

Grease-free *1

Nitrogen (N₂) Compatible Equipment

To accommodate a wide variety of applications using nitrogen (N₂) gas

*1 Excludes the related product

Air Preparation Equipment



Pressure Switches and Flow Switches



Pressure Control Equipment



Restrictors



Fittings and Tubing



2/3-Port Solenoid Valves for Fluid Control



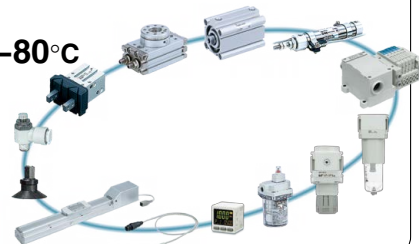
Process Gas Equipment



Related Products

Compatible with a low dew point
Series compatible with secondary batteries
25A- Series

- Low dew point: **-80°C**
- Using grease compatible with a low dew point.



To accommodate a wide variety of applications using nitrogen (N₂) gas



*1 Excludes the related product

Semiconductor manufacturing equipment (Post-process)

- N₂ blow to prevent lead frame oxidation
- N₂ blow prevents distortion of camera image due to air turbulence.

Clean regulator
SRH



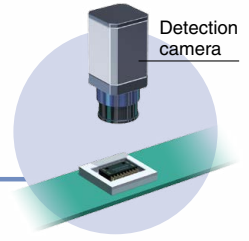
Compact direct operated
2-port solenoid valve
VDW



Flow switch
PF2M7



Clean air filter
SFD



Semiconductor manufacturing equipment (Pre-process)

- N₂ vent leading to high-vacuum chamber

Regulators for ultra high purity
AP1000/AP1100/AP1500



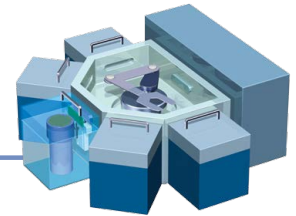
Digital pressure switch
ISE20C(H)



Smooth vent valve
XVD

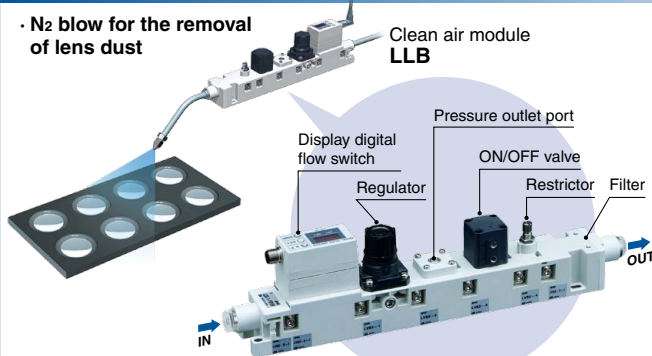


Clean gas filter
SF□



Precision parts manufacturing equipment

- N₂ blow for the removal of lens dust



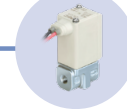
Soldering equipment

- N₂ blow to prevent soldered surface oxidation

Clean regulator
SRH



Compact direct operated
2-port solenoid valve
VDW



Flow switch
PF2M7



Explosion-proof atmosphere

- For the N₂ purging of containers

Clean regulator
SRH



(Compact) Direct
operated 2-port
solenoid valve
VDW/VX2

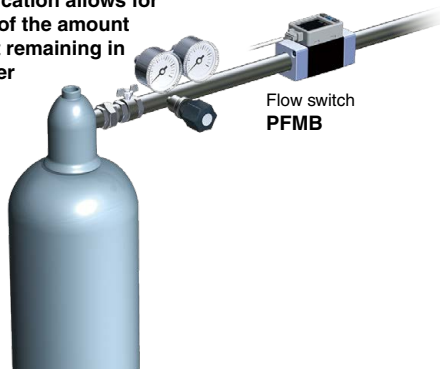


Flow switch
PF2M7



N₂ gas cylinder peripheral equipment

- Accumulated indication allows for the confirmation of the amount used and amount remaining in the N₂ gas cylinder



Secondary battery and organic EL manufacturing equipment

- Provides the N₂ environment which some production processes require

Clean regulator
SRH



(Compact) Direct
operated 2-port
solenoid valve
VDW/VX2

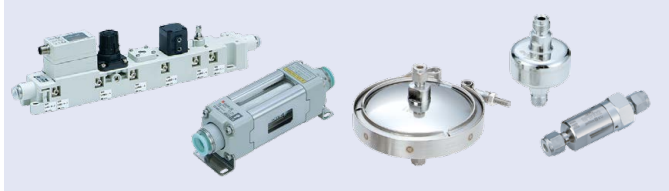


Digital pressure
switch
ISE20C(H)



- The leakage amounts may differ from those of general air depending on the operating conditions.
- There is no special leakage amount limit specification for these products relating solely to their being nitrogen (N₂) compatible products.

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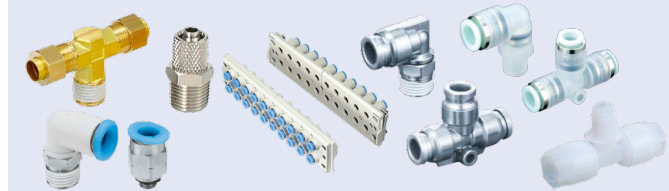
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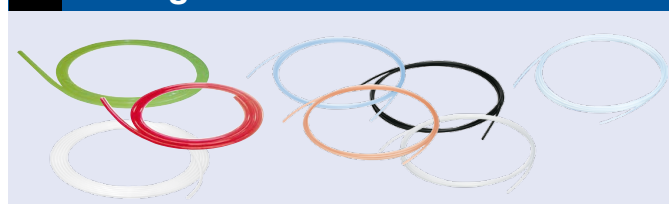
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⚠ · The leakage amounts may differ from those of general air depending on the operating conditions.
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- 3-Screen Display High-Precision Digital Pressure Switch/
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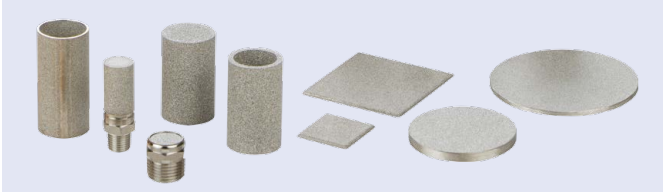
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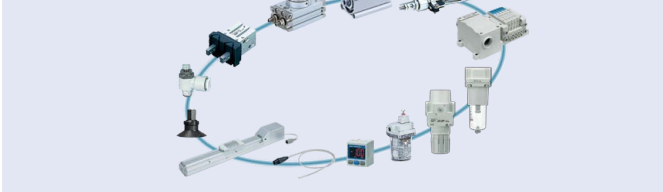
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1 Air Preparation Filters

In-line Air Filter ZFC5□/7□-X05



- Operating pressure range: -100 kPa to 1.0 MPa
Both positive pressure and vacuum pressure can be used with one unit.
- With lock mechanism
During positive pressure, it prevents components from being scattered when they are loosened.
- Seal (FKM + Oil-free): -X05 (Made to order)

Series	Applicable tubing O.D.		Flow rate [L/min(ANR)]		Filtration [μm]
	Metric	Inch	Positive pressure*1	Vacuum pressure	
ZFC5□-X05	ø4, ø6	ø5/32", ø1/4"	100/200	10/20	5
ZFC7□-X05	ø6, ø8, ø10, ø12	ø1/4", ø5/16", ø3/8"	250/450/550/650	30/70/80/100	(Filtration efficiency: 95%)

