

How to Order

**AC 30 A F 03 DE KV 12R**

F.R.L. unit

Body size

10	20	25	30	40	50	55	60
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Model combination

Symbol	Combination				
	Air filter	Regulator	Lubricator	Filter regulator	Mist separator
Nil	①	②	③	—	—
A	—	—	②	①	—
B	①	②	—	—	—
C	①	③	—	—	②
D	—	—	—	①	②

\* The number inside ○ indicates the combination order counted from the inlet side.

Thread type

Nil	Metric system thread (M5)
	Rc
N Note 1)	NPT
F Note 2)	G

Note 1) Drain guide is NPT1/4 (applicable to AC25 to 60), and the exhaust port for auto drain comes with ø3/8" One-touch fitting (applicable to AC25 to 60).

Note 2) Drain guide is G1/4 (applicable to AC25 to 60).

Port size

Symbol	Port size	Body size							
		10	20	25	30	40	50	55	60
M5	M5	●	—	—	—	—	—	—	—
01	1/8	—	●	—	—	—	—	—	—
02	1/4	—	●	●	●	●	—	—	—
03	3/8	—	—	●	●	●	—	—	—
04	1/2	—	—	—	—	●	—	—	—
06	3/4	—	—	—	—	●	●	—	—
10	1	—	—	—	—	—	●	●	●

Accessories

Symbol	Description	Applicable model
Nil	—	—
C	Float type auto drain (N.C.) <sup>Note 1)</sup>	AC10□ to 60□
D	Float type auto drain (N.O.) <sup>Note 1)</sup>	AC25□ to 60□
E	With square embedded type pressure gauge (with limit indicator)	AC20□ to 60□
G <sup>Note 2)</sup>	With round pressure gauge (without limit indicator)	AC10□
	With round pressure gauge (with limit indicator)	AC20□ to 60□

Note 1) Applicable tube O.D for auto drain connection should be ø3/8" in case NPT thread port is chosen.

Note 2) Mounting thread for pressure gauge:  
1/16 for AC10; 1/8 for AC20 to 30; 1/4 for AC40 to 60  
Pressure gauge is not mounted and is supplied loose at the time of shipment.

Optional specifications

Symbol	Description	Applicable model
1 <sup>Note 1)</sup>	0.02 to 0.2MPa setting	AC10□ to 60□
2	Metal bowl	AC10□ to 60□
3	Lubricator with drain cock	AC10□ to 60□
6	Nylon bowl	AC10□ to 60□
8	Metal bowl with level gauge	AC25□ to 60□
C	With bowl guard	AC25□ to 60□
J <sup>Note 2)</sup>	Drain guide 1/4	AC10□ to 60□
N	Non-relieving type	AC10□ to 60□
R	Flow direction: Right to left	AC10□ to 60□
W	Drain cock with barb fitting: ø6 x ø4 nylon tube	AC25□ to 60□
Z <sup>Note 3)</sup>	Name plate, caution plate for bowl, and pressure gauge in imperial units (PSI, °F)	AC10□ to 60□

\* When more than one specification is required, indicate in ascending alphanumeric order.

Note 1) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2MPa or more.

Note 2) Without a valve function.

Note 3) For thread types 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.) Pressure switch comes with a dual unit scale in SI (MPa) and imperial (PSI) units.

Attachments

Symbol	Description	Attachment mounting position	Applicable model	Port size for intermediate air release
Nil	None	—	—	—
K	Check valve	AF + AR + [K] + AL	AC20 to 40	AC20□: 1/8 AC25□: 1/4 AC30□: 1/4 AC40□: 3/8
		AW + [K] + AL	AC20A to 40A	
S	Pressure switch	AF + AR + [S] + AL	AC20 to 60	—
		AW + [S] + AL	AC20A to 40A	
		AF + [S] + AR	AC20B to 60B	
		AF + AFM + [S] + AR	AC20C to 40C	
T	T-interface	AF + [T] + AR + AL	AC10 to 60	AC10□: M5 x 0.8 AC20□: 1/8 AC25□: 1/4 AC30□: 1/4 AC40□: 3/8 AC50□: 3/8 AC55□: 1/2 AC60□: 1/2
		AF + [T] + AR	AC10B to 60B	
		AF + AFM + [T] + AR	AC20C to 40C	
V	3-port valve for residual pressure release	AF + AR + AL + [V]	AC20 to 50	—
		AW + AL + [V]	AC20A to 40A	
		AF + AR + [V]	AC20B to 50B	
		AF + AFM + AR + [V]	AC20C to 40C	
		AW + AFM + [V]	AC20D to 40D	

\* When more than one attachment is required, order in alphabetical order.

\* Piping adapter, pressure switch with piping adapter, and cross interface need to be ordered separately.

\* Contact SMC when using a pressure switch and T-interface together for AC□B.

\* The bracket position varies depending on the T-interface or pressure switch mounting.

Refer to the table on page 19 for standard bracket position.



