

Modular Pneumatic Products



Line Filter
AFF-D Series



Mist Separator
AM-D Series



Micro Mist Separator
AMD-D Series



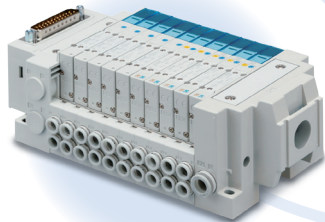
Activated Carbon Filter
AMK-D Series



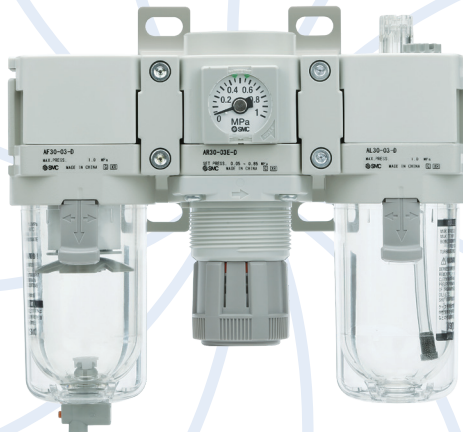
Mist Separator
Regulator
AWM-D Series



Micro Mist Separator
Regulator
AWD-D Series



5-Port Solenoid Valve **Plug-in** Type
SY3000/5000-X990



F.R.L. Units
AC-D Series



Common Supply Regulator
AR-M-D Series



3-Port Solenoid Valve/Residual
Pressure Release Valve with
Detection of Main Valve Position
VP546/746 Series



Residual Pressure Relief
3-Port Solenoid Valve
VP546E/746E Series



2-Port Solenoid Valve
JSXM Series



OSHA Standard Compliant
Pressure Relief 3-Port Valve
with Locking Holes
VHS-D Series



3-Color Display Digital Flow Switch
PF3A₃H Series

Assembly Components

Allows for space saving and reduced piping labor

Installation area: Max. 59% reduction

(356,970 mm² ◁ 866,700 mm²)

Width Reduced by **255 mm** (815 mm ◁ 1070 mm)

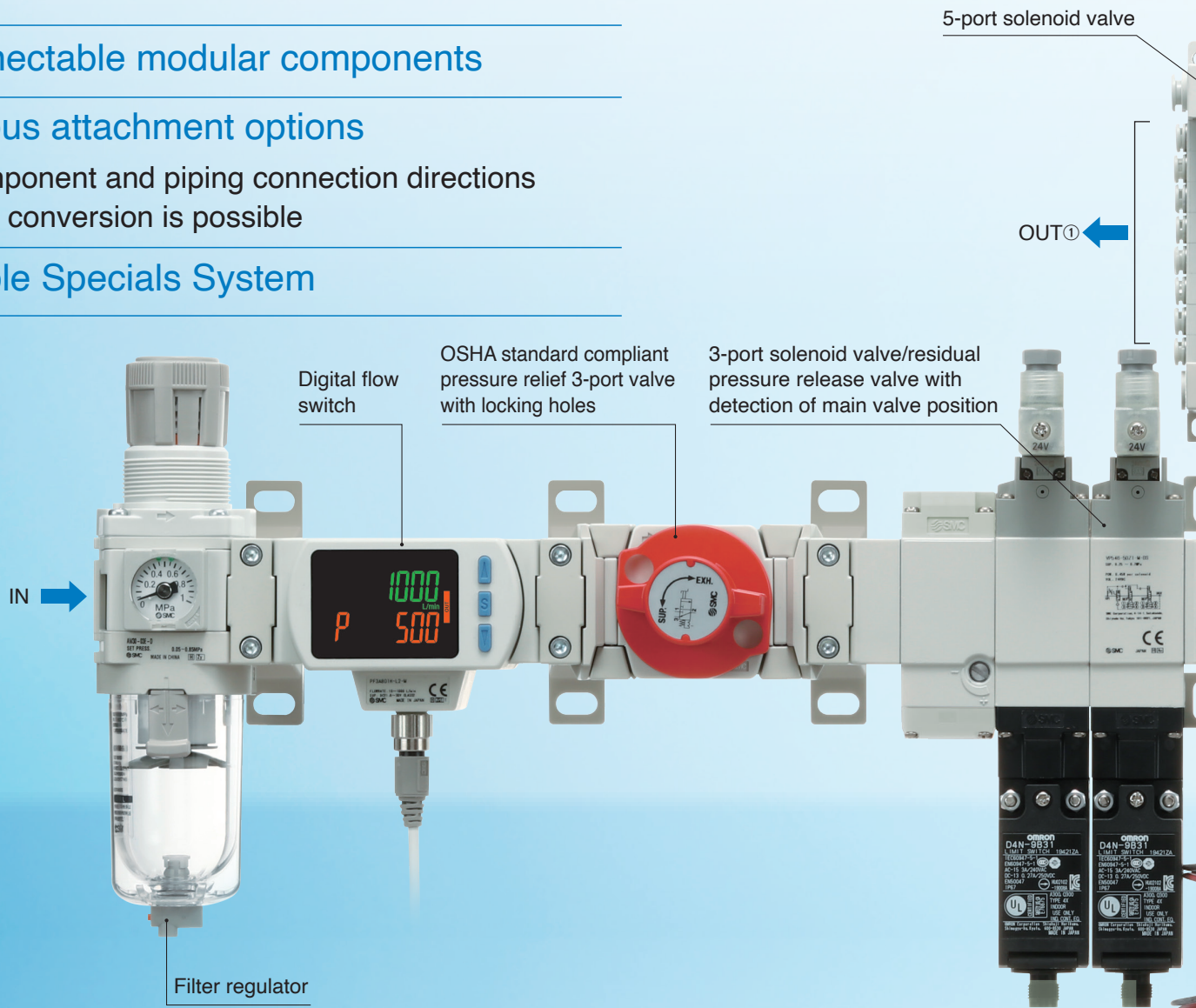
Height Reduced by **372 mm** (438 mm ◁ 810 mm)

