g	Exhaust mechanism	—	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: Left to right	●	●	●
		R	Flow direction: Right to left	●	●	●
			+			
	i	—	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	
ZA* ¹⁶		Digital pressure switch: With unit selection function	△* 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 \varnothing 3/8" 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 colour 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

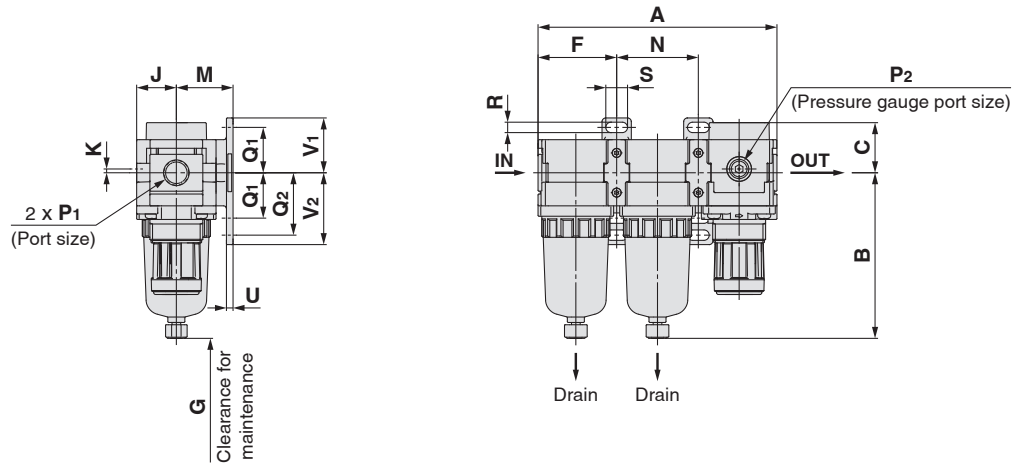
Model		AC20C-D	AC30C-D	AC40C-D	AC40C-06-D
Component	Air Filter [AF]	AF20-D	AF30-D	AF40-D	AF40-06-D
	Mist Separator [AFM]	AFM20-D	AFM30-D	AFM40-D	AFM40-06-D
	Regulator [AR]	AR20-D	AR30-D	AR40-D	AR40-06-D
Port size		1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4
Pressure gauge port size* ¹ [AR]		1/8			
Fluid		Air			
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			
	[AFM]	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].

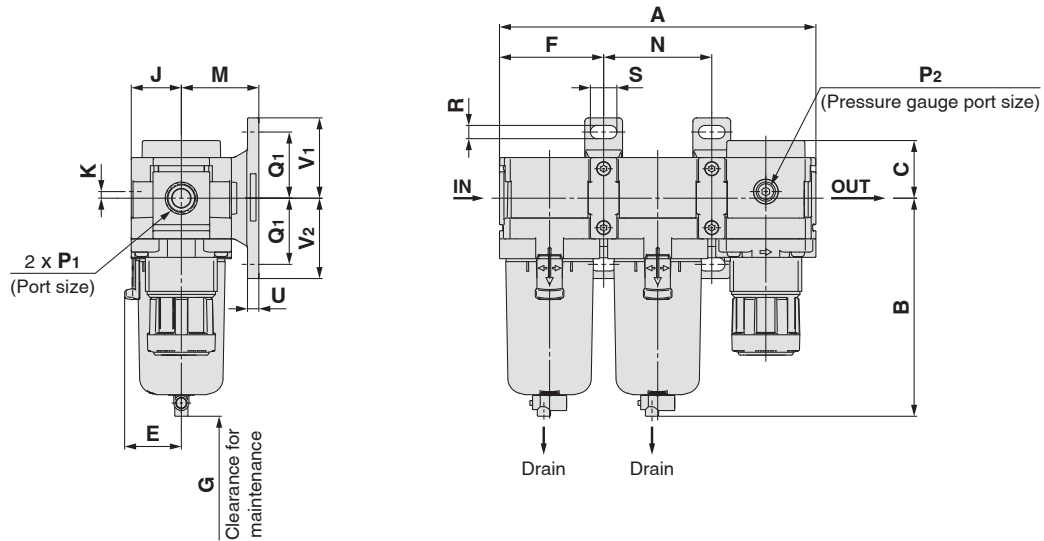
AC20C-D to AC40C-D Series

Dimensions

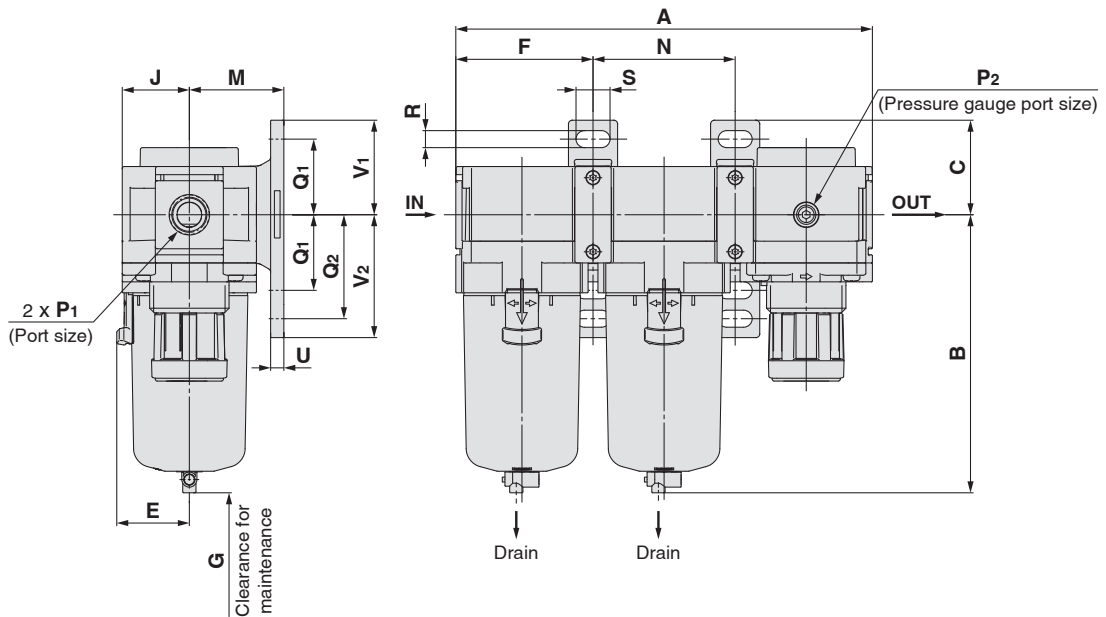
AC20C-D



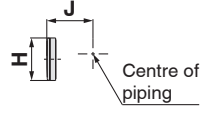
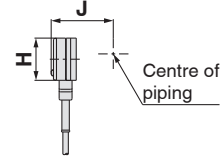
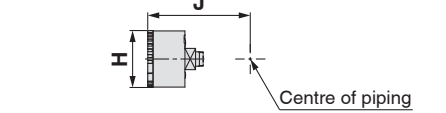
AC30C-D

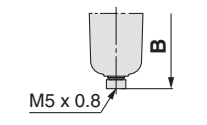
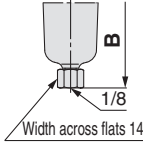
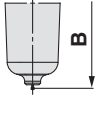
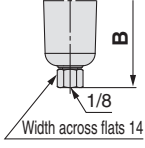
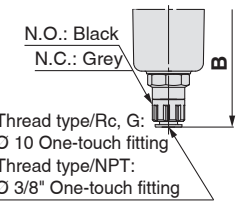
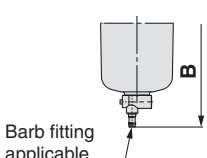
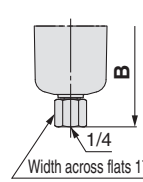
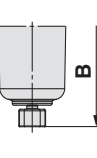
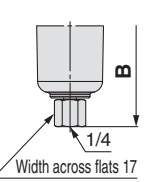
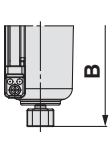
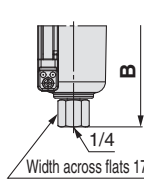


AC40C-D to AC40C-06-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20C-D to AC40C-06-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20C-D		/				/	/
AC30C-D to AC40C-06-D	<p>N.O.: Black N.C.: Grey</p> 	<p>Barb fitting applicable tubing: T0604</p> 					

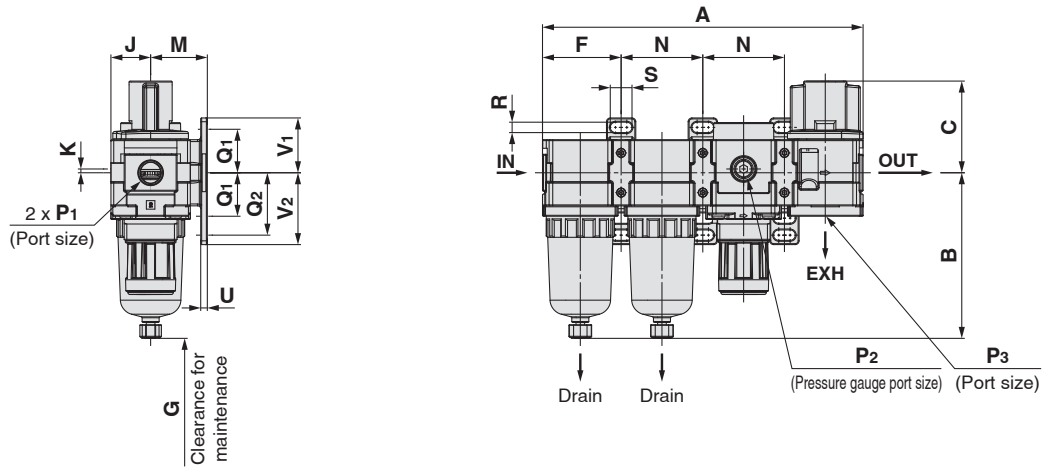
Model	Standard specifications																		
											Bracket mount								
	P ₁	P ₂	A	B	C	E	F	G	J	K	M	N	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20C-D	1/8, 1/4	1/8	126.4	87.6	26.5	—	41.6	45	21	2	30	43.2	24	33	5.5	11.5	3.5	29	38
AC30C-D	1/4, 3/8	1/8	167.4	115.4	30.5	30	55.1	50	26.5	3.5	41	57.2	35	—	7	14	6	42.5	42.5
AC40C-D	1/4, 3/8, 1/2	1/8	220.4	147.1	35.5	38.4	72.6	75	35.5	—	50	75.2	40	55	9	18	7	50	65
AC40C-06-D	3/4	1/8	235.4	149.1	35.5	38.4	77.6	75	35.5	—	50	80.2	40	55	9	18	7	50	65

Model	Optional specifications										Semi-standard specifications								
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge			
	H	J	H	J	H	J	H	J	H	J		B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide	
AC20C-D	□28	27	□27.8	37.5	○ 37.5	57.5	○ 37.5	58.5	○ 37.5	58.5	104.9	—	91.4	87.4	93.9	—	—		
AC30C-D	□28	32.5	□27.8	43	○ 37.5	63	○ 37.5	64	○ 37.5	64	157.1	123.9	122.2	117.8	122.3	137.8	142.3		
AC40C-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	186.9	155.6	153.9	149.5	154	169.5	174		
AC40C-06-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176		

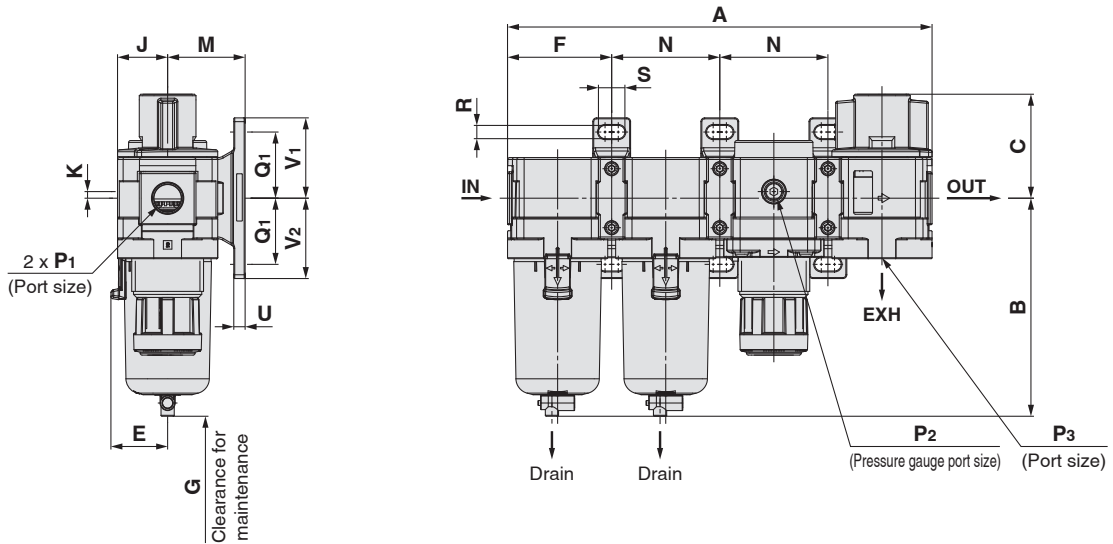
AC20C-D to AC40C-D Series

Dimensions: With Pressure Relief 3-Port Valve (V)

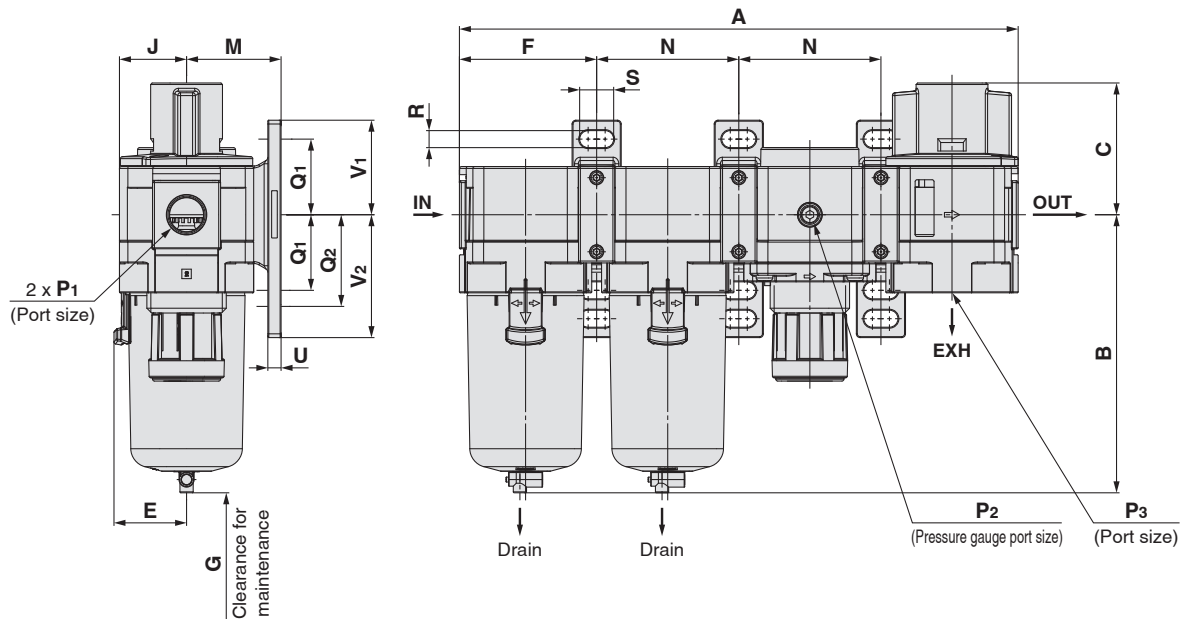
AC20C-V-D



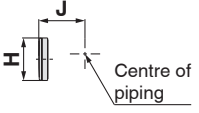
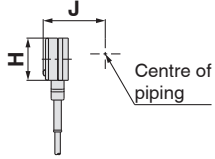
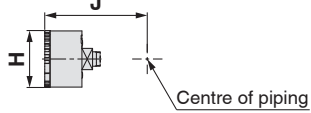
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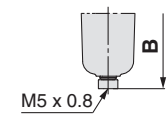
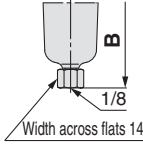
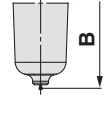
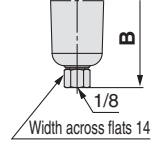
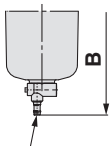
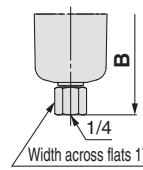
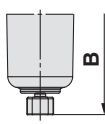
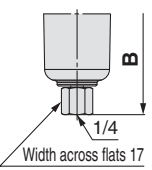
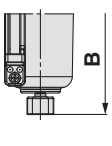
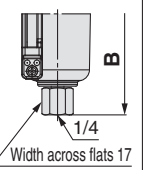


