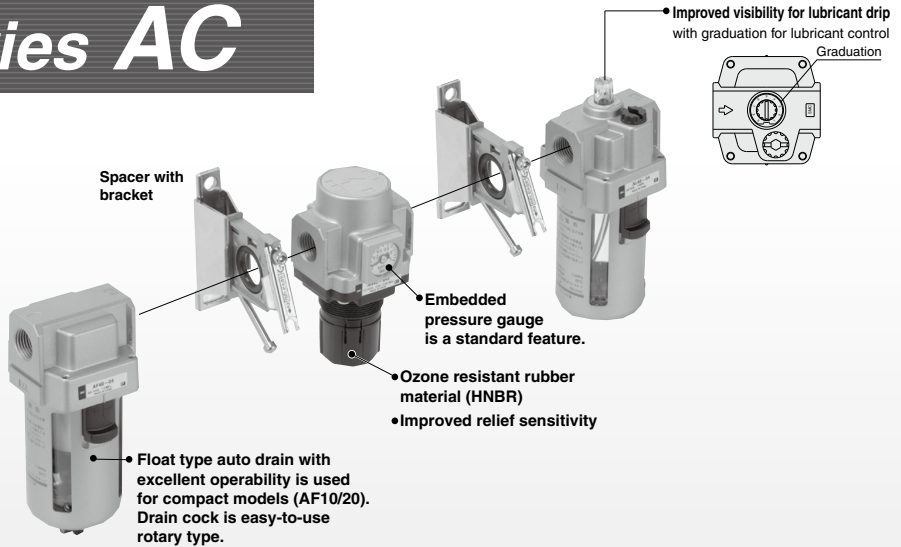


Series AC



Improved installation








- ① Attach the component into the fitting of the spacer with bracket.
- ② Lock the lever pin into the retainer. (temporary installation)

- ③ Tighten the bolt.



Series Configuration

Product	Model	Port size							Page
		M5 x 0.8	1/8	1/4	3/8	1/2	3/4	1	
Air Filter + Regulator + Lubricator AF AR AL 	AC10	●							450
	AC20		●	●					
	AC25			●	●				
	AC30			●	●				
	AC40			●	●	●			
	AC40-06						●		
	AC50						●	●	
	AC55							●	
	AC60							●	
Filter Regulator + Lubricator AW AL 	AC10A	●						456	
	AC20A		●	●					
	AC30A			●	●				
	AC40A			●	●	●			
	AC40A-06						●		
	AC50A						●		●
	AC60A								●
	Air Filter + Regulator AF AR 	AC10B	●						
AC20B			●	●					
AC25B				●	●				
AC30B				●	●				
AC40B				●	●	●			
AC40B-06							●		
AC50B							●	●	
AC55B								●	
AC60B								●	
Air Filter + Mist Separator + Regulator AF AFM AR 		AC20C		●	●				464
	AC25C			●	●				
	AC30C			●	●				
	AC40C			●	●	●			
	AC40C-06						●		
Filter Regulator + Mist Separator AW AFM 	AC20D		●	●				468	
	AC30D			●	●				
	AC40D			●	●	●			
	AC40D-06						●		

Air Combination

AC-A

AF-A

AF□-A

AR-A

AL-A

AW-A

AC

AF

AF□

AR

AL

AW□






A□G

E□






AV

AF

Series Configuration

Product	Model	Port size							Page
		M5 x 0.8	1/8	1/4	3/8	1/2	3/4	1	
Air Filter 	AF10	●							477
	AF20		●	●					
	AF30			●	●				
	AF40			●	●	●			
	AF40-06						●		
	AF50						●	●	
	AF60							●	
Mist Separator 	AFM20		●	●				488	
	AFM30			●	●				
	AFM40			●	●	●			
	AFM40-06						●		
Micro Mist Separator 	AFD20		●	●				488	
	AFD30			●	●				
	AFD40			●	●	●			
	AFD40-06						●		
Regulator 	AR10	●						495	
	AR20		●	●					
	AR25			●	●				
	AR30			●	●				
	AR40			●	●	●			
	AR40-06						●		
	AR50						●		●
	AR60								●
Regulator with Backflow Function 	AR20K		●	●				495	
	AR25K			●	●				
	AR30K			●	●				
	AR40K			●	●	●			
	AR40K-06						●		
	AR50K						●		●
	AR60K								●

Series Configuration

Product	Model	Port size							Page
		M5 x 0.8	1/8	1/4	3/8	1/2	3/4	1	
Lubricator 	AL10	●							507
	AL20		●	●					
	AL30			●	●				
	AL40			●	●	●			
	AL40-06						●		
	AL50						●	●	
	AL60							●	
Filter Regulator 	AW10	●						515	
	AW20		●	●					
	AW30			●	●				
	AW40			●	●	●			
	AW40-06						●		
	AW60						●		●
Filter Regulator with Backflow Function 	AW20K		●	●				515	
	AW30K			●	●				
	AW40K			●	●	●			
	AW40K-06						●		
	AW60K						●		●
Mist Separator Regulator 	AWM20		●	●				528	
	AWM30			●	●				
	AWM40			●	●	●			
Micro Mist Separator Regulator 	AWD20		●	●				528	
	AWD30			●	●				
	AWD40			●	●	●			

AC-A

AF-A

AF□-A

AR-A

AL-A

AW-A

AC

AF

AF□

AR

AL

AW□

A□G

E□

AV

AF

Simple Specials System A system designed to respond quickly and easily to your special ordering needs.

Simple
Specials
 System

Short lead times

This system enables us to respond to your special needs, such as additional machining, accessory assembly, or modular unit, and deliver such special products as quickly as standard products.

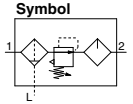
Repeat orders

Once we receive a Simple Special part number from your previous order, we will process the order, manufacture the product, and deliver it to you.



The simple specials specification sheets can be downloaded from SMC website. For details, refer to the SMC website. (<http://www.smcworld.com>)

AC10 to AC60



How to Order

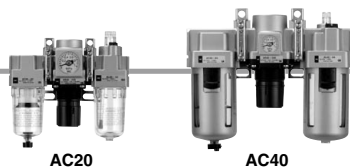
AC 30 - 03 DE - -

① ② ③ ④ ⑤ ⑥

- Option/Semi-standard: Select one each for a to m.
- Option/Attachment/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.
Example) AC30-F03DE1-KSTV-136NR

		Symbol	Description	①								
				Body size								
				10	20	25	30	40	50	55	60	
②	Thread type	Nil	Metric thread (M5)	●	—	—	—	—	—	—	—	
		N <small>Note 1)</small>	Rc	—	●	●	●	●	●	●	●	
		F <small>Note 2)</small>	NPT	—	●	●	●	●	●	●	●	
				—	●	●	●	●	●	●		
③	Port size	+		●	—	—	—	—	—	—	—	
		M5	M5	—	●	—	—	—	—	—	—	
		01	1/8	—	●	—	—	—	—	—	—	
		02	1/4	—	●	●	●	—	—	—	—	
		03	3/8	—	●	●	●	●	—	—	—	
		04	1/2	—	—	—	—	●	—	—	—	
		06	3/4	—	—	—	—	●	●	—	—	
10	1	—	—	—	—	—	●	●	●	●		
④	a	Float type auto drain	Nil	Without auto drain	●	●	●	●	●	●	●	
			C	Float type auto drain (N.C.)	●	●	●	●	●	●	●	
			D	Float type auto drain (N.O.)	—	—	●	●	●	●	●	●
					+							
	b	Pressure gauge	Nil	Without pressure gauge	●	●	●	●	●	●	●	●
			E	Square embedded type pressure gauge (with limit indicator)	—	●	●	●	●	●	●	●
			G	Round type pressure gauge (without limit indicator)	●	—	—	—	—	—	—	
		Digital pressure switch	M	Round type pressure gauge (with limit indicator)	—	●	●	●	●	●	●	●
			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	Check valve	Nil	Without attachment	●	●	●	●	●	●	●	
			K	Mounting position: AF+AR+K+AL	—	—	●	●	●	●	—	—
					+							
	d	Pressure switch	Nil	Without attachment	●	●	●	●	●	●	●	
			S <small>Note 5)</small>	Mounting position: AF+AR+S+AL	—	—	●	●	●	●	●	●
					+							
e	T-interface	Nil	Without attachment	●	●	●	●	●	●	●		
		T <small>Note 5)</small>	Mounting position: AF+T+AR+AL	●	●	●	●	●	●	●		
				+								
f	3-port valve for residual pressure release	Nil	Without attachment	●	●	●	●	●	●	●		
		V	Mounting position: AF+AR+AL+V	—	●	●	●	●	●	—	—	
⑥	g	Set pressure	Nil	0.05 to 0.85 MPa setting	●	●	●	●	●	●	●	
			1 <small>Note 6)</small>	0.02 to 0.2 MPa setting	●	●	●	●	●	●	●	
					+							
	h	Bowl <small>Note 7)</small>	Nil	Polycarbonate bowl	●	●	●	●	●	●	●	
			2	Metal bowl	●	●	●	●	●	●	●	
			6	Nylon bowl	●	●	●	●	●	●	●	
8			Metal bowl with level gauge	—	—	●	●	●	●	●	●	
C	With bowl guard	—	—	—	—	—	—	—	—			
6C	Nylon bowl with bowl guard	—	●	—	—	—	—	—	—			

Air Combination Series AC10 to AC60



		Symbol	Description	①								
				Body size								
				10	20	25	30	40	50	55	60	
6	i	Filter drain port ^{Note 8)}	Nil	With drain cock	●	●	●	●	●	●	●	●
			J ^{Note 9)}	Drain guide 1/8	—	—	—	—	—	—	—	—
			W ^{Note 10)}	Drain cock with barb fitting: For ø6 x ø4 nylon tube	—	—	●	●	●	●	●	●
	j	Lubricator lubricant exhaust port	Nil	Without drain cock	●	●	●	●	●	●	●	●
			3 ^{Note 11)}	Lubricator with drain cock	●	●	●	●	●	●	●	●
	k	Exhaust mechanism	Nil	Relieving type	●	●	●	●	●	●	●	●
			N	Non-relieving type	●	●	●	●	●	●	●	●
	l	Flow direction	Nil	Flow direction: Left to right	●	●	●	●	●	●	●	●
			R	Flow direction: Right to left	●	●	●	●	●	●	●	●
	m	Pressure unit	Nil	Name plate and pressure gauge in imperial units: MPa	●	●	●	●	●	●	●	●
			Z ^{Note 12)}	Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F	○ ^{Note 14)}	○ ^{Note 14)}	○ ^{Note 14)}	○ ^{Note 14)}	○ ^{Note 14)}	○ ^{Note 14)}	○ ^{Note 14)}	○ ^{Note 14)}
			ZA ^{Note 13)}	Digital pressure switch: With unit conversion function	—	△ ^{Note 15)}	△ ^{Note 15)}	△ ^{Note 15)}	△ ^{Note 15)}	△ ^{Note 15)}	△ ^{Note 15)}	△ ^{Note 15)}

- Note 1) Drain guide is NPT1/8 (applicable to the AC20) and NPT1/4 (applicable to the AC25 to AC60). The auto drain port comes with ø3/8" one-touch fitting (applicable to the AC25 to AC60).
- Note 2) Drain guide is G1/8 (applicable to the AC20) and G1/4 (applicable to the AC25 to AC60).
- Note 3) Option G, M are not assembled and supplied loose at the time of shipment.
- Note 4) Not available with piping port size: 06.
- Note 5) The bracket position varies depending on the T-interface or pressure switch mounting.

- Note 6) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2 MPa or more. When the pressure gauge is attached, a 0.2 MPa pressure gauge will be fitted.
- Note 7) Refer to Chemical Data on page 365 when selecting a case material.
- Note 8) Float type auto drain: The combination of C and D is not possible.
- Note 9) Without a valve function
- Note 10) Metal bowl: The combination of 2 and 8 is not possible.
- Note 11) Filter drain port: When choosing with W, the drain cock of a lubricator will be with barb fittings.

- Note 12) For thread type: M5 and NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) The digital pressure switch will be equipped with the unit conversion function, setting to psi initially.
- Note 13) For thread type: M5 and NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit is provided for use in Japan.)
- Note 14) ○: For thread type: M5 and NPT only
- Note 15) △: Select with options: E1, E2, E3, E4.

Standard Specifications

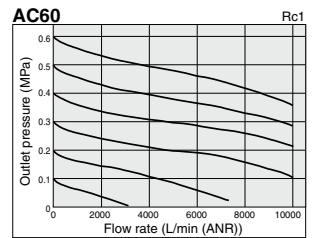
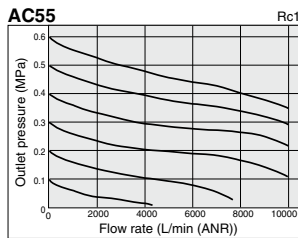
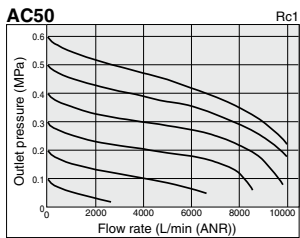
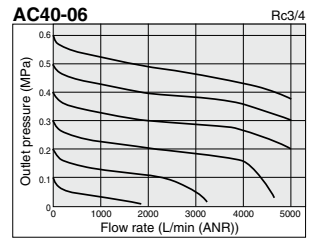
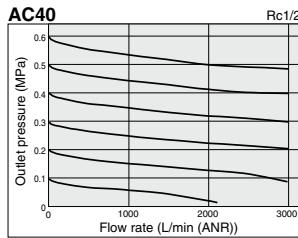
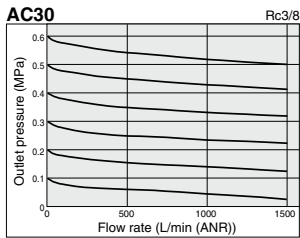
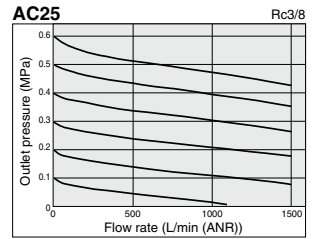
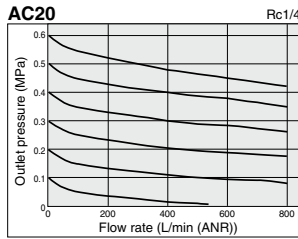
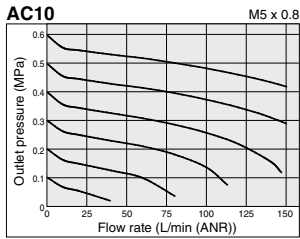
Model	AC10	AC20	AC25	AC30	AC40	AC40-06	AC50	AC55	AC60
Component	Air filter	AF10	AF20	AF30	AF30	AF40	AF40-06	AF50	AF60
	Regulator	AR10	AR20	AR25	AR30	AR40	AR40-06	AR50	AR60
	Lubricator	AL10	AL20	AL30	AL30	AL40	AL40-06	AL50	AL60
Port size	M5 x 0.8	1/8, 1/4	1/4, 3/8	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1	1
Pressure gauge port size ^{Note 1)}	1/16		1/8				1/4		
Fluid	Air								
Ambient and fluid temperature ^{Note 2)}	-5 to 60°C (with no freezing)								
Proof pressure	1.5 MPa								
Max. operating pressure	1.0 MPa								
Set pressure range	0.05 to 0.7 MPa		0.05 to 0.85 MPa						
Relief pressure	Set pressure + 0.05 MPa ^{Note 3)} [at relief flow rate of 0.1 L/min (ANR)]								
Nominal filtration rating	5 µm								
Recommended lubricant	Class 1 turbine oil (ISO VG32)								
Bowl material	Polycarbonate								
Bowl guard	—	Semi-standard	Standard						
Regulator construction	Relieving type								
Weight (kg)	0.27	0.46	0.91	1.00	1.74	1.95	4.17	4.25	4.34

- Note 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 (AC20 to AC60).
- Note 2) -5 to 50°C for the products with the digital pressure switch
- Note 3) Not applicable to the AC10.