Connectable modular components

Various attachment options

- Component and piping connection directions
- Size conversion is possible

Simple Specials System



5-port solenoid valve

OUT① ←

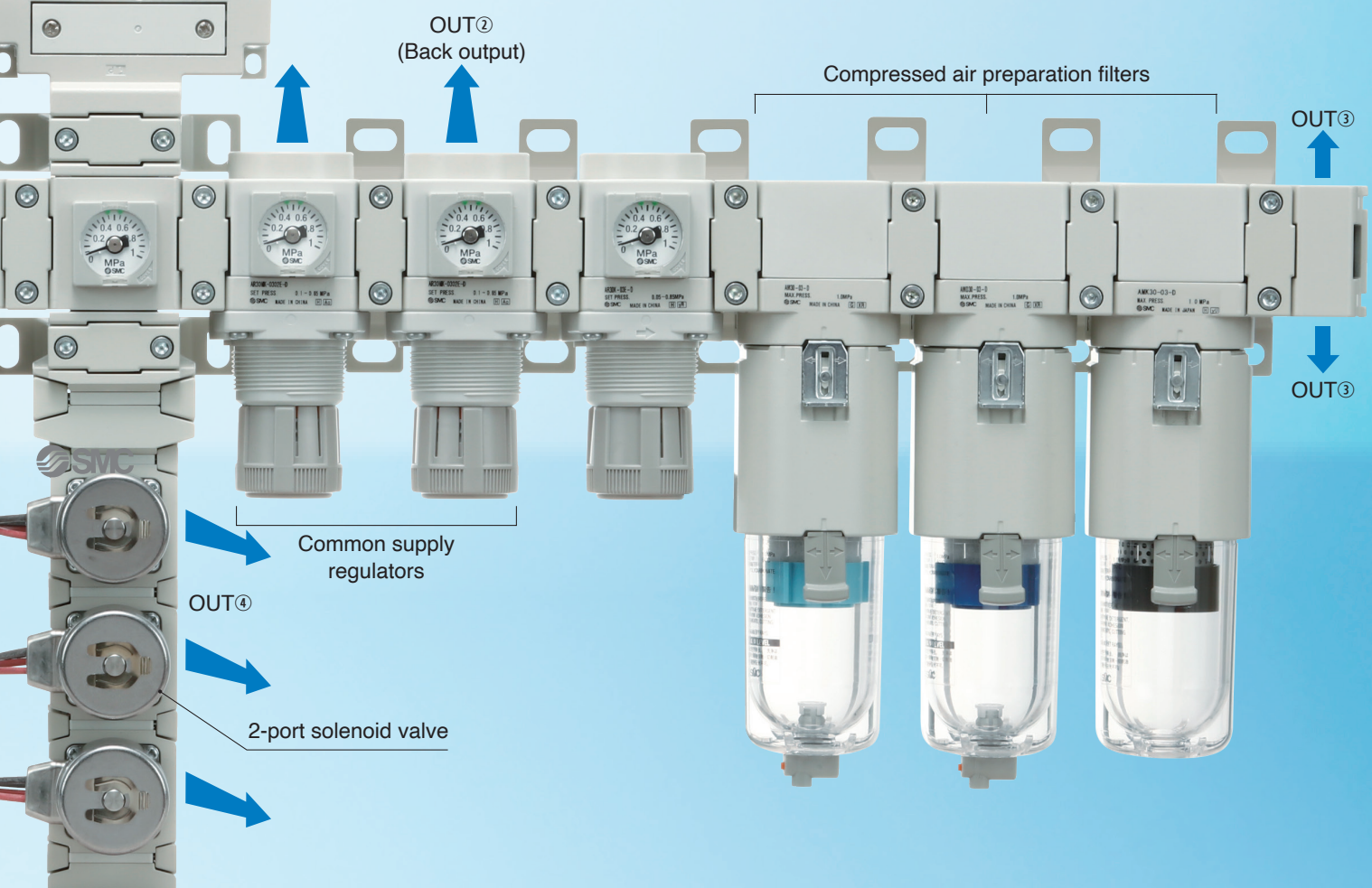
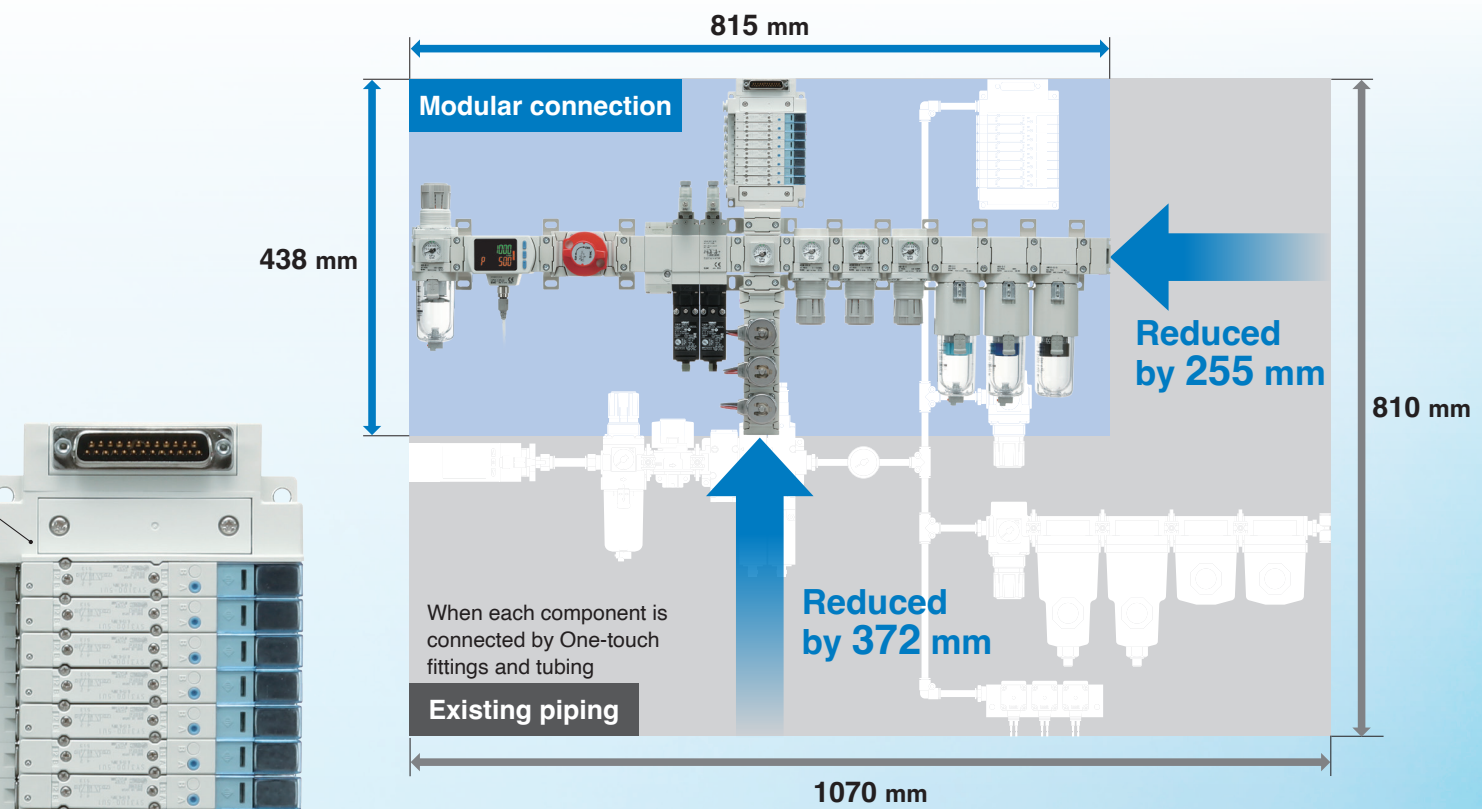
Digital flow switch