AC40C-V-D to AC40C-06-V-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20C-V-D to AC40C-06-V-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20C-V-D							
AC30C-V-D to AC40C-06-V-D	N.O.: Black N.C.: Grey Thread type/Rc, G: O 10 One-touch fitting Thread type/NPT: O 3/8" One-touch fitting						

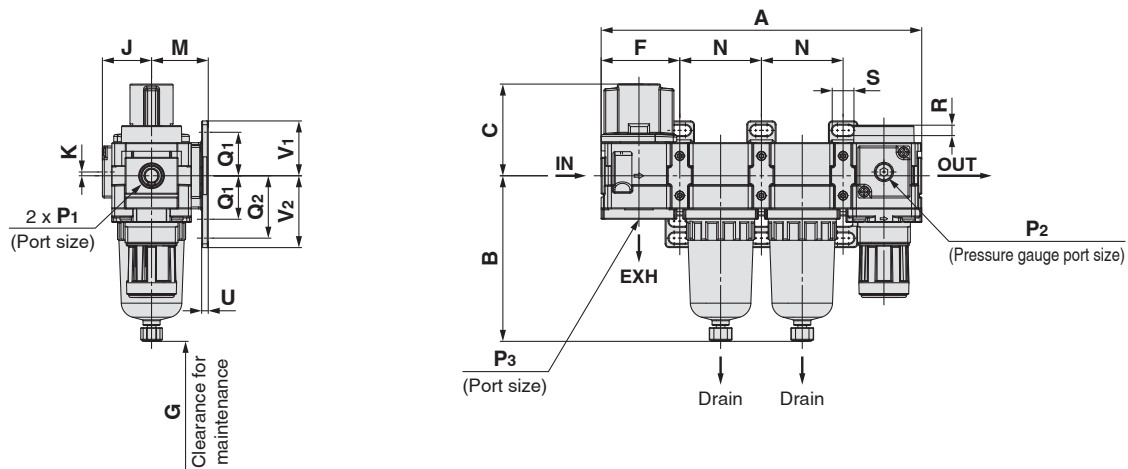
Model	Standard specifications																			
	P ₁	P ₂	P ₃	A	B	C	E	F	G	J	K	M	N	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20C-V-D	1/8, 1/4	1/8	1/8	169.6	87.6	48.5	—	41.6	40	21	2	30	43.2	24	33	5.5	11.5	3.5	29	38
AC30C-V-D	1/4, 3/8	1/8	1/4	224.6	115.4	55	30	55.1	50	26.5	3.5	41	57.2	35	—	7	14	6	42.5	42.5
AC40C-V-D	1/4, 3/8, 1/2	1/8	3/8	295.6	147.1	69.7	38.4	72.6	75	35.5	—	50	75.2	40	55	9	18	7	50	65
AC40C-06-V-D	3/4	1/8	1/2	315.6	149.1	71.7	38.4	77.6	75	35.5	—	50	80.2	40	55	9	18	7	50	65

Model	Optional specifications										Semi-standard specifications						
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
	H	J	H	J	H	J	H	J	H	J	B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20C-V-D	□28	27	□27.8	37.5	○ 37.5	57.5	○ 37.5	58.5	○ 37.5	58.5	104.9	—	91.4	87.4	93.9	—	—
AC30C-V-D	□28	32.5	□27.8	43	○ 37.5	63	○ 37.5	64	○ 37.5	64	157.1	123.9	122.2	117.8	122.3	137.8	142.3
AC40C-V-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	186.9	155.6	153.9	149.5	154	169.5	174
AC40C-06-V-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176

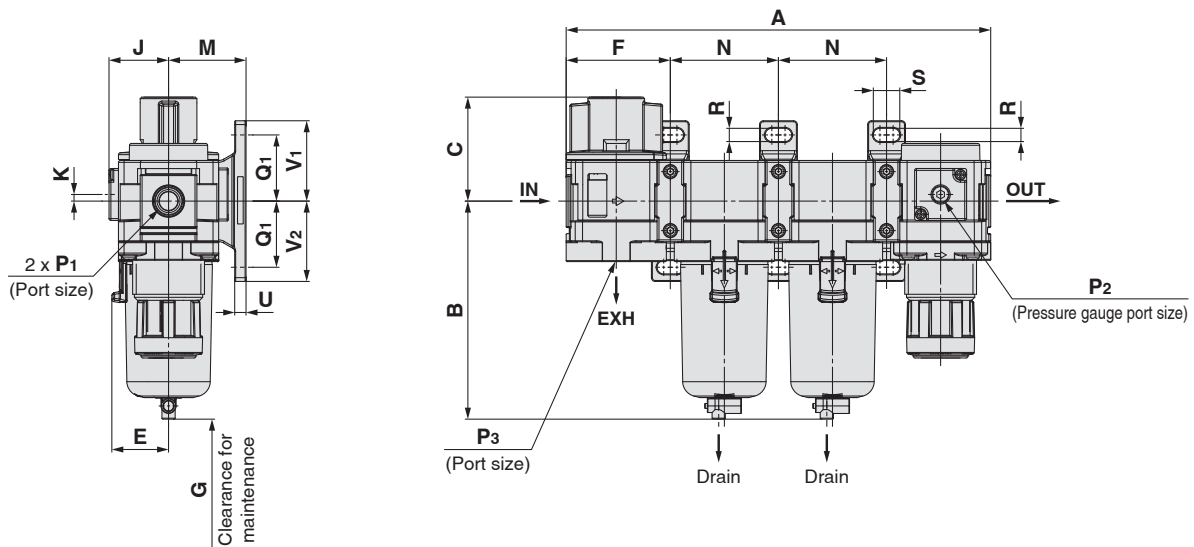
AC20C-D to AC40C-D Series

Dimensions: With Pressure Relief 3-Port Valve (V1)

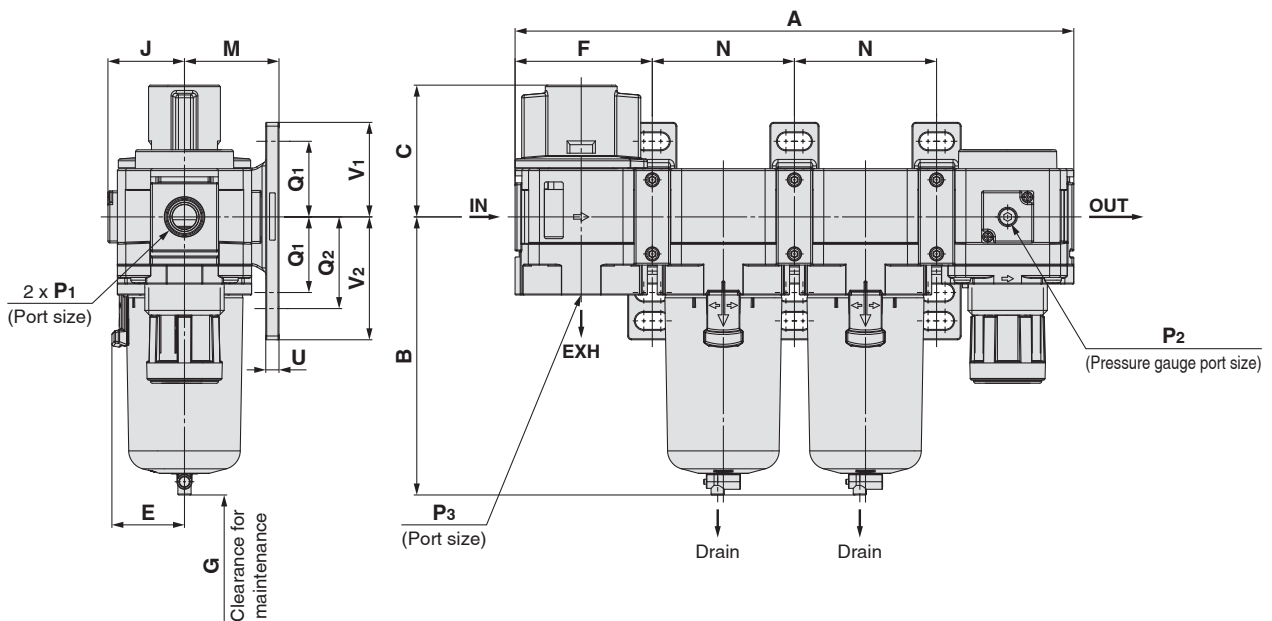
AC20C-V1-D



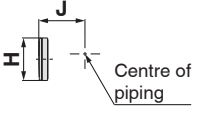
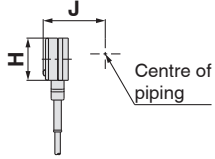
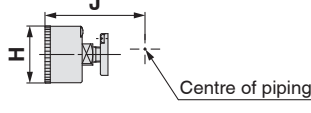
AC30C-V1-D

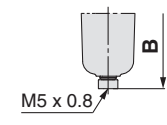
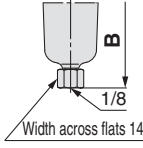
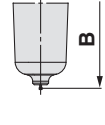
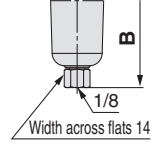
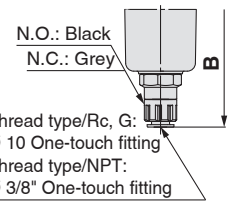
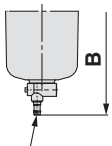
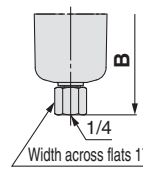
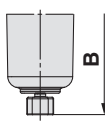
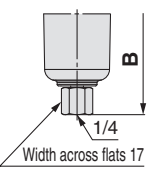
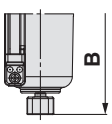
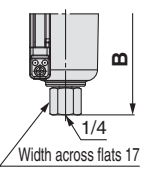


AC40C-V1-D to AC40C-06-V1-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20C-V1-D to AC40C-06-V1-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20C-V1-D							
AC30C-V1-D to AC40C-06-V1-D	<p>N.O.: Black N.C.: Grey</p>  <p>Thread type/Rc, G: O 10 One-touch fitting Thread type/NPT: O 3/8 One-touch fitting</p>						

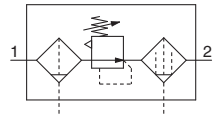
Model	Standard specifications																			
												Bracket mount								
	P ₁	P ₂	P ₃	A	B	C	E	F	G	J	K	M	N	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20C-V1-D	1/8, 1/4	1/8	1/8	169.6	87.6	48.5	—	41.6	40	26	2	30	43.2	24	33	5.5	11.5	3.5	29	38
AC30C-V1-D	1/4, 3/8	1/8	1/4	224.6	115.4	55	30	55.1	50	31.5	3.5	41	57.2	35	—	7	14	6	42.5	42.5
AC40C-V1-D	1/4, 3/8, 1/2	1/8	3/8	295.6	147.1	69.7	38.4	72.6	75	40.5	—	50	75.2	40	55	9	18	7	50	65
AC40C-06-V1-D	3/4	1/8	1/2	315.6	149.1	71.7	38.4	77.6	75	40.5	—	50	80.2	40	55	9	18	7	50	65

Model	Optional specifications											Semi-standard specifications					
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
	H	J	H	J	H	J	H	J	H	J	B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20C-V1-D	□28	27	□27.8	37.5	○ 37.5	62.5	○ 37.5	63.5	○ 37.5	63.5	104.9	—	91.4	87.4	93.9	—	—
AC30C-V1-D	□28	32.5	□27.8	43	○ 37.5	68	○ 37.5	69	○ 37.5	69	157.1	123.9	122.2	117.8	122.3	137.8	142.3
AC40C-V1-D	□28	41.5	□27.8	52	○ 42.5	78	○ 42.5	78	○ 42.5	78	186.9	155.6	153.9	149.5	154	169.5	174
AC40C-06-V1-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176

Filter Regulator + Mist Separator

AC20D-D to AC40D-D

Symbol



How to Order

AC **30** D - **03** DE - **03** - **03** - **03** - 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	—	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	—	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	—	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 colour 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	—	Without attachment	●	●	●
			V	Mounting position: AW + AFM + V	●	●	●
			V1* ⁷	Mounting position: V + AW□K + AFM	●	●	●
+							
⑥	d	Set pressure* ⁸	—	0.05 to 0.85 MPa setting	●	●	●
			1	0.02 to 0.2 MPa setting	●	●	●
	+						
	e	Bowl* ⁹	—	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	—	With drain cock	●	●	●
			J* ¹³	Drain guide 1/8	●	—	—
				Drain guide 1/4	—	●	●
			W* ¹⁴	Drain cock with barb fitting (for Ø 6 x Ø 4 nylon tube)	—	●	●
	+						
g	Exhaust mechanism	—	Relieving type	●	●	●	
		N	Non-relieving type	●	●	●	
+							
h	Flow direction	—	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	i	—	●	●	●
		Z*15	○*17	○*17	○*17
		ZA*16	△*18	△*18	△*18

- | | | |
|---|--|---|
| <p>*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 $\text{O } 3/8"$ One-touch fitting (applicable to the AC30D-D to AC40D-D).</p> <p>*2 Drain guide is G1/8 (applicable to the AC20D-D) and G1/4 (applicable to the AC30D-D to AC40D-D).</p> <p>*3 Options G and M are not assembled and supplied loose at the time of shipment.</p> <p>*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.</p> <p>*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.</p> | <p>*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.</p> <p>*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.</p> <p>*8 Pressure can be set higher than the specification pressure in some cases, but use pressure within the specification range.</p> <p>*9 Refer to chemical data on pages 91 and 129 for chemical resistance of the bowl.</p> <p>*10 A bowl guard is provided as standard equipment (polycarbonate).</p> <p>*11 A bowl guard is provided as standard equipment (nylon).</p> <p>*12 The combination of float type auto drain C and D is not available.</p> | <p>*13 Without a valve function</p> <p>*14 The combination of metal bowl 2 and 8 is not available.</p> <p>*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 colour zone). Available by request for special.
The digital pressure switch will be equipped with the unit selection function, setting to psi initially.</p> <p>*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.)</p> <p>*17 ○: For the pipe thread type: NPT only</p> <p>*18 △: Select with options: E1, E2, E3, E4.</p> |
|---|--|---|

Standard Specifications

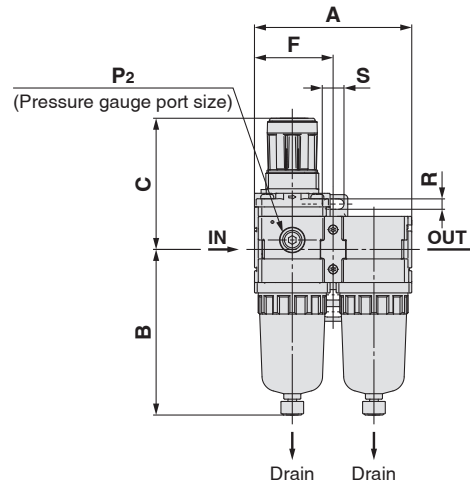
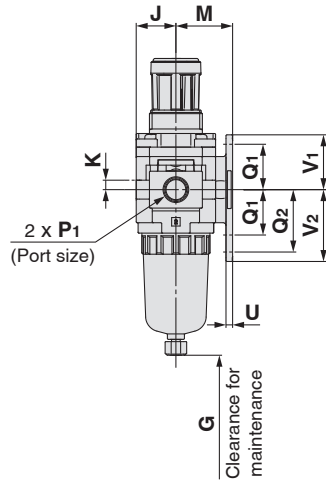
Model		AC20D-D	AC30D-D	AC40D-D	AC40D-06-D
Component	Filter Regulator [AW]	AW20-D	AW30-D	AW40-D	AW40-06-D
	Mist Separator [AFM]	AFM20-D	AFM30-D	AFM40-D	AFM40-06-D
Port size		1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4
Pressure gauge port size *1 [AW]		1/8			
Fluid		Air			
Ambient and fluid temperatures *2		-5 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 μm			
	[AFM]	0.3 μm (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].