*1 Supply pressure: 0.7 MPa, Differential pressure: 30 kPa

Clean Gas Filter SF



- Cartridge type allows for element replacement (SFA100/200/300, SFB100)
- Compact, disposable type for the semiconductor industry (SFB300, SFC100)

Type	Series	Operating pressure	Filtration [μm]
Cartridge type disc	SFA100/200/300	Max. 0.99 MPa (Vacuum: 1.3 x 10 ⁻⁶ kPa)	0.01 (Filtration efficiency: 99.99%)
Cartridge type straight	SFB100	Max. 0.99 MPa (Vacuum: 1.3 x 10 ⁻⁶ kPa)	0.01 (Filtration efficiency: 99.99%)
Disposable type straight	SFB300	Max. 0.99 MPa (Vacuum: 1.3 x 10 ⁻⁶ kPa)	0.01 (Filtration efficiency: 99.99%)
Disposable type multiple disc	SFC100	Max. 0.99 MPa (Vacuum: 1.3 x 10 ⁻⁶ kPa)	0.01 (Filtration efficiency: 99.99%)

Clean Gas Strainer SFB200



Type	Series	Operating pressure	Filtration [μm]
Cartridge type straight	SFB200	Max. 0.99 MPa (Vacuum: 1.3 x 10 ⁻⁶ kPa)	120

Bacteria Removal Filter/Hollow Fiber Element HF2B-SFDA



- Bacteria capture performance: LRV ≥ 9
- Use of FDA/Food Sanitation Law compliant materials*1
*1 Parts in contact with fluid: Resin/Rubber
- Grease-free
- Designed for use in applications to HACCP principles and FSSC22000 standards
- Nominal filtration rating: 0.01 μm (Filtering efficiency 99.99%)
- Initial pressure drop: 0.03 MPa (Inlet pressure 0.7 MPa, at max. flow rate)
- Flow rate: 500 L/min (ANR)

Series	Type	Operating pressure	Filtration [μm]
HF2B-SFDA	Bacteria removal filter (Bacteria capture performance: LRV ≥ 9)	Max. 1.0 MPa (For nitrogen: 0.99 MPa)	0.01 (Filtration efficiency: 99.99%)

Clean Air Filter/Hollow Fiber Element SFD

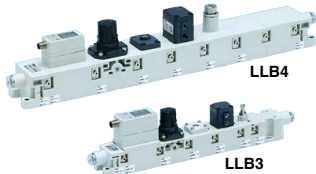


- Bacteria capture performance: LRV ≥ 9 (SFD100/110/200)
- Built-in hollow fiber element
- Pressure drop: 0.03 MPa (Inlet pressure 0.7 MPa, Max. flow rate)

Series	Type	Operating pressure	Filtration [μm]
SFD100	Disposable type (Irreplaceable element)	Max. 1.0 MPa	0.01 (Filtration efficiency: 99.99%)
SFD200	Cartridge type (Replaceable element)	Max. 1.0 MPa	0.01 (Filtration efficiency: 99.99%)

1 Air Preparation Filters

Clean Air Module **LLB**



- Modularized clean equipment (Reduced piping labor/Space saving)
Makes clean air easily available
- Nominal filtration rating: 0.01 μm (Filtration efficiency: 99.99%)
- Wetted parts: Grease-free, Silicone-free
- Assembled in a clean room, Shipped and packed in double packaging
- 24 combinations are available.

- Can perform the clean air blow of small workpieces with a flow rate of up to 100 L/min **Made to order**



Series	Fluid	Set pressure	Flow range [L/min(ANR)]
LLB3	Clean air, N ₂ gas*1	0.05 to 0.4 MPa	5 to 100
LLB4	Clean air, N ₂ gas*1	0.05 to 0.4 MPa	50 to 500

*1 Inlet air conditions ISO 8573-1 Quality grade: Equivalent to 1.4.1 to 1.6.1

2 Pressure Control Equipment

Clean Regulator **SRH**



- Contamination-controlled stainless steel regulator
- Oil-free
- 2 types of diaphragm materials: PTFE, Fluororubber

Series	Relief mechanism	Port size	Set pressure [MPa]
SRH	Non-relief	Rc1/8, 1/4, 3/8, 1/2 9/16-18UNF, 7/8-14UNF	Low pressure type: 0.02 to 0.2 High pressure type: 0.05 to 0.7
SRH	Relief	Rc1/8, 1/4, 3/8, 1/2	

Clean Regulator/Fluororesin Type **SRF**



- Wetted parts Body: New PFA, Diaphragm: PTFE
- Recommended maximum flow rate: 20 L/min (SRF50), (Inlet pressure: 0.3 MPa, Fluid: Water)

Series	Type	Applicable tubing O.D.		Set pressure [MPa]
		Metric size	Inch size	
SRF	Integrated with fitting	ø4 to ø19	ø1/8 to ø3/4	0.02 to 0.4
SRF	With nut	Fitting size: 2 to 6	Fitting size: 2 to 6	0.02 to 0.4
SRF	Tube extension	—	Tubing O.D.: ø1/4 to ø3/4	0.02 to 0.4

3 Pressure Gauges

Pressure Gauge for General Purposes G36-X4



- Oil-free (Wetted parts degrease washing)

Series	Size (O.D.)	Connection thread
G36-X4	ø37.5	R1/8, M5 (Female thread)

Oil-free/External Parts Copper-free Pressure Gauge G46E



- Oil-free (Wetted parts degrease washing), External parts copper-free
- With limit indicator

Series	Size (O.D.)	Connection thread
G46E	ø42.5	R1/8, 1/4

Pressure Gauge for Clean Regulator G46-□-□-SRB



- Oil-free
- For clean regulators
- With limit indicator

Series	Size (O.D.)	Connection thread
G46-□-□-SRB	ø42.5	R1/8, 1/4

4 Fittings

Metal One-touch Fittings KQB2



- Compact and lightweight
- Fluid temperature: -5 to 150°C
- Brass parts: Electroless nickel-plated
- Grease-free

Series	Size	Applicable tubing O.D.	Connection thread
KQB2	Metric	ø3.2, ø4, ø6, ø8, ø10, ø12, ø16	M5 R, Rc, G 1/8, 1/4, 3/8, 1/2
KQB2	Inch	ø1/8", ø5/32", ø1/4", ø5/16", ø3/8", ø1/2"	UNF10-32 NPT1/8, 1/4, 3/8, 1/2

One-touch Fittings Manifold KM-X17



- Compact manifold piping is possible.
- Grease-free: -X17 (Made to order)
Rubber material: NBR (With fluorine coating)
Release button color: Light blue

Series	Size	Applicable tubing O.D.	Connection thread
KM-X17	Metric	ø4, ø6, ø8, ø10, ø12	1/8, 1/4, 3/8, 1/2
KM-X17	Inch	ø5/32", ø1/4", ø5/16", ø3/8", ø1/2"	1/4, 3/8

4 Fittings

Insert Fittings KF



- -101.3 kPa applicable
- Piping can be done without removing the nut.
- Fluid temperature: -5 to 150°C (Brass sleeve)
-5 to 60°C (Resin sleeve)
- Steam can be used.
- Grease-free