OSHA standard compliant pressure relief 3-port valve with locking holes

3-port solenoid valve/residual pressure release valve with detection of main valve position

Filter regulator

OUT①	Output air from 5-port solenoid valve	OUT③	Output air of required purity class
OUT②	Output air from common air supply regulator	OUT④	Output air from 2-port solenoid valve



Component connection directions

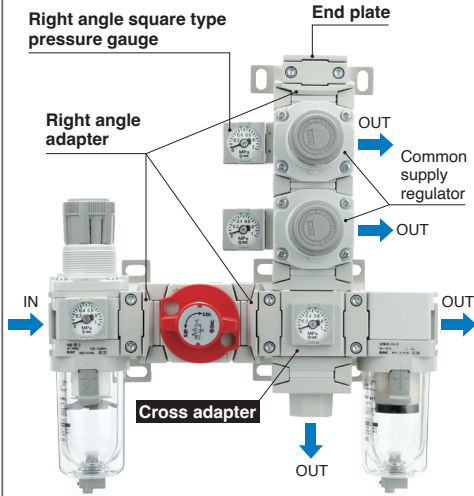
Cross Adapter

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

* Size: 20 to 40

Ex.) Top/bottom spacer mounting direction

Left and Right mounting

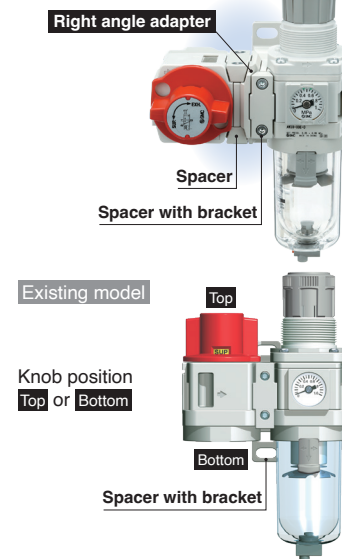


Right Angle Adapter

Modular connection with the product rotated 90 degrees is possible.

* Size: 20 to 40

Connection example with a residual pressure relief 3-port valve



Size conversion is possible

Flow capacity UP Reduced number of element replacements

Reducing Adapter

Modular connection with products 1 size larger (or 1 size smaller) is possible.

Reducing adapter



When using the reducing adapter
1500 L/min (ANR)*1

AR30 + AFF40 + AM40 + AMD40

Existing model
750 L/min (ANR)*1

AR30 + AFF30 + AM30 + AMD30

* 1 When at the max. flow capacity

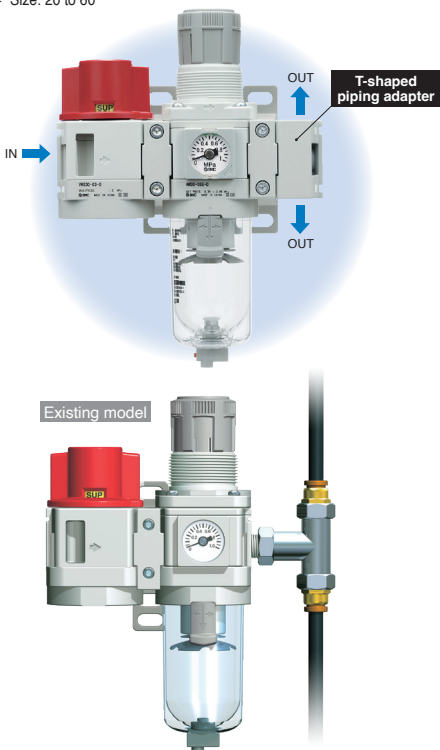


Piping connection directions Space-saving design and reduced piping labor

T-Shaped Piping Adapter

Air can be released either upward or downward.