# Series AC

## Accessory/Optional Specifications Combination

⊙: Combination available    ◻: Combination not available    ○: Varies depending on the model    △: Available only with NPT thread

Accessory/ Optional specifications	Combination Symbol	Accessories													Optional specifications													F.R.L. unit applicable models											
		C	D	E	G	1	2	3	6	8	C	J	N	R	W	Z	AC10	AC10B	AC20	AC20B	AC20C	AC20D	AC25	AC25B	AC25C	AC30 to AC60	AC30A	AC30A to AC40A	AC30B to AC60B	AC30C	AC30C to AC40C	AC30D	AC30D to AC40D						
		AC10A	AC10B	AC20A	AC20B	AC20C	AC20D	AC25	AC25B	AC25C	AC30 to AC60	AC30A	AC30A to AC40A	AC30B to AC60B	AC30C	AC30C to AC40C	AC30D	AC30D to AC40D																					
Accessories	Float type auto drain (N.C.)	⊙	◻	○	⊙	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙					
	Float type auto drain (N.O.)	⊙	◻	○	⊙	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	◻	◻	◻	◻	◻	◻	◻	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙					
	Square embedded type pressure gauge	⊙	○	◻	◻	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	◻	◻	◻	◻	◻	◻	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙					
	Round pressure gauge	⊙	⊙	◻	◻	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙					
Optional specifications	0.02 to 0.2MPa setting	-1	⊙	⊙	○	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙						
	Metal bowl	-2	⊙	⊙	○	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙						
	Lubricator with drain cock	-3	⊙	⊙	○	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	⊙	◻	⊙	◻	◻	◻	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙						
	Nylon bowl	-6	⊙	⊙	○	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙						
	Metal bowl with level gauge	-8	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	◻	◻	◻	◻	◻	◻	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙						
	With bowl guard	-C	⊙	◻	⊙	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	◻	◻	◻	◻	◻	◻	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙						
	Drain guide 1/4	-J	◻	◻	⊙	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	◻	◻	◻	◻	◻	◻	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙						
	Non-relieving type	-N	⊙	⊙	○	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙						
	Flow direction: Right to left	-R	⊙	⊙	○	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙						
	Drain cock with barb fitting: ø6 x ø4 nylon tube	-W	◻	◻	⊙	⊙	⊙	⊙	⊙	○	○	⊙	⊙	○	△	◻	◻	◻	◻	◻	◻	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙					
	Name plate, caution plate for bowl, and pressure gauge in imperial units (PSI, °F)	-Z	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△					

## Attachments

	Port size	Function	
<b>Piping adapter</b>	M5 x 0.8 1/8, 1/4, 3/8, 1/2, 3/4, 1	Allows installation/removal of the component without removing the piping.	Page 13
<b>T-interface</b>	M5 x 0.8 1/8, 1/4, 3/8, 1/2	Redirects the air flow.	Page 13
<b>Pressure switch with piping adapter</b>	1/8, 1/4, 3/8, 1/2, 3/4	Compact switch and piping adapter integrated into one piece.	Page 14
<b>Check valve</b>	1/8, 1/4, 3/8	Prevents back flow from lubricator.	Page 15
<b>Pressure switch</b>	—	Compact switch	Page 16
<b>Cross interface</b>	M5 x 0.8 1/8, 1/4, 3/8, 1/2	Allows piping in all 4 directions.	Page 17
<b>3-port valve for residual pressure release</b>	1/8, 1/4, 3/8, 1/2, 3/4, 1	Releases residual pressure in lines.	Page 17
 <b>Attachment Accessories</b> Refer to pages 18 and 19 for interfaces and brackets.	 <b>Made to Order specifications</b> Refer to page 20 for details.		

# F.R.L. Unit Filter Regulator + Lubricator

# AC10A to 40A



AC20A

AC40A

## Standard Specifications

Model		AC10A	AC20A	AC30A	AC40A	AC40A-06
Component	Filter regulator	AW10	AW20	AW30	AW40	AW40-06
	Lubricator	AL10	AL20	AL30	AL40	AL40-06
Port sizes		M5 x 0.8	1/8 1/4	1/4 3/8	1/4 3/8 1/2	3/4
Pressure gauge port size <sup>Note 1)</sup>		1/16	1/8	1/8	1/4	1/4
Fluid		Air				
Proof pressure		1.5MPa				
Maximum operating pressure		1.0MPa				
Set pressure range		0.05 to 0.7MPa	0.05 to 0.85MPa			
Relief pressure		Set pressure + 0.05MPa <sup>Note 2)</sup> [at relief flow rate of 0.1L/min (ANR)]				
Ambient and fluid temperature		-5 to 60°C (with no freezing)				
Nominal filtration rating		5µm				
Recommended lubricant		Class 1 turbine oil (ISO VG32)				
Bowl material		Polycarbonate				
Bowl guard		—	Option			
Filter regulator construction		Relieving type				
Weight (kg)		0.20	0.59	0.75	1.41	1.46



Note 1) Pressure gauge connection threads are not required for F.R.L. unit with a square embedded type pressure gauge (AC20A to AC40A).  
 Note 2) Not applicable to AC10A.