Series	Applicable tubing O.D.	Connection thread
KF	ø4, ø6, ø8, ø10, ø12	1/8, 1/4, 3/8, 1/2

Miniature Fittings M



- Compact and doesn't require tools for connection
 - Compact piping space
 - Hose nipple, Hose elbow, Barb
 - Grease-free*1
- *1 Excludes the M-32F-2, M-04F-2 and M-5UN

Series	Applicable tubing O.D.	Connection thread
M-□□-2	ø2	M3, M5
M	ø3.2, ø4, ø6	M3, M5, 1/8

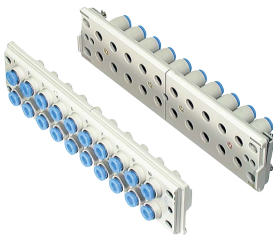
Self-align Fittings H/DL/L/LL



- Applicable for use on soft copper steel pipes
- Flared ridge metal ferrule
- Grease-free

Series	Applicable tubing O.D.	Connection thread
H	ø4, ø6, ø8, ø10, ø12	1/8, 1/4, 3/8, 1/2
DL	ø4, ø6, ø8, ø10, ø12	1/8, 1/4, 3/8, 1/2
L	ø4, ø6, ø8, ø10, ø12	1/8, 1/4, 3/8, 1/2
LL	ø4, ø6, ø8, ø10, ø12	1/8, 1/4, 3/8, 1/2

Rectangular Multi-connector KDM-X17



- One-touch installation and removal of multi-tubes
- Prevents installation mistakes
- Built-in One-touch fittings
- Grease-free: -X17 (Made to order)
Rubber material: NBR (With fluorine coating)
Release button color: Light blue

Series	No. of connecting tubes	Size	Applicable tubing O.D.
KDM-X17	10, 20	Metric	ø3.2, ø4, ø6, ø8
KDM-X17	10, 20	Inch	ø1/8, ø5/32, ø1/4, ø5/16

Stainless Steel 316 One-touch Fittings KQG2



- Compact and lightweight
- Fluid temperature: -5 to 150°C
- Materials: Metal parts stainless steel 316, seal parts special FKM
- Grease-free/Can be used with steam
- Certified to meet current Food Sanitation Law standards

Series	Size	Applicable tubing O.D.	Connection thread
KQG2	Metric	ø3.2, ø4, ø6, ø8, ø10, ø12, ø16	M5 R, Rc 1/8, 1/4, 3/8, 1/2
KQG2	Inch	ø1/8", ø5/32", ø1/4", ø5/16", ø3/8", ø1/2"	UNF10-32 NPT1/8, 1/4, 3/8, 1/2

4 Fittings

Stainless Steel One-touch Fittings **KQ2-G-X17**



- Metal material: Stainless steel 303
- Improved tube insertion/removal: Insertion force reduced by up to 30%, Removal force reduced by up to 20%
- Compact and lightweight
Dimensions: Height 24% shorter, Length 23% shorter, Weight 57% lighter
- Body types: Total of 27 models
- Grease-free: -X17 (Made to order)
Rubber material: NBR (With fluorine coating)
Release button color: Light blue

Series	Size	Applicable tubing O.D.	Connection thread
KQ2-G-X17	Metric	ø4, ø6, ø8, ø10, ø12, ø16	M5 R, Rc 1/8, 1/4, 3/8, 1/2

Stainless Steel 316 Insert Fittings **KFG2**



- Compact and lightweight
- Fluid temperature: -65 to 260°C (Swivel elbow: -5 to 150°C)
- Material: Stainless steel 316, Rubber materials are not used. (Excluding the swivel elbow)
- Grease-free/Can be used with steam
- Certified to meet current Food Sanitation Law standards

Series	Size	Tubing O.D. x I.D.	Connection thread
KFG2	Metric	ø4 x ø2.5, ø4 x ø3, ø6 x ø4, ø8 x ø6 ø10 x ø7.5, ø10 x ø8, ø12 x ø9 ø12 x ø10, ø16 x ø13	R, Rc 1/8, 1/4, 3/8, 1/2
KFG2	Inch	ø1/8" x ø0.086", ø5/32" x 0.098" ø1/4" x ø5/32", ø5/16" x 0.236" ø3/8" x ø1/4", ø1/2" x ø3/8"	NPT1/8, 1/4, 3/8, 1/2

Miniature Fittings/Stainless Steel 316 **MS**



- Can be used in corrosive conditions
- Compact piping space
- Hose nipple, Hose elbow, Barb
- Grease-free*1

*1 Excludes the MS-5UN

Series	Applicable tubing O.D.	Connection thread
MS	ø3.2, ø4, ø6	M5

S Couplers Stainless Steel Type **KKA**



- Body material: Stainless steel 304
- Seal material: Fluoropolymer (Special FKM) is employed.
- Grease-free
- Check valve built in to both plug and socket

Series	Connection thread
KKA	1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/4, 1 1/2

4 Fittings

Clean One-touch Fittings for Blowing KP

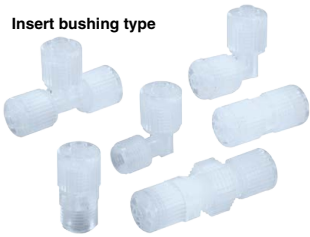


- One-touch fittings for clean room blowing systems
- Completely oil-free (Fluoro-coated rubber portions)
- Wetted parts are non-metallic.
- Parts washed and assembled in a clean room, Packed in double packaging.
- Can be used in a vacuum (-100 kPa)

Series	Applicable tubing O.D.	Connection thread
KP	ø4, ø6, ø8, ø10, ø12	1/8, 1/4, 3/8, 1/2

Fluoropolymer Fittings Hyper Fittings LQ1

Insert bushing type

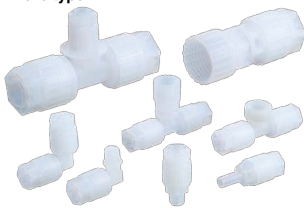


- Material: New PFA
- Quadruple-seal construction
- The reducer method allows for tubing size changes without replacing the body

Series	Max. operating pressure	Operating temperature
LQ1	1.0 MPa	0 to 200°C

Fluoropolymer Fittings Hyper Fittings LQ3

Flare type



- Material: New PFA
- Triple-seal construction
- Easy installation

Series	Max. operating pressure	Operating temperature
LQ3	1.0 MPa	Nut material PVDF: 0 to 150°C Nut material PFA: 0 to 200°C

Fluoropolymer Bore Through Connector LQHB

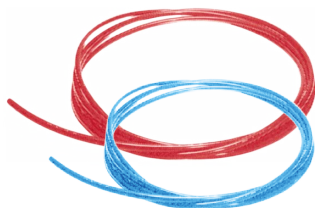


- It is possible to freely choose the tube positioning. As the tube runs through the fitting itself, a setting is available for any desired position.
- Can be used in the pressure feed of chemicals, etc., during the production process of semiconductors
- Applicable to chemicals such as acid, alkali, and deionized water
- Materials: New PFA (Body, nut), PTFE (Collet)

Series	Applicable tubing O.D.		Operating temperature [°C]
	Metric size	Inch size	
LQHB	ø3 to ø25	ø1/8" to ø1"	0 to 200

5 Tubing

Nylon Tubing T

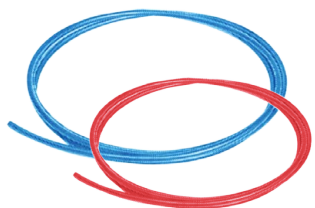


- General pneumatic tubing
- Max. operating pressure: 3.0 MPa (T0604, at 20°C)

Series	Tubing O.D.		Color*1
	Metric size	Inch size	
T/TIA	ø4, ø6, ø8, ø10 ø12, ø16	ø1/8", ø3/16", ø1/4" ø3/8", ø1/2"	Black, White, Red, Blue, Yellow, Green

*1 The lineup varies by size.