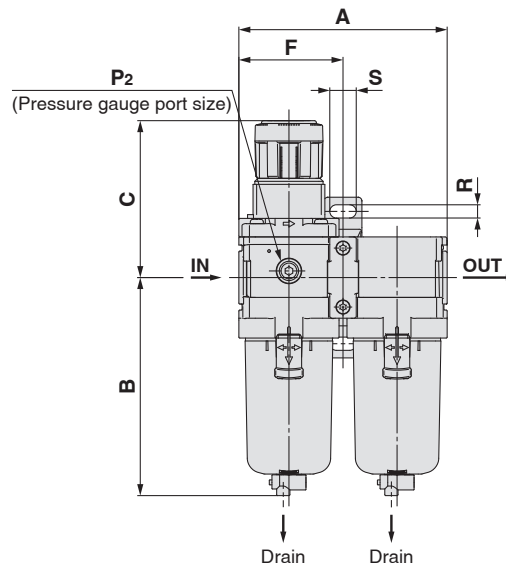
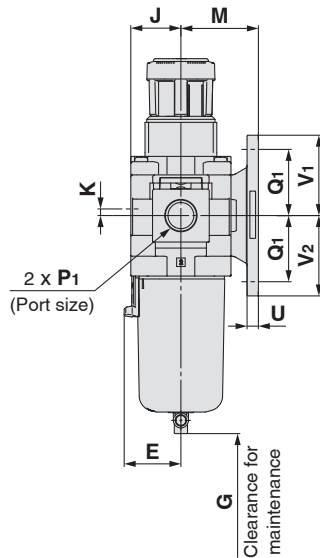
AC20D-D to AC40D-D Series

Dimensions

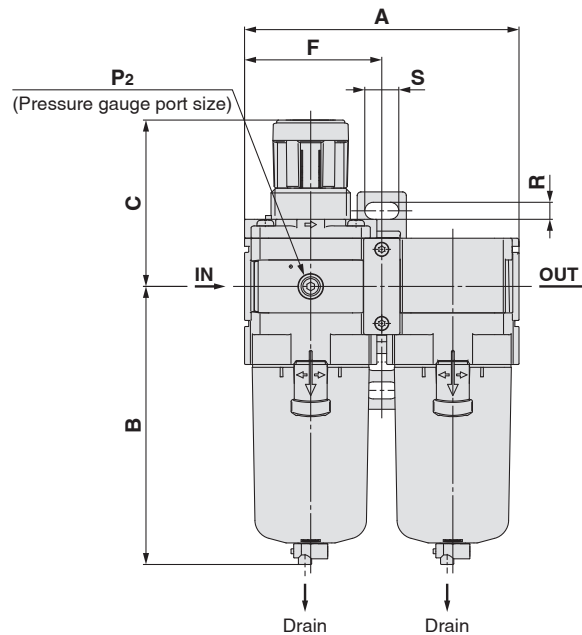
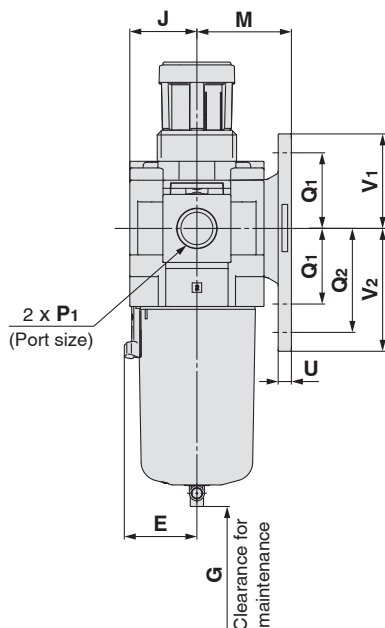
AC20D-D



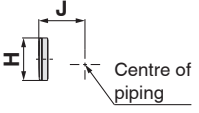
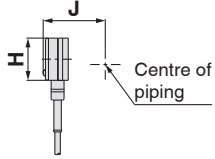
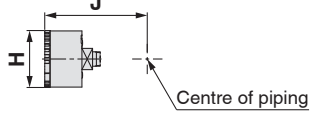
AC30D-D

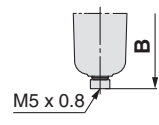
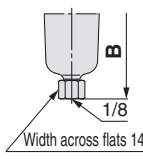
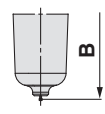
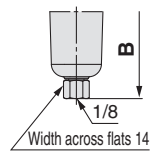
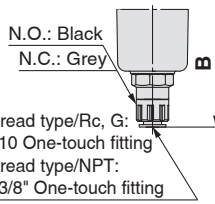
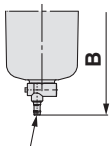
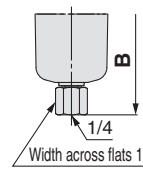
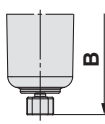
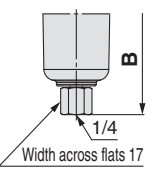
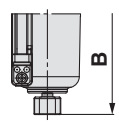
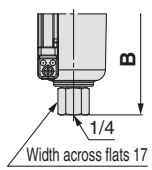


AC40D-D to AC40D-06-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20D-D to AC40D-06-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20D-D		/				/	/
AC30D-D to AC40D-06-D	<p>N.O.: Black N.C.: Grey</p> 						

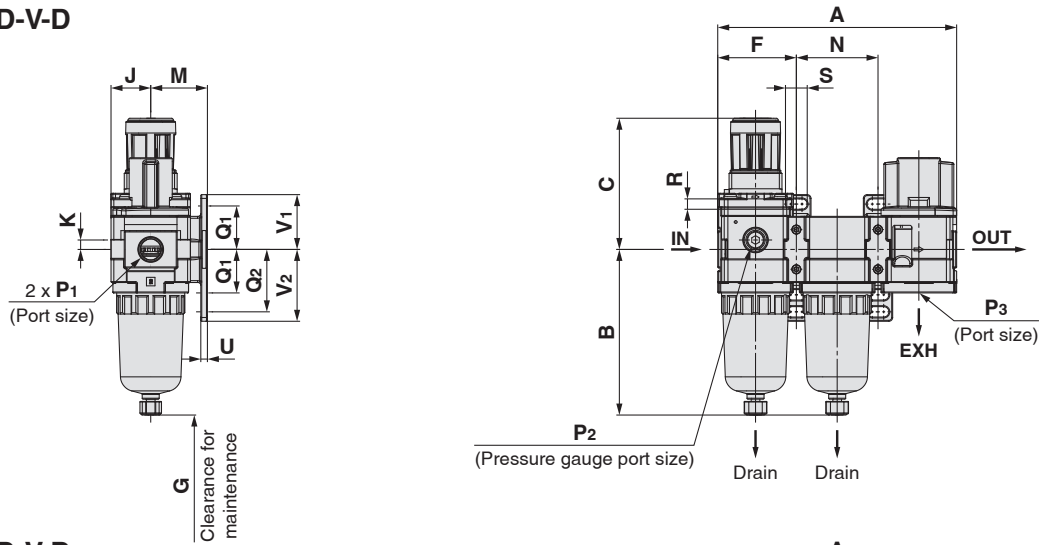
Model	Standard specifications																							
	P ₁	P ₂	A	B	C	E	F	G	J	K	Bracket mount						M	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20D-D	1/8, 1/4	1/8	83.2	87.6	71.8	—	41.6	45	21	5	30	24	33	5.5	11.5	3.5	29	38						
AC30D-D	1/4, 3/8	1/8	110.2	115.3	86.5	30	55.1	55	26.5	3.5	41	35	—	7	14	6	42.5	42.5						
AC40D-D	1/4, 3/8, 1/2	1/8	145.2	147.1	91.5	38.4	72.6	80	35.5	—	50	40	55	9	18	7	50	65						
AC40D-06-D	3/4	1/8	155.2	149.1	93	38.4	77.6	80	35.5	—	50	40	55	9	18	7	50	65						

Model	Optional specifications										Semi-standard specifications						
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
	H	J	H	J	H	J	H	J	H	J	B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20D-D	□28	27	□27.8	37.5	○ 37.5	57.5	○ 37.5	58.5	○ 37.5	58.5	104.9	—	91.4	87.4	93.9	—	—
AC30D-D	□28	32.5	□27.8	43	○ 37.5	63	○ 37.5	64	○ 37.5	64	157.1	123.9	122.2	117.8	122.3	137.8	142.3
AC40D-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	186.9	155.6	153.9	149.5	154	169.5	174
AC40D-06-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176

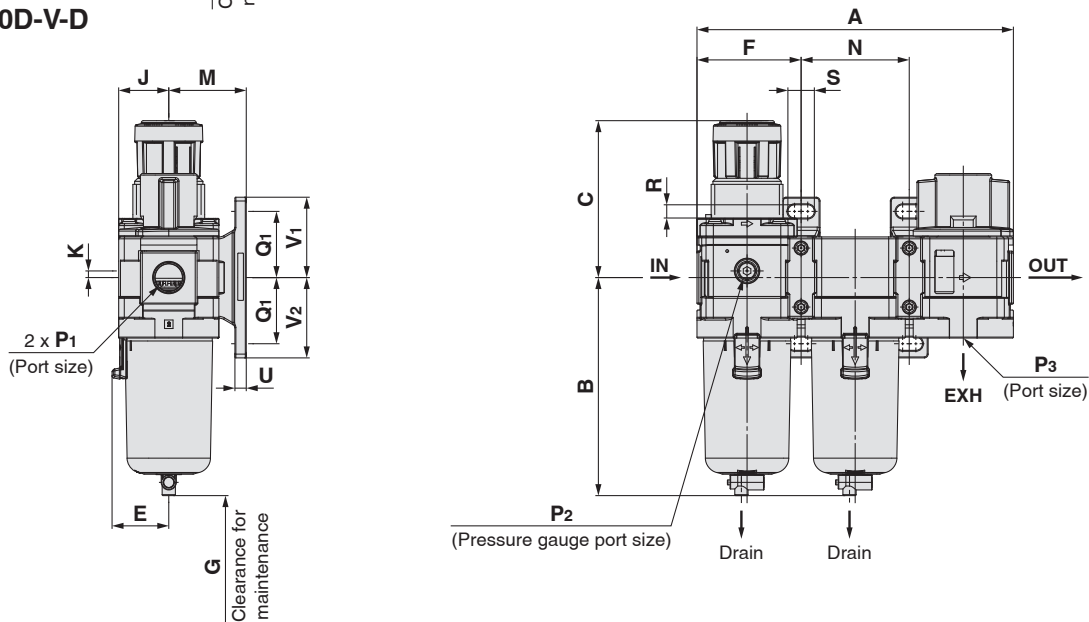
AC20D-D to AC40D-D Series

Dimensions: With Pressure Relief 3-Port Valve (V)

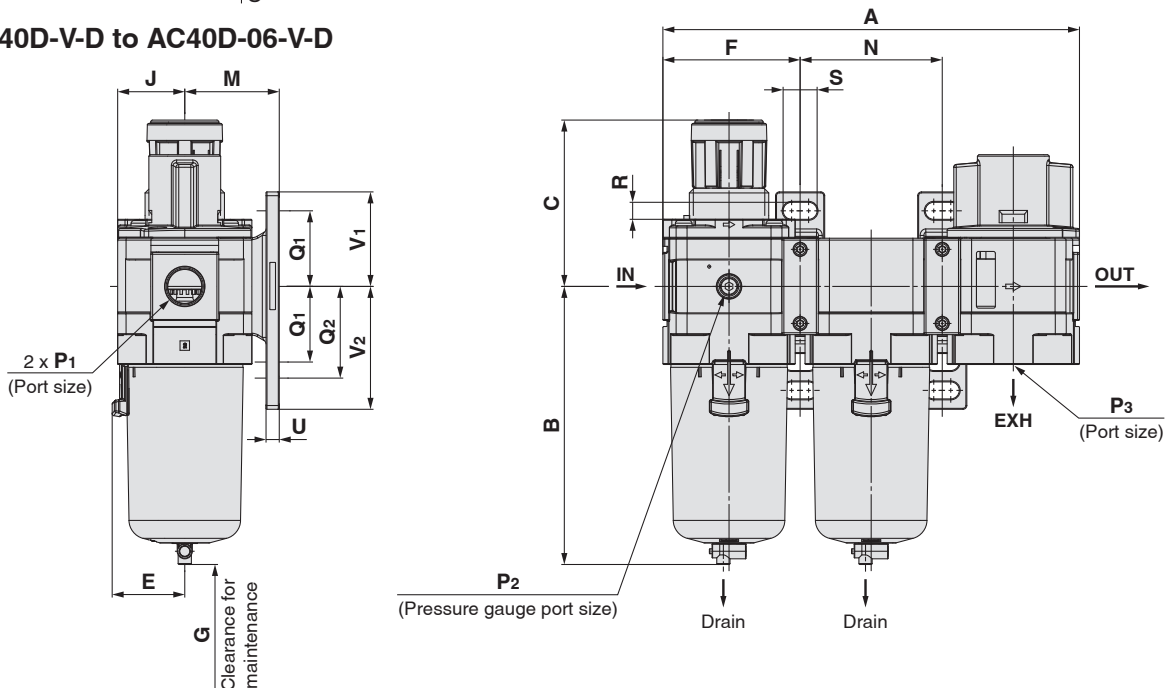
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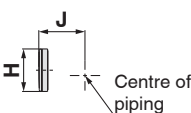
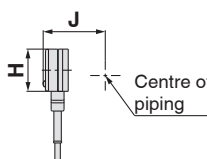
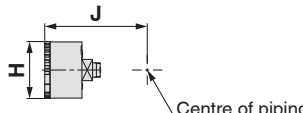
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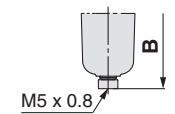
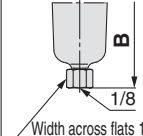
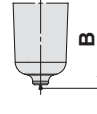
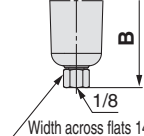
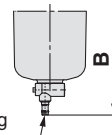
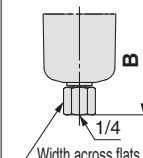
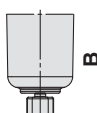
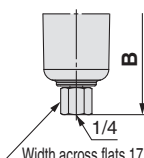
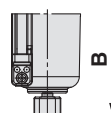
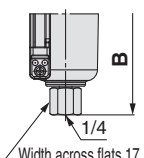