## Attachment/Accessory Part No.

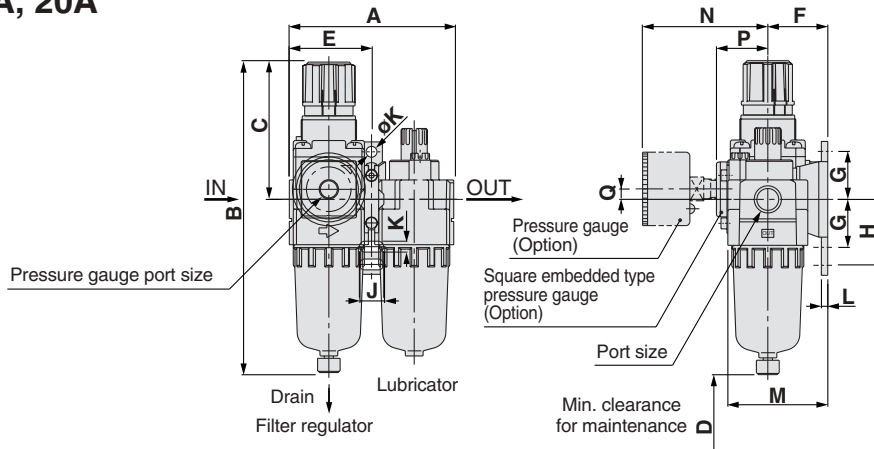
Description	Model	Part no.							
		AC10A	AC20A	AC30A	AC40A	AC40A-06			
Accessories	Pressure gauge <sup>Note 1)</sup>	1.0MPa	Round	G27-10-R1	G36-10-□01	G36-10-□01	G46-10-□02	G46-10-□02	
		0.2MPa	Square embedded type <sup>Note 2)</sup>	—	GC3-10AS	GC3-10AS	GC3-10AS	GC3-10AS	
	Round		G27-10-R1 <sup>Note 3)</sup>	G36-2-□01	G36-2-□01	G46-2-□02	G46-2-□02		
		Square embedded type <sup>Note 2)</sup>	—	GC3-2AS	GC3-2AS	GC3-2AS	GC3-2AS		
Float type auto drain <sup>Note 4)</sup>	N.O.	—	—	AD38	AD38N <sup>Note 7)</sup>	AD48	AD48N <sup>Note 7)</sup>	AD48	AD48N <sup>Note 7)</sup>
	N.C.	AD17	AD27	AD37	AD37N <sup>Note 7)</sup>	AD47	AD47N <sup>Note 7)</sup>	AD47	AD47N <sup>Note 7)</sup>
Spacer		Y100	Y200	Y300		Y400		Y500	
Check valve <sup>Note 5)</sup> <sup>Note 6)</sup>		—	AKM2000- □01 □02	AKM3000- □01 □02	AKM4000- □02 □03	—			
Pressure switch <sup>Note 6)</sup>		—	IS1000M-20	IS1000M-30	IS1000M-40	IS1000M-50			
T-interface <sup>Note 5)</sup> <sup>Note 6)</sup>		Y110-M5	Y210- □01 □02	Y310- □01 □02	Y410- □02 □03	Y510- □02 □03			
3-port valve for residual pressure release <sup>Note 6)</sup>		—	VHS20- □01 □02	VHS30- □02 □03	VHS40- □02 □03 □04	VHS40-□06			
Piping adapter <sup>Note 6)</sup>		E100-M5	E200- □01 □02 □03	E300- □02 □03 □04	E400- □02 □03 □04 □06	E500-□06			
Pressure switch with piping adapter <sup>Note 6)</sup>		—	IS1000E-20 □01 □02 □03	IS1000E-30 □02 □03 □04	IS1000E-40 □02 □03 □04 □06	—			
Cross interface <sup>Note 6)</sup>		Y14-M5	Y24- □01 □02	Y34- □01 □02	Y44- □02 □03	Y54- □03 □04			



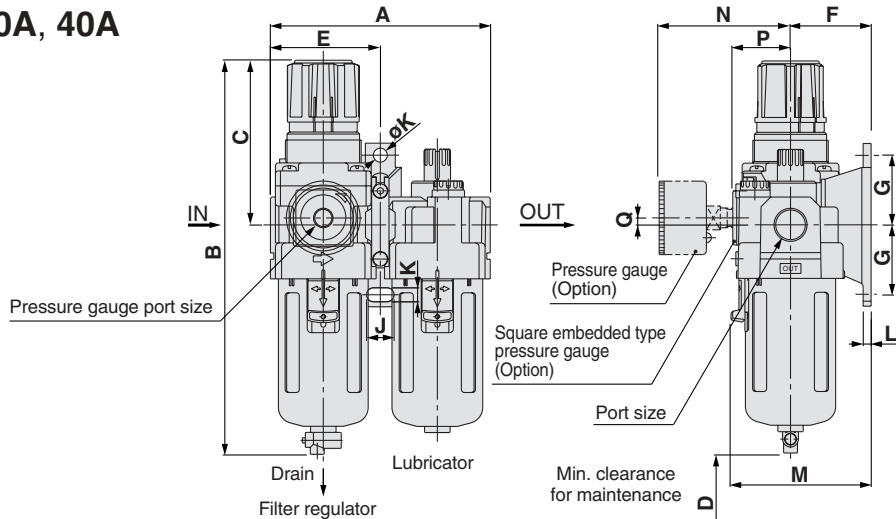
Note 1) □ in part numbers for a round pressure gauge indicates a type of connection thread. No indication is necessary for R; however, indicate N for NPT.  
 Contact SMC regarding the connection thread NPT and pressure gauge supply for PSI unit specifications.  
 Note 2) Includes one O-ring and 2 mounting screws.  
 Note 3) For 1.0MPa.  
 Note 4) Minimum operating pressure: N.O. type-0.1MPa (AD17/27); N.C. type-0.15MPa (AD37/47).  
 Note 5) For F.R.L. units, port sizes not in ( ) are for standard application.  
 Note 6) Separate interfaces are required for modular unit.  
 Note 7) When "N" is specified in the end of part number of auto drain, applicable tube O.D should be ø3/8".