Soft Nylon Tubing TS

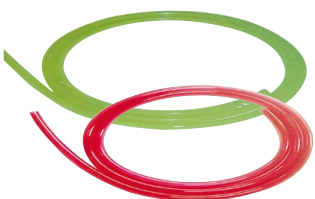


- Max. operating pressure: 1.7 MPa (TS0604, at 20°C)

Series	Tubing O.D.		Color*1
	Metric size	Inch size	
TS/TISA	ø4, ø6, ø8, ø10 ø12, ø16	ø1/8", ø3/16", ø1/4" ø3/8", ø1/2"	Black, White, Red, Blue, Yellow, Green

*1 The lineup varies by size.

Polyurethane Tubing TU



- Max. operating pressure: 0.8 MPa (at 20°C)

Series	Tubing O.D.		Color*1
	Metric size	Inch size	
TU/TIUB	ø2, ø4, ø6, ø8 ø10, ø12, ø16	ø1/8", ø3/16", ø1/4" ø3/8", ø1/2"	Black, White, Red, Blue, Yellow, Green, Clear, Orange, and more (Total 29 colors)

*1 The lineup varies by size.

Polyurethane Flat Tubing/Multi-core, Multi-color TU

Please contact SMC for delivery.



- Multi-core, multi-color specification
- Compact piping is possible.
- 8 color variations

Series	Tubing O.D.	Color*1	Number of cores
TU	ø2, ø4, ø6, ø8 ø10, ø12	Black, White, Red, Blue, Yellow, Green, Clear, Orange	2, 3, 4, 5, 6

*1 The lineup varies by size.

Antistatic Soft Nylon Tubing TAS



- Max. operating pressure: 1.2 MPa (at 20°C)
- For preventing static electricity

Series	Tubing O.D.		Color
	Metric size		
TAS	ø3.2, ø4, ø6, ø8, ø10, ø12		Black

5 Tubing

Antistatic Polyurethane Tubing TAU



- Max. operating pressure: 0.9 MPa (at 20°C)
- For preventing static electricity

Series	Tubing O.D.*1		Color
	Metric size	Inch size	
TAU	ø3.2, ø4, ø6, ø8, ø10, ø12		Black

Fluoropolymer Tubing TL/TIL

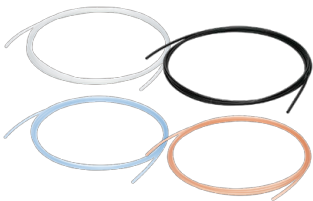


- Max. operating pressure: 1.0 MPa (at 20°C)
- Max. operating temperature: 260°C (This may vary according to operating pressure.)

Series	Tubing O.D.*1		Color
	Metric size	Inch size	
TL/TIL	ø4, ø6, ø8, ø10 ø12, ø19	ø1/8", ø3/16", ø1/4" ø3/8", ø1/2", ø3/4", ø1"	Translucent

*1 The lineup varies by size.

Fluoropolymer Tubing (PFA) TLM/TILM



- Max. operating temperature: 260°C (This may vary according to operating pressure.)
- Food Sanitation Law compliant
- Complies with the FDA (Food and Drug Administration) § 177-1550 dissolution test

Series	Tubing O.D.*1		Color*1
	Metric size	Inch size	
TLM/TILM	ø2, ø3, ø4, ø6, ø8, ø10 ø12, ø16, ø19, ø25	ø1/8", ø3/16", ø1/4", ø3/8" ø1/2", ø3/4", ø1", ø1 1/4"	Translucent, Black, Red, Blue

*1 The lineup varies by roll length.

FEP Tubing (Fluoropolymer) TH/TH



- Max. operating pressure: 2.3 MPa (at 20°C)*1
 - Food Sanitation Law compliant
 - Complies with the FDA (Food and Drug Administration) § 177-1550 dissolution test
 - Max. operating temperature: 200°C (This may vary according to operating pressure.)
- *1 This may vary according to size.

Series	Tubing O.D.*1		Color*2
	Metric size	Inch size	
TH/TH	ø4, ø6, ø8, ø10, ø12	ø1/8", ø3/16", ø1/4", ø3/8", ø1/2", ø3/4"	Translucent, Black, Red, Blue

*2 The lineup varies by roll length.

Soft Fluoropolymer Tubing TD/TID



- Max. operating pressure: 1.6 MPa (at 20°C)*1
 - Food Sanitation Law compliant
 - Complies with the FDA (Food and Drug Administration) § 177-1550 dissolution test
 - Max. operating temperature: 260°C (This may vary according to operating pressure.)
- *1 This may vary according to size.

Series	Tubing O.D.*1		Color
	Metric size	Inch size	
TD/TID	ø4, ø6, ø8, ø10, ø12	ø1/8", ø3/16", ø1/4", ø3/8", ø1/2"	Translucent

5 Tubing

Polyolefin Tubing TPH



- Max. operating pressure (at 20°C): 1.0 MPa (ø4, ø6), 0.7 MPa (ø8, ø10, ø12)

Series	Applicable tubing O.D.	Color
TPH	ø4, ø6, ø8, ø10, ø12	Black, White, Red, Blue, Yellow, Green

Soft Polyolefin Tubing TPS



- Max. operating pressure (at 20°C): 0.7 MPa (ø4 to ø12)

Series	Applicable tubing O.D.	Color
TPS	ø4, ø6, ø8, ø10, ø12	Black, White, Red, Blue, Yellow, Green

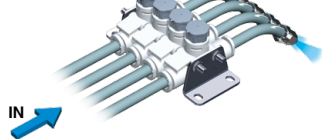
6 Restrictors

This product is a speed controller without check valve. * External dimensions, specifications, etc., are the same as those of each respective speed controller.

Restrictor AS-X21



For flow control of the air purge and air blow



- Grease-free (Seal: Fluorine coating) + Restrictor (Without check valve): -X21 (Made to order)

	Push-lock Type Elbow Type/Universal Type AS-X21		Low Speed Operation AS-FM-X21
	Elbow Type/Universal Type AS-X21		Stainless Steel Push-lock Type Elbow Type/Universal Type AS-FG-X21
	With Indicator/Push-lock Type AS-FS-X21		Stainless Steel With Indicator/Push-lock Type AS-FSG-X21
	Push-lock Type In-line Type AS-X21		Stainless Steel Push-lock Type In-line Type AS-FG-X21
	In-line Type AS-X21		Stainless Steel With Indicator/Push-lock Type In-line Type AS-FSG-X21
	With Indicator/Push-lock Type In-line Type AS-FS-X21		Stainless Steel Elbow Type/Universal Type AS-FG-X21
	In-line/Panel Mount Type AS-1F-3-X21		Metal Body/Elbow Type AS-X21

7 Pressure Switches

3-Screen Display High-Precision Digital Pressure Switch ZSE20□(F)-X2/ISE20□-X2/ZSE20C(F)/ISE20C(H)