* Size: 20 to 60



L-Shaped Piping Adapter

Upward or downward piping is possible on the inlet side and the outlet side of F.R.L. units.

When using an L-shaped piping adapter

Space-saving

Max. 16.4%*1 reduction

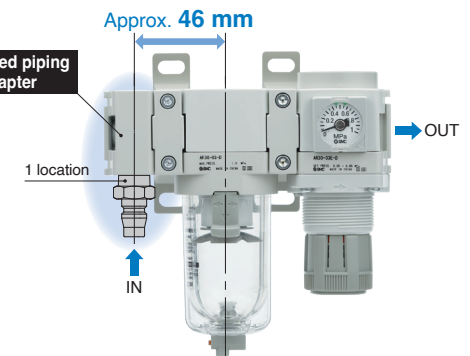
Approx. 46 mm \triangleleft Approx. 55 mm

*1 For size 30

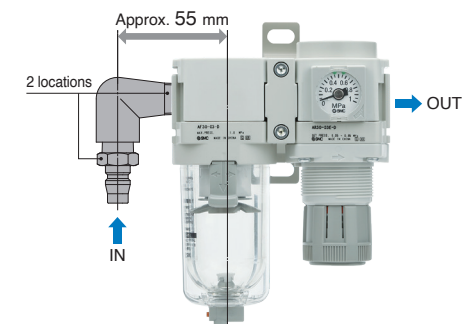
Reduced piping labor

Number of screw-in connections

1 location \triangleleft 2 locations







When using a street elbow*1 *1 Commercially available







Various Attachment Options

A wide range of component types, sizes, connection directions, and piping directions are available.





■ Pressure Switches




With T-Spacer IS10T-D Series	With L-Shaped Piping Adapter IS10L-D Series	Pressure Switch IS10M-D Series	With Piping Adapter IS10E-D Series
			

■ Piping Adapters

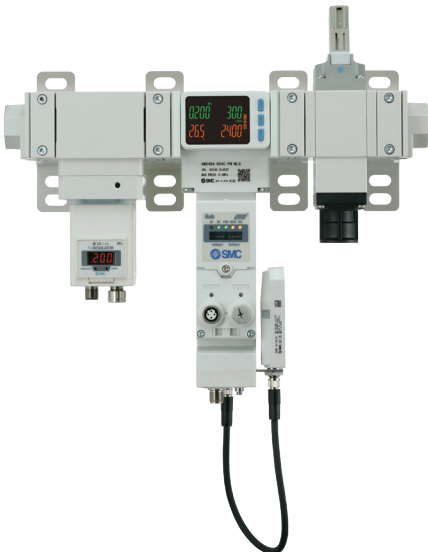
Piping Adapter E□00-D Series	L-Shaped Piping Adapter E□00L-D Series	T-Shaped Piping Adapter E□00T-D Series	End Plate E□00E-D Series
			

■ Spacers

T-Spacer Y□10-D Series	Cross Spacer Y□4-D Series	Spacer Y□00-D Series	Spacer with Bracket Y□00T-D Series
			

Right Angle Adapter E□10T-D Series	Reducing Adapter E□10R-D Series	Cross Adapter Y□4M-D Series
Allows for modular connection with the product rotated 90 degrees	Allows for modular connection with products 1 body size larger or smaller	Allows for devices to be connected on the top, bottom, left, and right
		

Related Product (Modular System Components)



Air Management System AMS20/30/40/60 Series

- Air consumption: Max. 62% reduction
Monitors the machine standby conditions (when production stops) and automatically decreases the pressure.
Reduces unnecessary air consumption
- Simultaneous measurement of the (accumulated) flow rate, pressure, and temperature is possible.
- Supports industrial communication

EtherNet/IP  

- Compatible with SMC wireless systems

Trademark EtherNet/IP® is a registered trademark of ODVA, Inc.