AC40D-V-D to AC40D-06-V-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20D-V-D to AC40D-06-V-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20D-V-D							
AC30D-V-D to AC40D-06-V-D	N.O.: Black N.C.: Grey Thread type/Rc, G: O 10 One-touch fitting Thread type/NPT: O 3/8" One-touch fitting						

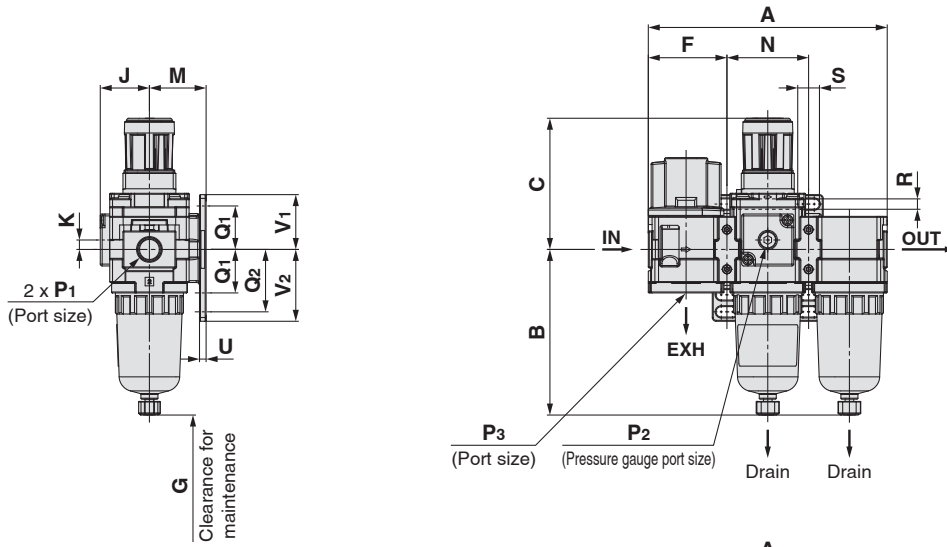
Model	Standard specifications																			
												Bracket mount								
	P ₁	P ₂	P ₃	A	B	C	E	F	G	J	K	M	N	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20D-V-D	1/8, 1/4	1/8	1/8	126.4	87.6	71.8	—	41.6	40	21	5	30	43.2	24	33	5.5	11.5	3.5	29	38
AC30D-V-D	1/4, 3/8	1/8	1/4	167.4	115.3	86.5	30	55.1	55	26.5	3.5	41	57.2	35	—	7	14	6	42.5	42.5
AC40D-V-D	1/4, 3/8, 1/2	1/8	3/8	220.4	147.1	91.5	38.4	72.6	80	35.5	—	50	75.2	40	55	9	18	7	50	65
AC40D-06-V-D	3/4	1/8	1/2	235.4	149.1	93	38.4	77.6	80	35.5	—	50	80.2	40	55	9	18	7	50	65

Model	Optional specifications										Semi-standard specifications						
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
	H	J	H	J	H	J	H	J	H	J	B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20D-V-D	□28	27	□27.8	37.5	○ 37.5	57.5	○ 37.5	58.5	○ 37.5	58.5	104.9	—	91.4	87.4	93.9	—	—
AC30D-V-D	□28	32.5	□27.8	43	○ 37.5	63	○ 37.5	64	○ 37.5	64	157.1	123.9	122.2	117.8	122.3	137.8	142.3
AC40D-V-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	186.9	155.6	153.9	149.5	154	169.5	174
AC40D-06-V-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176

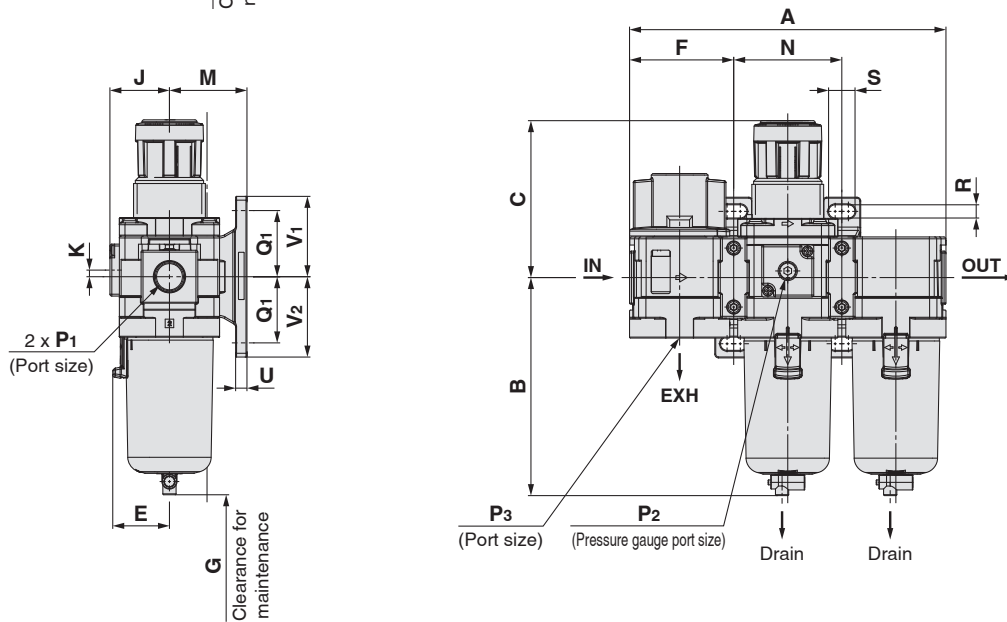
AC20D-D to AC40D-D Series

Dimensions: With Pressure Relief 3-Port Valve (V1)

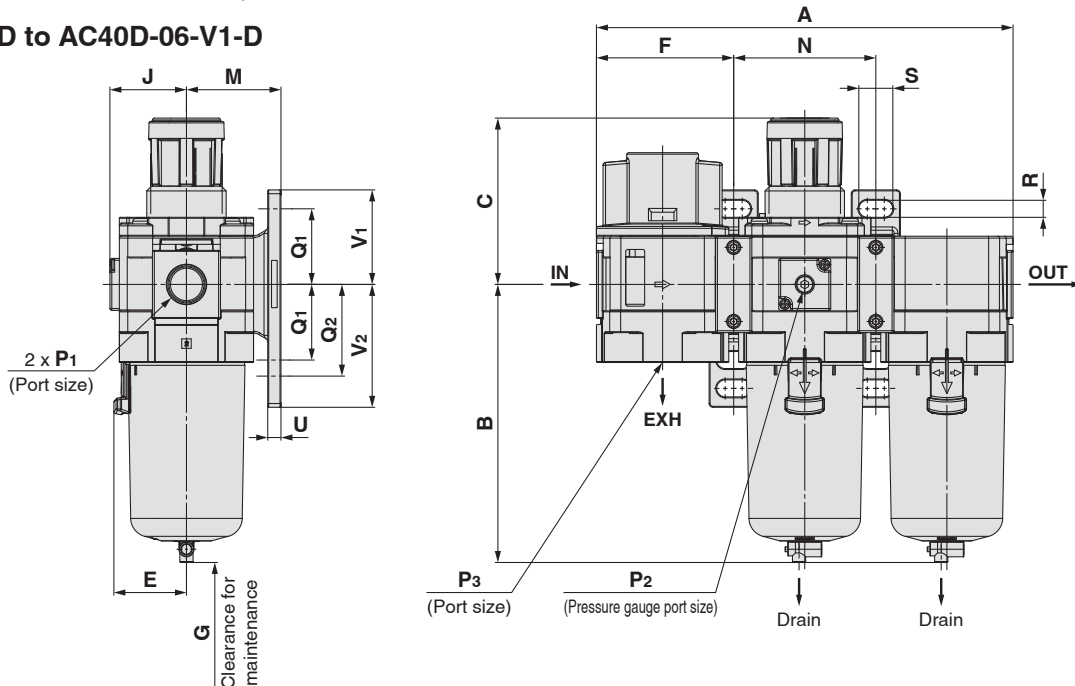
AC20D-V1-D



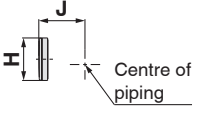
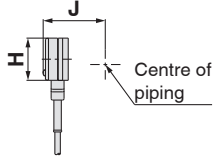
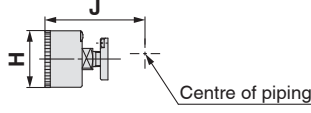
AC30D-V1-D

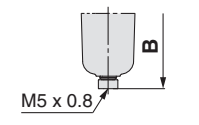
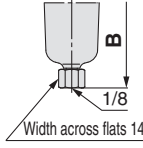
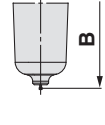
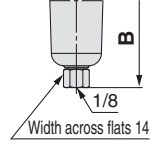
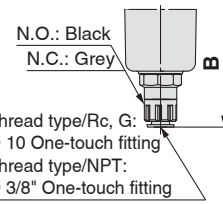
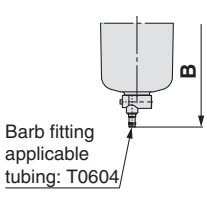
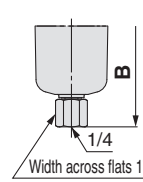
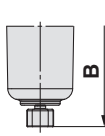
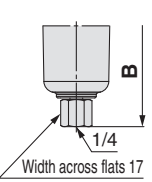
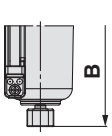
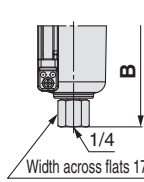


AC40D-V1-D to AC40D-06-V1-D



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

Applicable model	Optional specifications			
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with colour zone)
AC20D-V1-D to AC40D-06-V1-D				

Applicable model	Optional specifications	Semi-standard					
	With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
		Drain cock with barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20D-V1-D							
AC30D-V1-D to AC40D-06-V1-D	<p>N.O.: Black N.C.: Grey</p>  <p>Thread type/Rc, G: O 10 One-touch fitting Thread type/NPT: O 3/8 One-touch fitting</p>	 <p>Barb fitting applicable tubing: T0604</p>					

Model	Standard specifications																			
												Bracket mount								
	P ₁	P ₂	P ₃	A	B	C	E	F	G	J	K	M	N	Q ₁	Q ₂	R	S	U	V ₁	V ₂
AC20D-V1-D	1/8, 1/4	1/8	1/8	126.4	87.6	71.8	—	41.6	40	26	5	30	43.2	24	33	5.5	11.5	3.5	29	38
AC30D-V1-D	1/4, 3/8	1/8	1/4	167.4	115.3	86.5	30	55.1	55	31.5	3.5	41	57.2	35	—	7	14	6	42.5	42.5
AC40D-V1-D	1/4, 3/8, 1/2	1/8	3/8	220.4	147.1	91.5	38.4	72.6	80	40.5	—	50	75.2	40	55	9	18	7	50	65
AC40D-06-V1-D	3/4	1/8	1/2	235.4	149.1	93	38.4	77.6	80	40.5	—	50	80.2	40	55	9	18	7	50	65

Model	Optional specifications											Semi-standard specifications					
	Square embedded type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (Semi-standard: Z)		Round type pressure gauge (with colour zone)		With auto drain	PC/PA bowl		Metal bowl		Metal bowl with level gauge	
	H	J	H	J	H	J	H	J	H	J	B	With barb fitting	With drain guide	With drain cock	With drain guide	With drain cock	With drain guide
AC20D-V1-D	□28	27	□27.8	37.5	○ 37.5	62.5	○ 37.5	63.5	○ 37.5	63.5	104.9	—	91.4	87.4	93.9	—	—
AC30D-V1-D	□28	32.5	□27.8	43	○ 37.5	68	○ 37.5	69	○ 37.5	69	157.1	123.9	122.2	117.8	122.3	137.8	142.3
AC40D-V1-D	□28	41.5	□27.8	52	○ 42.5	78	○ 42.5	78	○ 42.5	78	186.9	155.6	153.9	149.5	154	169.5	174
AC40D-06-V1-D	□28	41.5	□27.8	52	○ 42.5	73	○ 42.5	73	○ 42.5	73	188.9	157.6	155.9	151.5	156	171.5	176