- Visualization of setting items
- Simple 3-step setting
- Easy screen switching
Setting is possible while checking the measured value.
- Delay time: Fastest 1.5 ms or less
- Current consumption: 25 mA or less (ZSE20/ISE20), 35 mA or less (Others)
- Grease-free

Series	Output type	Type	Rated pressure range	Enclosure
ZSE20(F)-X2 ISE20-X2	1 output	Compound pressure Vacuum pressure Positive pressure	-100.0 to 100.0 kPa 0.0 to -101.0 kPa -0.100 to 1.000 MPa	IP40
ZSE20A(F)-X2 ISE20A-X2	2 outputs Analog output (Voltage/Current)	Compound pressure Vacuum pressure Positive pressure	-100.0 to 100.0 kPa 0.0 to -101.0 kPa -0.100 to 1.000 MPa	IP40
ZSE20B(F)-X2 ISE20B-X2	2 outputs Analog output (Voltage/Current)	Compound pressure Vacuum pressure Positive pressure	-100.0 to 100.0 kPa 0.0 to -101.0 kPa -0.100 to 1.000 MPa	IP65
ZSE20C(F) ISE20C(H)	2 outputs Analog output (Voltage/Current)	Compound pressure Vacuum pressure Positive pressure	-100.0 to 100.0 kPa 0.0 to -101.0 kPa -0.100 to 1.000 MPa -0.100 to 2.000 MPa	IP65

Compact Digital Pressure Switch ZSE10(F)/ISE10-X2



- Low profile: 9.8 mm
- Vertical mounting space reduced to approx. 1/2 (Compared to the ZSE/ISE30A series)
- Simultaneous copying is possible for a maximum of 10 units.
- 3-step setting
- Grease-free

Series	Type	Rated pressure range
ZSE10F-X2	Compound pressure	-100.0 to 100 kPa
ZSE10-X2	Vacuum pressure	0.0 to -101.0 kPa
ISE10-X2	Positive pressure	-0.100 to 1.000 MPa

3-Screen Display High-Precision Digital Pressure Switch ISE70/71-X2



- It is possible to change the settings while checking the measured value.
- IO-Link
- Angled display
Good visibility from various mounting positions
- Rotating display
Display can rotate 336 degrees after installation
- Applicable fluids: Air, Non-corrosive gas, Non-flammable gas
- Grease-free

Series	Type	Set pressure range
ISE70-X2	Positive pressure (for air)	0 to 1 MPa
ISE71-X2	Positive pressure (for air)	0 to 1.6 MPa

7 Pressure Switches

Pressure Sensor for General Fluids PSE56□



- Wetted parts: Stainless steel 316L
- IP65
- Suitable for a wide variety of fluids
- Analog output (Voltage/Current)
- Low leakage
Select from a face seal or compression fitting.
- Grease-free

Series	Type	Rated pressure range
PSE561	Vacuum pressure	0 to -101 kPa
PSE563	Compound pressure	-100 to 100 kPa
PSE564	Positive pressure	0 to 500 kPa
PSE560	Positive pressure	0 to 1 MPa

Compact Pneumatic Pressure Sensor PSE54□-X2



- Analog output (Voltage)
- Grease-free

Series	Type	Rated pressure range
PSE541-X2	Vacuum pressure	0 to -101 kPa
PSE543-X2	Compound pressure	-100 to 100 kPa
PSE540-X2	Positive pressure	0 to 1 MPa

3-Screen Display Multi-channel Digital Sensor Monitor PSE200A



- Up to 4 pressure sensors can be connected!
Centralized control saves installation space.
A single monitor various applications
- It is possible to change the settings while checking the measured value.
- IO-Link compatible

Series	Set pressure range
PSE200A	-0.2 to 2.1 kPa
	10 to -105 kPa
	-105 to 105 kPa
	-10 to 105 kPa
	-50 to 525 kPa
	-0.105 to 1.05 MPa
	-0.105 to 2.1 MPa
	-0.25 to 5.25 MPa
-0.5 to 10.5 MPa	

3-Screen Display Sensor Monitor PSE300A



- Compatible with 5 types of pressure sensor
Applicable sensor: PSE53□, PSE54□, PSE550, PSE57□, PSE56□
- It is possible to change the settings while checking the measured value.
- NPN/PNP switch function
- Input range selection (for pressure/flow rate)
- Simple 3-step setting

Series	Set pressure range
PSE300A	-0.2 to 2.1 kPa
	10 to -105 kPa
	-105 to 105 kPa
	-10 to 105 kPa
	-50 to 525 kPa
	-0.105 to 1.05 MPa
	-0.105 to 2.1 MPa
	-0.25 to 5.25 MPa
-0.5 to 10.5 MPa	

8 Flow Switches

2-Color Display Digital Flow Switch PF2M7(-L)



- 3-Screen Display Digital Flow Monitor (Dedicated for the PF2M7)
Allows for the monitoring of remote lines PFGM302 Series
- Dry air, N₂, Ar, CO₂
- A wide range of flow measurement is possible with 1 product.
Flow ratio: 100:1, Smallest settable increment: 0.01 L/min
- Improved resistance to moisture and foreign matter
- Compact, Lightweight/Weight: 27.3% lighter (55 g → 40 g)
- Low current consumption: 35 mA or less
- Grease-free
- IO-Link compatible

Series	Rated flow range [L/min]
PF2M7	0.01 to 1 (0.01 to 0.5)
	0.02 to 2 (0.02 to 1)
	0.05 to 5 (0.05 to 2.5)
	0.1 to 10 (0.1 to 5)
	0.3 to 25 (0.3 to 12.5)
	0.5 to 50 (0.5 to 25)
	1 to 100 (1 to 50)
	2 to 200 (2 to 100)
	(): For CO ₂

2-Color Display Digital Flow Switch PFMB



- Dry air, N₂
- Grease-free
- Integrated flow adjustment valve
- Compact, Space saving

Series	Rated flow range [L/min]
PFMB	5 to 500
	10 to 1000
	20 to 2000

2-Color Display Digital Flow Switch/Low Particle Generation PF2M7-X300



- Low particle generation
Flow control of a clean air blow in clean room environments
- Metal material of parts in contact with fluid: Stainless steel 304

Series	Rated flow range [L/min]
PF2M7-X300	0.01 to 1 (0.01 to 0.5)
	0.02 to 2 (0.02 to 1)
	0.05 to 5 (0.05 to 2.5)
	0.1 to 10 (0.1 to 5)
	0.3 to 25 (0.3 to 12.5)
	0.5 to 50 (0.5 to 25)
	1 to 100 (1 to 50)
	2 to 200 (2 to 100)
	(): For CO ₂

3-Color Display Digital Flow Switch PF2MC7□(-L)



- Dry air, N₂
- 3-color/3-screen display
- A wide range of flow measurement is possible with 1 product.
Flow ratio 100:1, Smallest settable increment: 1 L/min
- Grease-free
- IO-Link compatible

Series	Rated flow range [L/min]
PF2MC	5 to 500
	10 to 1000
	20 to 2000

8 Flow Switches

3-Color Display Digital Flow Switch for Large Flow PF3A□H(-L)



- Applicable fluid: Air, N₂
- Flow range: Max. 12000 L/min
- Flow ratio 100: 1
- A wide range of flow measurement is possible with 1 product.
- Improved drainage and resistance to foreign matter
- Pressure loss: 75% reduction (20 kPa → 5 kPa)
- Through bore construction
- IO-Link compatible
- Can be connected to the air combination (Modular type)
- A 4-screen display digital flow switch with pressure/temperature sensor (modular type) is available. Simultaneous measurement of the (accumulated) flow rate, pressure, and temperature is possible.