**Dimensions**

**AC10A, 20A**



**AC30A, 40A**



Applicable model	AC10A, AC20A			AC30A, AC40A, AC40A-06			
Optional specifications	With auto drain (N.C.)	Metal bowl	With auto drain (N.O./N.C.)	Metal bowl	Metal bowl with level gauge	With drain guide	Drain cock with barb fitting
			 N.O.: Black N.C.: Gray ø10 One-touch fitting			 1/4 Width across flats 17	 Barb fitting Applicable tubing: T0604

Model	Port size	Standard specification											Accessory specification					
		A	B	C	D	Bracket mounting size							With pressure gauge	With auto drain				
						E	F	G	H	J	K	øK			L	M	N	P
AC10A	M5 x 0.8	56	108	48	35	28	25	20	27	7	4.5	4.5	2.8	40	26	-	0	126
AC20A	1/8, 1/4	83	160	73	60	41.5	30	24	33	12	5.5	5.5	3.2	50	63	27	5	177
AC30A	1/4, 3/8	110	201	86	80	55	41	35	-	14	7	7	4	71	66	30.5	3.5	242
AC40A	1/4, 3/8, 1/2	145	239	92	110	72.5	50	40	-	18	9	9	4	88	76	38.5	1.5	278
AC40A-06	3/4	155	242	93	110	77.5	50	40	-	18	9	9	4.6	88	76	38.5	1.2	278

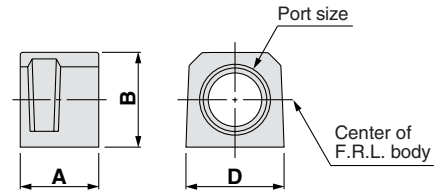
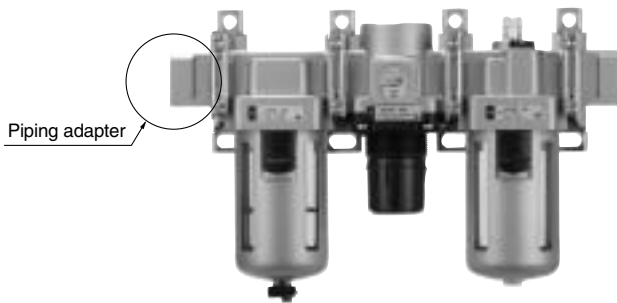
Model	Optional specification <sup>Note 1)</sup>			
	With barb fitting	With drain guide	Metal bowl	Metal bowl with level gauge
	B	B	B	B
AC10A	-	-	107	-
AC20A	-	-	160	-
AC30A	209	208	214	234
AC40A	247	246	251	272
AC40A-06	250	249	255	275

Note 1) For optional specifications (with barb fitting, with drain guide, with metal bowl, or with level gauge), the total length (dimension for B) will vary.

# F.R.L. Unit *Series AC* Attachment Specifications

## Piping Adapter (E) 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.



Model <sup>Note)</sup>	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	30	23.5	28	AC20□
E200-□02	1/4				AF20, AR20□, AW20□
E200-□03	3/8				AL20, AFM20, AFD20, AWM20, AWD20
E300-□02	1/4	32	30	30	AC25□, AC30□
E300-□03	3/8				AF30, AR30□, AW30□
E300-□04	1/2				AL30, AFM30, AFD30, AWM30, AWD30
E400-□02	1/4	32	36	36	AC40□
E400-□03	3/8				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, AC50B, AC55B, AC60B
E600-□10	1				AF50, AR50□, AL50, AF60, AR60□, AL60

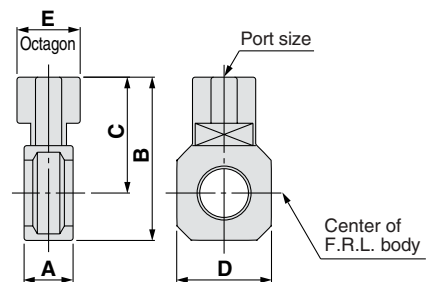
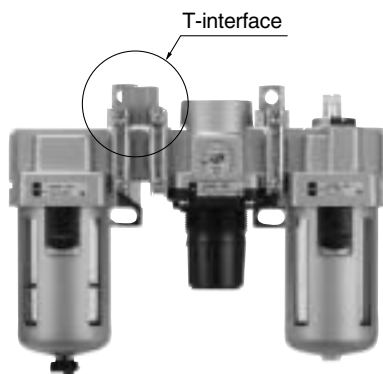
Notes) • □ in model numbers indicates a thread type. No indication is necessary for Rc; however, indicate N for NPT, and F for G.

• Separate interfaces are required for modular unit.

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

## 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
Y210-□02	1/4						AC20C
Y310-□01	1/8	15	53	39	30	19	AC25, AC25B
Y310-□02	1/4						AC25C, AC30
Y410-□02	1/4	19	62	44	36	24	AC30B, AC30C
Y410-□03	3/8						AC40, AC40B
Y510-□02	1/4	19	66	46	44	24	AC40C
Y510-□03	3/8						AC40-06, AC40B-06
Y610-□03	3/8	22	81	57	53	30	AC40C-06
Y610-□04	1/2						AC50, AC55
							AC60, AC50B
							AC55B, AC60B