AC-D Series Option / Accessory / Attachment Part No. List

Section	Description		Part no.						
			For AC20-D	For AC30-D	For AC40-D	For AC40-06-D	For AC50-D	For AC60-D	
			For AC20A-D	For AC30A-D	For AC40A-D	For AC40A-06-D	For AC50A-D	For AC60A-D	
			For AC20B-D	For AC30B-D	For AC40B-D	For AC40B-06-D	For AC50B-D	For AC60B-D	
			For AC20C-D	For AC30C-D	For AC40C-D	For AC40C-06-D	—	—	
Model		For AC20D-D	For AC30D-D	For AC40D-D	For AC40D-06-D	—	—		
Option	*1 Pressure gauge	Round type	Standard	G36-10-□01		G46-10-□01			
		0.02 to 0.2 MPa setting	G36-4-□01		G46-4-□01				
		Round type (with colour zone)	Standard	G36-10-□01-L		G46-10-□01-L			
		0.02 to 0.2 MPa setting	G36-4-□01-L		G46-4-□01-L				
	Square embedded type*2	Standard	GC3-10AS-D [136150A (Pressure gauge cover only)]						
		0.02 to 0.2 MPa setting	GC3-4AS-D [136150A (Pressure gauge cover only)]						
		Digital pressure switch	NPN output, Wiring bottom entry	ISE35-N-25-MLA-X523 [ISE35-N-25-M (Switch body only)]*3					
			NPN output, Wiring top entry	ISE35-R-25-MLA-X523 [ISE35-R-25-M (Switch body only)]*3					
	PNP output, Wiring bottom entry		ISE35-N-65-MLA-X523 [ISE35-N-65-M (Switch body only)]*3						
	PNP output, Wiring top entry	ISE35-R-65-MLA-X523 [ISE35-R-65-M (Switch body only)]*3							
Float type auto drain*4		N.C.	AD27-D	AD37-D	AD47-D				
	N.O.	—	AD38-D	AD48-D					
Accessory	Spacer		p. 57	Y200-D	Y300-D	Y400-D	Y500-D	Y600-D	
	Spacer with bracket		p. 57	Y200T-D	Y300T-D	Y400T-D	Y500T-D	Y600T-D	
Attachment	Pressure relief 3-port valve*5, *6		p. 58	VHS20-□01-D VHS20-□02-D	VHS30-□02-D VHS30-□03-D	VHS40-□02-D VHS40-□03-D VHS40-□04-D	VHS40-□06-D	VHS50-□06-D VHS50-□10-D	—
	Piping adapter*5, *6		p. 59	E200-□01-D E200-□02-D E200-□03-D	E300-□02-D E300-□03-D E300-□04-D	E400-□02-D E400-□03-D E400-□04-D E400-□06-D	E500-□06-D E500-□10-D	E600-□06-D E600-□10-D E600-□12-D E600-□14-D	
	L-shaped piping adapter*5, *6		p. 60	E200L-□01-D E200L-□02-D	E300L-□01-D E300L-□02-D E300L-□03-D	E400L-□02-D E400L-□03-D E400L-□04-D	E500L-□04-D E500L-□06-D	E600L-□04-D E600L-□06-D E600L-□10-D	
	T-shaped piping adapter*5, *6		p. 61	E200T-□01-D E200T-□02-D	E300T-□01-D E300T-□02-D E300T-□03-D	E400T-□02-D E400T-□03-D E400T-□04-D	E500T-□04-D E500T-□06-D	E600T-□04-D E600T-□06-D E600T-□10-D	
	T-spacer*5, *6	p. 62	Standard	Y210-□01-D Y210-□02-D	Y310-□01-D Y310-□02-D Y310-□03-D	Y410-□02-D Y410-□03-D Y410-□04-D	Y510-□02-D Y510-□03-D Y510-□04-D Y510-□06-D	Y610-□03-D Y610-□04-D Y610-□06-D	
			Slim type	Y210-□01-1-D Y210-□02-1-D	Y310-□01-1-D Y310-□02-1-D	Y410-□02-1-D Y410-□03-1-D	Y510-□02-1-D Y510-□03-1-D	Y610-□03-1-D Y610-□04-1-D	
	Cross spacer*5, *6	p. 63	Standard	Y24-□01-D Y24-□02-D	Y34-□01-D Y34-□02-D Y34-□03-D	Y44-□02-D Y44-□03-D Y44-□04-D	Y54-□02-D Y54-□03-D Y54-□04-D Y54-□06-D	Y64-□03-D Y64-□04-D Y64-□06-D	
			Front and back port selectable type	Y24-□01-1-D Y24-□02-1-D	Y34-□01-1-D Y34-□02-1-D Y34-□03-1-D	Y44-□02-1-D Y44-□03-1-D Y44-□04-1-D	Y54-□03-1-D Y54-□04-1-D Y54-□06-1-D	—	
	Pressure switch*6	p. 64	Standard	IS10M-20-D	IS10M-30-D	IS10M-40-D	IS10M-50-D	IS10M-60-D	
			Slim type	IS10M-20-1-D	IS10M-30-1-D	IS10M-40-1-D	IS10M-50-1-D	IS10M-60-1-D	
	Pressure switch with T-spacer*5, *6		p. 65	IS10T-20-□01-D IS10T-20-□02-D	IS10T-30-□01-D IS10T-30-□02-D IS10T-30-□03-D	IS10T-40-□02-D IS10T-40-□03-D IS10T-40-□04-D	IS10T-50-□02-D IS10T-50-□03-D IS10T-50-□04-D IS10T-50-□06-D	IS10T-60-□03-D IS10T-60-□04-D IS10T-60-□06-D	
	Pressure switch with L-shaped piping adapter*5, *6		p. 66	IS10L-20-□01-D IS10L-20-□02-D	IS10L-30-□01-D IS10L-30-□02-D IS10L-30-□03-D	IS10L-40-□02-D IS10L-40-□03-D IS10L-40-□04-D	IS10L-50-□04-D IS10L-50-□06-D	IS10L-60-□04-D IS10L-60-□06-D IS10L-60-□10-D	
	Pressure switch with piping adapter*5, *6		p. 67	IS10E-20-□01-D IS10E-20-□02-D IS10E-20-□03-D	IS10E-30-□02-D IS10E-30-□03-D IS10E-30-□04-D	IS10E-40-□02-D IS10E-40-□03-D IS10E-40-□04-D IS10E-40-□06-D	IS10E-50-□06-D IS10E-50-□10-D	IS10E-60-□06-D IS10E-60-□10-D IS10E-60-□12-D IS10E-60-□14-D	
	Right angle adapter*6		p. 68	E210T-D	E310T-D	E410T-D	—	—	
	Reducing adapter*6		p. 68	E310R-D	E310R-D E410R-D	E410R-D	—	—	
	Cross adapter*5, *6		p. 69	Y24M-□02-D	Y34M-□03-D	Y44M-□04-D	—	—	
	End plate*6		p. 70	E200E-D	E300E-D	E400E-D	—	—	

*1 □ in part numbers for a round type pressure gauge indicates a pipe thread type. No indication is necessary for R; however, indicate N for NPT. Please contact SMC regarding the connection thread NPT and pressure gauge supply for psi unit specifications.

*2 Including one O-ring and 2 mounting screws

*3 Lead wire with connector (2 m), adapter, lock pin, O-ring (1 pc.), mounting screws (2 pcs.) are attached. []: Switch body only

*4 Minimum operating pressure: N.O. type— 0 . 1 MPa; N.C. type— 0 . 1 MPa (AD27-D) and 0.15 MPa (AD37-D/AD47-D). Please contact SMC separately for psi and °F unit display specifications.

*5 □ in attachment part numbers indicates a pipe thread type. No indication is necessary for Rc thread; however, indicate N for NPT thread, and F for G thread.

*6 Separate spacers are required for modular units.

AC-D Series Accessories (Spacer / Spacer with Bracket)

Spacer / Spacer with Bracket

Y 300 □ - D

① ②

	Symbol	Description	①				
			Body size [Applicable AC size]				
			200 [AC20]	300 [AC30]	400 [AC40]	500 [AC40-06]	600 [AC50/AC60]
②	Bracket	—	●	●	●	●	●
		T	●	●	●	●	●

Spacer
(Y□-D)



Spacer with bracket
(Y□T-D)



Standard Specifications

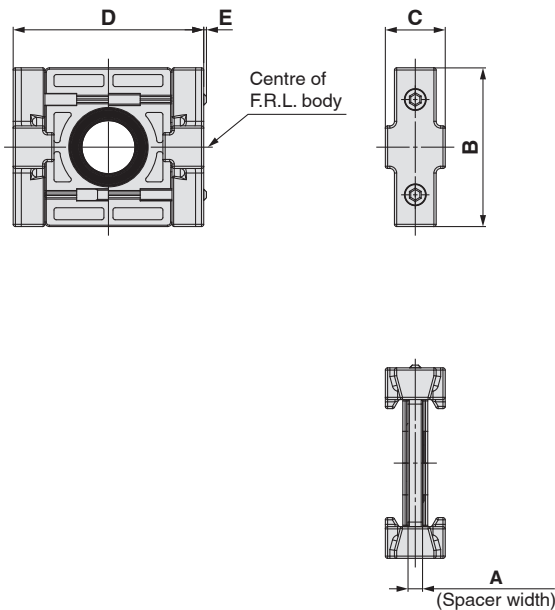
Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Replacement Parts

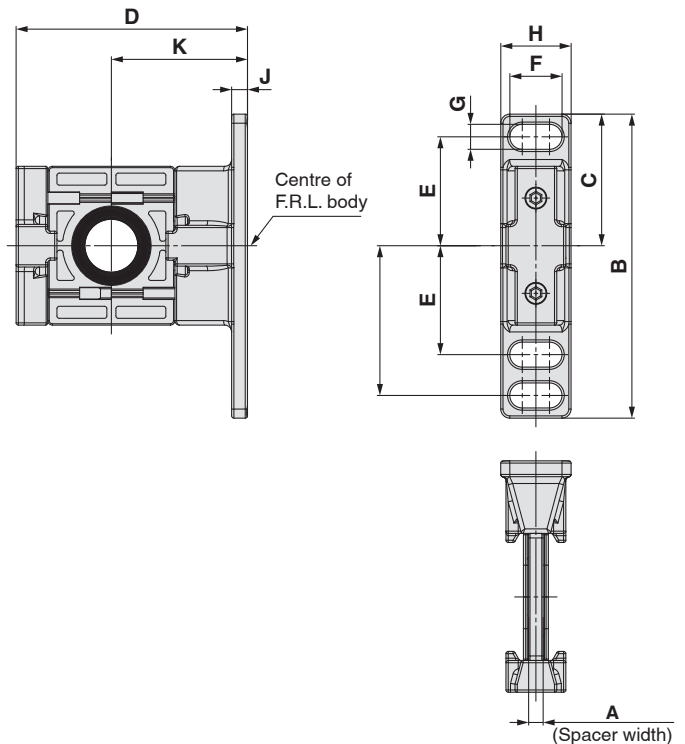
Description	Material	Part no.				
		Y200-D Y200T-D	Y300-D Y300T-D	Y400-D Y400T-D	Y500-D Y500T-D	Y600-D Y600T-D
Seal	HNBR	Y220P-050S	Y320P-050S	Y420P-050S	Y520P-050S	Y620P-050S

Dimensions

Spacer



Spacer with bracket



Model	A	B	C	D	E	L	Applicable size
Y200-D	3.2	35	13.2	42	0.6	2	AC20-D
Y300-D	4.2	43	16.2	53	—	3	AC30-D
Y400-D	5.2	51	19.2	71	—	3	AC40-D
Y500-D	5.2	54	21.2	71	—	3	AC40-06-D
Y600-D	6.2	64	27.2	90	—	4	AC50-D AC60-D

Model	A	B	C	D	E	EE	F	G	H	J	K	L	Applicable size
Y200T-D	3.2	67	29	51	24	33	11.5	5.5	15.5	3.5	30	2	AC20-D
Y300T-D	4.2	85	42.5	67.5	35	—	14	7	20	6	41	3	AC30-D
Y400T-D	5.2	115	50	85.5	40	55	18	9	26	7	50	3	AC40-D
Y500T-D	5.2	115	50	85.5	40	55	18	9	26	7	50	3	AC40-06-D
Y600T-D	6.2	140	60	115	50	70	20	11	31.2	8	70	4	AC50-D AC60-D

AC-D Series Attachments

Semi-standard Symbol Selection

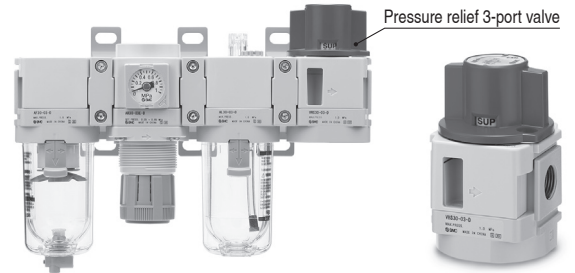
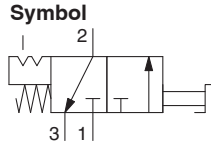
- Select one each for **a** and **b**.
- When more than one specification is required, indicate in alphabetical order.
Example) VHS30-N03-RZ-D

Pressure Relief 3-Port Valve: (V, V1)

· By using a pressure relief 3-port valve, pressure left in the line can be easily exhausted.

VHS 30 - 03 - - D

① ② ③ ④



		Symbol	Description	①				
				Body size [Applicable AC size]				
				20 [AC20]	30 [AC30]	40 [AC40]	40 [AC40-06]	50 [AC50/AC60]*4
②	Pipe thread type	—	Rc*1	●	●	●	●	●
		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	a	—	Flow direction: Left to right	●	●	●	●	●
		R	Flow direction: Right to left	●	●	●	●	●
	b	—	Unit on product label: MPa	●	●	●	●	●
		Z*2	Unit on product label: psi	○*3	○*3	○*3	○*3	○*3

*1 The pipe thread type for the EXH port is G.

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

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

*4 The VHS50 can be connected to the AC60.

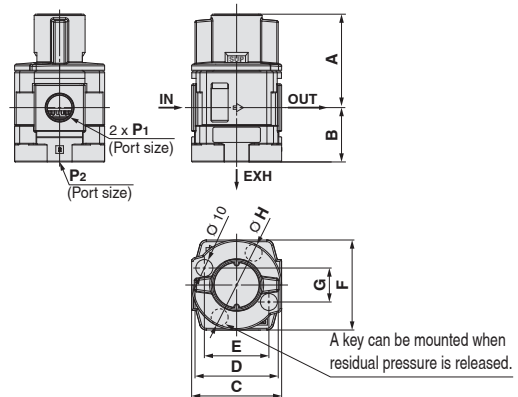
Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Flow Rate Characteristics

Model	Port size		Flow rate characteristics					
	IN, OUT	EXH	IN → OUT			OUT → EXH		
			C (dm ³ /s-bar)	b	Cv	C (dm ³ /s-bar)	b	Cv
VHS20	1/8	1/8	4.0	0.41	1.1	3.7	0.42	1.1
	1/4		5.8	0.31	1.4	3.8	0.42	1.1
VHS30	1/4	1/4	8.8	0.44	2.4	8.0	0.46	2.3
	3/8		14.1	0.28	3.5	7.8	0.46	2.2
VHS40	1/4	3/8	9.5	0.49	2.8	13.3	0.47	3.6
	3/8		17.2	0.47	4.8	13.6	0.47	3.7
	1/2		26.7	0.29	6.3	13.4	0.43	3.7
VHS40-06	3/4	1/2	34.0	0.22	7.6	16.1	0.41	4.4
VHS50	3/4	1/2	45.0	0.26	10.6	23.0	0.49	6.4
	1		53.3	0.36	13.5	22.8	0.49	6.3

Dimensions



Model	P1	P2	A	B	C	D	Applicable size
VHS20-D	1/8, 1/4	1/8	48.5	23	40	37	AC20-D
VHS30-D	1/4, 3/8	1/4	55	32	53	49	AC30-D
VHS40-D	1/4, 3/8, 1/2	3/8	69.7	41.3	70	63	AC40-D
VHS40-06-D	3/4	1/2	71.7	43.3	75	63	AC40-06-D
VHS50-D	3/4, 1	1/2	86.5	44.5	90	80	AC50-D/AC60-D

Model	E	F	G	H	Applicable size
VHS20-D	28	42	17.5	40	AC20-D
VHS30-D	38	53	20	53	AC30-D
VHS40-D	52	71	29	70	AC40-D
VHS40-06-D	52	71	29	70	AC40-06-D
VHS50-D	72	90	33	90	AC50-D/AC60-D

Caution on Mounting

- Use an air filter on the inlet side for operating protection.
- When mounting a silencer, etc., on the EXH port, refer to the operation manual.

AC-D Series

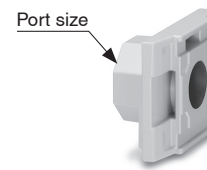
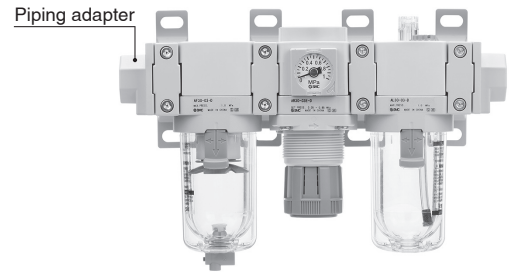
Piping Adapter: 1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/4, 1 1/2

Using on the inlet side or the outlet side of F.R.L. units makes it easier to perform maintenance, as the component can be installed/removed without removing the piping.

E **300** - **03** - **D**

① ② ③

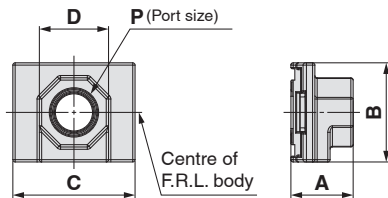
	Symbol	Description	①					
			Body size [Applicable AC size]					
			200 [AC20]	300 [AC30]	400 [AC40]	500 [AC40-06]	600 [AC50, AC60]	
②	Pipe thread type	—	Rc	●	●	●	●	●
		N	NPT	●	●	●	●	●
		F	G	●	●	●	●	●
		+						
③	Port size	01	1/8	●	—	—	—	—
		02	1/4	●	●	●	—	—
		03	3/8	●	●	●	—	—
		04	1/2	—	●	●	—	—
		06	3/4	—	—	●	●	●
		10	1	—	—	—	●	●
		12	1 1/4	—	—	—	—	●
14	1 1/2	—	—	—	—	●		



Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Dimensions



Model	P	A	B	C	D	Applicable AC size
E200-D	1/8, 1/4, 3/8	24	35	42	24	AC20-D
E300-D	1/4, 3/8, 1/2	27	43	53	30	AC30-D
E400-D	1/4, 3/8, 1/2, 3/4	30	51	71	36	AC40-D
E500-D	3/4	31	54	71	36	AC40-06-D
	1				46	
E600-D	3/4, 1	39	64	90	46	AC50-D
	1 1/4, 1 1/2				63	AC60-D

Caution on Mounting

Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.