Series	Rated flow range [L/min]
PF3A□H(-L)	10 to 1000
	20 to 2000
	30 to 3000
	60 to 6000
	120 to 12000

Flow Sensor PFMV5/PFGV301



- Suction verification of very small workpieces
- Repeatability: ± 2% F.S.
- Response speed: 5 ms or less, Withstand pressure: 500 kPa
- Grease-free, RoHS compliant
- Only 1 voltage monitor is required to cover the complete range.
- Related equipment: Suction filter ZFC050 series

Series	Rated flow range [L/min]
PFMV	0.0 to 0.1
	0 to 0.5
	0 to 1
	0 to 3
	-0.5 to 0.5
	-1 to 1
	-3 to 3

Digital Flow Switch for Air PF2A



- An integrated type and a separate monitor type are available.
- Switch output, Accumulated pulse output, Analog output
- Capable of switching back and forth between cumulative and instantaneous flow
- IP65
- 4-channel flow monitor
- 4 different flow ranges can be connected to 1 controller.
- Grease-free

Series	Rated flow range [L/min]
PF2A	1 to 10
	5 to 50
	10 to 100
	20 to 200
	50 to 500

9 2/3-Port Solenoid Valves for Fluid Control

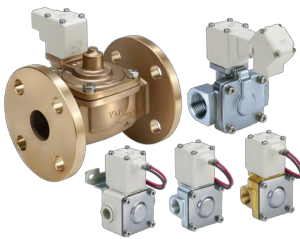
Direct Operated 2-Port Solenoid Valve **VX2/Oil-free (Option)**



- For air, medium vacuum, water, oil, steam (Can be used with heated water)
- Flow rate: 20% more flow*1
- Height: 10% smaller*1
- Weight: 30% lighter*1
- Body materials: Aluminum, Resin, C37, Stainless steel
- Available with One-touch fittings (Resin body)
- ※1 Comparison made with SMC's current model
- Manifold type no.: VVX21, VVX22, VVX23
- Oil-free (Option)

Series	Valve type	Port size	Orifice diameter [mmø]
VX21/22/23	N.C./N.O.	1/8 to 1/2 ø6 to ø12	2 to 10

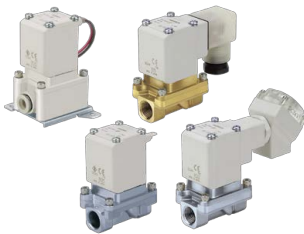
Pilot Operated 2-Port Solenoid Valve **VXD/Oil-free (Option)**



- For air, water, oil, heated water, high-temperature oil
- Body materials: Aluminum, Resin, C37, Stainless steel, CAC408
- A type with One-touch fittings (Resin body) is available.
- IP65
- Oil-free (Option)

Series	Valve type	Port size	Orifice diameter [mmø]
VXD	N.C./N.O.	ø10, ø12, ø3/8" 1/4 to 1 32A to 50A	10 to 50

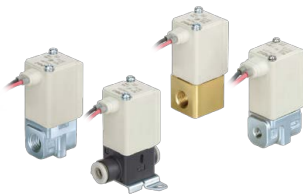
Zero Differential Pressure Type Pilot Operated 2-Port Solenoid Valve **VXZ/Oil-free (Option)**



- For air, water, oil, heated water, high-temperature oil
- Body materials: Aluminum, Resin, C37, Stainless steel
- A type with One-touch fittings (Resin body) is available.
- IP65
- Oil-free (Option)

Series	Valve type	Port size	Orifice diameter [mmø]
VXZ	N.C./N.O.	ø10, ø12, ø3/8" 1/4 to 1	10 to 25

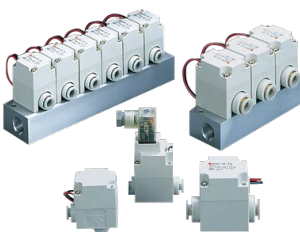
Compact Direct Operated 2-Port Solenoid Valve **VDW/Oil-free (Option)**



- For air, medium vacuum, water
- Body materials: Aluminum, Resin (PPS), Brass, Stainless steel
- With One-touch fittings (Resin body)
- IP65
- Oil-free (Option)

Series	Valve type	Port size	Orifice diameter
VDW10/20	N.C.	ø3.2, ø4, ø6, M5, 1/8	ø1 to ø3.2

Pilot Operated 2-Port Solenoid Valve for Dry Air **VQ-X2**



- High-frequency operation is possible: High-speed response 7 ms or less (VQ20), 20 ms or less (VQ30)
- Easy piping with One-touch fittings
- The dust-tight, water-jet-proof enclosure (IP65) is compatible with the DIN terminal type.
- Applications: Air-blow, Blow-off of workpieces, etc.
- Manifold type no.: VV2Q22, VV2Q32

Series	Valve type	Port size	Orifice diameter [mmø]
VQ20-X2	N.C.	ø6 to ø12	3.4
VQ30-X2	N.C.	ø6 to ø12	4.8

10 Chemical Liquid Valves

High Purity Chemical Liquid Valve/Air Operated, Integrated Fitting Type **LVC**



- Body material: New PFA
- N.C./N.O./Double acting all feature the same configuration.
- Compatible with fluid temperatures of 100°C
- Manifold type no.: LLC2, LLC3, LLC4, LLC5

Series	Type	Valve type	Applicable tubing O.D.		Orifice diameter [mmø]
			Metric	Inch	
LVC	Air operated Integrated fitting	N.C./N.O./ Double acting	3 to 25	1/8 to 1	4 to 22

High Purity Chemical Liquid Valve/Air Operated, Threaded Type **LVA**



- Body materials: New PFA/Stainless steel/PPS
- Diaphragm materials: PTFE, EPR, or NBR can be selected.
- Manifold type no.: LLA2, LLA3, LLA4, LLA5

Series	Type	Valve type	Port size	Orifice diameter [mmø]
LVA	Air operated Threaded type	N.C./N.O./ Double acting	1/8 to 1	2 to 22

High Purity Chemical Liquid Valve/Manually Operated (Integrated Fitting Type/Threaded Type) **LVH**



- Body materials: New PFA/Stainless steel/PPS
- Compatible with locking and non-locking types
- Manifold type no.: LLH2, LLH3, LLH4

Series	Type	Valve type	Port size (Applicable tubing O.D.)		Orifice diameter [mmø]
			Threaded type	Integrated fitting	
LVH	Manually operated (Integrated fitting/ Threaded type)	N.C.	1/8 to 1/2	Metric: ø3 to ø12 Inch: 1/8 to 1/2	4 to 12

Compact Type High Purity Air Operated Chemical Liquid Valve **LVD**



- Space saving, compact model is available.
- Dimension across inlet/outlet ports: Reduced by up to 29%
- Body material: New PFA
- Diaphragm material: PTFE
- Actuator materials: PPS

Series	Type	Valve type	Applicable tubing O.D.*1		Orifice diameter [mmø]
			Metric	Inch	
LVD	Integrated fittings	N.C./N.O./ Double acting	3 to 19	1/8 to 3/4	2 to 16
LVD	Tube extensions	N.C./N.O./ Double acting	6 to 19	1/4 to 3/4	4 to 16