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

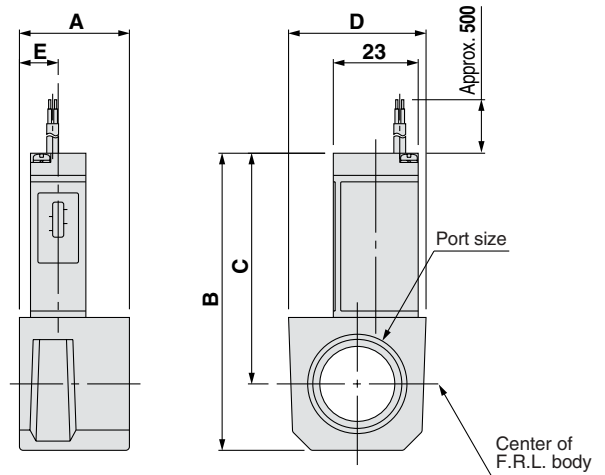
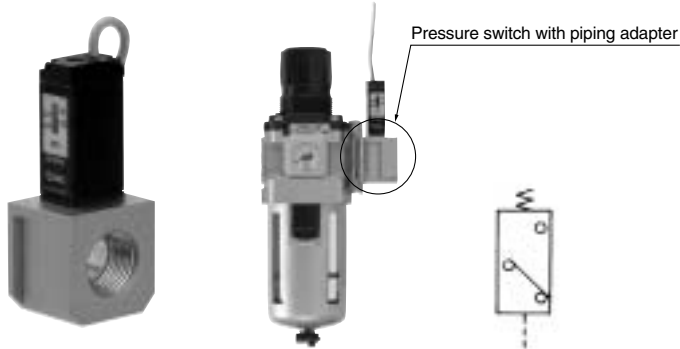
• Separate interfaces are required for modular unit.

\* Refer to the attachment table on Front matter 2 for standard port sizes when using with AC.

### Caution in Mounting

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

## Pressure Switch with Piping Adapter (P)



### Specifications

Fluid	Air
Proof pressure	1.0MPa
Maximum operating pressure	0.7MPa
Set pressure range (when OFF)	0.1 to 0.4MPa
Differential	0.08MPa
Ambient and fluid temperature	-5 to 60°C (with no freezing)

### Switch characteristics

Contact point configuration	1a
Maximum contact point capacity	2VA(AC), 2W(DC)
Operating voltage: AC, DC	100V or less
Max. operating current	12V to 24V AC, DC: 50mA
	48V AC, DC: 40mA
	100V AC, DC: 20mA

Model <small>Note 1)</small>	Port size	A	B	C	D	E	Applicable model
IS1000E-20□01	1/8	30	68	57	28	16	AC20□
IS1000E-20□02	1/4						AR20□, AW20□
IS1000E-20□03	3/8						AWM20, AWD20
IS1000E-30□02	1/4	32	74.5	60.5	30	13	AC25□, AC30□
IS1000E-30□03	3/8						AR25□, AR30□, AW30□
IS1000E-30□04	1/2						AWM30, AWD30
IS1000E-40□02	1/4	32	80.5	62.5	37	12.5	AC40□ <small>Note 2)</small>
IS1000E-40□03	3/8						AR40□, AW40□
IS1000E-40□04	1/2						AWM40, AWD40
IS1000E-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) A pressure switch cannot be mounted on AC40□-06 and AW40□-06.

\* Separate interfaces are required for modular unit.

\*\* The pressure switch on AC40□-06 and above and AW40□-06 can be mounted by screwing IS1000-01 into the piping adapter E500-□06-X501 or E600-□06-X501 to E600-□06 to 10-X501 (with top-face thread Rc 1/8). Products with a premounted switch are available as a special order. Please contact SMC regarding their availability.

## How to Order

**IS1000E-30** **03** **□**

Pressure switch with piping adapter

Body size

20	For AC20
30	For AC25, AC30
40	For AC40-02 to 04

Thread type

Nil	Rc
N	NPT
F	G

Option

X201	Lead wire length: 3m
X202	Regulating pressure range: 0.1 to 0.6MPa
X207	MPa/PSI Dual scale
X215	Lead wire length: 3m; Regulating pressure range: 0.1 to 0.6MPa
X250	Opposite-side mounting (Left-side mounting type)
X251	Lead wire length: 3m; Opposite-side mounting (Left-side mounting type)
X252	Set pressure range: 0.1 to 0.6MPa; Opposite-side mounting (Left-side mounting type)
X253	Lead wire length: 3m; Regulating pressure range: 0.1 to 0.6MPa; Opposite-side mounting (Left-side mounting type)

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

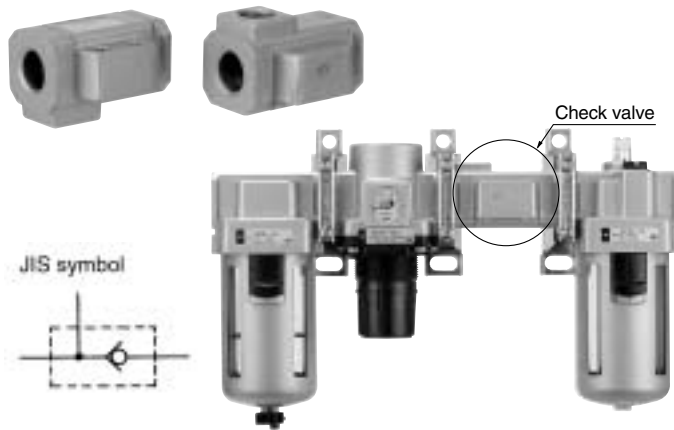
Piping adapter port size

Symbol	Port size	Body size		
		20	30	40
01	1/8	●	—	—
02	1/4	●	●	●
03	3/8	●	●	●
04	1/2	—	●	●
06	3/4	—	—	●