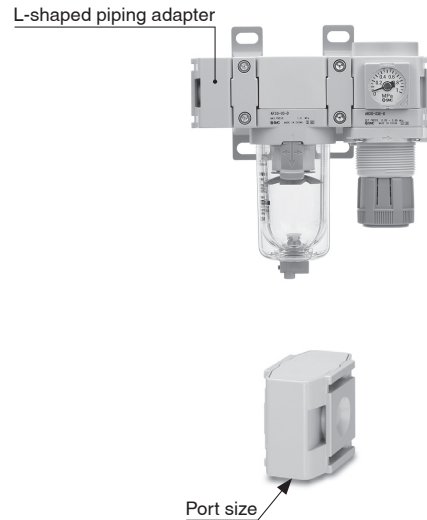
L-Shaped Piping Adapter: 1/8, 1/4, 3/8, 1/2, 3/4, 1

- Upward/downward piping is possible on the inlet side and the outlet side of F.R.L. units.
- Ideal for space-saving and reducing piping labour
- Using on the inlet side or the outlet side of F.R.L. units makes it easier to perform maintenance, as the component can be installed/ removed without removing the piping.

E **300** **L** - **03** - **D**

① ② ③

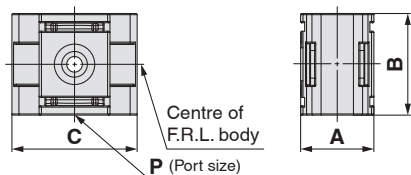
	Symbol	Description	①				
			Body size [Applicable AC size]				
			200 [AC20]	300 [AC30]	400 [AC40]	500 [AC40-06]	600 [AC50, AC60]
② Pipe thread type	—	Rc	●	●	●	●	●
	N	NPT	●	●	●	●	●
	F	G	●	●	●	●	●
+							
③ Port size	01	1/8	●	●	—	—	—
	02	1/4	●	●	—	—	—
	03	3/8	—	●	●	—	—
	04	1/2	—	—	●	●	●
	06	3/4	—	—	—	●	●
	10	1	—	—	—	—	●



Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Dimensions



Model	P	A	B	C	Applicable AC size
E200L-D	1/8, 1/4	28	35	42	AC20-D
E300L-D	1/8, 1/4, 3/8	31	43	53	AC30-D
E400L-D	1/4, 3/8, 1/2	39	51	71	AC40-D
E500L-D	1/2, 3/4	47	54	71	AC40-06-D
E600L-D	1/2, 3/4, 1	62	64	90	AC50-D AC60-D

Caution on Mounting

Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.

AC-D Series

T-Shaped Piping Adapter: 1/8, 1/4, 3/8, 1/2, 3/4, 1

- Both upward and downward piping are possible on the inlet and outlet sides of F.R.L. units.
- Ideal for space-saving and reducing piping labour
- Using on the inlet side or the outlet side of F.R.L. units makes it easier to perform maintenance, as the component can be installed/ removed without removing the piping.

E **300** **T** - **03** - **D**

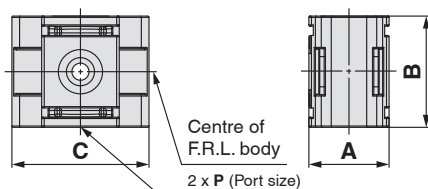
① ② ③

	Symbol	Description	①					
			Body size [Applicable AC size]					
			200 [AC20]	300 [AC30]	400 [AC40]	500 [AC40-06]	600 [AC50, AC60]	
②	Pipe thread type	—	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	—	—	—	—	●

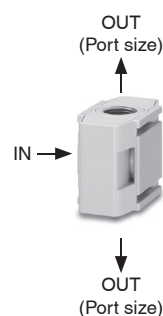
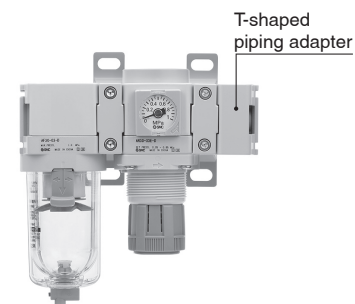
Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Dimensions



Model	P	A	B	C	Applicable AC size
E200T-D	1/8, 1/4	28	35	42	AC20-D
E300T-D	1/8, 1/4, 3/8	31	43	53	AC30-D
E400T-D	1/4, 3/8, 1/2	39	51	71	AC40-D
E500T-D	1/2, 3/4	47	54	71	AC40-06-D
E600T-D	1/2, 3/4, 1	62	64	90	AC50-D AC60-D



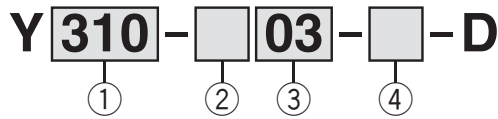
	Port size
IN	—
OUT	③

Caution on Mounting

Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.

T-Spacer: 1/8, 1/4, 3/8, 1/2, 3/4

· Using a T-spacer facilitates the branching of air flow.



	Symbol	Description	①					
			Body size [Applicable AC size]					
			210 [AC20]	310 [AC30]	410 [AC40]	510 [AC40-06]	610 [AC50, AC60]	
②	Pipe thread type	—	Rc	●	●	●	●	●
		N	NPT	●	●	●	●	●
		F	G	●	●	●	●	●
			+					
③	Port size (OUT ①)	01	1/8	●	●	—	—	—
		02	1/4	—	●	●	●	—
		03	3/8	—	○	●	●	●
		04	1/2	—	—	○	○	●
		06	3/4	—	—	—	○	○
			+					
④	Body type	—	Standard	●	●	●	●	●
		1	Slim	●	●	●	●	●

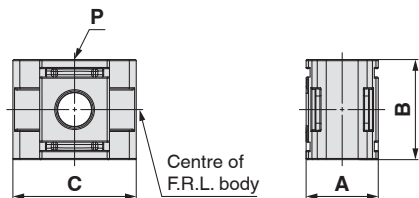
* ○: Only applicable to the standard type body

Standard Specifications

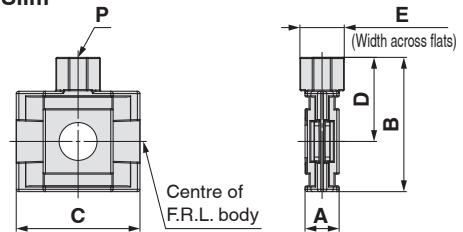
Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Dimensions

Body type: Standard



Body type: Slim

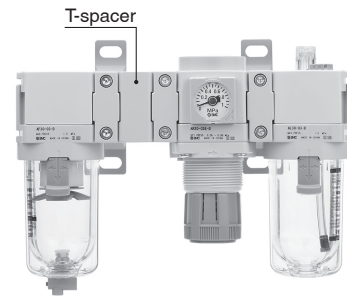


Model	P	A	B	C	Applicable AC size
Y210-D	1/8, 1/4	28	35	42	AC20-D
Y310-D	1/8, 1/4, 3/8	31	43	53	AC30-D
Y410-D	1/4, 3/8, 1/2	39	51	71	AC40-D
Y510-D	1/4, 3/8, 1/2, 3/4	47	54	71	AC40-06-D
Y610-D	3/8, 1/2, 3/4	62	64	90	AC50-D, AC60-D

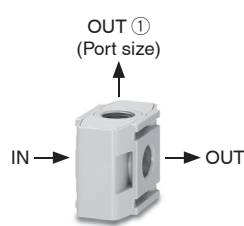
Model	P	A	B	C	D	E	Applicable AC size
Y210-1-D	1/8, 1/4	14.6	48.5	42	31	19	AC20-D
Y310-1-D	1/8, 1/4	14.6	57.5	53	36	19	AC30-D
Y410-1-D	1/4, 3/8	18.6	67	71	41.5	24	AC40-D
Y510-1-D	1/4, 3/8	18.6	70	63	43	24	AC40-06-D
Y610-1-D	3/8, 1/2	22	87	90	55	30	AC50-D, AC60-D

Caution on Mounting

- Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.
- The backflow of oil may occur when a spacer is used on the inlet side of the lubricator. Attach a check valve between the lubricator and the product to prevent backflow.
- When the slim body type is to be mounted to a wall using a spacer with bracket, use a spacer on only one side.

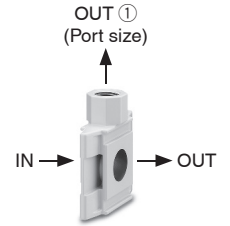


Body type: Standard
(Y□-□□-D)



	Port size
IN	—
OUT	—
OUT ①	③

Body type: Slim
(Y□-□□-1-D)

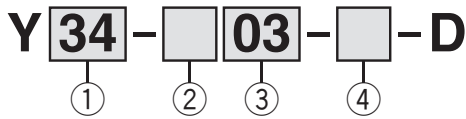


	Port size
IN	—
OUT	—
OUT ①	③

AC-D Series

Cross Spacer: 1/8, 1/4, 3/8, 1/2, 3/4

The piping can be branched upward/downward (OUT ①) or forward/backward (OUT ②).



	Symbol	Description	①					
			Body size [Applicable AC size]					
			24 [AC20]	34 [AC30]	44 [AC40]	54 [AC40-06]	64 [AC50, AC60]	
②	Pipe thread type	—	Rc	●	●	—	—	—
		N	NPT	●	●	●	●	●
		F	G	●	●	●	●	●
		+						
③	Port size (OUT ①)	01	1/8	●	●	—	—	—
		02	1/4	●	●	●	○	—
		03	3/8	—	●	●	●	○
		04	1/2	—	—	●	●	○
		06	3/4	—	—	—	●	○
		+						
④	Body type	—	Standard*1	●	●	●	●	●
		1	Front and back port selectable type*2	●	●	●	●	—

*1 The front and back ports are for releasing pressure and only come in size 1/8, irrespective of the ③ port size. The minimum port size is 1.4 mm.

*2 The front and back ports come in the same size as the ③ port size.

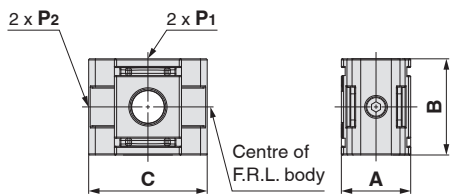
*3 "○" indicates that only the standard body type is applicable.

Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Dimensions

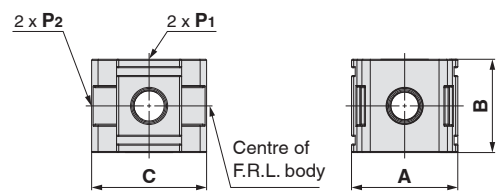
Body type: Standard



Model	P1	P2*1	A	B	C	Applicable AC size
Y24-D	1/8, 1/4	1/8	28	35	42	AC20-D
Y34-D	1/8, 1/4, 3/8	1/8	31	43	53	AC30-D
Y44-D	1/4, 3/8, 1/2	1/8	39	51	71	AC40-D
Y54-D	1/4, 3/8, 1/2, 3/4	1/8	47	54	71	AC40-06-D
Y64-D	3/8, 1/2, 3/4	1/8	62	64	90	AC50-D, AC60-D

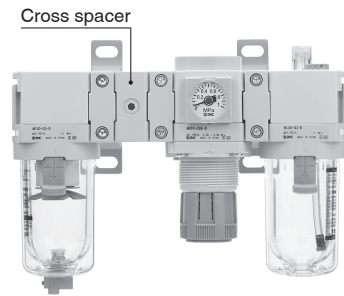
*1 A resin plug is attached to the P2 port and shipped together with the product.

Body type: Front and back port selectable



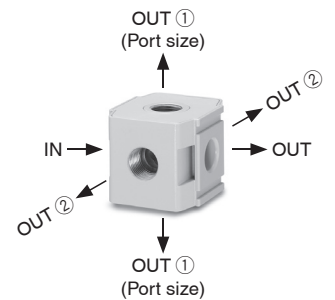
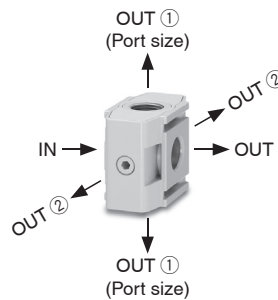
Model	P1, P2*1	A	B	C	Applicable AC size
Y24-1-D	1/8, 1/4	40	35	42	AC20-D
Y34-1-D	1/8, 1/4, 3/8	49	43	53	AC30-D
Y44-1-D	1/4, 3/8, 1/2	60	51	71	AC40-D
Y54-1-D	3/8, 1/2, 3/4	72	54	71	AC40-06-D

*1 Two hexagon socket head plugs the same size as the P1 and P2 ports are shipped together with the product.



Body type: Standard (Y□-□□-D)

Body type: Front and back port selectable (Y□-□□-1-D)



	Port size
IN	—
OUT	—
OUT ①	③
OUT ②	1/8

	Port size
IN	—
OUT	—
OUT ①	③
OUT ②	③

Caution on Mounting

- Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.
- The backflow of oil may occur when a spacer is used on the inlet side of the lubricator. Attach a check valve between the lubricator and the product to prevent backflow.

Semi-standard Symbol Selection

- Select one each for **a** to **d**.
- When more than one specification is required, indicate in alphanumeric order.
Example) IS10M-30-6LP-D

Pressure Switch

· A compact, integrated pressure switch can be easily installed to facilitate the pressure detection of the line.

IS10M-30-□-D

① ②

		Symbol	Description	①					
				Body size [Applicable AC size]					
				20 [AC20]	30 [AC30]	40 [AC40]	50 [AC40-06]	60 [AC50, AC60]	
②	a	Body type	—	Standard	●	●	●	●	●
			1	Slim	●	●	●	●	●
			+						
	b	Set pressure range	—	0.1 to 0.4 MPa	●	●	●	●	●
			6*1	0.1 to 0.6 MPa	○	○	○	○	○
			+						
	c	Lead wire length	—	0.5 m	●	●	●	●	●
			L	3 m	●	●	●	●	●
			Z	5 m	●	●	●	●	●
			+						
	d	Pressure unit of the scale plate	—	MPa	●	●	●	●	●
			P*2	MPa/psi dual scale	○	○	○	○	○

●: Without restrictions ○: With restrictions (Refer to *1 and *2.)

*1 The set pressure range for the 6P is 0.2 to 0.6 MPa (30 to 90 psi).