Series AC10 to AC60

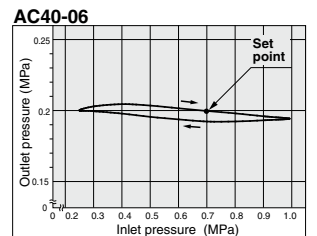
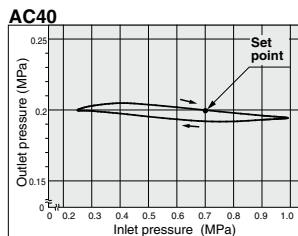
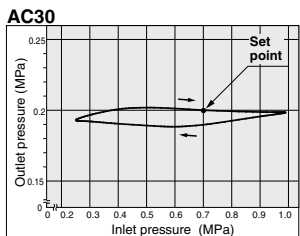
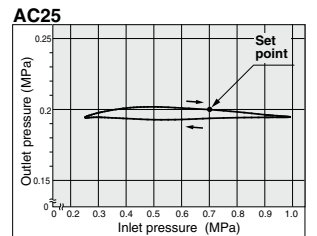
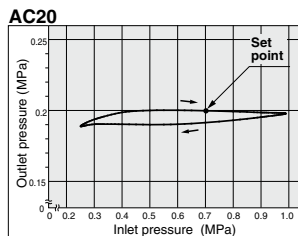
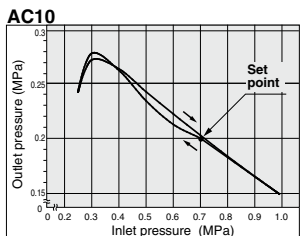
Flow Characteristics (Representative values)

Condition: Inlet pressure 0.7 MPa



Pressure Characteristics (Representative values)

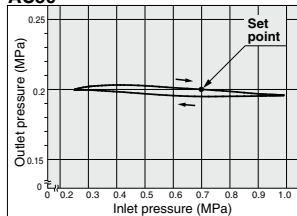
Conditions: Inlet pressure 0.7 MPa, Outlet pressure 0.2 MPa, Flow rate 20 L/min (ANR)



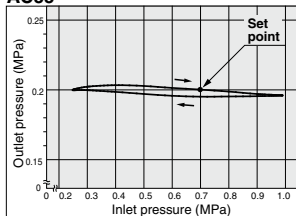
Pressure Characteristics (Representative values)

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

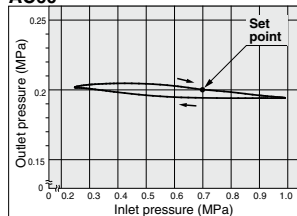
AC50



AC55



AC60



⚠ Specific Product Precautions

- Be sure to read before handling.**
Refer to front matter 43 for Safety Instructions and pages 365 to 369 for F.R.L. Precautions.

Mounting and Adjustment

⚠ Caution

1. A knob cover is available to prevent careless operation of the knob. Refer to page 539 for details.

Piping

⚠ Warning

1. When mounting a check valve, make sure the arrow (IN side) points in the correct direction of air flow.

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 3-port valve for residual pressure release on the inlet side.

Selection

⚠ Warning

1. Float type auto drain
 - Operate under the following conditions to avoid 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 AD17/27: 0.1 MPa or more.
 - Operating pressure for AD37/47: 0.15 MPa or more.
2. Use a regulator or filter regulator with backflow function when mounting a 3-port valve for residual pressure release on the IN 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-interface on the inlet side of the lubricator, lubricant may back flow. 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 residual pressure-release 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. Please do not use it in this fashion.
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.

AC-A

AF-A

AF□-A

AR-A

AL-A

AW-A

AC

AF

AF□

AR

AL

AW□

AF□G

E□

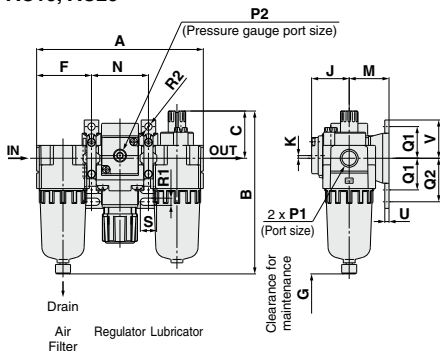
AV

AF

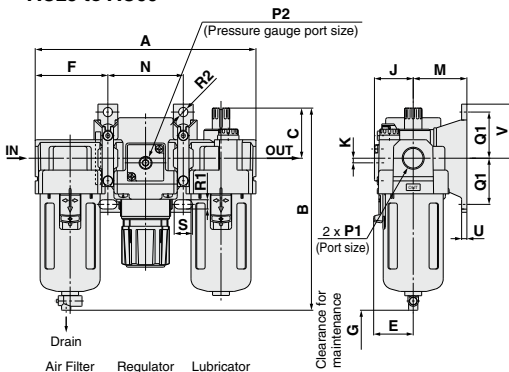
Series AC10 to AC60

Dimensions

AC10, AC20



AC25 to AC60



Applicable model	AC20 to AC60		AC10 to AC60	AC20 to AC60
Option	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with color zone)
Dimensions				

Applicable model	AC10, AC20		AC20	AC25 to AC60				
Optional/Semi-standard specifications	With auto drain (N.C.)	Metal bowl	With drain guide	With auto drain (N.O./N.C.)	Metal bowl	Metal bowl with level gauge	With drain guide	Drain cock with barb fitting
Dimensions								

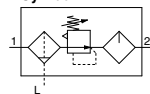
Model	Standard specifications										Optional specifications							
	P1	P2	A	B	C	E	F	G	J	K	H	J	H	J	H	J		
AC10	M5 x 0.8	1/16	87	85	26	—	28	35	12.5	0	—	—	—	—	—	—		
AC20	1/8, 1/4	1/8	126	123	36	—	41.5	60	28.5	2 ^(Note)	□28	29.5	□27.8	40	ø37.5	65	ø37.5	65
AC25	1/4, 3/8	1/8	167	153	38	30	55	80	27.5	0	□28	28.5	□27.8	39	ø37.5	64	ø37.5	64
AC30	1/4, 3/8	1/8	167	153	38	30	55	80	29.5	3.5	□28	30.5	□27.8	41	ø37.5	66	ø37.5	66
AC40	1/4, 3/8, 1/2	1/4	220	187	40	38	72.5	110	34	3.5	□28	35	□27.8	45	ø42.5	72.5	ø42.5	74
AC40-06	3/4	1/4	235	187	38	38	77.5	110	34	3	□28	35	□27.8	45	ø42.5	72.5	ø42.5	74
AC50	3/4, 1	1/4	282	264	43	45	93	110	43.5	3.3	□28	44.5	□27.8	55	ø42.5	82	ø42.5	84
AC55	1	1/4	292	279	45	47.5	98	110	43.5	3.3	□28	44.5	□27.8	55	ø42.5	82	ø42.5	84
AC60	1	1/4	297	280	46	47.5	98	110	43.5	3.3	□28	44.5	□27.8	55	ø42.5	82	ø42.5	84

Model	Standard specifications										Optional specifications		Semi-standard specifications					
	Bracket mount										With auto drain		With barb fitting		With drain guide		Metal bowl	
	M	N	Q1	Q2	R1	R2	S	U	V		B	B	B	B	B	B		
AC10	25	31	20	27	4.5	ø4.5	7	2.8	24.5	104	—	—	—	85	—			
AC20	30	43	24	33	5.5	ø5.5	12	3.2	29	141	—	127	123	—				
AC25	41	57	35	—	7	ø7	14	4	41	194	161	160	166	186				
AC30	41	57	35	—	7	ø7	14	4	41	194	161	160	166	186				
AC40	50	75	40	—	9	ø9	18	4	48	226	195	194	200	220				
AC40-06	50	80	40	—	9	ø9	18	4.6	48	226	195	194	200	220				
AC50	70	96	50	—	11	ø11	20	6.4	60	303	272	271	276	296				
AC55	70	96	50	—	11	ø11	20	6.4	60	318	287	286	292	312				
AC60	70	101	50	—	11	ø11	20	6.4	60	319	288	287	293	313				

Note) For the AC20 only, the position of the pressure gauge is above the center of the piping.

AC10A to AC60A

Symbol



How to Order

AC **30** A - **03** **DE** - **5** - **6**

① ② ③ ④ ⑤ ⑥

- Option/Semi-standard: Select one each for a to I.
- Option/Attachment/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.
Example) AC30A-F03DE1-KSV-136NR

		Symbol	Description	①						
				Body size						
				10	20	30	40	50	60	
②	Thread type	Nil	Metric thread (M5)	●	—	—	—	—	—	
		N <small>Note 1)</small>	Rc	—	●	●	●	●	●	
		F <small>Note 2)</small>	NPT	—	●	●	●	●	●	
			G	—	●	●	●	●	●	
③	Port size	+		●	—	—	—	—	—	
		M5	M5	—	●	—	—	—	—	
		01	1/8	—	●	—	—	—	—	
		02	1/4	—	●	●	—	—	—	
		03	3/8	—	—	●	●	—	—	
		04	1/2	—	—	—	●	—	—	
		06	3/4	—	—	—	—	●	—	
10	1	—	—	—	—	—	●			
④	a	Float type auto drain	Nil	Without auto drain	●	●	●	●	●	●
			C	Float type auto drain (N.C.)	●	●	●	●	●	●
			D	Float type auto drain (N.O.)	—	—	●	●	●	●
	b	Pressure gauge	Nil	Without pressure gauge	●	●	●	●	●	●
			E	Square embedded type pressure gauge (with limit indicator)	—	●	●	●	●	●
			G	Round type pressure gauge (without limit indicator)	●	—	—	—	—	—
				Round type pressure gauge (with limit indicator)	—	—	●	●	●	●
			M	Round type pressure gauge (with color zone)	—	●	●	●	●	●
		Digital pressure switch	E1	Output: NPN output / Electrical entry: Wiring bottom entry	—	●	●	●	●	●
			E2	Output: NPN output / Electrical entry: Wiring top entry	—	●	●	●	●	●
			E3	Output: PNP output / Electrical entry: Wiring bottom entry	—	●	●	●	●	●
			E4	Output: PNP output / Electrical entry: Wiring top entry	—	●	●	●	●	●
					—	●	●	●	●	●
	⑤	c	Check valve	Nil	Without attachment	●	●	●	●	●
K				Mounting position: AW+K+AL	—	●	●	● <small>Note 4)</small>	—	—
d		Pressure switch	Nil	Without attachment	●	Nil	●	●	●	
			S <small>Note 5)</small>	Mounting position: AW+S+AL	—	—	●	●	●	
e		3-port valve for residual pressure release	Nil	Without attachment	●	●	●	●	●	
			V	Mounting position: AW+AL+V	—	●	●	●	—	
⑥	f	Set pressure	Nil	0.05 to 0.85 MPa setting	●	Nil	●	●	●	
			1 <small>Note 6)</small>	0.02 to 0.2 MPa setting	●	●	●	●	●	
	g	Bowl <small>Note 7)</small>	Nil	Polycarbonate bowl	●	●	●	●	●	
			2	Metal bowl	●	●	●	●	●	
			6	Nylon bowl	●	●	●	●	●	
			8	Metal bowl with level gauge	—	—	●	●	●	
			C	With bowl guard	—	●	—	—	—	
			6C	Nylon bowl with bowl guard	—	●	—	—	—	
	h	Filter regulator drain port <small>Note 8)</small>	Nil	With drain cock	—	●	●	●	●	
			J <small>Note 9)</small>	Drain guide 1/8	—	—	—	—	—	
				Drain guide 1/4	—	—	●	●	●	
W <small>Note 10)</small>			Drain cock with barb fitting: For ø6 x ø4 nylon tube	—	—	●	●	●		

Air Combination Series AC10A to AC60A



		Symbol	Description	①						
				Body size						
				10	20	30	40	50	60	
6	i	Lubricator lubricant exhaust port	Nil	Without drain cock	●	●	●	●	●	●
			3	Lubricator with drain cock	●	●	●	●	●	●
			+							
	j	Exhaust mechanism	Nil	Relieving type	●	●	●	●	●	●
			N	Non-relieving type	●	●	●	●	●	●
			+							
	k	Flow direction	Nil	Flow direction: Left to right	●	●	●	●	●	●
			R	Flow direction: Right to left	●	●	●	●	●	●
			+							
	l	Pressure unit	Nil	Name plate and pressure gauge in imperial units: MPa	●	●	●	●	●	●
Z ^{Note 11)}			Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F	○ ^{Note 13)}	○ ^{Note 13)}	○ ^{Note 13)}	○ ^{Note 13)}	○ ^{Note 13)}	○ ^{Note 13)}	
		+								
		ZA ^{Note 12)}	Digital pressure switch: With unit conversion function	—	△ ^{Note 14)}	△ ^{Note 14)}	△ ^{Note 14)}	△ ^{Note 14)}	△ ^{Note 14)}	

Note 1) Drain guide is NPT1/8 (applicable to the AC20A) and NPT1/4 (applicable to the AC30A to AC60A). The auto drain port comes with 3/8" one-touch fitting (applicable to the AC30A to AC60A).

Note 2) Drain guide is G1/8 (applicable to the AC20A) and G1/4 (applicable to the AC30A to AC60A).

Note 3) Option G, M are not assembled and supplied loose at the time of shipment.

Note 4) Not available with piping port size: 06.

Note 5) The bracket position varies depending on the pressure switch mounting.

Note 6) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2 MPa or more. When the pressure gauge is attached, a 0.2 MPa pressure gauge will be fitted.

Note 7) Refer to Chemical Data on page 365 when selecting a case material.

Note 8) Float type auto drain: The combination of C and D is not possible.

Note 9) Without a valve function

Note 10) Metal bowl: The combination of 2 and 8 is not possible.

Note 11) For thread type: M5 and NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) The digital pressure switch will be equipped with the unit conversion function, setting to psi initially.

MPa and psi are shown together on the pressure unit. The combination of the round type pressure gauge with color zone "M" and a psi display "Z" is not orderable as a standard product. However, this combination is available as a special.

Note 12) For options: E1, E2, E3, E4. This product is for overseas use only according to the new Measurement Law. (The SI unit is provided for use in Japan.)

Note 13) ○: For thread type: M5 and NPT only
Note 14) △: Select with options: E1, E2, E3, E4.

Standard Specifications

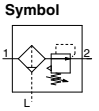
Model	AC10A	AC20A	AC30A	AC40A	AC40A-06	AC50A	AC60A
Component	Filter regulator	AW10	AW20	AW30	AW40	AW40-06	AW60
	Lubricator	AL10	AL20	AL30	AL40	AL40-06	AL60
Port size	M5 x 0.8	1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1
Pressure gauge port size ^{Note 1)}	1/16	1/8		1/4			
Fluid	Air						
Ambient and fluid temperature ^{Note 2)}	-5 to 60°C (with no freezing)						
Proof pressure				1.5 MPa			
Maximum operating pressure	1.0 MPa						
Set pressure range	0.05 to 0.7 MPa	0.05 to 0.85 MPa					
Relief pressure	Set pressure + 0.05 MPa ^{Note 3)} [at relief flow rate of 0.1 L/min (ANR)]						
Nominal filtration rating	5 μm						
Recommended lubricant	Class 1 turbine oil (ISO VG32)						
Bowl material	Polycarbonate						
Bowl guard	—	Semi-standard	Standard				
Regulator construction	Relieving type						
Weight (kg)	0.20	0.38	0.75	1.41	1.46	3.33	3.40

Note 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 (AC20A to AC60A).