# Series AC

## Check Valve (K) Rc1/8, 1/4, 3/8

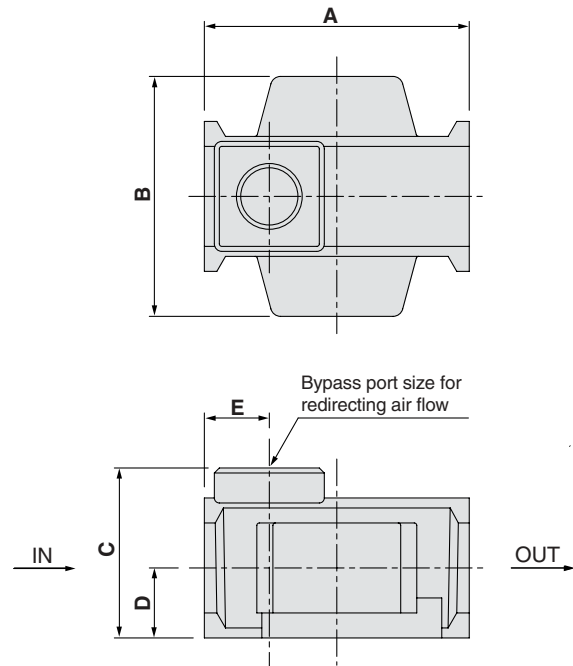
A check valve with intermediate air release port can be easily installed to prevent a back flow of lubricant when redirecting the air flow and releasing the air on the outlet side of the regulator.



### Specifications

Model	Effective area (mm <sup>2</sup> )
<b>AKM2000</b>	28
<b>AKM3000</b>	55
<b>AKM4000</b>	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.



Model	Bypass port sizes	A	B	C	D	E	Applicable model
<b>AKM2000</b>	1/8, 1/4	40	40	28	11	11	<b>AC20, AC20A</b>
<b>AKM3000</b>	1/8, 1/4	53	48	34	14	13	<b>AC25, AC25A AC30, AC30A</b>
<b>AKM4000</b>	1/4, 3/8	70	54	42	18	15	<b>AC40, AC40A</b> <sup>Note)</sup>

Note) Not applicable to AC40□-06.

\* Refer to the attachment table on page 1 or 5 for standard bypass port sizes applicable to AC.

### How to Order

**AKM 30 00 - 01**

Check valve  
Body size  
20 30 40

Bypass port size for redirecting air flow

Symbol	Port size	Body size		
		20	30	40
01	1/8	●	●	—
02	1/4	●	●	●
03	3/8	—	—	●

Thread type

Nil	Rc
N	NPT
F	G

## Pressure Switch (S)

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



### Specifications

Fluid	Air
Proof pressure	1.0MPa
Maximum operating pressure	0.7MPa
Set pressure range (off)	0.1 to 0.4MPa
Differential	0.08MPa
Ambient and fluid temperature	-5 to 60°C (with no freezing)

### Switch characteristics

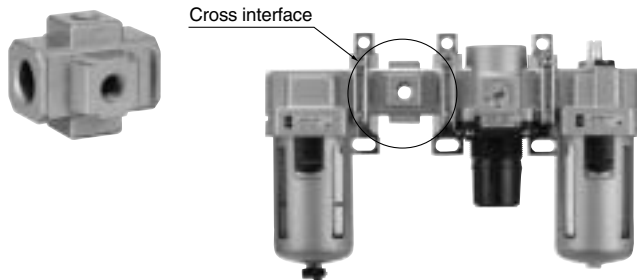
Contact point configuration	1a
Maximum contact point capacity	2VA(AC), 2W(DC)
Operating voltage: AC, DC	100V or less
Maximum operating current	AC, DC12V to 24V: 50mA AC, DC48V: 40mA AC, DC100V: 20mA

## Cross Interface (C)

M5 x 0.8, 1/8, 1/4, 3/8, 1/2

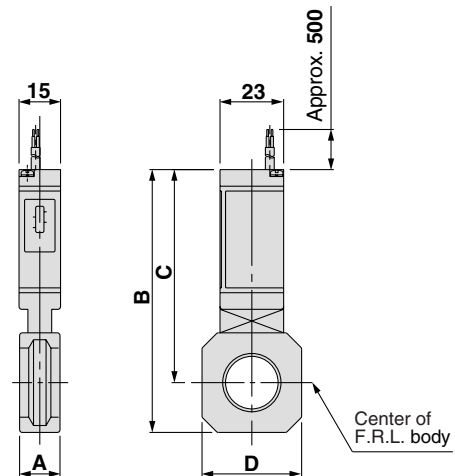
Pipings are possible in all 4 directions.

IN/OUT ports are not machined for threads. Contact SMC if threaded (machined) ports are required.



### Cautions in Mounting

- When mounting a cross interface directly on the IN side of the lubricator, be sure to use a series AKM 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	B	C	D	Applicable model
IS1000M-20	11	76	66	28	AC20□
IS1000M-30	13	86	72	30	AC25□, AC30□
IS1000M-40	15	95	77	36	AC40□
IS1000M-50	17	99	79	44	AC40□-06
IS1000M-60	22	92.5	68.5	53	AC50□, AC55□, AC60□

Note) Separate interfaces are required for modular unit.