Connectable Modular Components

F.R.L. Units AC



- Modular design with uniform body style
- Better visibility & environmental resistance
- 2-layer construction: The bowl is covered with a transparent bowl guard.
- Better visibility: 360°
- No tools are required.
- Easier replacement of the element (AF-D only)

Series	Port size
AC20 to 60-D Air filter, Regulator, Lubricator	1/8, 1/4, 3/8, 1/2, 3/4, 1
AC20A to 60A-D Filter regulator, Lubricator	
AC20B to 60B-D Air filter, Regulator	
AC20C to 40C-D Air filter, Mist separator, Regulator	1/8, 1/4, 3/8, 1/2
AC20D to 40D-D Filter regulator, Mist separator	

Common Supply Regulator AR□M(K)-D



- Supply different pressure for multiple applications
- OUT port is on the back of the product.
- Space-saving design and reduced piping labor
- Branch piping

Series	Port size	Set pressure [MPa]
AR20M-D to AR40M-D	1/8, 1/4, 3/8, 1/2	0.05 to 0.85 0.02 to 0.2
AR20MK to AR40MK-D With backflow function	1/8, 1/4, 3/8, 1/2	0.1 to 0.85 0.1 to 0.2

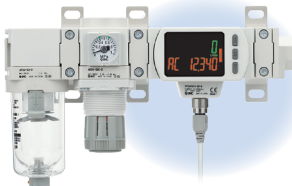
Mist Separator Regulator AWM-D Micro Mist Separator Regulator AWD-D



- Transparent bowl guard
- Improved environmental durability due to 2-layer construction (Body sizes 30 and larger)
- Better visibility: 360°
- Lightweight: Max. 40.7% reduction (0.24 kg)

Series	Port size	Set pressure [MPa]	Nominal filtration rating [μm]
AWM20 to 40-D	1/8, 1/4, 3/8, 1/2	0.05 to 0.85 0.05 to 0.2	0.3
AWD20 to 40-D	1/8, 1/4, 3/8, 1/2	0.05 to 0.85 0.05 to 0.2	0.01

3-Color Display Digital Flow Switch PF3A7/8□H(-L)



- Flow ratio 100:1 - A wide range of flow measurement is possible with 1 product.
- IO-Link compatible (For "-L")
- A 4-screen display digital flow switch with pressure/temperature sensor is available. Simultaneous measurement of the (accumulated) flow rate, pressure, and temperature is possible. [For the PF3A8□H(-L)]

Series	Applicable combinations	Flow range [L/min]
PF3A701H(-L)/PF3A801H-L	AC30-D	1000
PF3A702H(-L)/PF3A802H-L	AC40-D	2000

Compressed Air Preparation Filter - Line Filter AFF | Mist Separator AM | Micro Mist Separator AMD | Activated Carbon Filter AMK

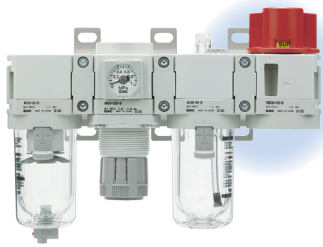


- Compliant with ISO 8573-1 compressed air purity class
- Face-to-face and depth dimensions reduced by up to 30%
- Lightweight: Max. 50% reduction (0.19 kg)
- Flow capacity: Max. 50% increase
- Transparent bowl guard (2-layer construction) (Body size: 30, 40)
- Color-identifiable elements
- A model with an element service indicator is also available. (AFF, AM, AMD)

Series	Port size	Nominal filtration rating [μm]	Oil concentration on the outlet side [mg/m³]
AFF20 to 60-D Line filter	1/8, 1/4, 3/8, 1/2, 3/4, 1	1.0 (Filtration efficiency: 99%)	—
AM20 to 60-D Mist separator		0.1 (Filtration efficiency: 99%)	Oil mist 1 (≈ 0.8 ppm) or less
AMD20 to 60-D Micro mist separator		0.01 (Filtration efficiency: 99.9%)	Oil mist 0.1 (≈ 0.08 ppm) or less
AMK20 to 60-D Activated carbon filter		—	Oil vapor 0.003 (≈ 0.0025 ppm) or less