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

Note 3) Not applicable to the AC10A.

AC10B to AC60B



How to Order

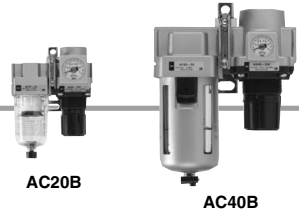
AC **30** B - **03** **DE** - **1** - **1**

① ② ③ ④ ⑤ ⑥

- Option/Semi-standard: Select one each for a to j.
- Option/Attachment/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.
Example) AC30B-F03DE1-SV-16NR

	Symbol	Description	①								
			Body size								
			10	20	25	30	40	50	55	60	
②	Thread type	Nil	Metric thread (M5)								
		N ^{Note 1)}	Rc								
		F ^{Note 2)}	NPT								
③	Port size	+									
		M5	M5								
		01	1/8								
		02	1/4								
		03	3/8								
		04	1/2								
		06	3/4								
10	1										
④	a	Nil	Without auto drain								
		C	Float type auto drain (N.C.)								
		D	Float type auto drain (N.O.)								
	b	Pressure gauge	+								
			Nil	Without pressure gauge							
			E	Square embedded type pressure gauge (with limit indicator)							
		Digital pressure switch	G	Round type pressure gauge (without limit indicator)							
			M	Round type pressure gauge (with limit indicator)							
			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	Nil	Without attachment								
		S ^{Note 4)}	Mounting position: AF+S+AR								
		T ^{Note 4)}	Mounting position: AF+T+AR								
	d	+									
e	Set pressure	Nil	0.05 to 0.85 MPa setting								
		1 ^{Note 6)}	0.02 to 0.2 MPa setting								
		+									
⑥	f	Nil	Polycarbonate bowl								
		2	Metal bowl								
		6	Nylon bowl								
		8	Metal bowl with level gauge								
		C	With bowl guard								
		6C	Nylon bowl with bowl guard								
g	Filter drain port ^{Note 8)}	Nil	With drain cock								
		J ^{Note 9)}	Drain guide 1/8								
		K ^{Note 9)}	Drain guide 1/4								
		W ^{Note 10)}	Drain cock with barb fitting: For ø6 x ø4 nylon tube								

Air Combination Series AC10B to AC60B



AC20B

AC40B

		Symbol	Description	①								
				Body size								
				10	20	25	30	40	50	55	60	
6	h	Exhaust mechanism	Nil	Relieving type	●	●	●	●	●	●	●	
			N	Non-relieving type	●	●	●	●	●	●	●	
			+									
	i	Flow direction	Nil	Flow direction: Left to right	●	●	●	●	●	●	●	
			R	Flow direction: Right to left	●	●	●	●	●	●	●	
			+									
j	Pressure unit	Nil	Name plate and pressure gauge in imperial units: MPa	○	○	○	○	○	○	○	○	
		Z ^{Note 11)}	Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F	○	○	○	○	○	○	○	○	
		ZA ^{Note 12)}	Digital pressure switch: With unit conversion function	△	△	△	△	△	△	△	△	

Note 1) Drain guide is NPT1/8 (applicable to the AC20B) and NPT1/4 (applicable to the AC25B to AC60B). The auto drain port comes with ø3/8" one-touch fitting (applicable to the AC25B to AC60B).
 Note 2) Drain guide is G1/8 (applicable to the AC20B) and G1/4 (applicable to the AC25B to AC60B).
 Note 3) Option G, M are not assembled and supplied loose at the time of shipment.
 Note 4) The bracket position varies depending on the T-interface or pressure switch mounting.

Note 5) The regulator is equipped with a backflow function in this configuration. Additionally, for safety purposes, please check that the pressure in the outlet side is turned to the atmospheric pressure once the pressure in the outlet side is exhausted, by using a pressure gauge, etc.
 Note 6) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2 MPa or more. When the pressure gauge is attached, a 0.2 MPa pressure gauge will be fitted.
 Note 7) Refer to Chemical Data on page 365 when selecting a case material.
 Note 8) Float type auto drain: The combination of C and D is not possible.
 Note 9) Without a valve function

Note 10) Metal bowl: The combination of 2 and 8 is not possible.
 Note 11) For thread type: M5 and NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) The digital pressure switch will be equipped with the unit conversion function, setting to psi initially.
 Note 12) For options: E1, E2, E3, E4. This product is for overseas use only according to the new Measurement Law. (The SI unit is provided for use in Japan.)
 Note 13) ○: For thread type: M5 and NPT only
 Note 14) △: Select with options: E1, E2, E3, E4.

Standard Specifications

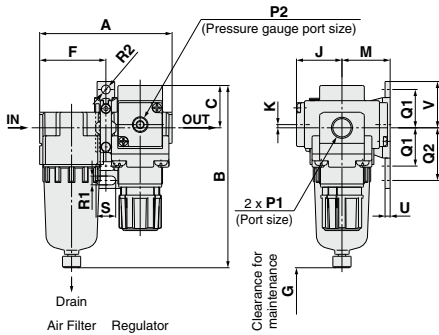
Model		AC10B	AC20B	AC25B	AC30B	AC40B	AC40B-06	AC50B	AC55B	AC60B
Component	Air filter	AF10	AF20	AF30	AF30	AF40	AF40-06	AF50	AF60	AF60
	Regulator	AR10	AR20	AR25	AR30	AR40	AR40-06	AR50	AR50	AR60
Port size		M5 x 0.8	1/8, 1/4	1/4, 3/8	1/4, 3/8	1/4, 3/8, 1/2	3/4	3/4, 1	1	1
Pressure gauge port size ^{Note 1)}		1/16		1/8				1/4		
Fluid		Air								
Ambient and fluid temperature ^{Note 2)}		-5 to 60°C (with no freezing)								
Proof pressure		1.5 MPa								
Maximum operating pressure		1.0 MPa								
Set pressure range		0.05 to 0.7 MPa	0.05 to 0.85 MPa							
Relief pressure		Set pressure + 0.05 MPa ^{Note 3)} [at relief flow rate of 0.1 L/min (ANR)]								
Nominal filtration rating		5 μm								
Bowl material		Polycarbonate								
Bowl guard		—	Semi-standard	Standard						
Regulator construction		Relieving type								
Weight (kg)		0.16	0.33	0.55	0.63	1.12	1.16	2.44	2.45	2.54

Note 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 (AC10B to AC60B).
 Note 2) -5 to 50°C for the products with the digital pressure switch
 Note 3) Not applicable to the AC10B.

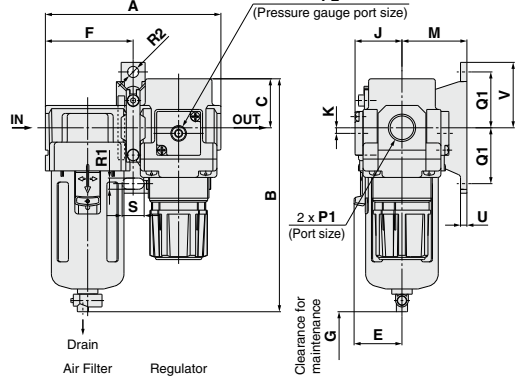
Series AC10B to AC60B

Dimensions

AC10B, AC20B



AC25B to AC60B



Applicable model	AC20B to AC60B		AC10B to AC60B	
	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with color zone)
Dimensions				

Applicable model	AC10B, AC20B		AC20B	AC25B to AC60B				
	Optional/Semi-standard specifications	With auto drain (N.C.)	Metal bowl	With drain guide	With auto drain (N.O./N.C.)	Metal bowl	Metal bowl with level gauge	With drain guide
Dimensions								

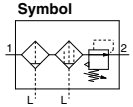
Model	Standard specifications											Optional specifications							
												Square type pressure gauge		Digital pressure switch		Round type pressure gauge		Round type pressure gauge (with color zone)	
	P1	P2	A	B	C	E	F	G	J	K	H	J	H	J	H	J	H	J	
AC10B	M5 x 0.8	1/16	56	71	11	—	28	25	12.5	0	—	—	—	—	—	—	—	—	
AC20B	1/8, 1/4	1/8	83	114	26.5	—	41.5	40	28.5	2 (Note)	□28	29.5	□27.8	40	□37.5	65	□37.5	65	
AC25B	1/4, 3/8	1/8	110	143	28	30	55	50	27.5	0	□28	28.5	□27.8	39	□37.5	64	□37.5	64	
AC30B	1/4, 3/8	1/8	110	146	31	30	55	50	29.5	3.5	□28	30.5	□27.8	41	□37.5	66	□37.5	66	
AC40B	1/4, 3/8, 1/2	1/4	145	183	36	38	72.5	75	34	3.5	□28	35	□27.8	45	□42.5	72.5	□42.5	74	
AC40B-06	3/4	1/4	155	185	36	38	77.5	75	34	3	□28	35	□27.8	45	□42.5	72.5	□42.5	74	
AC50B	3/4, 1	1/4	186	263	43	45	93	20	43.5	3.3	□28	44.5	□27.8	55	□42.5	82	□42.5	84	
AC55B	1	1/4	191	277	43	47.5	98	20	43.5	3.3	□28	44.5	□27.8	55	□42.5	82	□42.5	84	
AC60B	1	1/4	196	280	46	47.5	98	20	43.5	3.3	□28	44.5	□27.8	55	□42.5	82	□42.5	84	

Model	Standard specifications									Optional specifications		Semi-standard specifications					
	Bracket mount									With auto drain		With barb fitting		With drain guide		Metal bowl	Metal bowl with level gauge
	M	Q1	Q2	R1	R2	S	U	V		B	B	B	B	B	B		
AC10B	25	20	27	4.5	ø4.5	7	2.8	24.5	89	—	—	—	—	70	—		
AC20B	30	24	33	5.5	ø5.5	12	3.2	29	132	—	—	118	—	114	—		
AC25B	41	35	—	7	ø7	14	4	41	184	151	150	150	156	176	—		
AC30B	41	35	—	7	ø7	14	4	41	187	154	153	153	159	179	—		
AC40B	50	40	—	9	ø9	18	4	48	222	191	190	190	196	216	—		
AC40B-06	50	40	—	9	ø9	18	4.6	48	224	193	192	192	198	218	—		
AC50B	70	50	—	11	ø11	20	6.4	60	303	271	270	270	277	297	—		
AC55B	70	50	—	11	ø11	20	6.4	60	316	285	284	284	290	310	—		
AC60B	70	50	—	11	ø11	20	6.4	60	319	288	287	287	293	313	—		

Note) For the AC20B only, the position of the pressure gauge is above the center of the piping.

Air Filter + Mist Separator + Regulator

AC20C to AC40C



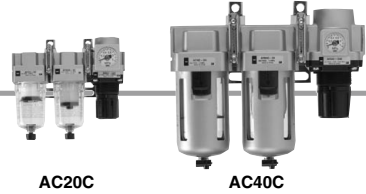
How to Order

AC **1** **2** **3** **4** - **5** - **6**

- Option/Semi-standard: Select one each for a to j.
- Option/Attachment/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.
Example) AC30C-F03DE1-SV-16NR

		Symbol	Description	1				
				Body size				
				20	25	30	40	
2	Thread type	Nil	Rc	●	●	●	●	
		N ^{Note 1)}	NPT	●	●	●	●	
		F ^{Note 2)}	G	●	●	●	●	
+								
3	Port size	01	1/8	●	—	—	—	
		02	1/4	●	●	●	●	
		03	3/8	—	—	●	●	
		04	1/2	—	—	—	●	
		06	3/4	—	—	—	●	
+								
4	a	Nil	Without auto drain	●	●	●	●	
		C	Float type auto drain (N.C.)	●	●	●	●	
		D	Float type auto drain (N.O.)	—	●	●	●	
	+							
	b	Pressure gauge	Nil	Without pressure gauge	●	●	●	●
			E	Square embedded type pressure gauge (with limit indicator)	●	●	●	●
			G	Round type pressure gauge (with limit indicator)	●	●	●	●
			M	Round type pressure gauge (with color zone)	●	●	●	●
	Digital pressure switch	E1	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	Nil	Without attachment	●	●	●	●	
		S ^{Note 4)}	Mounting position: AF+AFM+S+AR	●	●	●	●	
	T-interface	T ^{Note 4)}	Mounting position: AF+AFM+T+AR	●	●	●	●	
+								
d	3-port valve for residual pressure release	Nil	Without attachment	●	●	●	●	
		V	Mounting position: AF+AFM+AR+V	●	●	●	●	
		V1 ^{Note 5)}	Mounting position: V+AF+AFM+AR□K	●	●	●	●	
+								
6	e	Nil	0.05 to 0.85 MPa setting	●	●	●	●	
		1 ^{Note 6)}	0.02 to 0.2 MPa setting	●	●	●	●	
	+							
	f	Bowl ^{Note 7)}	Nil	Polycarbonate bowl	●	●	●	●
			2	Metal bowl	●	●	●	●
			6	Nylon bowl	●	●	●	●
			8	Metal bowl with level gauge	—	●	●	●
			C	With bowl guard	●	—	—	—
			6C	Nylon bowl with bowl guard	●	—	—	—
	+							
	g	Filter Mist separator drain port ^{Note 8)}	Nil	With drain cock	●	●	●	●
			J ^{Note 9)}	Drain guide 1/8	●	—	—	—
				Drain guide 1/4	—	●	●	●
W ^{Note 10)}			Drain cock with barb fitting: For ø6 x ø4 nylon tube	—	●	●	●	
+								
h	Exhaust mechanism	Nil	Relieving type	●	●	●	●	
		N	Non-relieving type	●	●	●	●	

Air Combination Series AC20C to AC40C



AC20C

AC40C

		Symbol	Description	①				
				Body size				
				20	25	30	40	
6	i	Flow direction	Nil	Flow direction: Left to right	●	●	●	●
			R	Flow direction: Right to left	●	●	●	●
+								
j	Pressure unit	Nil	Name plate and pressure gauge in imperial units: MPa	●	●	●	●	
		Z ^{Note 11)}	Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, "F	○ ^{Note 13)}	○ ^{Note 13)}	○ ^{Note 13)}	○ ^{Note 13)}	
		ZA ^{Note 12)}	Digital pressure switch: With unit conversion function	△ ^{Note 14)}	△ ^{Note 14)}	△ ^{Note 14)}	△ ^{Note 14)}	

Note 1) Drain guide is NPT1/8 (applicable to the AC20C) and NPT1/4 (applicable to the AC30C to AC40C). The auto drain port comes with ø3/8" one-touch fitting (applicable to the AC30C to AC40C).

Note 2) Drain guide is G1/8 (applicable to the AC20C) and G1/4 (applicable to the AC30C to AC40C).

Note 3) Option G, M are not assembled and supplied loose at the time of shipment.

Note 4) The bracket position varies depending on the T-interface or pressure switch mounting.

Note 5) The regulator is equipped with a backflow function in this configuration. Additionally, for safety purposes, please check that the pressure in the outlet side is turned to the atmospheric pressure once the pressure in the outlet side is exhausted, by using a pressure gauge, etc.

Note 6) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2 MPa or more. When the pressure gauge is attached, a 0.2 MPa pressure gauge will be fitted.

Note 7) Refer to Chemical Data on page 365 when selecting a case material.

Note 8) Float type auto drain: The combination of C and D is not possible.

Note 9) Without a valve function

Note 10) Metal bowl: The combination of 2 and 8 is not possible.

Note 11) For thread type: NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) The digital pressure switch will be equipped with the unit conversion function, setting to psi initially. MPa and psi are shown together on the pressure unit. The combination of the round type pressure gauge with color zone "M" and a psi display "Z" is not orderable as a standard product. However, this combination is available as a special.