### How to Order

IS1000M-30

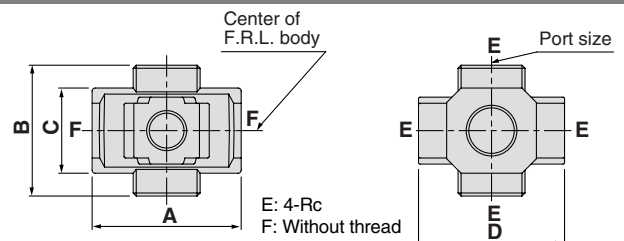
Pressure switch  
Body size

20	For AC20
30	For AC25, AC30
40	For AC40-02 to 04
50	For AC40-06
60	For AC50, AC55, AC60

### Accessories

X201	Lead wire length: 3m
X202	Regulating pressure range: 0.1 to 0.6MPa
X207	MPa/PSI Dual scale
X215	Lead wire length: 3m; Regulating pressure range: 0.1 to 0.6MPa

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



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					

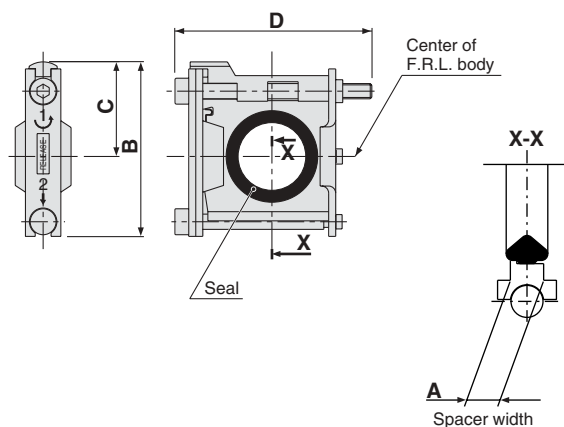
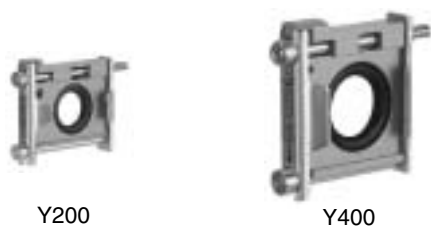
Notes) □ in the model numbers indicates a thread type. No indication is necessary for Rc; however, indicate N for NPT, and F for G.

• If threaded ports are required, they are available as a special order. Contact SMC.



# Series AC Spacers and Brackets Accessories

## Spacer (X)



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	70	AC40□-06
Y600	6	75.5	41	86	AC50, AC55, AC60 AC50B, AC55B, AC60B

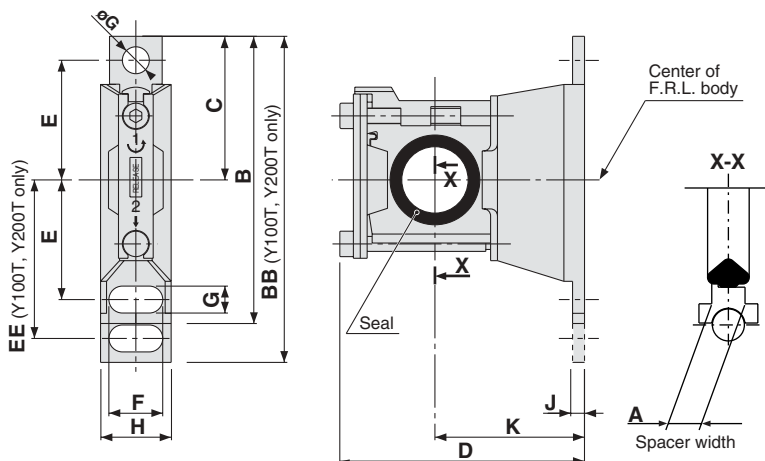
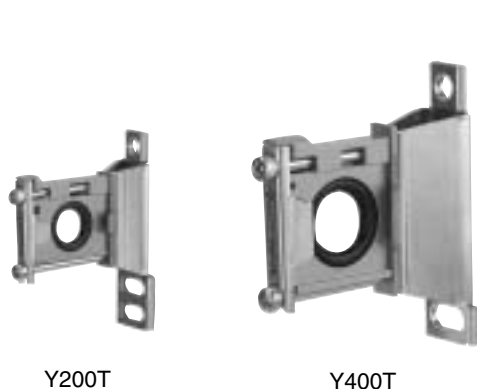
## Replacement parts

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

Note 1) Y-100 comes with 2 O-rings.