*1 Tubing O.D. for the tube extension type

11 High Vacuum Valves

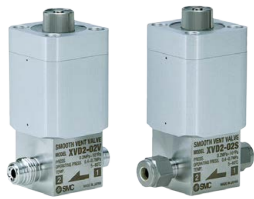
Normal Close High Vacuum Solenoid Valve **XSA**



- Minimum operating pressure: 1×10^{-6} Pa (abs)
- Leakage: Internal 1.3×10^{-9} Pa·m³/s, External 1.3×10^{-11} Pa·m³/s
- 2 types of fittings and female threads are available.
- Power consumption: Max. 25% reduction
- Weight: Max. 18% lighter (0.5 kg → 0.41 kg)

Series	Valve type	Fluid	Piping	Port size
XSA	Normally closed	Air, Inert gas	Face seal fitting Compression fitting	1/4", 3/8"
XSA	Normally closed	Air, Inert gas	Rc, NPT female thread	1/8", 1/4", 3/8"

Smooth Vent Valve **XVD**



- The valve/needle valve-integrated construction requires only 1/4 the piping space of previous models.
- Particle numbers have been significantly reduced through the use of a metal diaphragm in the sheet portion.
- Flow of both the initial air supply and the main air supply can be adjusted.

Series	Valve type	Fluid	Piping	Port size
XVD	Normally closed (Pressurize to open, Spring seal)	Nitrogen, Air, Inert gas, etc.	VCR® Swagelok®	1/4"

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12 Process Gas Equipment

Regulator (UHP)/Back Pressure Regulator for Ultra High Purity **AP/SL/AP/AZ/BP**



- For UHP gas delivery in semiconductor and other clean industries
- Body material: 316L SS secondary remelt or 316L SS
- Electropolished wetted parts
- External metal seal construction
- SEMI Standards compliant

Series	Type	Body material	Connection type	Connection size
AP/SL	Single stage	316L SS secondary remelt	Face seal Tube weld	1/4", 3/8", 1/2", 3/4"
AP/SL	Single stage (Compact)			1/4", 3/8"
AP	Single stage (Bulk gas)	316L SS		1/2", 3/4", 1"
AP	Two stage	316L SS secondary remelt		1/4", 3/8"
AP	Air operated type			1/4", 3/8", 1/2", 3/4"
AZ	Single stage	316L SS		1/4", 3/8", 1/2", 3/4", 1"
AZ	Air operated type			1/4", 3/8", 1/2"
BP	Back pressure regulator	316L SS secondary remelt		

Regulator/Back Pressure Regulator for General Applications **AK/BP**



- For a wide variety of applications from semiconductor to general
- Body material of 316 SS or brass is available depending on the gas.

Series	Type	Body material	Connection type	Connection size
AK	Single stage	316 SS or Brass	NPT Compression	1/4", 3/8", 1/2", 3/4"
AK	Two stage			1/4"
AK	Air operated type			1/4", 3/8", 1/2"
BP	Back pressure regulator			1/4"

12 Process Gas Equipment

Regulator for General Applications **AK1000T**



- For a wide variety of applications from semiconductor to general
- Compact and lightweight:
Weight: 0.52 kg, Height: 97.5 mm
- Minimum dead leg construction
- Various piping configurations are available:
Select from compression, NPT female, or Rc thread.

Series	Type	Body material	Connection type	Connection size
AK1000T	Single stage	316 SS	Compression Rc, NPT	1/4", 3/8"

Diaphragm Valve for Ultra High Purity **AP**



- For UHP gas delivery in semiconductor and other clean industries
- Used as a gas shutoff valve
- No spring is used for the wetted parts and the drive part is also separated from the diaphragm.
Dead space in the flow path is small in order to suppress particle generation.
- SEMI Standards compliant

Series	Type	Body material	Connection type	Connection size
AP	Air operated type	316L SS	Face seal	1/4", 3/8", 1/2", 3/4"
AP	Manually operated type	secondary remelt	Tube weld	1/4", 3/8", 1/2", 3/4"

Diaphragm Valve for Ultra High Purity **AZ**



- Cleaned for high-purity semiconductor applications and clean room assembled
- Helium leak tested
- Mounting dimension: SEMI Standards compliant

Series	Type	Body material	Connection type	Connection size
AZ	Air operated type	316L SS	Face seal	1/4", 3/8", 1/2"
AZ	Manually operated type		Tube weld	1/4", 3/8", 1/2"

Diaphragm Valve for General Applications **AK**

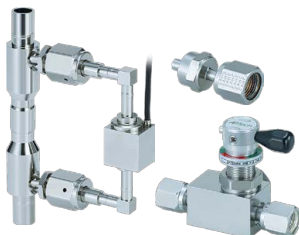


- Rc, R, and NPT connections have been added to the series.
- For a wide variety of applications from semiconductor to general
- Cleaned for O₂ service
- Compact and lightweight due to the shortening of the actuator (AK3542/4542)
- M5 actuation port (AK3542/4542)
- Compact and lightweight due to the modifying of the knob design (AK3652/4652)
- The knob features a unique design that combines a scalloped round knob with a raised rectangular section to provide two choices of gripping. (AK3652/4652)

Series	Type	Body material	Connection type	Connection size
AK	Air operated type	316 SS	Compression Rc, R, NPT	1/4", 3/8"
AK	Manually operated type			1/4", 3/8"

12 Process Gas Equipment

Check Valve/Vacuum Generator/Flow Switch AP



[Check valve]

- Fluid backflow is prevented by back pressure.
- Unique design with only one moving part in the gas stream, an O-ring
- Springless structure suppresses particle generation by vibration or chattering and pressure fluctuations on the downstream side

[Vacuum generator]

- Vacuum generation equipment
- Applicable to the exhaustion of unnecessary gas remaining inside the piping during gas cylinder replacement

[Flow switch]

- Detects excess flow above a given flow rate caused by pipe breakage, etc.

Series	Type	Body material	Connection type	Connection size
AP	Check valve	316L SS secondary remelt	Face seal Tube weld	1/4", 3/8"
AP	Vacuum generator	316L SS		1/4", 3/8"
AP	Flow switch	316L SS secondary remelt, 316L SS		1/4", 1/2", 3/4"

13 Sintered Metal Elements

Sintered Metal Element ES



- Large mechanical strength and withstand pressure, Anti-corrosive
- Mechanical process, caulking, brazing, soldering, welding, and simultaneous sintering are possible.
- Can be cleaned and reused

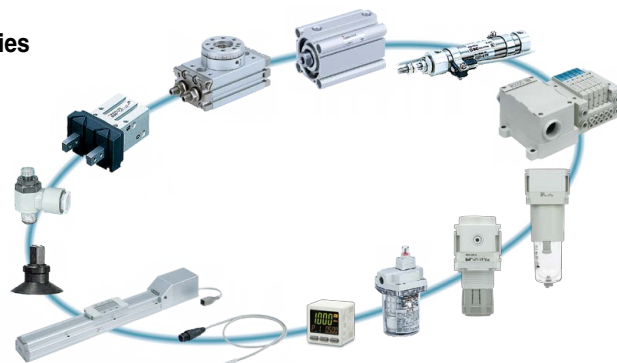
Series	Material	Nominal filtration accuracy
ES	Stainless steel	(1) 2, 5, 10, 20, 40, 70, 100, 120 μm (): Semi-standard

Related Products 1

Series compatible with secondary batteries 25A- Series

- **Compatible with low dew points -80°C**
- **Uses grease compatible with a low dew point for a longer service life**
- **Copper (Cu) and zinc (Zn) free**






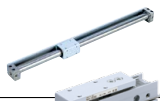


As the 25A- series was developed to aid in the manufacturing of secondary batteries, these products use a special grease that allows for a longer service life and improved performance in low dew point environments. In addition, this series is one which does not use copper or zinc materials, and so the use of materials containing these metals as a main component is restricted.