OSHA Standard Compliant Pressure Relief 3-Port Valve with Locking Holes

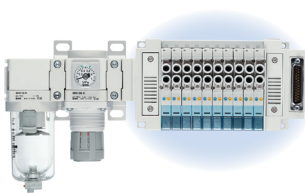
VHS□-D/VHS□W-D



- Improved flow rate characteristics: Max. 88% increase (VHS40-04-D)
- Energy saving: Zero blow-by of the air during switching of the handle
- OSHA (Occupational Safety and Health Administration) standard compliant
- Lower pressure drop contributing to energy saving - Pressure drop reduced by up to 73%

Series	Port size	Applicable combinations
VHS20(W)-D	1/8, 1/4	AC20-D
VHS30(W)-D	1/4, 3/8	AC30-D
VHS40(W)-D	1/4, 3/8, 1/2	AC40-D
VHS40(W)-06-D	3/4	AC40-06-D
VHS50(W)-D	3/4, 1	AC50-D, AC60-D

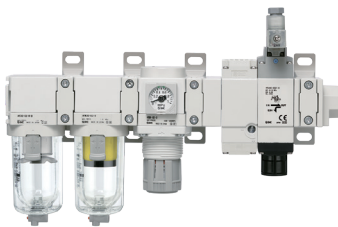
5-Port Solenoid Valve SY3000/5000-X990



- Allows for space saving and reduced piping labor
- Flow rate characteristics C [dm³/(s-bar)]
SY3000: 1.6, SY5000: 3.6
- Top ported/Side ported

Series	Applicable combinations
SY3000-X990	AC30-D
SY5000-X990	AC40-D

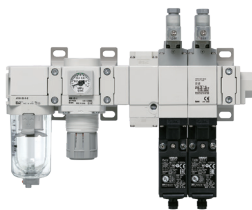
Residual Pressure Relief 3-Port Solenoid Valve VP546E/746E



- Flow rate characteristics C [dm³/(s-bar)] - VP546E: 7.5 | VP746E: 12.6
- A model with a soft start-up function is also available.
- Power consumption: 0.35 W (Without light)
- Features a check valve built into the pilot flow path
(Supports pilot pressure drops caused by pressure fluctuations on the inlet side)

Series	Applicable combinations
VP546E	AC30-D
VP746E	AC40-D

3-Port Solenoid Valve/Residual Pressure Release Valve with Detection of Main Valve Position VP546/746



- With main valve position detection function - The main valve position detection function is used to detect inconsistencies between input signals and valve operations.
- Flow rate characteristics C [dm³/(s-bar)] - VP546: 8.3 | VP746: 12.3
- A model with a soft start-up function is also available.

Series	Applicable combinations
VP546	AC30-D
VP746	AC40-D

Direct Operated/Pilot Operated 2-Port Solenoid Valve JSX/JSX□



- The coil orientation and blow port position can be selected.
- Electrical entry: Grommet, DIN terminal, Conduit, M12 connector

Series	Applicable combinations	Port size	Orifice diameter [mmø]
JSXM21	AC20-D	1/8, 1/4	3.2
JSXM31	AC30-D	1/4, 3/8	4
JSXM41	AC40-D	1/4, 3/8, 1/2	4



Short lead times

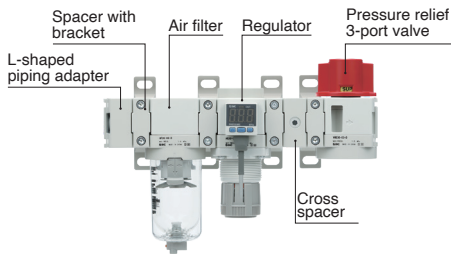
This system enables us to respond to your special needs (additional machining, accessory assembly, or the designing of a modular unit) and deliver your personalized products as quickly as standard products.

Repeat orders

Once we receive a simple special part number from one of your previous orders, we will process the order, manufacture the product, and deliver it to you as quickly as possible.

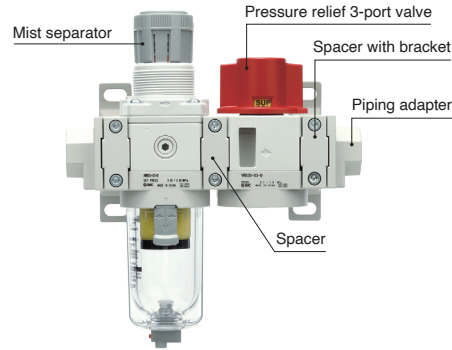
Please contact your local sales representative for more details.