Note 12) For options: E1, E2, E3, E4. This product is for overseas use only according to the new Measurement Law. (The SI unit is provided for use in Japan.)

Note 13) ○: For thread type: NPT only

Note 14) △: Select with options: E1, E2, E3, E4.

Standard Specifications

Model		AC20C	AC25C	AC30C	AC40C	AC40C-06
Component	Air filter	AF20	AF30	AF30	AF40	AF40-06
	Mist separator	AFM20	AFM30	AFM30	AFM40	AFM40-06
	Regulator	AR20	AR25	AR30	AR40	AR40-06
Port size		1/8, 1/4	1/4, 3/8	1/4, 3/8	1/4, 3/8, 1/2	3/4
Pressure gauge port size ^{Note 1)}		1/8			1/4	
Fluid		Air				
Ambient and fluid temperature ^{Note 2)}		-5 to 60°C (with no freezing)				
Proof pressure		1.5 MPa				
Maximum operating pressure		1.0 MPa				
Minimum operating pressure		0.05 MPa				
Set pressure range		0.05 to 0.85 MPa				
Relief pressure		Set pressure + 0.05 MPa [at relief flow rate of 0.1 L/min (ANR)]				
Nominal filtration rating		AF: 5 μm, AFM: 0.3 μm (99.9% filtered particle size)				
Outlet side oil mist concentration		Max. 1.0 mg/m ³ (ANR) (= 0.8 ppm) ^{Note 4) Note 5)}				
Rated flow (L/min (ANR)) ^{Note 3)}		200	450	450	1100	1100
Bowl material		Polycarbonate				
Bowl guard		Semi-standard	Standard			
Regulator construction		Relieving type				
Weight (kg)		0.48	0.88	0.95	1.76	1.83

Note 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 (AC20C to AC40C).

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

Note 3) Conditions: Mist separator inlet pressure: 0.7 MPa; The rated flow varies depending on the inlet pressure. Keep the air flow within the rated flow to prevent an outflow of lubricant to the outlet side.

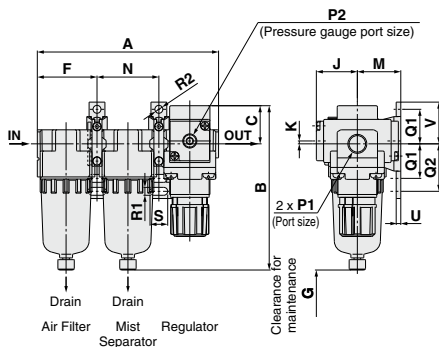
Note 4) When the compressor oil mist discharge concentration is 30 mg/m³ (ANR).

Note 5) Bowl O-ring and other O-rings are slightly lubricated.

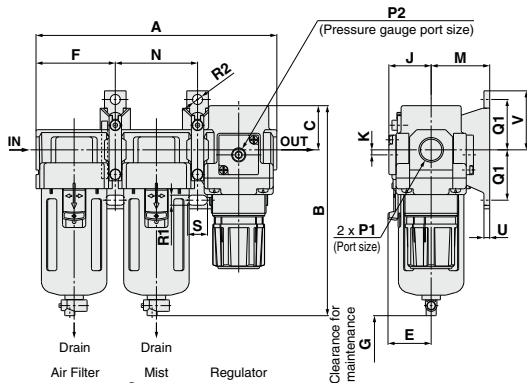
Series AC20C to AC40C

Dimensions

AC20C



AC25C to AC40C-06



Applicable model	AC20C to AC40C-06			
Option	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with color zone)
Dimensions				

Applicable model	AC20C				AC25C to AC40C-06			
Optional/Semi-standard specifications	With auto drain (N.C.)	Metal bowl	With drain guide	With auto drain (N.O./N.C.)	Metal bowl	Metal bowl with level gauge	With drain guide	Drain cock with barb fitting
Dimensions								

Model	Standard specifications										Optional specifications							
	P1	P2	A	B	C	E	F	G	J	K	Square type pressure gauge	Digital pressure gauge	Round type pressure gauge	Round type pressure gauge (with color zone)				
AC20C	1/8, 1/4	1/8	126	114	26.5	—	41.5	45	28.5	2 (Note)	□28	29.5	□27.8	40	ø37.5	65	ø37.5	65
AC25C	1/4, 3/8	1/8	167	143	28	30	55	50	27.5	0	□28	28.5	□27.8	39	ø37.5	64	ø37.5	64
AC30C	1/4, 3/8	1/8	167	146	31	30	55	50	29.5	3.5	□28	30.5	□27.8	41	ø37.5	66	ø37.5	66
AC40C	1/4, 3/8, 1/2	1/4	220	183	36	38	72.5	75	34	3.5	□28	35	□27.8	45	ø42.5	72.5	ø42.5	74
AC40C-06	3/4	1/4	235	185	36	38	77.5	75	34	3	□28	35	□27.8	45	ø42.5	72.5	ø42.5	74

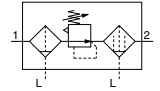
Model	Standard specifications										Optional specifications				Semi-standard specifications	
	Bracket mount										With auto drain	With barb fitting	With drain guide	Metal bowl	Metal bowl with level gauge	
	M	N	Q1	Q2	R1	R2	S	U	V		B	B	B	B	B	
AC20C	30	43	24	33	5.5	ø5.5	12	3.2	29		132	—	118	114	—	
AC25C	41	57	35	—	7	ø7	14	4	41		184	151	150	156	176	
AC30C	41	57	35	—	7	ø7	14	4	41		187	154	153	159	179	
AC40C	50	75	40	—	9	ø9	18	4	48		222	191	190	196	216	
AC40C-06	50	80	40	—	9	ø9	18	4.6	48		224	193	192	198	218	

Note) For the AC20C only, the position of the pressure gauge is above the center of the piping.

Filter Regulator + Mist Separator

AC20D to AC40D

Symbol



How to Order

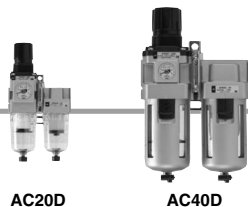
AC **30** D - **03** DE - **01** - **01**

① ② ③ ④ ⑤ ⑥

- Option/Semi-standard: Select one each for a to j.
- Option/Attachment/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.
Example) AC30D-F03DE1-SV-16NR

		Symbol	Description	①			
				Body size			
				20	30	40	
②	Thread type	Nil	Rc	●	●	●	
		N <small>Note 1)</small>	NPT	●	●	●	
		F <small>Note 2)</small>	G	●	●	●	
+							
③	Port size	01	1/8	●	—	—	
		02	1/4	●	●	●	
		03	3/8	—	●	●	
		04	1/2	—	—	●	
		06	3/4	—	—	●	
+							
④ Option	a Float type auto drain	Nil	Without auto drain	●	●	●	
		C	Float type auto drain (N.C.)	●	●	●	
		D	Float type auto drain (N.O.)	—	●	●	
	+						
	b Pressure gauge	Nil	Without pressure gauge	●	●	●	
		E	Square embedded type pressure gauge (with limit indicator)	●	●	●	
		G	Round type pressure gauge (with limit indicator)	●	●	●	
		M	Round type pressure gauge (with color zone)	●	●	●	
		Digital pressure switch	E1	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 Attachment	c Pressure switch	Nil	Without attachment	●	●	●	
		S <small>Note 4)</small>	Mounting position: AW+S+AFM	●	●	●	
	+						
d 3-port valve for residual pressure release	Nil	Without attachment	●	●	●		
	V	Mounting position: AW+AFM+V	●	●	●		
	V1 <small>Note 5)</small>	Mounting position: V+AW□K+AFM	●	●	●		
+							
⑥ Semi-standard	e Set pressure	Nil	0.05 to 0.85 MPa setting	●	●	●	
		1 <small>Note 6)</small>	0.02 to 0.2 MPa setting	●	●	●	
	+						
	f Bowl <small>Note 7)</small>	Nil	Polycarbonate bowl	●	●	●	
		2	Metal bowl	●	●	●	
		6	Nylon bowl	●	●	●	
		8	Metal bowl with level gauge	—	●	●	
		C	With bowl guard	●	—	—	
		6C	Nylon bowl with bowl guard	●	—	—	
	+						
	g Filter regulator Mist separator drain port <small>Note 8)</small>	Nil	With drain cock	●	●	●	
		J <small>Note 9)</small>	Drain guide 1/8	●	—	—	
		W <small>Note 10)</small>	Drain guide 1/4	—	●	●	
W		Drain cock with barb fitting: For ø6 x ø4 nylon tube	—	●	●		
+							
h Exhaust mechanism	Nil	Relieving type	●	●	●		
	N	Non-relieving type	●	●	●		
+							
i Flow direction	Nil	Flow direction: Left to right	●	●	●		
	R	Flow direction: Right to left	●	●	●		

Air Combination *Series AC20D to AC40D*



AC20D

AC40D

	Symbol	Description
--	--------	-------------

6 Semi-standard	j	Pressure unit	Nil	Name plate and pressure gauge in imperial units: MPa
			Z ^{Note 11)} ZA ^{Note 12)}	Name plate, caution plate for bowl, and pressure gauge in imperial units: psi, °F Digital pressure switch: With unit conversion function

- Note 1) Drain guide is NPT1/8 (applicable to the AC20D) and NPT1/4 (applicable to the AC30D to AC40D). The auto drain port comes with ø3/8" one-touch fitting (applicable to the AC30D to AC40D).
- Note 2) Drain guide is G1/8 (applicable to the AC20D) and G1/4 (applicable to the AC30D to AC40D).
- Note 3) Option G, M are not assembled and supplied loose at the time of shipment.
- Note 4) The bracket position varies depending on the pressure switch mounting.

- Note 5) The regulator is equipped with a backflow function in this configuration. Additionally, for safety purposes, please check that the pressure in the outlet side is turned to the atmospheric pressure once the pressure in the outlet side is exhausted, by using a pressure gauge, etc.
- Note 6) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2 MPa or more. When the pressure gauge is attached, a 0.2 MPa pressure gauge will be fitted.
- Note 7) Refer to Chemical Data on page 365 when selecting a case material.
- Note 8) Float type auto drain: The combination of C and D is not possible.
- Note 9) Without a valve function

①		
Body size		
20	30	40
●	●	●
○ ^{Note 13)}	○ ^{Note 13)}	○ ^{Note 13)}
△ ^{Note 14)}	△ ^{Note 14)}	△ ^{Note 14)}

- Note 10) Metal bowl: The combination of 2 and 8 is not possible.
- Note 11) For thread type: NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) The digital pressure switch will be equipped with the unit conversion function, setting to psi initially.
MPa and psi are shown together on the pressure unit. The combination of the round type pressure gauge with color zone "M" and a psi display "Z" is not orderable as a standard product. However, this combination is available as a special.
- Note 12) For options: E1, E2, E3, E4. This product is for overseas use only according to the new Measurement Law. (The SI unit is provided for use in Japan.)
- Note 13) ○: For thread type: NPT only
Note 14) △: Select with options: E1, E2, E3, E4.

Standard Specifications

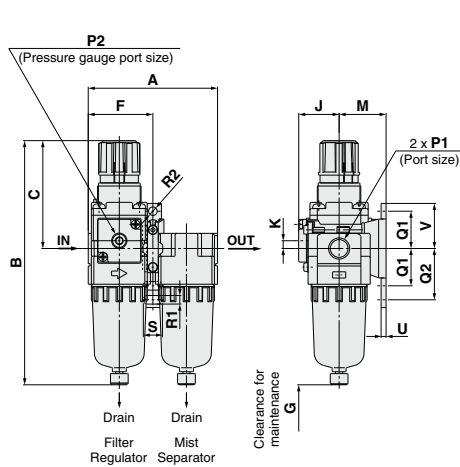
Model		AC20D	AC30D	AC40D	AC40D-06
Component	Filter regulator	AW20	AW30	AW40	AW40-06
	Mist separator	AFM20	AFM30	AFM40	AFM40-06
Port size		1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2	3/4
Pressure gauge port size ^{Note 1)}		1/8			1/4
Fluid		Air			
Ambient and fluid temperature ^{Note 2)}		-5 to 60°C (with no freezing)			
Proof pressure		1.5 MPa			
Maximum operating pressure		1.0 MPa			
Minimum operating pressure		0.05 MPa			
Set pressure range		0.05 to 0.85 MPa			
Relief pressure		Set pressure + 0.05 MPa [at relief flow rate of 0.1 L/min (ANR)]			
Nominal filtration rating		AF: 5 μm, AFM: 0.3 μm (99.9% filtered particle size)			
Rated flow (L/min (ANR)) ^{Note 3)}		150	330	800	800
Outlet side oil mist concentration		Max. 1.0 mg/m ³ (ANR) (= 0.8 ppm) ^{Note 4) Note 5)}			
Bowl material		Polycarbonate			
Bowl guard		Semi-standard	Standard		
Regulator construction		Relieving type			
Weight (kg)		0.37	0.74	1.38	1.43

- Note 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 (AC20D to AC40D).
- Note 2) -5 to 50°C for the products with the digital pressure switch
- Note 3) Conditions: Mist separator inlet pressure: 0.5 MPa; The rated flow varies depending on the inlet pressure. Keep the air flow within the rated flow to prevent an outflow of lubricant to the outlet side.
- Note 4) When the compressor oil mist discharge concentration is 30 mg/m³ (ANR).
- Note 5) Bowl O-ring and other O-rings are slightly lubricated.

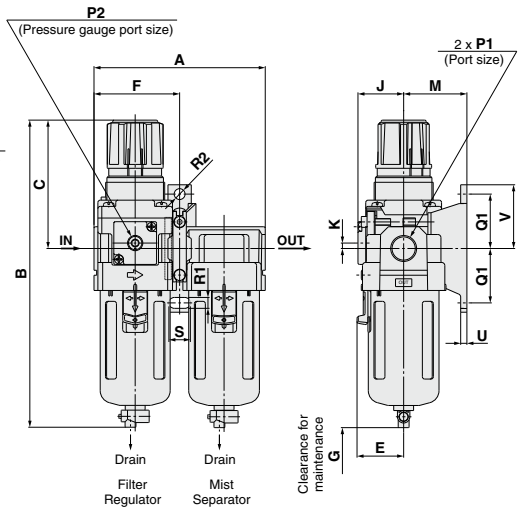
Series AC20D to AC40D

Dimensions

AC20D



AC30D to AC40D-06



Applicable model	AC20D to AC40D-06			
Option	Square embedded type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with color zone)
Dimensions	Center of piping	Center of piping	Center of piping	Center of piping

Applicable model	AC20D				AC30D to AC40D-06			
Optional/Semi-standard specifications	With auto drain (N.C.)	Metal bowl	With drain guide	With auto drain (N.O./N.C.)	Metal bowl	Metal bowl with level gauge	With drain guide	Drain cock with barb fitting
Dimensions	B M5 x 0.8	B	B 1/8 Width across flats 14	B N.O.: Black N.C.: Gray ø10 one-touch fitting	B	B	B 1/4 Width across flats 17	B Barb fitting Applicable tubing: 70604

Model	Standard specifications										Optional specifications							
	P1	P2	A	B (Note)	C	E	F	G	J	K	Square type pressure gauge	Digital pressure switch	Round type pressure gauge	Round type pressure gauge (with color zone)				
AC20D	1/8, 1/4	1/8	83	160	73	—	41.5	45	26	5	□28	27	□27.8	37.5	ø37.5	62.5	ø37.5	63
AC30D	1/4, 3/8	1/8	110	201	86	30	55	55	29.5	3.5	□28	30.5	□27.8	41	ø37.5	66	ø37.5	66
AC40D	1/4, 3/8, 1/2	1/4	145	239	92	38	72.5	80	37.5	1.5	□28	38.5	□27.8	49	ø42.5	76	ø42.5	76
AC40D-06	3/4	1/4	155	242	93	38	77.5	80	37.5	1.2	□28	38.5	□27.8	49	ø42.5	76	ø42.5	76

Model	Standard specifications							Optional specifications		Semi-standard specifications				
	Bracket mount							With auto drain	With barb fitting	With drain guide	Metal bowl	Metal bowl with level gauge		
	M	Q1	Q2	R1	R2	S	U	V	B	B	B	B	B	B
AC20D	30	24	33	5.5	ø5.5	12	3.2	29	177	—	164	160	—	—
AC30D	41	35	—	7	ø7	14	4	41	242	209	208	214	234	—
AC40D	50	40	—	9	ø9	18	4	48	278	247	246	252	272	—
AC40D-06	50	40	—	9	ø9	18	4.6	48	282	251	249	255	275	—

Note) The total length of B dimension is the length when the filter regulator knob is unlocked.