25A- Series Applicable Products

Series		25A- Series
		Model (Type)
Air Management System	Air Management System 	25A-AMS/20/30/40/60
Directional Control Valves	5-Port Solenoid Valve 	25A-JSY1000/3000 (Plug-in connector connecting base)
		25A-JSY1000/3000 (Non plug-in metal base)
		25A-SY5000/7000 (Plug-in connector connecting base)
		25A-SY5000/7000 (Single unit, Individual wiring)
	Separate Type Double Check Block 	25A-VQ1000/2000-FPG
	3-Port Solenoid Valve 	25A-VP342/542/742 (Body ported)
		25A-VP344/544/744 (Base mounted)
		25A-VP500/700-X536, X538, X555
		25A-VT317
		25A-VG342
5-Port Air Operated Valve 	25A-SYA5000/7000	
3-Port Air Operated Valve 	25A-SYJA500/700	
Finger Valve 	25A-VHK□A	
Conforming to OSHA Standard Pressure Relief 3-Port Valve with Locking Holes 	25A-VHS(W)-D (Single action, Double action)	
	25A-VHS (Single action)	
	25A-VHS□510 (Double action)	
Air Cylinders	Air Cylinder 	25A-CJP2 (ø4 to ø16)
		25A-CJ2 (ø10/ø16)
		25A-CM2-Z1 (ø20 to ø40)
		25A-CG1 (ø20 to ø100)
		25A-MB (ø32 to ø100)
		25A-CA2 (ø40 to ø100)
		25A-CS2 (ø125 to ø160)
	Lock Cylinder 	25A-MWB (ø32 to ø100)
		25A-MWB-UT (ø32 to ø100)
		25A-CNS (ø125 to ø160)
		25A-CLQ (ø20 to ø100)

25A- Series Applicable Products

Series		25A- Series	
		Model (Type)	
Compact Air Cylinders	Mini Free Mount Cylinder 	25A-CUJ (ø6 to ø20)	
	Free Mount Cylinder 	25A-CU (ø10 to ø32)	
		25A-CUK (Non-rotating rod) (ø10 to ø32)	
	Compact Cylinder 	25A-CQS (ø12 to ø25)	
		25A-CQSW (Double rod) (ø12 to ø25)	
		25A-CQS□S (Anti-lateral load) (ø12 to ø25)	
		25A-CQ2 (ø12 to ø100)	
		25A-CQ2W (Double rod) (ø12 to ø100)	
		25A-CQ2 (Large bore size) (ø125 to ø200)	
		25A-CQ2 (Long stroke) (ø32 to ø100)	
25A-CQ2□S (Anti-lateral load) (ø32 to ø100)			
25A-CBQ2 (End lock) (ø20 to ø100)			
Plate Cylinder 	25A-MU (ø25 to ø63)		
Rodless Cylinders	Mechanically Jointed Rodless Cylinder 	25A-MY1B (ø16 to ø63)	
		25A-MY1M (Slide bearing guide) (ø16 to ø63)	
		25A-MY1C (Cam follower guide) (ø16 to ø63)	
		25A-MY1H (Linear guide) (ø16 to ø40)	
		25A-MY2C (Cam follower guide) (ø16 to ø40)	
		25A-MY2H/HT (Linear guide) (ø16 to ø40)	
		25A-MY3A/B (ø16 to ø63)	
		25A-MY3M (Slide bearing guide) (ø16 to ø63)	
	Magnetically Coupled Rodless Cylinder 	25A-CY3B-Z (ø6 to ø63)	
		25A-CY3B (ø6 to ø63)	
25A-CY3R (Direct mount type) (ø6 to ø63)			
Table Cylinders 	Compact Slide	25A-MXH (ø6 to ø20)	
	Air Slide Table	25A-MXS (ø6 to ø25)	
		25A-MXQ□A (Double-ported type) (ø6 to ø25)	
		25A-MXQ□B (Low thrust with high rigidity type) (ø6 to ø20)	
		25A-MXQ□C (Single side-ported type) (ø8/ø12)	
		25A-MXQ□ (Height interchangeable type) (ø6 to ø25)	
		25A-MXQ (ø6 to ø25)	
		25A-MXF (ø8 to ø20)	
		25A-MXW (ø8 to ø25)	
25A-MXP (ø6 to ø16)			
Guide Cylinders 	Miniature Guide Rod Cylinder	25A-MGJ (ø6/ø10)	
	Compact Guide Cylinder	25A-MGP (ø12 to ø100)	
		25A-MGP (With air cushion/Slide bearing/Ball bushing bearing) (ø16 to ø100)	
	25A-MGPK (ø12 to ø50)		
Guide Cylinder	25A-MGGL (Ball bushing bearing) (ø20 to ø50)		

25A- Series Applicable Products

Series		25A- Series
		Model (Type)
Modular F.R.L.	Modular Type Air Combination	AC-D (Available through the Simple Specials System)
	Modular Type Air Filter (Micro) Mist Separator	25A-AF-D (Air filter)
		25A-AFM-D (Mist separator)
		25A-AFD-D (Micro mist separator)
	Modular Type Regulator Filter Regulator (Micro) Mist Separator Regulator	25A-AR-D (Regulator)
		25A-AR□K-D (Regulator with backflow function)
25A-AW-D (Filter regulator)		
25A-AW□K-D (Filter regulator with backflow function)		
Detection Switches	Flow Switch	25A-PF2M7 (For air, Integrated display type)
		25A-PF2M7-L (IO-Link)
		25A-PF3A7□H
		25A-PF3W (For water, Integrated display/Remote type)
Electric Actuators	e-Actuator Easy to Operate Integrated Controller	25A-EQFS□H (Integrated controller slider type/Battery-less absolute (Step Motor))
		25A-EQY□H (Integrated controller rod type/Battery-less absolute (Step Motor))
	Electric Actuator	25A-LEKFS (High rigidity and High precision slider type/Battery-less absolute: Applicable to the JXC□)
		25A-LEKFS□G (High performance/High rigidity and High precision slider type/Battery-less absolute: Applicable to the JXC□)

Related Products 2

Clean Rodless Cylinder CYP



- Low particle generation transfer in clean environments

Type	Series	Action	Bore size [mm]
Standard	CYP	Double acting	15, 32

Rodless Cylinder for Vacuum CYV



- Air cylinder for transfer in vacuum environments (1.3×10^{-4} Pa)

Series	Operating environment pressure [Pa(ABS)]	Bore size [mm]
CYV	Atmosphere to 1.3×10^{-4}	15, 32

Grease-free

Nitrogen (N₂) Compatible Equipment

Air Preparation Equipment

Pressure Switches and Flow Switches

Pressure Control Equipment

Restrictors

Fittings and Tubing

2/3-Port Solenoid Valves for Fluid Control

Process Gas Equipment

Related Products