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

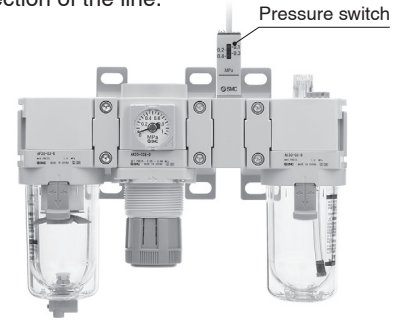
Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.0 MPa
Max. operating pressure	0.7 MPa
Set pressure range (when OFF)	0.1 to 0.4 MPa
Hysteresis	0.08 MPa or less
Contact point configuration	1a

Switch Characteristics

Max. contact point capacity	2 VA (AC), 2 W (DC)
Operating voltage: AC, DC	100 V or less
Max. operating current	24 VAC, DC or less: 50 mA 48 VAC, DC or less: 40 mA 100 VAC, DC or less: 20 mA

*



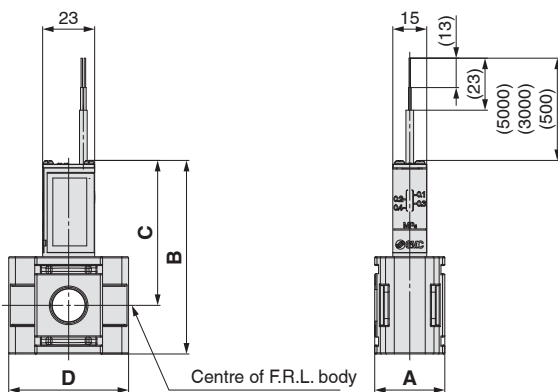
Body type: Standard
(IS10M-□□-D)

Body type: Slim
(IS10M-□□-1-D)

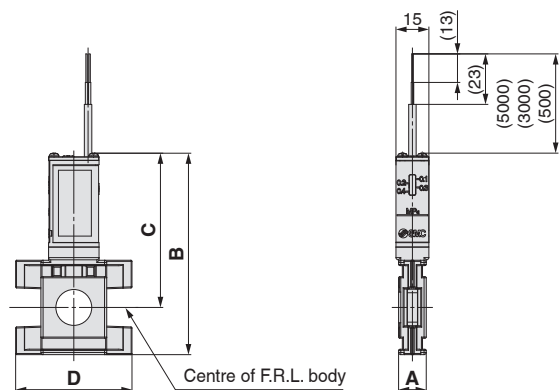


Dimensions

Body type: Standard



Body type: Slim



Model	A	B	C	D	Applicable AC size
IS10M-20-D	28	77.6	60.1	42	AC20-D
IS10M-30-D	31	85.6	64.1	53	AC30-D
IS10M-40-D	39	93.6	68.1	71	AC40-D
IS10M-50-D	47	96.6	69.6	71	AC40-06-D
IS10M-60-D	62	106.6	74.6	90	AC50-D, AC60-D

Model	A	B	C	D	Applicable AC size
IS10M-20-1-D	10.6	83.8	66.3	42	AC20-D
IS10M-30-1-D	12.6	91.8	70.3	53	AC30-D
IS10M-40-1-D	14.6	97.8	72.3	58.6	AC40-D
IS10M-50-1-D	16.6	100.8	73.8	59.3	AC40-06-D
IS10M-60-1-D	22	110.8	78.8	90	AC50-D, AC60-D

Caution on Mounting

- Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.
- When the slim body type is to be mounted to a wall using a spacer with bracket, use a spacer on only one side.

AC-D Series

Semi-standard Symbol Selection

- Select one each for **a** to **c**.
- When more than one specification is required, indicate in alphanumeric order.
Example) IS10T-30-N03-6LP-D

Pressure Switch with T-Spacer

- A compact, integrated pressure switch can be easily installed to facilitate the pressure detection of the line.

IS10T - **30** - **□** **03** - **□** - **D**

① ② ③ ④

		Symbol	Description	①					
				Body size [Applicable AC size]					
				20	30	40	50	60	
				[AC20]	[AC30]	[AC40]	[AC40-06]	[AC50, AC60]	
②	Pipe thread type	—	Rc	●	●	●	●	●	
		N	NPT	●	●	●	●	●	
		F	G	●	●	●	●	●	
+									
③	Port size (OUT①)	01	1/8	●	●	—	—	—	
		02	1/4	●	●	—	—	—	
		03	3/8	—	●	●	●	●	
		04	1/2	—	—	●	●	●	
		06	3/4	—	—	—	●	●	
+									
④	a	Set pressure range	—	0.1 to 0.4 MPa	●	●	●	●	●
			6*1	0.1 to 0.6 MPa	○	○	○	○	○
	+								
	b	Lead wire length	—	0.5 m	●	●	●	●	●
			L	3 m	●	●	●	●	●
			Z	5 m	●	●	●	●	●
	+								
	c	Pressure unit of the scale plate	—	MPa	●	●	●	●	●
			P*2	MPa/psi dual scale	○	○	○	○	○

●: Without restrictions ○: With restrictions (Refer to *1 and *2.)

*1 The set pressure range for the 6P is 0.2 to 0.6 MPa (30 to 90 psi).

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

Standard Specifications

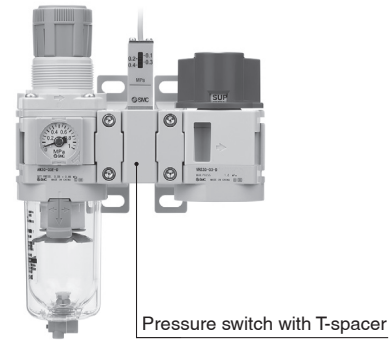
Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.0 MPa
Max. operating pressure	0.7 MPa
Set pressure range (when OFF)	0.1 to 0.4 MPa
Hysteresis	0.08 MPa or less
Contact point configuration	1a

Switch Characteristics

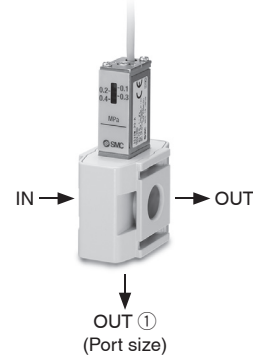
Max. contact point capacity	2 VA (AC), 2 W (DC)
Operating voltage: AC, DC	100 V or less
Max. operating current	24 VAC, DC or less: 50 mA 48 VAC, DC or less: 40 mA 100 VAC, DC or less: 20 mA

*

Symbol

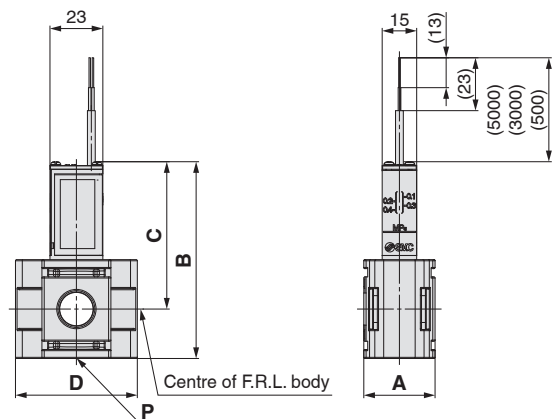


Pressure switch with T-spacer



		Port size
IN		—
OUT		—
OUT ①		③

Dimensions



Model	P	A	B	C	D	Applicable AC size
IS10T-20-D	1/8, 1/4	28	77.6	60.1	42	AC20-D
IS10T-30-D	1/8, 1/4, 3/8	31	85.6	64.1	53	AC30-D
IS10T-40-D	1/4, 3/8, 1/2	39	93.6	68.1	71	AC40-D
IS10T-50-D	1/4, 3/8, 1/2, 3/4	47	96.6	69.6	71	AC40-06-D
IS10T-60-D	3/8, 1/2, 3/4	62	106.6	74.6	90	AC50-D, AC60-D

Caution on Mounting

- Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.
- The backflow of oil may occur when a spacer is used on the inlet side of the lubricator. Attach a check valve between the lubricator and the product to prevent backflow.

Semi-standard Symbol Selection

- Select one each for **a** to **d**.
- When more than one specification is required, indicate in alphanumeric order.
Example) IS10L-30-N03-6LP-D

Pressure Switch with L-Shaped Piping Adapter

- A compact, integrated pressure switch can be easily installed to facilitate the pressure detection of the line.
- Using on the inlet side or the outlet side of F.R.L. units allows the component to be installed/removed without removing the piping.

IS10L - 30 - 03 - D

① ② ③ ④

		Symbol	Description	①					
				Body size [Applicable AC size]					
				20	30	40	50	60	
				[AC20]	[AC30]	[AC40]	[AC40-06]	[AC50, AC60]	
②	Pipe thread type	—	Rc	●	●	●	●	●	
		N	NPT	●	●	●	●	●	
		F	G	●	●	●	●	●	
+									
③	Port size (OUT)	01	1/8	●	●	—	—	—	
		02	1/4	●	●	—	—	—	
		03	3/8	—	●	●	—	—	
		04	1/2	—	—	●	●	●	
		06	3/4	—	—	—	●	●	
		10	1	—	—	—	—	●	
+									
④	a	Set pressure range	—	0.1 to 0.4 MPa	●	●	●	●	●
			6*1	0.1 to 0.6 MPa	○	○	○	○	○
	+								
	b	Lead wire length	—	0.5 m	●	●	●	●	●
			L	3 m	●	●	●	●	●
			Z	5 m	●	●	●	●	●
	+								
	c	Pressure unit of the scale plate	—	MPa	●	●	●	●	●
			P*2	MPa/psi dual scale	○	○	○	○	○
	+								
	d	Mounting position	—	Right	●	●	●	●	●
			R	Left	●	●	●	●	●

●: Without restrictions ○: With restrictions (Refer to *1 and *2.)

*1 The set pressure range for the 6P is 0.2 to 0.6 MPa (30 to 90 psi).

*2 For the pipe thread type: NPT only

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

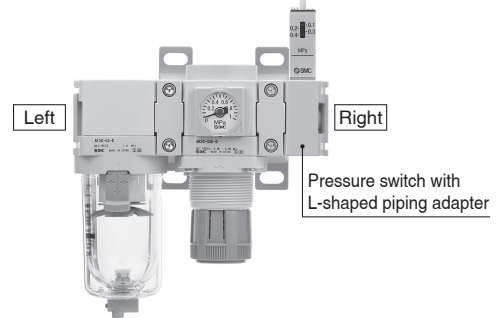
Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.0 MPa
Max. operating pressure	0.7 MPa
Set pressure range (when OFF)	0.1 to 0.4 MPa
Hysteresis	0.08 MPa or less
Contact point configuration	1a

Switch Characteristics

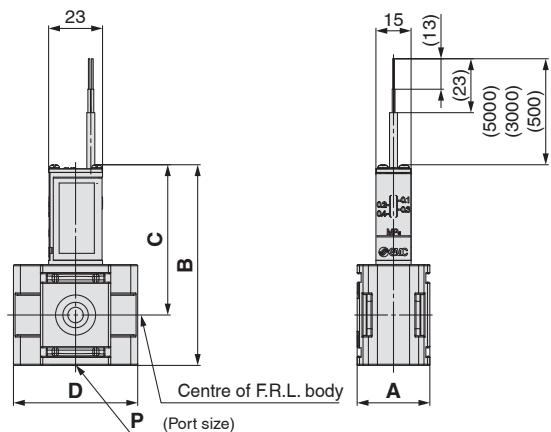
Max. contact point capacity	2 VA (AC), 2 W (DC)
Operating voltage: AC, DC	100 V or less
Max. operating current	24 VAC, DC or less: 50 mA 48 VAC, DC or less: 40 mA 100 VAC, DC or less: 20 mA

Symbol



Port size	
IN	—
OUT	③

Dimensions



Model	P	A	B	C	D	Applicable AC size
IS10L-20-D	1/8, 1/4	28	77.6	60.1	42	AC20-D
IS10L-30-D	1/8, 1/4, 3/8	31	85.6	64.1	53	AC30-D
IS10L-40-D	1/4, 3/8, 1/2	39	93.6	68.1	71	AC40-D
IS10L-50-D	1/2, 3/4	47	96.6	69.6	71	AC40-06-D
IS10L-60-D	1/2, 3/4, 1	62	106.6	74.6	90	AC50-D, AC60-D

Caution on Mounting

Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.

AC-D Series

Semi-standard Symbol Selection

- Select one each for a to d.
- When more than one specification is required, indicate in alphanumeric order.
Example) IS10E-30-N03-6L-P-D

Pressure Switch with Piping Adapter

· A compact, integrated pressure switch can be easily installed to facilitate the pressure detection of the line.

IS10E - **30** - **03** - **D**

① ② ③ ④

		Symbol	Description	①					
				Body size [Applicable AC size]					
				20 [AC20]	30 [AC30]	40 [AC40]	50 [AC40-06]	60 [AC50, AC60]	
②	Pipe thread type	—	Rc	●	●	●	●	●	
		N	NPT	●	●	●	●	●	
		F	G	●	●	●	●	●	
+									
③	Port size (OUT)	01	1/8	●	—	—	—	—	
		02	1/4	●	●	—	—	—	
		03	3/8	●	●	●	—	—	
		04	1/2	—	●	●	—	—	
		06	3/4	—	—	●	●	●	
		10	1	—	—	—	●	●	
		12	1 1/4	—	—	—	—	●	
+									
④	a	Set pressure range	—	0.1 to 0.4 MPa	●	●	●	●	●
			6*1	0.1 to 0.6 MPa	○	○	○	○	○
	+								
	b	Lead wire length	—	0.5 m	●	●	●	●	●
			L	3 m	●	●	●	●	●
			Z	5 m	●	●	●	●	●
	+								
	c	Pressure unit of the scale plate	—	MPa	●	●	●	●	●
			P*2	MPa/psi dual scale	○	○	○	○	○
	+								
	d	Mounting position	—	Right	●	●	●	●	●
			R	Left	●	●	●	●	●

●: Without restrictions ○: With restrictions (Refer to *1 and *2.)

- *1 The set pressure range for the 6P is 0.2 to 0.6 MPa (30 to 90 psi).
*2 For the pipe thread type: NPT only
This product is for overseas use only according to the New Measurement Act.
(The SI unit type is provided for use in Japan.)

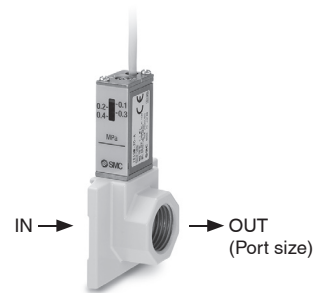
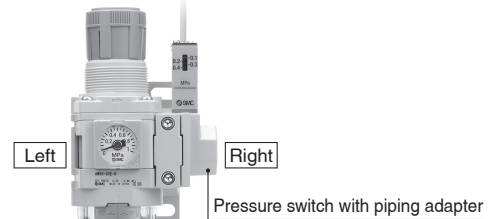
Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.0 MPa
Max. operating pressure	0.7 MPa
Set pressure range (when OFF)	0.1 to 0.4 MPa
Hysteresis	0.08 MPa or less
Contact point configuration	1a

Switch Characteristics

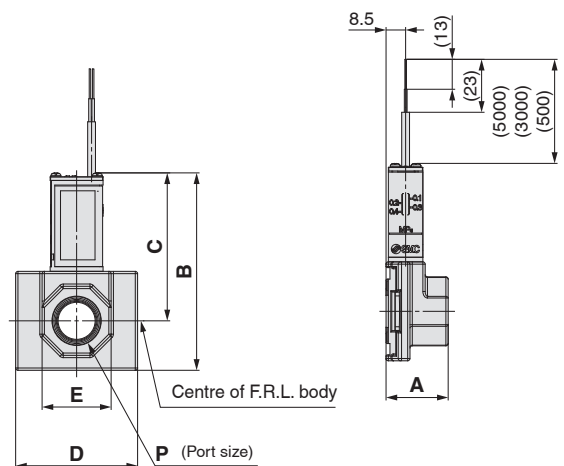
Max. contact point capacity	2 VA (AC), 2 W (DC)
Operating voltage: AC, DC	100 V or less
Max. operating current	24 VAC, DC or less: 50 mA 48 VAC, DC or less: 40 mA 100 VAC, DC or less: 20 mA

Symbol



	Port size
IN	—
OUT	③

Dimensions



Model	P	A	B	C	D	E	F	Applicable AC size
IS10E-20-D	1/8, 1/4, 3/8	24	77.8	60.3	42	24	8.5	AC20-D
IS10E-30-D	1/4, 3/8, 1/2	27	85.8	64.3	53	30		AC30-D
IS10E-40-D	1/4, 3/8, 1/2, 3/4	30	93.8	68.3	71	36		AC40-D
IS10E-50-D	3/4	31	96.8	69.8	71	36	9.5	AC40-06-D
	1					46		
IS10E-60-D	3/4, 1	39	106.8	74.8	90	46	9.5	AC50-D, AC60-D
	1 1/4, 1 1/2					63		

Caution on Mounting

Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.