Air Combination Series AC Options/Attachments

Options/Attachments Part No.

Section	Model	Part no.								
		For AC10	For AC20	For AC25	For AC30	For AC40	For AC40-06	For AC50	For AC55	For AC60
		For AC10A	For AC20A	—	For AC30A	For AC40A	For AC40A-06	For AC50A	—	For AC60A
Option	Type	For AC10B	For AC20B	For AC25B	For AC30B	For AC40B	For AC40B-06	For AC50B	For AC55B	For AC60B
	Round type (with color zone)	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	Round type (with color zone)	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	Square type (with embedded type)	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	Digital pressure switch	—	—	—	—	—	—	—	—	—
	NP output/Wiring bottom entry	—	—	—	—	—	—	—	—	—
	NP output/Wiring top entry	—	—	—	—	—	—	—	—	—
	PNP output/Wiring bottom entry	—	—	—	—	—	—	—	—	—
	PNP output/Wiring top entry	—	—	—	—	—	—	—	—	—
	Float type (min 5) auto drain	N.O.	—	—	AD38	—	—	—	AD48	—
Attachment	Spacer	Y100	Y200	Y300	Y400	Y500	Y600	Y600T	—	—
	Spacer with bracket	Y100T	Y200T	Y300T	Y400T	Y500T	Y600T	—	—	—
	Check valve (Note 7)	—	AKM2000-□01 (□02)	AKM3000-□01 (□02)	AKM4000-□02 (□03)	—	—	—	—	—
	Pressure switch (Note 7)	—	IS10M-20	IS10M-30	IS10M-40	IS10M-50	IS10M-60	—	—	—
	T-interface (Note 6) (Note 7)	Y110-M5	Y210-□01 (□02)	Y310-□01 (□02)	Y410-□02 (□03)	Y510-□02 (□03)	Y610-□03 (□04)	Y610-□03 (□04)	—	—
	3-port valve for residual pressure release (Note 7)	—	VHS20-□01 (□02)	VHS30-□02 (□03)	VHS40-□03 (□04)	VHS40-□06	VHS50-□06 (□10)	—	—	—
	Piping adapter (Note 7)	E100-M5	E200-□02 (□03)	E300-□03 (□04)	E400-□03 (□04) (□06)	E500-□06	E600-□06 (□10)	—	—	—
	Pressure switch with piping adapter (Note 7)	—	IS10E-20-□02 (□03)	IS10E-30-□03 (□04)	IS10E-40-□03 (□04) (□06)	—	—	—	—	—
	Cross spacer (Note 7)	Y14-M5	Y24-□01 (□02)	Y34-□01 (□02)	Y44-□02 (□03) (□04)	Y54-□03 (□04)	—	—	—	—

Note 1 □ in part numbers for a round pressure gauge indicates a type of connection thread. 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.

Note 2 Including one O-ring and 2 mounting screws

Note 3 Standard pressure gauge

Note 4 Lead wire with connector (2 m), adapter, lock pin, O-ring (1 pc.), mounting screw (2 pcs.) are attached. []: Switch body only.

Note 5 Also, regarding how to order the digital pressure switch, please refer to page 538.

Note 6 Minimum operating pressure: N.O. type-0.1 MPa; N.C. type-0.1 MPa (AD17/27) and 0.15 MPa (AD37/47). Please contact SMC for psi and "F" unit specifications.

Note 7 For F.R.L. units, port sizes without () are standard specifications.

Note 8 Separate interfaces are required for modular unit.

Check Valve: (K) 1/8, 1/4, 3/8



A check valve with intermediate air release port can be easily installed to prevent a backflow of lubricant when redirecting the air flow and releasing the air on the outlet side of the regulator.

AKM 30 00 - 01

① ② ③

Symbol	Description	Body size		
		20	30	40
② Thread type	Nil	●	●	●
	N	●	●	●
	F	●	●	●
③ By-pass port size	01	●	●	—
	02	●	●	—
	03	—	—	●

Specifications

Model	Effective area (mm ²)
AKM2000	28
AKM3000	55
AKM4000	111

Be sure to use above check valves when redirecting the air flow on the inlet side of the lubricator. Threads for IN and OUT ports are not machined.

Symbol

Check valve

Specifications

Model	By-pass port size	A	B	C	D	E	Applicable model
AKM2000	1/8, 1/4	40	28	11	40	11	AC20, AC20A
AKM3000	1/8, 1/4	53	34	14	48	13	AC25, AC30, AC30A
AKM4000	1/4, 3/8	70	42	18	54	15	AC40, AC40A (Note)

Note A) A pressure switch cannot be mounted on the AC40□-06.
* Refer to the attachment table above for standard by-pass port sizes applicable to the AC.

AC-A

AF-A

AF□-A

AR-A

AL-A

AW-A

AC

AF

AF□

AR

AL

AW□

A□G

E□

AV

AF

Series AC

Pressure Switch: (S)

A compact integrated pressure switch can be easily installed and facilitates the pressure detection of the line.

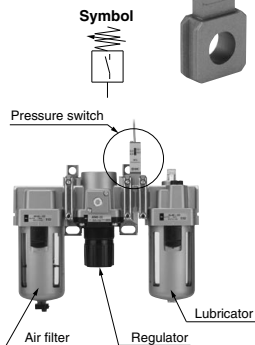
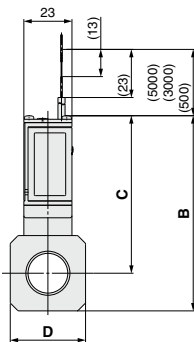
IS10M-30 - -

① ②

Semi-standard: Select one option each in **a** through **c**.
Place them in alphanumerical order.
Example) IS10M-6LP

		Symbol	Description	① Body size						
				20	30	40	50	60		
② Semi-standard	a	Set pressure range	Nii 6 (Note 1)	0.1 to 0.4 MPa 0.1 to 0.6 MPa	●	●	●	●	●	●
			+		●	●	●	●	●	●
	b	Lead wire length	Nii L Z	0.5 m 3 m 5 m	●	●	●	●	●	●
				+						
c	Scale plate pressure unit	Nii P (Note 2)	MPa Both MPa and psi	●	●	●	●	●	●	

Note 1) Set pressure range of 6P(L, Z) is 0.2 to 0.6 MPa (30 to 90 psi).
Note 2) This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)



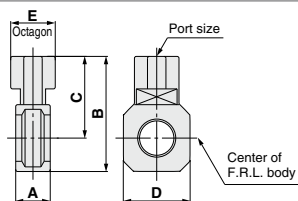
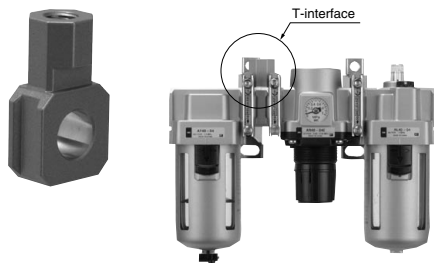
Model	A	B	C	D	Applicable model
IS10M-20	11	74	64	28	AC20□
IS10M-30	13	85	71	30	AC25□, AC30□
IS10M-40	15	93	75	36	AC40□
IS10M-50	17	97	77	44	AC40□-06
IS10M-60	22	91	67	53	AC50□, AC55□, AC60□

Note) Prepare a spacer separately for modular connection.

For details, refer to Series IS10 in Best Pneumatics No.6.

T-interface: (T) M5 x 0.8, 1/8, 1/4, 3/8, 1/2

Using a T-interface facilitates the redirection of air flow.



Model	Port size	A	B	C	D	E	Applicable model
Y110-M5	M5 x 0.8	11	19	12	14	8	AC10, AC10B
Y210-□01	1/8	15	42	32	28	19	AC20, AC20B, AC20C
Y210-□02	1/4						
Y310-□01	1/8	15	53	39	30	19	AC25, AC25B, AC25C, AC30, AC30B, AC30C
Y310-□02	1/4						
Y410-□02	1/4	19	62	44	36	24	AC40, AC40B, AC40C
Y410-□03	3/8						
Y510-□02	1/4	19	66	46	44	24	AC40-06, AC40B-06, AC40C-06
Y510-□03	3/8						
Y610-□03	3/8	22	81	57	53	30	AC50, AC55, AC60, AC50B, AC55B, AC60B
Y610-□04	1/2						

Note 1) □ in model numbers indicates a thread type. No indication is necessary for Rc; however, indicate N for NPT, and F for G.

Note 2) Separate interfaces are required for modular unit.

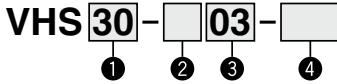
* Refer to the attachment table on page 471 for standard port sizes when using with the AC.

Caution on Mounting

If a T-interface is used on the IN side of the lubricator, lubricant may be mixed. Use the AKM series check valve to avoid such possibility.

Pressure Relief 3 Port Valve: (V)

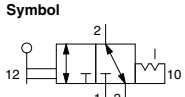
With the use of a 3-port valve for residual pressure release, pressure left in the line can be easily exhausted.



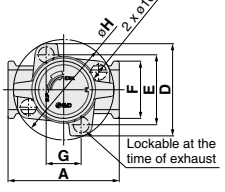
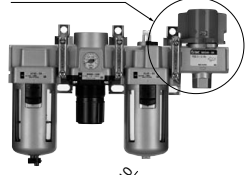
- Semi-standard: Select one each for a to b.
- Semi-standard symbol: When more than one specification is required, indicate in alphabetic order. Example) VHS30-03-RZ

		Symbol	Description	
2	Thread type	N (Note)	Rc	
		N (Note)	NPT	
		F (Note)	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	N (Note)	Flow direction: Left to right
			R	Flow direction: Right to left
	b	Pressure unit	N (Note)	Name plate in imperial units: MPa
			Z (Note)	Name plate in imperial units: psi

1			
Body size			
20	30	40	50
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●



3-port valve for residual pressure release



(Note) For thread type: NPT only. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

Specifications

Model	Port size			Effective area (mm ²) (): Cv factor	
	IN, OUT	EXH	IN→OUT	OUT→EXH	
VHS20	1/8	1/8	10 (0.54)	11 (0.60)	
	1/4	1/8	14 (0.76)	16 (0.87)	
VHS30	1/4	1/4	16 (0.87)	14 (0.76)	
	3/8	1/4	31 (1.68)	29 (1.57)	
VHS40	1/4	1/4	27 (1.46)	36 (1.75)	
	3/8	3/8	38 (2.06)	40 (2.08)	
	1/2	1/2	55 (2.98)	42 (2.12)	
VHS40-06	3/4	1/2	77 (4.17)	49 (2.12)	
	3/4	1/2	82 (4.44)	50 (2.85)	
VHS50	1	1/2	125 (6.78)	53 (2.93)	

(Note) Use an air filter on the IN side for operating protection.

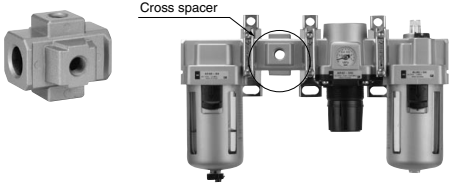
Caution on Mounting

- If a tube, stop valve or silencer is connected to the exhaust port of the VHS20/30, the effective sectional area should be larger than the figure indicated in the following table, to prevent malfunction caused by back pressure. (This is not applicable to the VHS40/50.)

Model	Effective area (mm ²)
VHS20	5
VHS30	5

Cross Spacer: M5 x 0.8, 1/8, 1/4, 3/8, 1/2

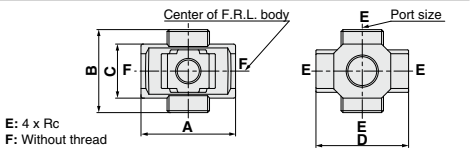
Pipings are possible in all 4 directions.
IN/OUT ports are not machined for threads.
Please contact SMC if threaded (machined) ports are required.



Caution on Mounting

- When mounting a cross interface directly on the IN side of the lubricator, be sure to use the AKM series check valve between the lubricator and cross interface.
- Factory mounting of a cross interface on the AC model is available as a special order.

Model	A	AA	B	C	D	E	F	G	H
VHS20	40	34	59	20	45	33	28	—	45
VHS30	53	46	78	29	55	42	30	—	55
VHS40	70	63	107	39	58	44	36	22	63
VHS40-06	75	67	110	42	65	50	44	21	69
VHS50	90	78	134	53	76	61	53	26	81



E: 4 x Rc
F: Without thread

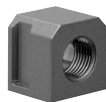
Model	Port size	A	B	C	D	Applicable model
Y14-M5	M5	23	16	14	25	AC10□
Y24-□01	1/8	40	40	22	40	AC20□
Y24-□02	1/4					
Y34-□01	1/8	49	43	28	48	AC25□, AC30□
Y34-□02	1/4					
Y44-□02	1/4	60	48	36	54	AC40□
Y44-□03	3/8					
Y54-□03	3/8	72	62	40	62	AC40□-06
Y54-□04	1/2					

- Note 1) □ in model numbers indicates a thread type. No indication is necessary for Rc; however, indicate N for NPT, and F for G.
Note 2) If threaded IN/OUT ports are required, they are available as a special order. Please contact SMC.
Note 3) Two hexagon socket head plugs are included in the package.

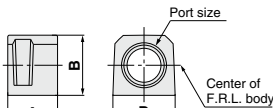
Series AC

Piping Adapter: M5 x 0.8, 1/8, 1/4, 3/8, 1/2, 3/4, 1

A piping adapter allows installation/removal of the component without removing the piping and thus makes maintenance easier.



Piping adapter



Model (Note 1)	Port size	A	B	D	Applicable model
E100-M5	M5 x 0.8	10	14	14	AC10□, AW10, AF10, AR10, AL10
E200-□01	1/8				AC20□
E200-□02	1/4	30	23.5	28	AF20, AR20□, AW20□
E200-□03	3/8				AL20, AFM20, AFD20, AWM20, AWD20
E300-□02	1/4				AC25□, AC30□
E300-□03	3/8	32	30	30	AF30, AR30□, AW30□
E300-□04	1/2				AL30, AFM30, AFD30, AWM30, AWD30
E400-□02	1/4				AC40□
E400-□03	3/8	32	36	36	AF40, AR40□, AW40□
E400-□04	1/2				AL40, AFM40, AFD40
E400-□06	3/4				AWM40, AWD40
E500-□06	3/4	32	40	44	AC40□-06, AF40-06, AR40□-06, AW40□-06, AL40-06, AFM40-06, AFD40-06
E600-□06	3/4	35	48	53	AC50, AC55, AC60, AC50A
E600-□10	1				AC60A, AC50B, AC55B AC60B, AF50, AF60, AR50□ AR60□, AL50, AL60, AW60□

Note 1) □ in model numbers indicates a thread type. No indication is necessary for Rc; however, indicate N for NPT, and F for G.

Note 2) Separate interfaces are required for modular unit.

* Factory mounting of a piping adapter on the AC models is available as a special order.