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

## Spacer with Bracket (Z)



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, AC50B, AC55B, AC60B

## Replacement parts

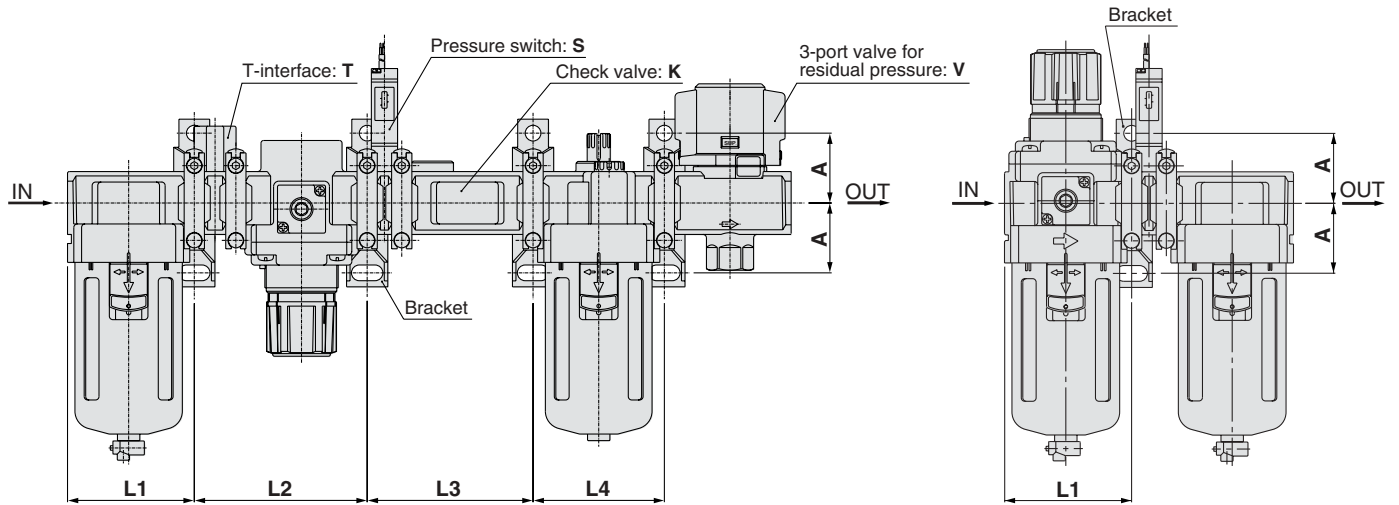
Description	Material	Part no.					
		Y100T	Y200T	Y300T	Y400T	Y500T	Y600T
Seal	HNBR <sup>Note 2)</sup>	Y100P-060AS <sup>Note 1)</sup>	Y200P-060S	Y300P-060S	Y400P-060S	Y500P-060S	Y600P-060S

Note 1) Y-100T comes with 2 O-rings.

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

# Series AC

## Mounting Position for Spacer with Bracket



Attachment Model	K			S		T		V			KS			KT			KV				KST		
	L1	L2	L3	L1	L2	L1	L2	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	L4	L1	L2	L3
AC10	—	—	—	—	—	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	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
AC30	55	57	57	55	57	55	76	55	57	57	55	57	74	55	76	57	55	57	57	57	55	76	74
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	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		
	L1	L2	L3	L4	L1	L2	L3	L4	L1	L2	L3	L4	L1	L2	L1	L2	L3	L1	L2	L3	L1	L2	L3
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	75	95	72.5	99	95	72.5	99	75
AC40-06	—	—	—	—	—	—	—	—	—	—	—	—	—	77.5	104	77.5	80	102	77.5	104	102	77.5	104
AC50	—	—	—	—	—	—	—	—	—	—	—	—	—	93	124	93	96	124	93	124	93	124	96
AC55	—	—	—	—	—	—	—	—	—	—	—	—	—	98	124	—	—	—	—	—	—	—	—
AC60	—	—	—	—	—	—	—	—	—	—	—	—	—	98	129	—	—	—	—	—	—	—	—

Attachment Model	K		S		V		KS		KV			KSV			SV	
	L1	L2	L1	L2	L1	L2	L1	L2	L1	L2	L3	L1	L2	L3	L1	L2
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	

Attachment Model	S		T		V		SV		TV	
	L1	L1	L1	L2	L1	L2	L1	L2	L1	L2
AC10B	—	28	—	—	—	—	—	—	—	—
AC20B	41.5	41.5	41.5	43	41.5	57	41.5	61	—	—
AC25B	55	55	55	57	55	74	55	76	—	—
AC30B	55	55	55	57	55	74	55	76	—	—
AC40B	72.5	72.5	72.5	75	72.5	95	72.5	99	—	—
AC40B-06	77.5	77.5	77.5	80	77.5	102	77.5	104	—	—
AC50B	93	93	93	96	93	124	93	124	—	—
AC55B	98	98	—	—	—	—	—	—	—	—
AC60B	98	98	—	—	—	—	—	—	—	—

Attachment Model	S		T		V			SV			TV		
	L1	L2	L1	L2	L1	L2	L3	L1	L2	L3	L1	L2	L3
AC20C	41.5	43	41.5	43	41.5	43	43	41.5	43	57	41.5	43	61
AC25C	55	57	55	57	55	57	57	55	57	74	55	57	76
AC30C	55	57	55	57	55	57	57	55	57	74	55	57	76
AC40C	72.5	75	72.5	75	72.5	75	75	72.5	75	95	72.5	75	99
AC40C-06	77.5	80	77.5	80	77.5	80	80	77.5	80	102	77.5	80	104

Attachment Model	S		V		SV	
	L1	L1	L2	L1	L2	L2
AC20D	41.5	41.5	43	41.5	57	—
AC30D	55	55	57	55	74	—
AC40D	72.5	72.5	75	72.5	95	—
AC40D-06	77.5	77.5	80	77.5	102	—

L1: Dimensions from the end of the IN side to the center of the mounting hole for the first bracket.  
 L2: Mounting hole pitch between the first and the second bracket.  
 L3: Mounting hole pitch between the second and the third bracket.  
 L4: Mounting hole pitch between the third and the fourth bracket.  
 Refer to dimensions pages for dimension A from the center of the piping and the mounting hole.