Right Angle Adapter

- Allows for modular connection with the product rotated 90 degrees

E 310 T-D

• Body size

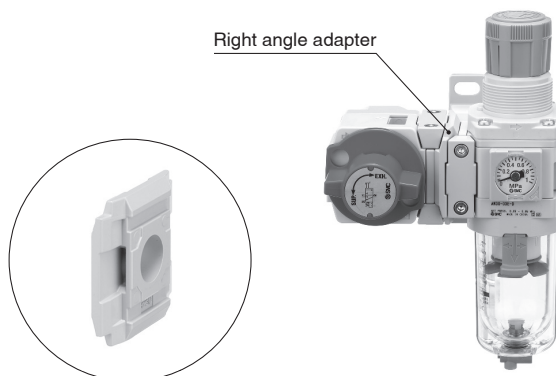
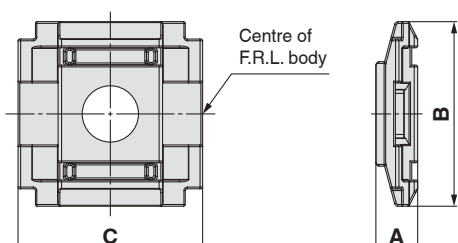
210
310
410

• Right angle adapter

Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Dimensions



Model	A	B	C	Applicable AC size
E210T-D	9	42	42	AC20-D
E310T-D	12	53	53	AC30-D
E410T-D	15	71	71	AC40-D

Caution on Mounting

- Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.
- When mounting to a wall using a spacer with bracket, use a spacer on only one side.

Reducing Adapter

- Allows for modular connection with products 1 body size larger or smaller

E 310 R-D

• Reducing adapter

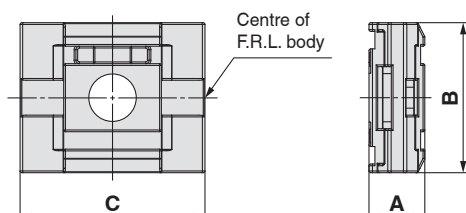
• Body size

310	For connecting sizes 20 and 30
410	For connecting sizes 30 and 40

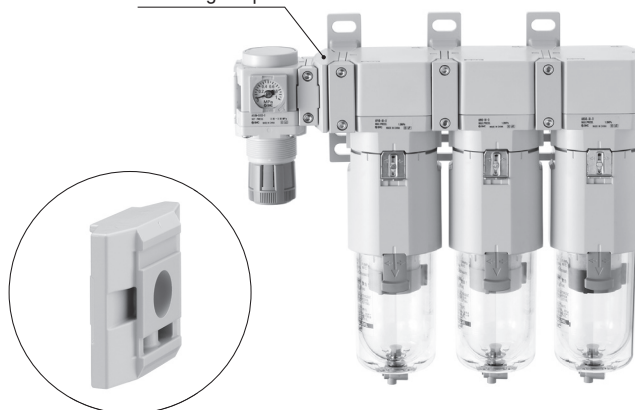
Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Dimensions



Reducing adapter



Model	A	B	C	Applicable AC size
E310R-D	16	43	53	AC20-D, AC30-D
E410R-D	20	51	71	AC30-D, AC40-D

Caution on Mounting

- Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.
- When mounting to a wall using a spacer with bracket, use a spacer on only one side.

AC-D Series

Semi-standard Symbol Selection

- Select one each for **a** and **b**.
- When more than one specification is required, indicate in alphabetical order.
Example) Y34M-N03E-AZ-D

Cross Adapter: 1/4, 3/8, 1/2

- Allows for devices to be connected on the top, bottom, left, and right with a spacer

Y **34** M - **03** B - **03** - D

① ② ③ ④ ⑤

	Symbol	Description	①				
			Body size [Applicable AC size]				
			24 [AC20]	34 [AC30]	44 [AC40]		
②	Pipe thread type	—	Rc	●	●	●	
		N	NPT	●	●	●	
		F	G	●	●	●	
+							
③	Port size	02	1/4	●	—	—	
		03	3/8	—	●	—	
		04	1/2	—	—	●	
+							
④	Option Pressure gauge	B	Without pressure gauge (Double-sided blanking plate)	●	●	●	
		E	Square embedded type pressure gauge (with limit indicator)	●	●	●	
+							
⑤	Semi-standard a	Top/bottom spacer mounting direction*1	—	Front to back mounting	●	●	●
			A	Left to right mounting	●	●	●
	+						
	b	Unit	—	Pressure gauge in SI units: MPa	●	●	●
Z*2			Pressure gauge: MPa/psi dual scale	○*3	○*3	○*3	

*1 It is possible to change the mounting direction of the spacer (From front to back to left to right). For details on how to do so, refer to the operation manual.

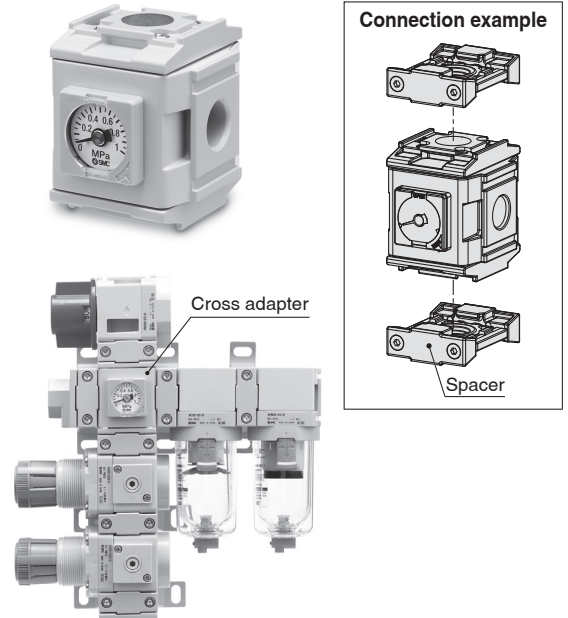
*2 For the pipe thread type: NPT. This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)

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

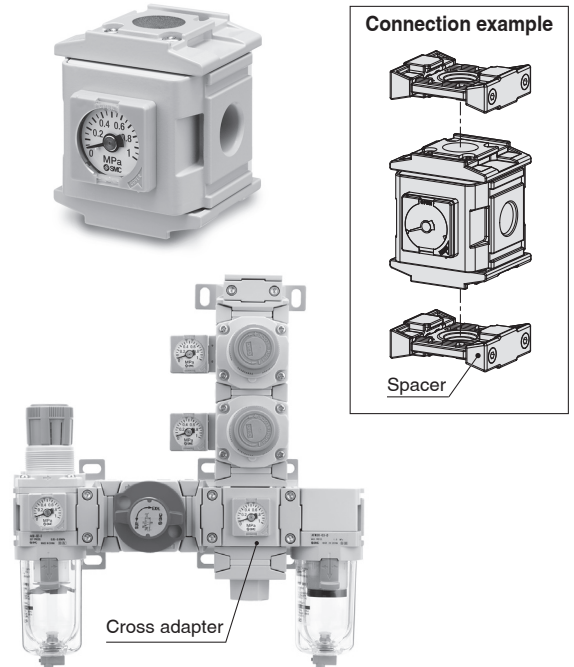
Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Top/bottom spacer mounting direction: Front to back mounting (—)



Top/bottom spacer mounting direction: Left to right mounting (A)

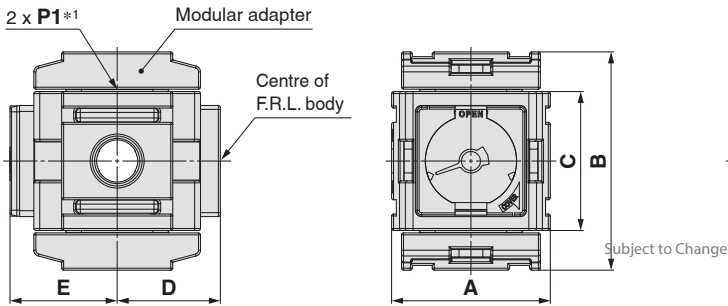


Caution on Mounting

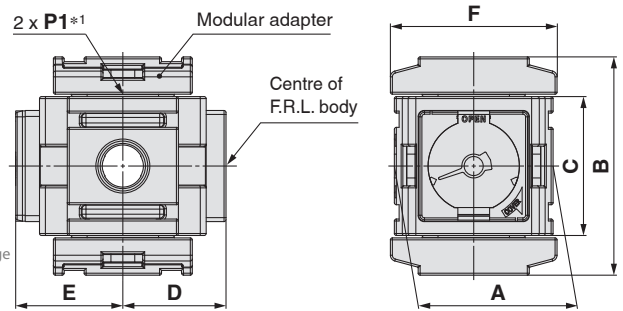
- Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.
- The backflow of oil may occur when a spacer is used on the inlet side of the lubricator. Attach a check valve between the lubricator and the product to prevent backflow.

Dimensions

Top/bottom spacer mounting direction:
Front to back mounting



Top/bottom spacer mounting direction:
Left to right mounting



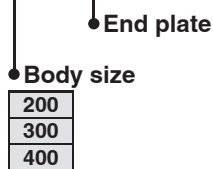
Model	Standard specifications					Optional specifications		Semi-standard specifications	Applicable AC size
	P1*1	A	B	C	D	Without pressure gauge	Square embedded type pressure gauge	Spacer Left to right mounting	
Y24M-D	1/4	40	55	35	26	E	E	F	AC20-D
Y34M-D	3/8	53	63	43	31.5	31.5	32.5	53	AC30-D
Y44M-D	1/2	70	77	51	40.5	40.5	41.5	71	AC40-D

*1 By removing the modular adapter, the female threads on the top and bottom surfaces can be used as piping ports for air release.

End Plate

· For blocking the unused piping ports on sides without a modular connection

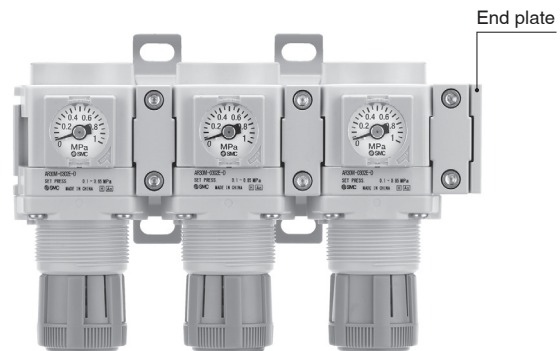
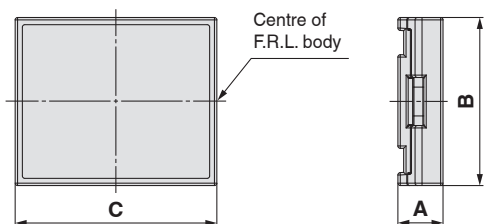
E 300 E - D



Standard Specifications

Fluid	Air
Ambient and fluid temperatures	-5 to 60 °C (No freezing)
Proof pressure	1.5 MPa
Max. operating pressure	1.0 MPa

Dimensions



Model	A	B	C	Applicable AC size
E200E-D	9.4	35	42	AC20-D
E300E-D	9.4	43	53	AC30-D
E400E-D	12.4	51	71	AC40-D

Caution on Mounting

· Pipe threads are not provided on the face which connects with the other components. For use, a separate spacer (or spacer with bracket) is required.



AC-D Series Specific Product Precautions

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For F.R.L. units precautions, refer to the “Handling Precautions for SMC Products” and the “Operation Manual” on the SMC website: <https://www.smc.eu>

Air Supply

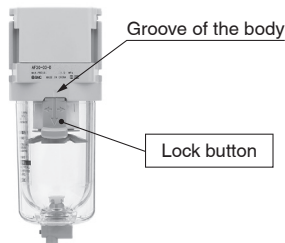
⚠ Caution

1. Use an air filter with 5 μm or less filtration rating on the inlet side of the valve to avoid any damage to the seat caused by dust when mounting a pressure relief 3-port valve on the inlet side.

Mounting / Adjustment

⚠ Caution

1. When the bowl is installed on the air filter, filter regulator, lubricator, mist separator, or micro mist separator (AC30-D to AC60-D), install them so that the lock button lines up to the groove of the front (or the back) of the body to avoid drop or damage of the bowl.



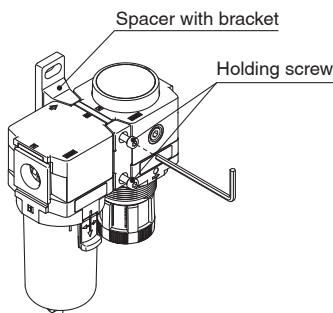
2. Tighten the 2 holding screws on the spacer with bracket or spacer evenly.

Tighten them to the recommended tightening torque. Insufficient tightening torque may result in loosening or sealing failure. Excessive tightening torque may damage the thread, etc.

Recommended Torque

Unit: N·m

Applicable model	AC20□	AC30□	AC40□	AC40□-06	AC50□ AC60□
Spacer with bracket part no.	Y200T-D	Y300T-D	Y400T-D	Y500T-D	Y600T-D
Spacer part no.	Y200-D	Y300-D	Y400-D	Y500-D	Y600-D
Torque	0.36 ±0.036	1.2 ±0.05	1.2 ±0.05	1.4 ±0.05	2.0 ±0.1



Selection

⚠ Warning

1. Piping load and moment

Avoid any torsional or bending moments other than those caused by the equipment's own weight as failure to do so may result in damage.

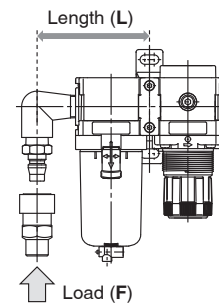
Support external piping separately. If moment application is unavoidable during operation, the moment should be lower than the max. moment shown below.

Piping materials without flexibility, such as steel tube piping, are prone to being affected by excess moment loads or vibrations from the piping side. Use flexible tubing in between to avoid such effects.

Unit: N·m

Applicable model	AC20□	AC30□	AC40□	AC40□-06	AC50□ AC60□
Max. moment (M)	14.5	16	19.5	35	45

Max. moment (M) = Length (L) x Load (F)



2. Float type auto drain

Operate under the following conditions to avoid a malfunction.
<N.O. type>

- Operating compressor: 0.75 kW (100 l/min (ANR)) or more
When using 2 or more auto drains, multiply the value above by the number of auto drains to find the capacity of the compressors you will need.

For example, when using 2 auto drains, 1.5 kW (200 l/min (ANR)) of the compressor capacity is required.

- Operating pressure: 0.1 MPa or more
<N.C. type>

- Operating pressure for AD27-D: 0.1 MPa or more
Operating pressure for AD37-D/AD47-D: 0.15 MPa or more

3. Use a regulator or filter regulator with backflow function when mounting a pressure relief 3-port valve on the inlet side to ensure the release of the residual pressure. Otherwise, residual pressure will not be fully released.

⚠ Caution

1. When releasing air at the intermediate position using a T-spacer on the inlet side of the lubricator, lubricant may backflow. Therefore, releasing air that does not contain traces of lubricant is not possible. To release air that does not contain traces of lubricant, use a check valve (AKM series) on the inlet side of the lubricator to prevent a backflow of the lubricant.

2. If a pressure relief 3-port valve is mounted on the inlet side of the lubricator, causing a backflow of air, it can result in a backflow of oil or damage to internal parts. Do not use it in this manner.

3. An F.R.L. unit shipped from the plant has its model number labeled. However, components that are combined together during the distribution process do not have a label on them.

4. When operating at an inlet pressure lower than the inlet pressure used in the flow rate characteristics graph, the pressure drop on the outlet side may be greater. Therefore, be sure to conduct testing using the actual equipment.

For air combination selection, refer to the “Product Selection Guide.”