Pressure Switch with Piping Adapter

IS10E - **30** - **03** - **□**

① ② ③ ④

Semi-standard: Select one option each in a through d. Place them in alphabetical order.
Example) IS10E-30N03-6PRZ

		Symbol	Description	① Body size		
				20	30	40
②	Thread type	Nil	Rc	●	●	●
		N	NPT	●	●	●
		F	G	●	●	●
		+				
③	Port size	01	1/8	●	—	—
		02	1/4	●	●	—
		03	3/8	●	●	●
		04	1/2	—	●	●
		06	3/4	—	—	●

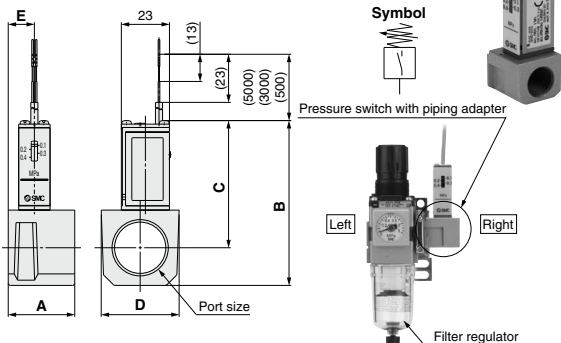
④	Semi-standard	a		Set pressure range		
		Nil	0.1 to 0.4 MPa	●	●	●
		6 (Note 1)	0.1 to 0.6 MPa	●	●	●
		+				
		b		Lead wire length		
Nil	0.5 m	●	●	●		
L	3 m	●	●	●		
Z	5 m	●	●	●		
		c		Scale plate pressure unit		
Nil	MPa	●	●	●		
P (Note 2)	Both MPa and psi	●	●	●		
		d		Mounting position		
Nil	Right	●	●	●		
R	Left	●	●	●		

Note 1) Set pressure range of 6P(L, R, Z) is 0.2 to 0.6 MPa (30 to 90 psi).

Note 2) For thread type: NPT only.

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

For details, refer to Series IS10 in Best Pneumatics No.6.



Model (Note 1)	Port size	A	B	C	D	E	Applicable model
IS10E-20□01	1/8						AC20□
IS10E-20□02	1/4	30	66	55	28	16	AR20□, AW20□ AWM20, AWD20
IS10E-20□03	3/8						
IS10E-30□02	1/4						AC25□, AC30□
IS10E-30□03	3/8	32	73	59	30	13	AR25□, AR30□, AW30□
IS10E-30□04	1/2						AWM30, AWD30
IS10E-40□02	1/4						Note 2)
IS10E-40□03	3/8	32	79	61	37	13	AC40□, AW40□
IS10E-40□04	1/2						AWM40, AWD40
IS10E-40□06	3/4						

Note 1) □ in the model numbers indicates a thread type. No indication is necessary for Rc; however, indicate N for NPT, and F for G.

Note 2) Cannot be mounted to the AC40□-06 and AW40□-06.

Note 3) Prepare a spacer separately for modular connection.

* The pressure switch can be mounted on the AC40□-06 and above and the AW40□-06 by screwing the IS10-01S into the piping adapter E500-□06-X051 or E600-□06-X501 to E600-□10-X501 (Rc1/8 threaded on top surface). Products with a premounted switch are available as a special order. Please contact SMC beforehand.

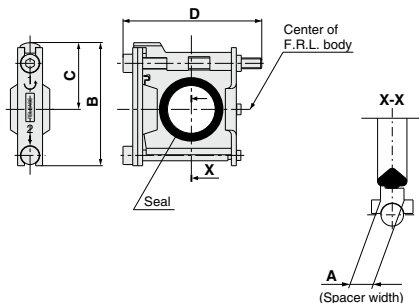
Series AC Spacers/Brackets Accessories

Spacer



Y200

Y400



Model	A	B	C	D	Applicable model
Y100	6	27	15	33	AC10, AC10A, AC10B
Y200	3	35.5	18.5	48	AC20□
Y300	4	47	26	59	AC25□, AC30□
Y400	5	57	31	65	AC40□
Y500	5	61	33	75	AC40□-06
Y600	6	75.5	41	86	AC50, AC55, AC60 AC50A, AC60A AC50B, AC55B, AC60B

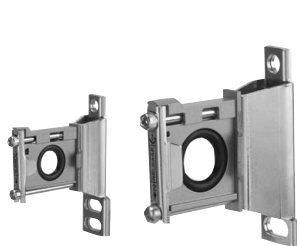
Replacement Parts

Description	Material	Part no.					
		Y100	Y200	Y300	Y400	Y500	Y600
Seal	HNBR (Note 2)	Y100P-060AS (Note 1)	Y200P-061S	Y300P-060S	Y400P-060S	Y500P-060S	Y600P-060S

Note 1) Assembly of 2 O-rings

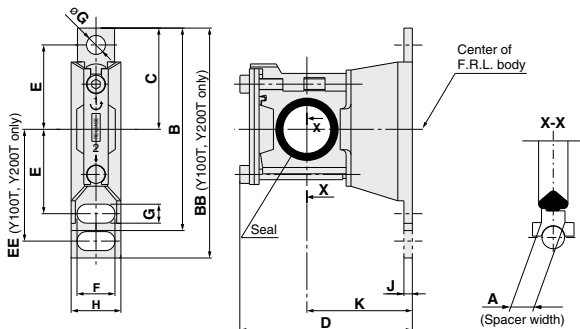
Note 2) NBR is used for Y100 spacer because of no direct contact with fluid.

Spacer with Bracket



Y200T

Y400T



Model	A	B	BB	C	D	E	EE	F	G	øG	H	J	K	Applicable model
Y100T	6	—	56	24.5	40.5	20	27	6.8	4.5	4.5	14	2.8	25	AC10□
Y200T	3	—	67	29	53	24	33	12	5.5	5.5	19	3.2	30	AC20□
Y300T	4	82	—	41	68	35	—	14	7	7	21	4	41	AC25□, AC30□
Y400T	5	96	—	48	81.5	40	—	18	9	9	26	4	50	AC40□
Y500T	5	96	—	48	86	40	—	18	9	9	27	4.6	50	AC40□-06
Y600T	6	120	—	60	112	50	—	20	11	11	31	6.4	70	AC50, AC55, AC60, AC50A, AC60A, AC50B, AC55B, AC60B

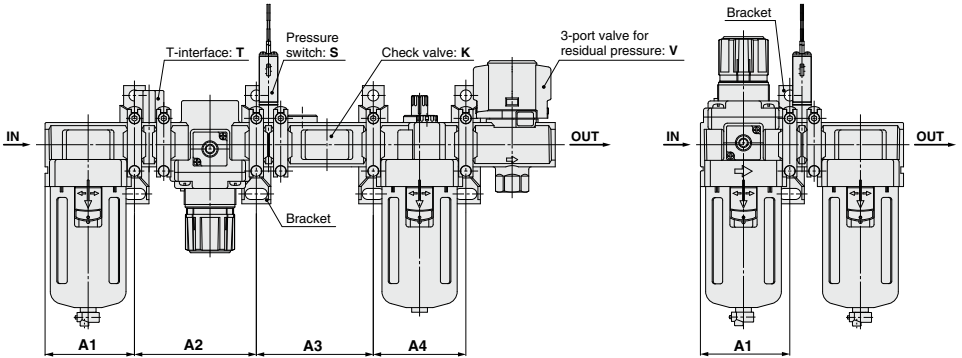
Replacement Parts

Description	Material	Part no.					
		Y100T	Y200T	Y300T	Y400T	Y500T	Y600T
Seal	HNBR (Note 2)	Y100P-060AS (Note 1)	Y200P-061S	Y300P-060S	Y400P-060S	Y500P-060S	Y600P-060S

Note 1) Assembly of 2 O-rings

Note 2) NBR is used for Y100T spacer because of no direct contact with fluid.

Mounting Position for Spacer with Bracket



Attachment Model	K			S			T			V			KS			KT			KV				KST		
	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A4	A1	A2	A3
AC10	41.5	—	—	—	—	—	28	48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
AC20	41.5	43	43	41.5	43	41.5	61	41.5	43	43	41.5	43	57	41.5	61	43	41.5	43	43	43	43	41.5	61	57	
AC25	55	57	57	55	57	55	76	55	57	57	55	57	74	55	76	57	55	57	57	57	55	76	74	57	
AC30	55	57	57	55	57	55	76	55	57	57	55	57	74	55	76	57	55	57	57	57	55	76	74	57	
AC40	72.5	75	75	72.5	75	72.5	99	72.5	75	75	72.5	75	95	72.5	99	75	72.5	99	75	75	75	72.5	99	95	
AC40-06	—	—	—	77.5	80	77.5	104	77.5	80	80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
AC50	—	—	—	93	96	93	124	93	96	96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
AC55	—	—	—	98	96	98	124	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
AC60	—	—	—	98	101	98	129	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Attachment Model	KSV				KTV				KSTV				ST		SV			STV			TV			
	A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A3	A4	A1	A2	A1	A2	A3	A3	A1	A2	A3	A1	A2	A3
AC10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AC20	41.5	43	57	43	41.5	61	43	43	41.5	61	57	43	41.5	61	41.5	43	57	41.5	61	57	41.5	61	43	—
AC25	55	57	74	57	55	76	57	57	55	76	74	57	55	76	55	57	74	55	76	74	55	76	57	—
AC30	55	57	74	57	55	76	57	57	55	76	74	57	55	76	55	57	74	55	76	74	55	76	57	—
AC40	72.5	75	95	75	72.5	99	75	75	72.5	99	95	75	72.5	99	72.5	99	72.5	99	95	95	72.5	99	75	—
AC40-06	—	—	—	—	—	—	—	—	—	—	—	—	—	77.5	104	77.5	80	102	77.5	104	102	77.5	104	80
AC50	—	—	—	—	—	—	—	—	—	—	—	—	—	93	124	93	96	124	93	124	124	93	124	96
AC55	—	—	—	—	—	—	—	—	—	—	—	—	—	98	124	—	—	—	—	—	—	—	—	—
AC60	—	—	—	—	—	—	—	—	—	—	—	—	—	98	129	—	—	—	—	—	—	—	—	—

Attachment Model	K		S		V		KS		KV			KSV			SV	
	A1	A2	A1	A2	A1	A2	A1	A2	A1	A2	A3	A1	A2	A3	A1	A2
AC20A	41.5	43	41.5	41.5	43	41.5	57	41.5	43	43	41.5	57	43	41.5	57	
AC30A	55	57	55	55	57	55	74	55	57	57	55	74	57	55	74	
AC40A	72.5	75	72.5	72.5	75	72.5	95	72.5	75	75	72.5	95	75	72.5	95	
AC40A-06	—	—	77.5	77.5	80	—	—	—	—	—	—	—	—	77.5	102	
AC50A	—	—	98	98	96	—	—	—	—	—	—	—	—	98	124	
AC60A	—	—	98	—	—	—	—	—	—	—	—	—	—	—	—	

Attachment Model	S		T		V		V1		SV		SV1		TV		TV1	
	A1	A2	A1	A2	A1	A2	A1	A2	A1	A2	A1	A2	A1	A2	A1	A2
AC10B	—	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AC20B	41.5	41.5	41.5	43	41.5	43	41.5	57	41.5	43	41.5	61	41.5	43	—	—
AC25B	55	55	55	57	55	57	55	74	55	57	55	76	55	57	—	—
AC30B	55	55	55	57	55	57	55	74	55	57	55	76	55	57	—	—
AC40B	72.5	72.5	72.5	75	72.5	75	72.5	95	72.5	75	72.5	99	72.5	75	—	—
AC40B-06	77.5	77.5	77.5	80	77.5	80	77.5	102	77.5	80	77.5	104	77.5	80	—	—
AC50B	93	93	93	96	93	96	93	124	93	96	93	124	93	96	—	—
AC55B	98	98	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AC60B	98	98	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Attachment Model	S			T			V			V1			SV			SV1			TV			TV1		
	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
AC20C	41.5	43	41.5	43	41.5	43	43	41.5	43	43	41.5	43	57	41.5	43	43	41.5	43	61	41.5	43	43		
AC25C	55	57	55	57	55	57	57	55	57	57	55	57	74	55	57	57	55	57	76	55	57	57		
AC30C	55	57	55	57	55	57	57	55	57	57	55	57	74	55	57	57	55	57	76	55	57	57		
AC40C	72.5	75	72.5	75	72.5	75	75	72.5	75	75	72.5	75	95	72.5	75	75	72.5	75	99	72.5	75	75		
AC40C-06	77.5	80	77.5	80	77.5	80	80	77.5	80	80	77.5	80	102	77.5	80	80	77.5	80	104	77.5	80	80		

Attachment Model	S		V		V1		SV		SV1		
	A1	A2	A1	A2	A1	A2	A1	A2	A1	A2	
AC20D	41.5	41.5	43	41.5	43	41.5	57	41.5	43	—	—
AC30D	55	55	57	55	57	55	74	55	57	—	—
AC40D	72.5	72.5	75	72.5	75	72.5	95	72.5	75	—	—
AC40D-06	77.5	77.5	80	77.5	80	77.5	102	77.5	80	—	—

A1: Dimensions from the end of the IN side to the center of the mounting hole for the first bracket.

A2: Mounting hole pitch between the first and the second brackets.

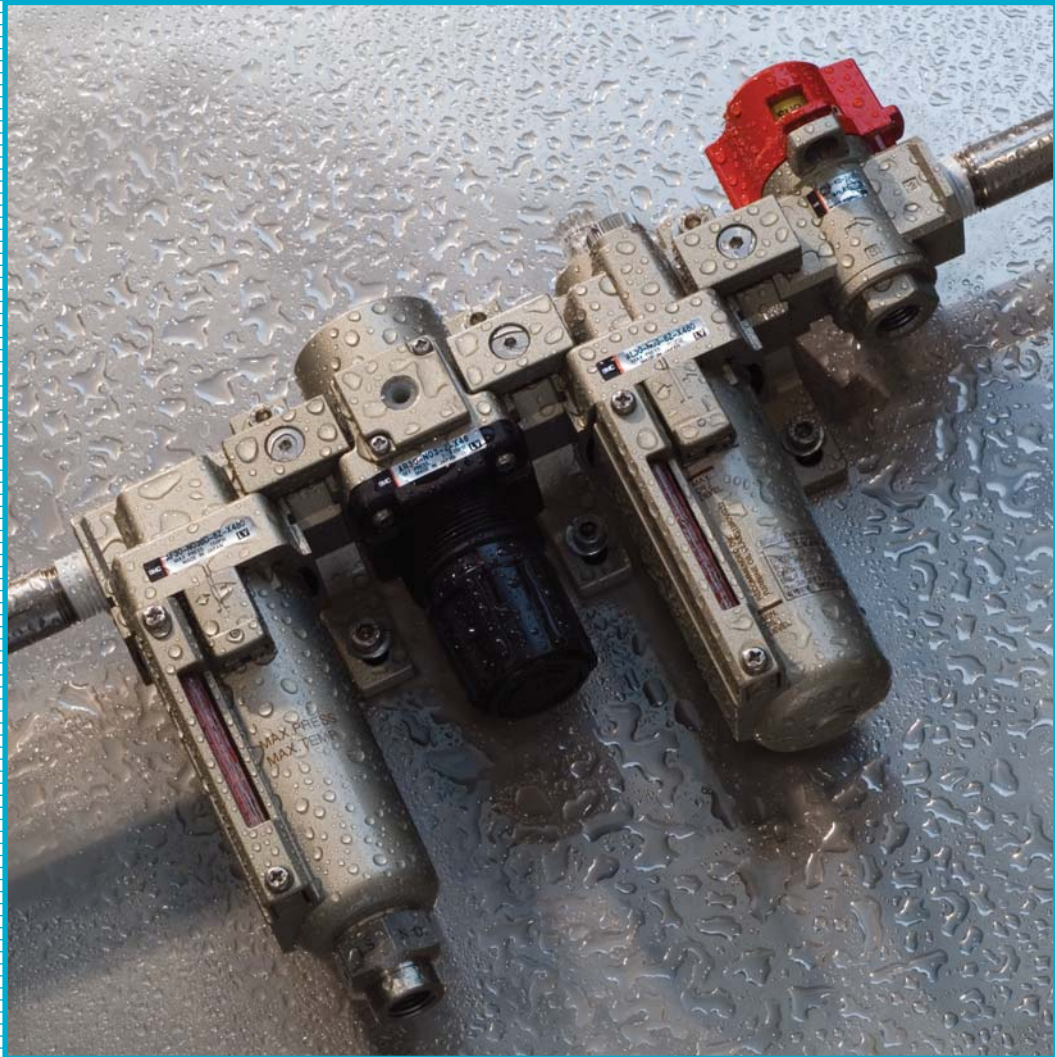
A3: Mounting hole pitch between the second and the third brackets.