Combination example ①



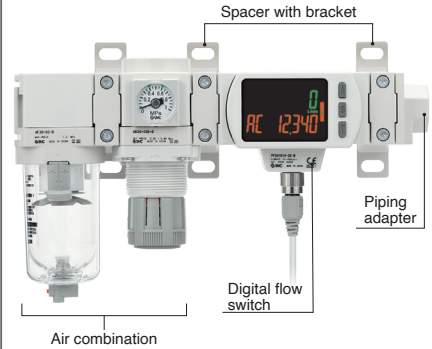
- L-shaped piping adapter
E300L-03-D 1 pc.
- Spacer with bracket
Y300T-D 4 pcs.
- Air filter
AF30-03-D 1 pc.
- Regulator
AR30-03E1-D 1 pc.
- Cross spacer
Y34-03-D 1 pc.
- Pressure relief 3-port valve
VHS30-03-D 1 pc.

Combination example ②



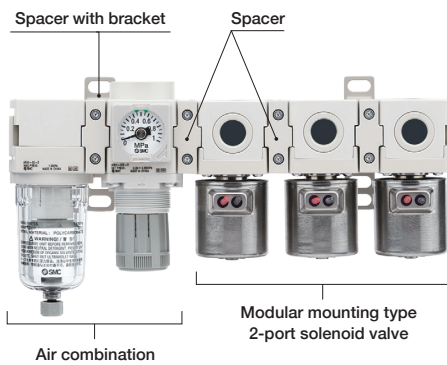
- Piping adapter
E300-03-D 2 pcs.
- Spacer with bracket
Y300T-D 2 pcs.
- Mist separator regulator
AWM30-03-D 1 pc.
- Spacer
Y300-D 1 pc.
- Pressure relief 3-port valve
VHS30-03-D 1 pc.

Combination example ③



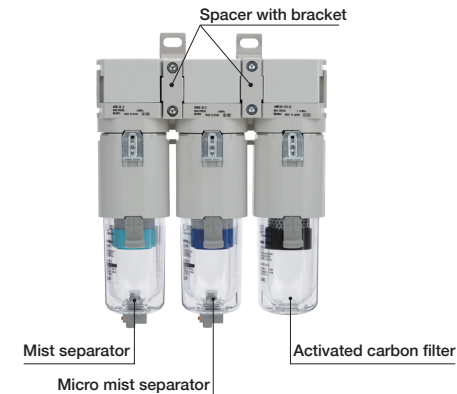
- Digital flow switch
PF3A701H-CS-M 1 pc.
- Air combination
AC30B-03E-D 1 pc.
- Spacer with bracket
Y300T-D 2 pcs.
- Piping adapter
E300-03-D 1 pc.

Combination example ④



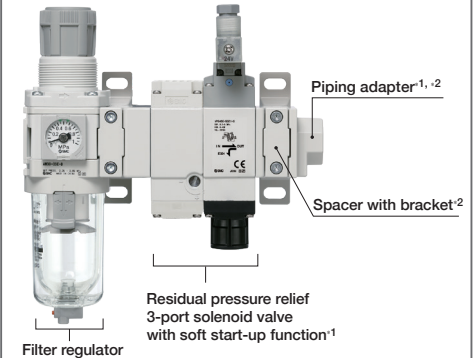
- Air combination
AC20B-02E-D 1 pc.
- Modular mounting type
2-port solenoid valve
JSXM21-AN302R-5G-U-F 3 pcs.
- Spacer with bracket
Y200T-D 1 pc.
- Spacer
Y200-D 2 pcs.

Combination example ⑤



- Mist separator
AM30-03-D 1 pc.
- Micro mist separator
AMD30-03-D 1 pc.
- Activated carbon filter
AMK30-03-D 1 pc.
- Spacer with bracket
Y300T-D 2 pcs.

Combination example ⑥



- Filter regulator
AW30-03E-D 1 pc.
- Residual pressure relief 3-port
solenoid valve
with soft start-up function
VP546E-5DZ1-S 1 pc.
- Spacer with bracket
Y300T-D 2 pcs.
- Piping adapter
E300-03-D 1 pc.

*1 Connection threads are not available for the residual pressure relief 3-port solenoid valve. Select a piping adapter.

*2 Refer to the Web Catalog for details on the spacer with bracket and piping adapter.