A4: Mounting hole pitch between the third and the fourth brackets.



Series AC

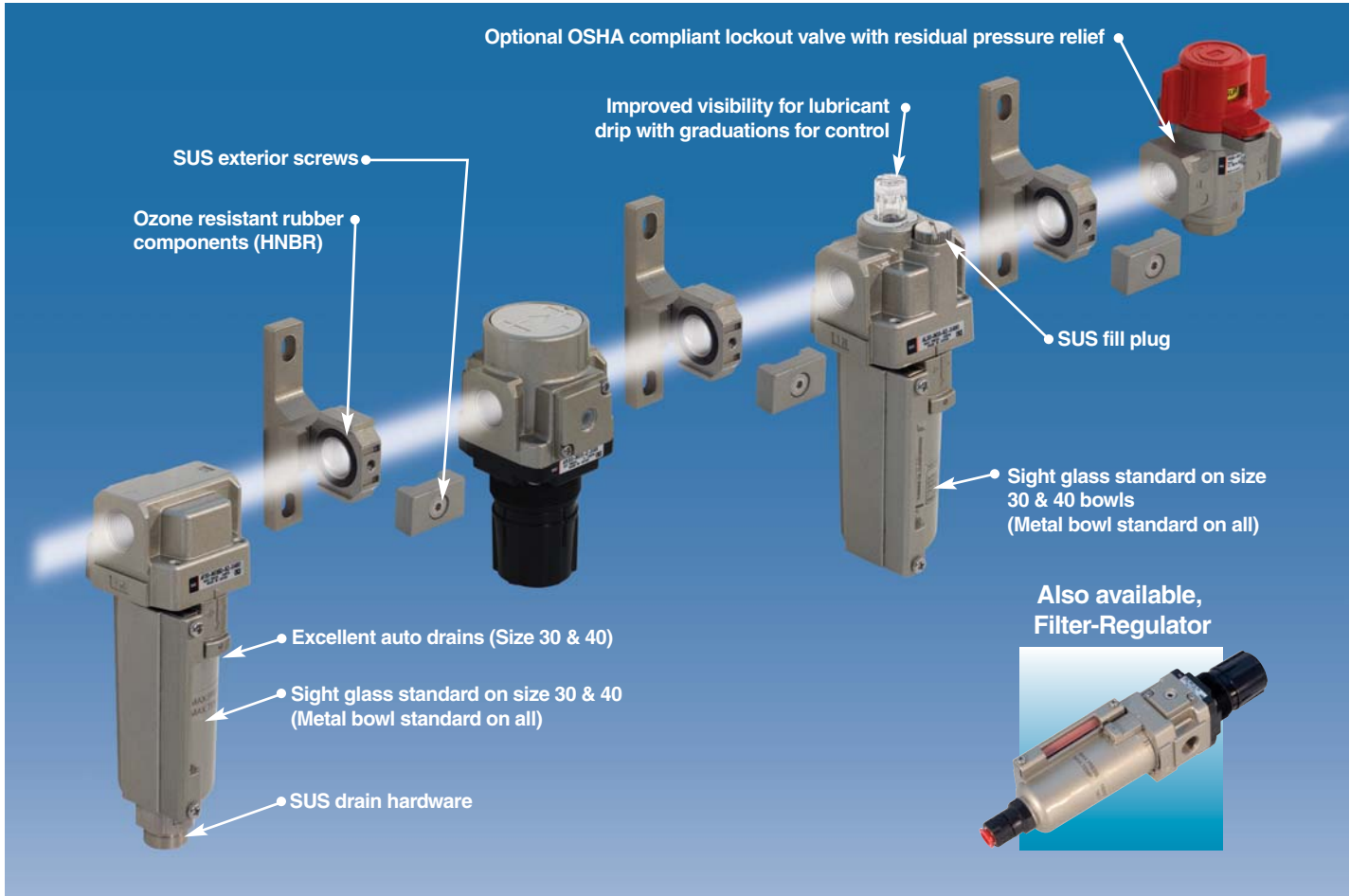
Epoxy Coated F.R.L.



Enhanced protection for corrosive manufacturing environments

Epoxy Coated F.R.L. Unit

The performance you have come to expect from SMC Air Preparation products --Now enhanced with an optional epoxy resin coating & stainless hardware for long lasting performance in challenging environments.



All stainless components are an expensive option when faced with wet or corrosive environments. By providing a durable epoxy coating* and stainless external hardware on our industry-leading air preparation components, SMC is able to offer enhanced corrosion resistance with the high performance of our standard models.

* As with any coated product, care should be taken to avoid scratching the coating as the protection can be compromised through such damage.

F.R.L. Unit

How To Order

Series AC 21 to 41

AC 31 B - N 03 D - V 8 Y Z - X2217

Air Combination Unit

Body Size

Symbol	Size
21	1/8
31	3/8
41	1/2

Model Combination

Symbol	Model/Assembly Order
Nil	AF + AR + AL
A	AW + AL
B	AF + AR

NPT Threads

Port Size

Symbol	Port Size	Applicable Body Size
02	1/4	21
03	3/8	31
04	1/2	41

With External Epoxy Coating, Stainless Fasteners

Name Plate, Caution Plate On Bowl in psi, °F

Regulator Handle Orientation

Symbol	Description
Nil	Downward Handle
Y	Upward Handle

Bowl

Symbol	Description	Applicable Body Size
2	Metal Bowl	21
8	Metal Bowl with Sight Glass	31, 41

Residual Pressure Relief Valve

Symbol	Description	Applicable Body Size
Nil	Without Valve	All
V	With Downstream Valve	All

Accessories

Symbol	Description	Applicable Body Size
Nil	None	All
C	Float Auto Drain (N.C.)	31, 41
D	Float Auto Drain (N.O.)	31, 41

Filter

How To Order

Series AF 20 to 40

AF 30 - N 03 D - 8 Z - X480

Filter

Body Size

Symbol	Size
20	1/8
30	3/8
40	1/2

NPT Threads

Port Size

Symbol	Port Size	Applicable Body Size
02	1/4	20
03	3/8	30
04	1/2	40

• With External Epoxy Coating, Stainless Fasteners

• Name Plate, Caution Plate On Bowl in psi, °F

• Bowl

Symbol	Description	Applicable Body Size
2	Metal Bowl	21
8	Metal Bowl with Sight Glass	31, 41

• Accessories

Symbol	Description	Applicable Body Size
Nil	None	All
B*	Mounting Bracket	All
C	Float Auto Drain (N.C.)	31, 41
D	Float Auto Drain (N.O.)	31, 41

*Note: Bracket is not assembled and is supplied loose at time of shipment.

Regulator

How To Order

Series AR 20 to 40

AR 20 - N 02 B - Y Z - X48

Regulator

Body Size

Symbol	Size
20	1/8
30	3/8
40	1/2

NPT Threads

Port Size

Symbol	Port Size	Applicable Body Size
02	1/4	20
03	3/8	30
04	1/2	40

• With External Epoxy Coating Stainless Fasteners

• Name Plate in imperial Units (psi, °F)

• Handle Orientation

Symbol	Description
Nil	Handle Down
Y	Handle Up

• Accessories

Symbol	Description
Nil	None
B*	Mounting Bracket
H*	Panel Mount Nut

*Note: Bracket and/or panel mount nut are not assembled and are supplied loose at time of shipment.

Residual Pressure Relief Valve

How To Order

Series VHS 20 to 40

VHS 30 - N 03 - Z - X513

Residual Pressure Relief Valve

Body Size

Symbol	Applicable Model
20	AC21
30	AC31
40	AC41

Thread Type

N	NPT
---	-----

Port Size

Symbol	Port Size	Body Size		
		20	30	40
02	1/4	●		
03	3/8		●	
04	1/2			●

• With External Epoxy Coating Stainless Fasteners

• Name Plate in imperial Units (psi, °F)

Note: Other sizes, thread forms, options, etc. may be possible, please contact SMC for availability.

Lubricator

How To Order

Series AL20 to 40

AL 20 - N 02 B - 2 Z - X480

Lubricator •
 Body Size •
 NPT Threads •
 Port Size •
 Bowl •
 Accessories •
 With External Epoxy Coating, Stainless Fasteners
 Name Plate, Caution Plate On Bowl in psi, °F

Symbol	Size
20	1/8
30	3/8
40	1/2

Symbol	Port Size	Applicable Body Size
02	1/4	20
03	3/8	30
04	1/2	40

Symbol	Description	Applicable Body Size
2	Metal Bowl	20
8	Metal Bowl with Sight Glass	30, 40

Symbol	Description	Applicable Body Size
Nil	None	All
B*	Mounting Bracket	All

*Note: Bracket is not assembled and is supplied loose at time of shipment.

Filter - Regulator

How To Order

Series AW20 to 40

AW 30 - N 03 D 8 Z - X48

Filter - Regulator •
 Body Size •
 NPT Threads •
 Port Size •
 Bowl •
 Accessories •
 With External Epoxy Coating Stainless Fasteners
 Name Plate in imperial Units (psi, °F)

Symbol	Size
20	1/8
30	3/8
40	1/2

Symbol	Port Size	Applicable Body Size
02	1/4	20
03	3/8	30
04	1/2	40

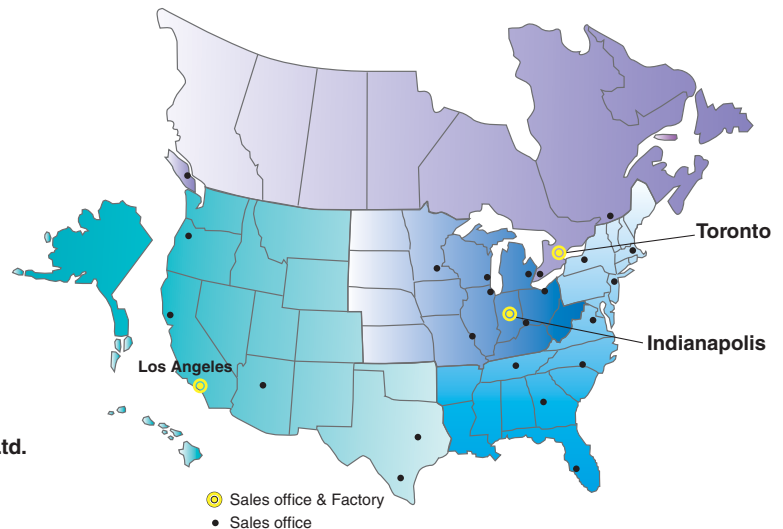
Symbol	Description	Applicable Body Size
2	Metal Bowl	20
8	Metal Bowl with Sight Glass	30, 40

Symbol	Description	Applicable Body Size
Nil	None	All
B*	Mounting Bracket	All
C	Float Auto Drain (N.C.)	30, 40
D	Float Auto Drain (N.O.)	30, 40
H*	Panel Mount Nut	All

*Note: Bracket and/or panel mount nut are not assembled and are supplied loose at time of shipment.

U.S. & Canadian Sales Offices

EAST	WEST	MIDWEST	CANADA
Atlanta	Austin	Chicago	Montreal
Boston	Dallas	Cincinnati	Tel: (514) 733-9595
Charlotte	Los Angeles	Cleveland	Fax: (514) 733-1771
Nashville	Phoenix	Detroit	Toronto
New Jersey	Portland	Indianapolis	Tel: (905) 812-0400
Richmond	San Francisco	Milwaukee	Fax: (905) 812-8686
Rochester		Minneapolis	Vancouver
Tampa		St. Louis	Tel: (604) 517-1646
			Fax: (604) 517-1647
			Windsor
			Tel: (519) 944-0555
			Fax: (519) 944-1870



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 3011 N. Franklin Road
 Indianapolis, IN 46226
(800) 762-7621 (SMC.SMC1)
www.smcusa.com
For International inquiries: www.smcworld.com

SMC Pneumatics (Canada) Ltd.
 6768 Financial Drive Mississauga
 Ontario, L5N 7J6 Canada
(905) 812-0400
www.smcpcanada.com

Modular Adapter

Series E210/310/410

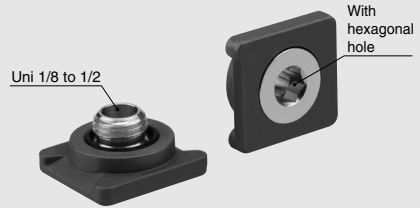
Easy connection to existing products!

Flexible mounting

- Can be connected to existing products such as 2 port valves as well as F.R.L. Unit
- Can be freely rotated, thus allowing a wide selection of mounting directions
- Can be connected to existing products of different size
Ex.: AF30+ARG20

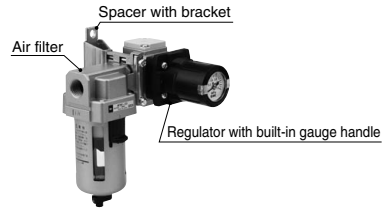
Reduced space/piping maintenance cost

- Can be connected/disconnected without rotation
- Fittings, tube, etc. not required for connection



- Location of pressure gauge can be fixed depending on the installation location.

Ex. 1: Front face mounting



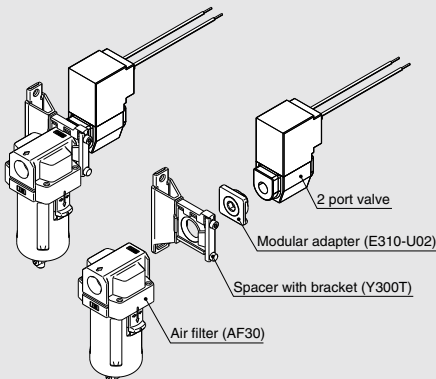
Ex. 2: Tilted position mounting



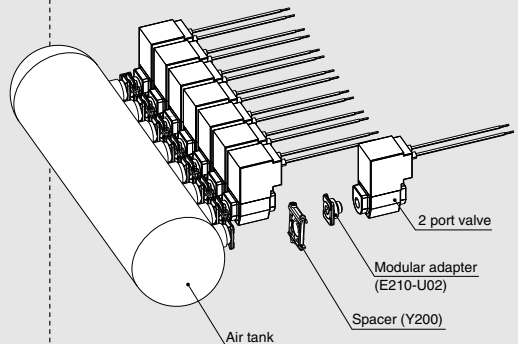
AC-A
AF-A
AF□-A
AR-A
AL-A
AW-A
AC
AF
AF□
AR
AL
AW□
A□G
E□
AV
AF

Application Examples

Ex. 1 Filter + 2 port valve

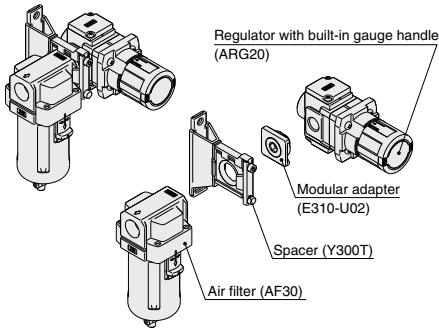


Ex. 2 2 port valve connection to air tank

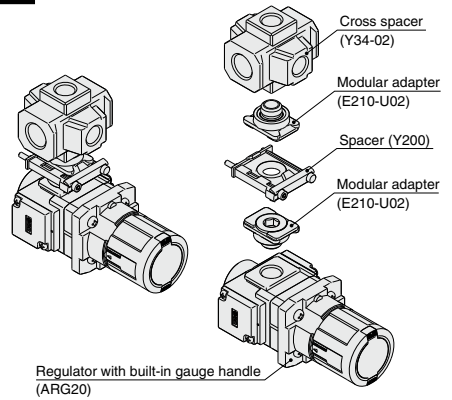


Application Examples

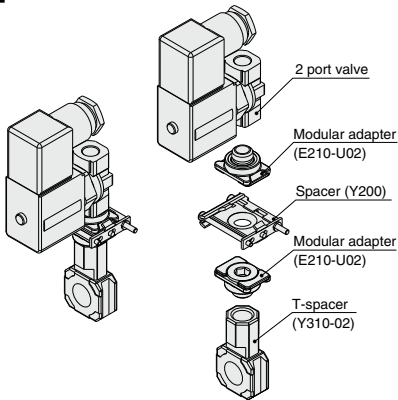
Ex. 3 Front face mounting of regulator with built-in gauge handle



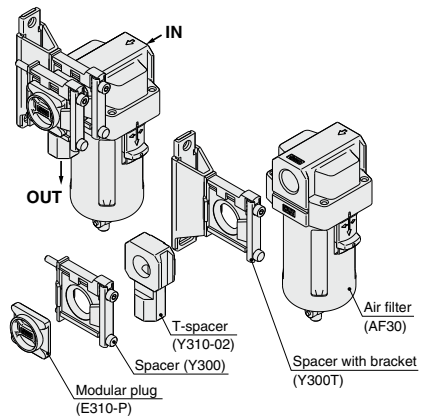
Ex. 4 Cross spacer to branch mounting



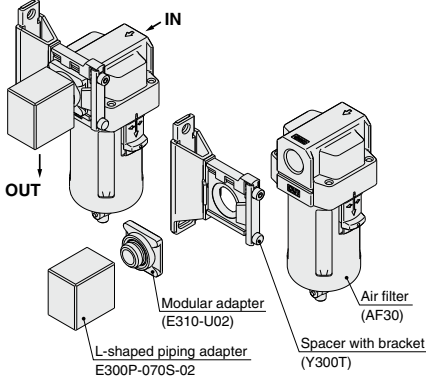
Ex. 5 T-spacer to branch mounting (1)



Ex. 6 T-spacer to downward face mounting (2)



Ex. 7 Downward face mounting for L-shaped piping adapter



Modular Adapter

Series E210/310/410

How to Order

E310 - **U** **03**

Size	
210	
310	
410	
Thread	
U	Uni thread

Piping port size

Symbol	Port size Uni thread	Size		
		210	310	410
01	1/8	●	—	—
02	1/4	●	●	—
03	3/8	—	●	●
04	1/2	—	—	●



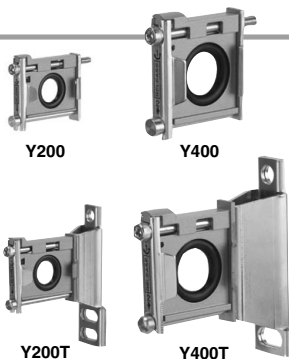
Specifications

Model	E210		E310		E410		
Port size	1/8	1/4	1/4	3/8	1/4	3/8	1/2
Piping I.D.	ø6	ø8	ø8	ø10	ø8	ø10	ø12
Fluid	Air						
Ambient and fluid temperature	-5 to 60°C (No freezing)						
Proof pressure	1.5 MPa						
Maximum operating pressure	1.0 MPa						
Weight (g)	26	25	38	38	60	62	68

Applicable Attachment Part Number

Applicable models	E210	E310	E410
Spacer	Y200	Y300	Y400
Spacer with bracket	Y200T	Y300T	Y400T

* Refer to page 590 for detailed dimensions.



AC-A

AF-A

AF□-A

AR-A

AL-A

AW-A

AC

AF

AF□

AR

AL

AW□

A□G

E□

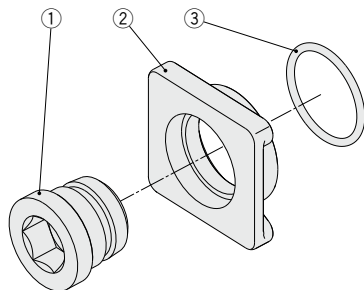
AV

AF

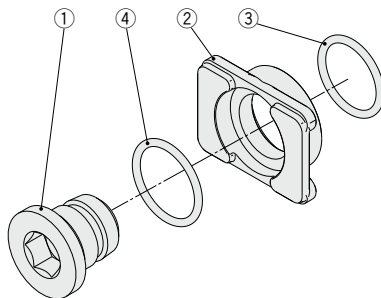
Series E210/310/410

Construction

E210-U01
E310-U02, U03
E410-U02, U03, U04



E210-U02



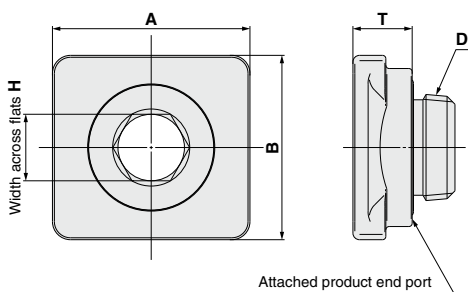
Component parts

No.	Description	Material
1	Joint nipple	Brass
2	Adapter	Zinc die-cast

Replacement parts

No.	Description	Material	Part no.				
			E210-U01	E210-U02	E310-U02 E410-U02	E310-U03 E410-U03	E410-U04
3	O-ring	NBR	E210P-040S	E210P-030S	E210P-030S	E310P-030S	E410P-030S
4	O-ring	NBR	—	E210P-050S	—	—	—

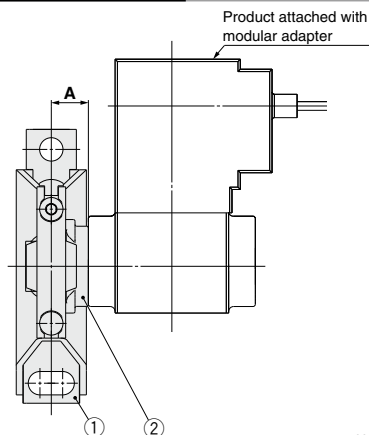
Dimensions



Unit: mm

Part no.	D Uni thread	A	B	T	Width across flats H
E210-U01	1/8	28	21		6
E210-U02	1/4				8
E310-U02	1/4	30	28		8
E310-U03	3/8			9	10
E410-U02	1/4				8
E410-U03	3/8	36	36		10
E410-U04	1/2				12

Mounting Dimensions



Unit: mm

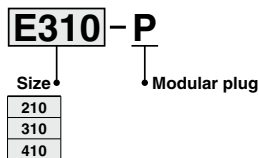
① Spacer with bracket	② Modular adapter	A
Y200T	E210-U01 to U02	10.6
Y300T	E310-U02 to U03	11.1
Y400T	E410-U02 to U04	11.6

Note) Y200 to Y400 spacers share the same dimensions.

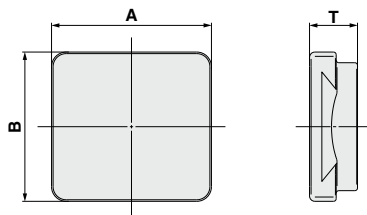
Option

Modular Plug

How to Order



Dimensions

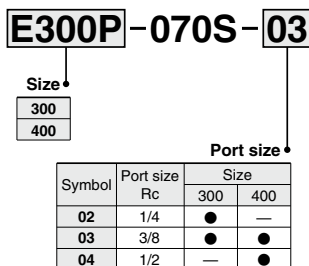


Unit: mm

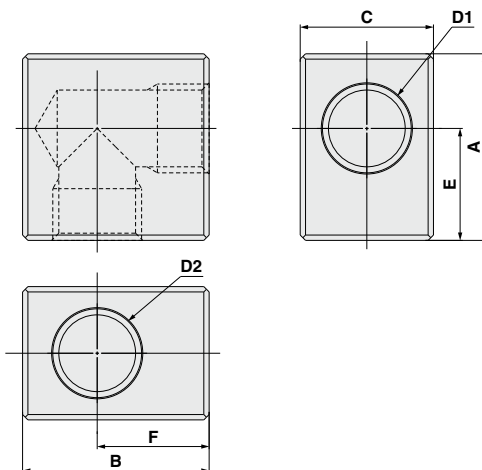
Part no.	A	B	T	Applicable spacer	
				Spacer	Spacer with bracket
E210-P	28	21		Y200	Y200T
E310-P	30	28	9	Y300	Y300T
E410-P	36	36		Y400	Y400T

L-Shaped Piping Adapter

How to Order



Dimensions



(mm)

Part no.	D1	D2	A	B	C	E	F
E300P-070S-02	Rc1/4	Rc1/4	32	32	20	21	21
E300P-070S-03	Rc3/8	Rc3/8	35	35	25	21	21
E400P-070S-03	Rc3/8	Rc3/8	45	45	25	27.5	27.5
E400P-070S-04	Rc1/2	Rc1/2	45	45	30	27.5	27.5

AC-A

AF-A

AF□-A

AR-A

AL-A

AW-A

AC

AF

AF□

AR

AL

AW□

A□G

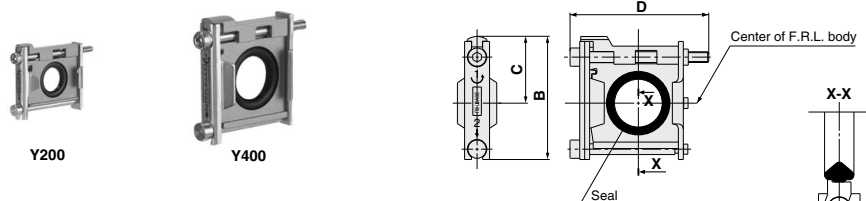
E□

AV

AF

Series E210/310/410

Spacer

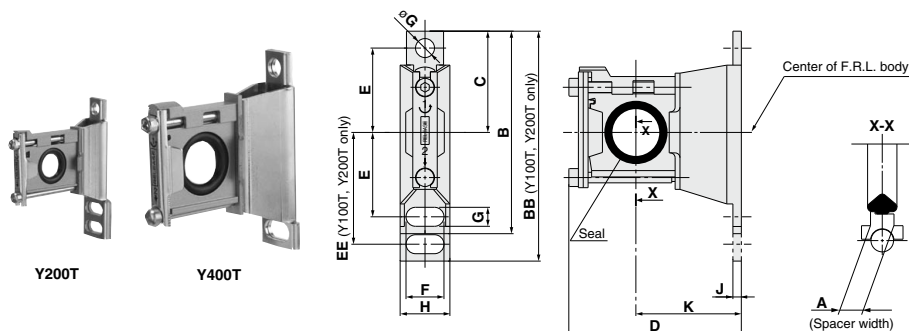


Model	A	B	C	D	Applicable model
Y200	3	35.5	18.5	48	E210
Y300	4	47	26	59	E310
Y400	5	57	31	65	E410

Replacement parts

Description	Material	Part no.		
		Y200	Y300	Y400
Seal	HNBR	Y200P-061S	Y300P-060S	Y400P-060S

Spacer with Bracket



Model	A	B	BB	C	D	E	EE	F	G	øG	H	J	K	Applicable model
Y200T	3	—	67	29	53	24	33	12	5.5	5.5	19	3.2	30	E210
Y300T	4	82	—	41	68	35	—	14	7	7	21	4	41	E310
Y400T	5	96	—	48	81.5	40	—	18	9	9	26	4	50	E410

Replacement parts

Description	Material	Part no.		
		Y200T	Y300T	Y400T
Seal	HNBR	Y200P-061S	Y300P-060S	Y400P-060S



Series E210/310/410 Specific Product Precautions

Be sure to read before handling.
Refer to front matter 43 for Safety Instructions.

Mounting

⚠ Caution

The seal surface of the product to be attached requires the modular adapter O-ring seal surface as shown in Table 1.

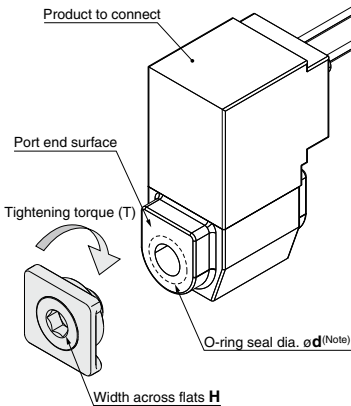
In addition, when tightening the modular adapter please refer to table 2 for the proper tightening torque.

Table 1: Required O-ring seal diameter for the mating product

Part no.	Port size	ød
E210-U01	1/8	Over 14.5
E210-U02	1/4	Over 18
E310-U02	1/4	Over 18
E310-U03	3/8	Over 22
E410-U02	1/4	Over 18
E410-U03	3/8	Over 22
E410-U04	1/2	Over 27

Table 2: Hexagonal hole dim. & tightening torque

Part no.	Port size	Width across flats H	Recommended tightening torque (N·m)
E210-U01	1/8	6	9 to 11
E210-U02	1/4	8	14 to 16
E310-U02	1/4	8	14 to 16
E310-U03	3/8	10	24 to 26
E410-U02	1/4	8	14 to 16
E410-U03	3/8	10	24 to 26
E410-U04	1/2	12	30 to 32

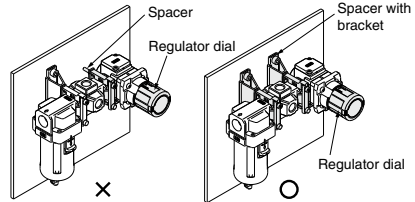


(Note) The surface roughness of the seal surface of the product to be mated to the modular adapter must be less than Rz25.

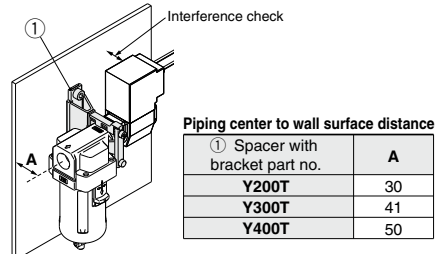
Selection

⚠ Warning

- When utilizing a regulator or a pressure relief 3 port valve with an operator (dial, etc), assure that a large moment is not exerted on the bracket spacer when placing the product. Be sure to utilize a T-Bracket (Y200T/Y300T/Y400T) in the appropriate space in order to alleviate this.

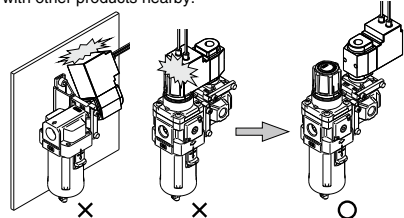


- When making the product selection and mounting to a wall, determine the distance to the wall from the center of pipe (A dimension) and make your selection of the product so that, when attached, the product selected does not run into the wall.



- Give careful thought to the attachment angle, and assure that the attached product does not run into the wall mount prior to product selection.

In addition, assure that the product selected will not interfere with other products nearby.



- In the event that the customer is unable to determine the interference prior to product selection, please contact SMC.

⚠ Caution

- If products of brands other than SMC's are connected, this product is no longer guaranteed.